

# Proposed Amended Rule (PAR) 1106 Marine and Pleasure Craft Coatings

**Working Group Meeting #3**  
**June 2, 2026**



**Join Zoom Webinar Meeting**

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# Discussion Topics

Working Group Meeting #2 Summary

Rule Concepts

Potential Changes to VOC Limits and Categories

Prohibition Timeline for pCBtF and t-BAC

Other Considerations

Next Steps

The background of the slide is a close-up, high-angle view of teal-colored water with small, rhythmic ripples. The lighting is soft, creating a calm and professional atmosphere.

# **Working Group Meeting #2 Summary**

# Summary of Working Group Meeting #2

- Staff discussed the following topics:
  - Rule objective to phase out two exempt solvents with toxic endpoints:
    - para-chlorobenzotrifluoride (pCBtF) and
    - tert-Butyl Acetate (t-BAc)
  - Coating manufacturer survey findings
  - Released initial preliminary draft rule language
  - Initial rule concepts, including but not limited to:
    - Definitions
    - Coating categories
    - pCBtF/t-BAc prohibition timelines



# Key Objectives of Rule Amendment

1

Phase out pCBtF  
and t-BAc

2

Look for  
opportunities to  
lower VOC  
emissions

3

Clarify rule  
language



# Rule Concepts

# Rule Applicability

What rule is applicable when a coating is applied to a wood or metal part of a marine vessel?

## Rule 1107

- Coatings applied to metal substrates



## Rule 1136

- Coatings applied to wood substrates



Coatings applied to metal or wood in a shop setting must comply with Rule 1107 or 1136

If the metal or wood part will become part of a marine vessel or pleasure craft, marine coatings complying with Rule 1106 can also be applied

## Rule 1106

- Coatings applied to Marine Vessels and Pleasure Craft



# Clarification of Marine Coating Definition

- Marine coating definition has evolved over time
  - Initially applied to boats **intended for** the marine environment
  - Changed to apply to boats **intended for the exposure to** either a marine or freshwater environment
  - Stakeholder asked if definition, as written, the phrase “intended for the exposure to either marine...” applies only to “oil drilling rigs” or the other structures mentioned
    - Staff proposing to modify several key definitions to clarify rule applicability

## Current Definition

(22) MARINE COATING is any coating, except unsaturated polyester resin (fiberglass) coatings, containing volatile organic materials and applied by any means to boats, ships, and vessels, their appurtenances, and structures such as piers, docks, buoys and oil drilling rigs **intended for the exposure to either a marine or fresh water environment.**

## Revision to Pre-2019 Definition

(1423) 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, and structures such as piers, and docks, to~~ buoys and oil drilling rigs **intended for the exposure to either a marine or fresh water environment.**

## November 4, 1988 Definition

(11) MARINE COATING is any coating, except unsaturated polyester resin (fiberglass) coatings, containing volatile organic materials and applied by brush, spray, roller, or other means to ships, boats, and their appurtenances, and to buoys and oil drilling rigs **intended for the marine environment.**

# Clarification of Marine Coating Definition (cont.)



Are interior parts of a boat intended for exposure to a marine environment?  
Should Rule 1106 apply?

- Staff interprets those to be subject to Rule 1106



Are docks and buoys exposed to a marine environment?

- Staff interpret those to be subject to Rule 1106



What about bridges, elevated piers, coastal homes, or the permanently docked ships serving as hotels or restaurants?

- Staff interpret those **not** to be subject to Rule 1106

# Proposed Revision to Subdivision (b): Rule Applicability

- Proposing to revise rule applicability for rule clarification

(b) Applicability

This rule is applicable to any ~~person~~Person who supplies, sells, offers for sale, markets, manufactures, blends, packages, repackages, possesses or distributes any Marine or Pleasure Craft Coating, and any associated solvent, ~~used with a Marine or Pleasure Craft Coating~~ for use within the South Coast AQMD ~~Jurisdiction~~jurisdiction, as well as any ~~person~~Person who ~~applies~~uses, stores at a worksite, or solicits the application of any Marine or Pleasure Craft Coating, and any associated solvent used for coating Vessels or their Appurtenances, or docks, navigational aids, buoys, or offshore platforms, ~~with a Marine or Pleasure Craft Coating~~ within the South Coast AQMD ~~Jurisdiction~~.

# Proposed New Definitions for Vessels

- Proposing two new (shaded) and one modified definition for rule clarification

“VESSEL means any watercraft exposed to a marine or freshwater environment, including ships, boats, submersibles, or submarines.”

“PLEASURE CRAFT are Vessels manufactured or operated primarily for recreational purposes, or are leased, rented, or chartered to a Person or business for recreational purposes. Pleasure Craft are also vessels operated in amusement theme parks in a freshwater environment solely for the purpose of an amusement park attraction.”

“MARINE VESSEL is any Vessel that is not a Pleasure Craft. ”

# Proposed Revision to Marine Coating Definition

- Proposing following changes to “Marine Coating” definition for clarification:
  - Remove statement “containing volatile organic materials” as not all coatings contain VOCs
  - Removed reference to “piers”
    - Other air district marine rules do not include piers, they are instead, subject to more stringent architectural coating VOC limits
    - South Coast AQMD cannot be less stringent than other air districts
    - Exempting piers in subdivision (j)
  - Moving mention of polyester resin (fiberglass) coatings from definition to exemption in subdivision (j)
    - No change, streamlining language for clarity

# Proposed Revision to Marine Coating Definition (*cont.*)

~~(2225)~~ MARINE COATING is any coating applied or intended for application to ~~except unsaturated polyester resin (fiberglass) coatings, containing volatile organic materials and applied by any means to boats, ships, and vessels~~ Marine Vessels, or their appurtenances ~~and structures such as piers, or to~~ docks, buoys, navigational aids, or offshore platforms. ~~and oil drilling rigs intended for the exposure to either a marine or fresh water environment.~~

# Proposed Revision to Pleasure Craft Coating Definition

(~~2934~~) PLEASURE CRAFT COATING is any ~~marine~~-coating, ~~except unsaturated polyester resin (fiberglass) coatings,~~ applied or intended for application by brush, spray, roller, or other means to ~~a pleasure craft~~Pleasure Crafts or their Appurtenances.

- Proposing to revise definition for “Pleasure Craft Coating” to further help clarify rule applicability
- Moving mention of polyester resin (fiberglass) coatings from definition to exemptions (subdivision (j))
  - Polyester resin materials are subject to Rule 1162 – Polyester Resin Operations

# Proposing New Definition for Appurtenance

- Proposing new definition for Appurtenance, used Federal Definition and classification language to develop definition
- Coast Guard, Federal Regulation, Title 33: Navigation and Navigable Waters, defines Appurtenance as:
  - An attachment or accessory extending beyond the hull or superstructure that is not an integral part of the vessel and is not needed for a vessel's piloting, propelling, controlling, or collision avoidance capabilities
  - The attachment or accessory can be fixed, removable, or semi-permanent, but is not a core navigational system

# Summary of Coating and Appurtenance Definitions

- Proposed Marine Coating and Pleasure Craft Coating definitions with new proposed definition of an Appurtenance

“MARINE COATING is any Coating applied or intended for application to Marine Vessels or their appurtenances, or to docks, buoys, navigational aids, or offshore platforms.”

“PLEASURE CRAFT COATING is any Coating applied or intended for application to Pleasure Crafts or their appurtenances.”

“APPURTENANCE means a fixed, structural, or semi-permanent attachment or accessory that extends beyond the hull or superstructure of the Vessel. Appurtenances do not include temporary equipment, including but not limited to fishing nets, trailers, or portable generators.”

# Proposed Amended Definitions


SEALANT FOR WIRE-SPRAYED ALUMINUM is ~~any~~ coating ~~of up to one mil (one mil = 0.001 of an inch) in thickness of an epoxy material that is reduced for application with an equal part of an appropriate solvent (e.g. naphtha or ethylene glycol monoethyl ether)~~ formulated, labeled, and applied to seal pores, voids, and cracks in Wire-Sprayed Aluminum Coatings.

WIRE-SPRAYED ALUMINUM COATING is ~~any~~ a protective molten ~~multi~~-aluminum coating made by melting and atomizing aluminum wire that is applied to ~~a~~-steel substrates to protect from corrosion ~~using oxygen fueled combustion spray equipment.~~

# Proposed New Definition: Tie Coat

- Stakeholder requested staff add a definition for “Tie Coats” with higher VOC limit
- Drafted a potential definition but identified Tie Coats that meet current limit for “Any Other Coating Types”
  - 275 for Baked, 340 for Air Dry

“TIE COAT is any coating specifically formulated, labeled, and applied to provide adhesion for subsequent layers of coatings to be applied that differ from the preceding coating layer to the applied tie coat.”



# Potential Changes to VOC Limits and Coating Categories

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# Federal Clean Air Act Requirements

- Federal Clean Air Act (CAA) requires areas designated as being in non-attainment with federal ozone National Ambient Air Quality Standards (NAAQS) to adopt reasonably available control measures (RACM), including reasonably available control technology (RACT), to achieve emission reductions
- RACT is defined as lowest emission limit that a source is capable of meeting by use of technology that is reasonably available

Specifically, Section 182(b)(2) of the CAA requires States to submit RACT regulations for sources of VOC that are covered by a CTG issued after enactment of the Clean Air Act of 1990, but prior to the time of attainment. The CTG also applies to those facilities in nonattainment areas located in States which already have existing shipbuilding and ship repair (or marine) coating regulations; the State limits must be at least as stringent as the CTG limits or otherwise must be determined to meet RACT (and in this case, BACM).

# Federal Clean Air Act Requirements (concluded)

- U.S. EPA develops Control Techniques Guidelines (CTG) that are CTG used to determine RACT level of controls
- CTG issued for Shipbuilding and Ship Repair (Surface Coating) Operations\*

TABLE 1.—VOC LIMITS FOR MARINE COATINGS

Coating Category	VOC limits <sup>a, b</sup>		
	Grams/liter coating (minus water and exempt compounds)	Grams/liter solids <sup>c</sup>	
		t ≥ 4.5°C	t < 4.5°C <sup>d</sup>
General use .....	340	571	728
Specialty:			
Air flask .....	340	571	728
Antenna .....	530	1,439	.....
Antifoulant .....	400	765	971
Heat resistant .....	420	841	1,069
High-gloss .....	420	841	1,069
High-temperature .....	500	1,237	1,597
Inorganic zinc high-build .....	340	571	728
Military exterior .....	340	571	728
Mist .....	610	2,235	.....
Navigational aids .....	550	1,597	.....
Nonskid .....	340	571	728
Nuclear .....	420	841	1,069
Organic zinc .....	360	630	802
Pretreatment wash primer .....	780	11,095	.....
Repair and maint. of thermoplastics .....	550	1,597	.....
Rubber camouflage .....	340	571	728
Sealant for thermal spray aluminum .....	610	2,235	.....
Special marking .....	490	1,178	.....
Speciality interior .....	340	571	728
Tack coat .....	610	2,235	.....
Undersea weapons systems .....	340	571	728
Weld-through precon. primer .....	650	2,885	.....

\* CTG for Ship building and Ship Repair (Surface Coating) Operations referred to as “CTG”

# Marine Coatings-CTG Alignment

- Staff seeking to revise marine coating categories and applicable VOC content limits to be no less stringent than the CTG
- Revisions include consolidation of coating subcategories in Rule 1106 that are not in the CTG
- Categories proposed to be consolidated include gloss topcoats and antifoulant coatings



# Pleasure Craft Coating Categories

- Staff also seeking to revise pleasure craft coating categories and applicable VOC content limits to be equivalent and no less stringent than other California Air District rules
- Removing higher VOC subcategories not in other California Air District rules
- Categories proposed to be consolidated include:
  - Finish and high-build primer surfacers
  - High gloss and extreme high gloss topcoats
  - Antifoulant coatings



# Gloss Topcoats for Marine Vessels

- Staff proposing to consolidate the Topcoat subcategories Extreme High Gloss Coatings and High Gloss Coatings into a single category in Table 1 (Marine application)
  - Lower of the two VOC content limits to be proposed for consolidated category: 340 g/L
  - High-gloss topcoat category name
- U.S. EPA CTG does not include a separate coating category for Extreme High Gloss Coatings
- All gloss topcoats reported for Marine application contain pCBtF
  - Appear to rely on to comply with VOC limit

**Table 1 – Marine Vessels**

	Baked	Air Dry
Topcoats:		
Extreme High-Gloss Coating	420	490
High Gloss Coating	275	340
Undersea Weapons Systems Coating	275	340
Any Other Coating Type	275	340

## U.S. EPA CTG

Coating Category	Air Dry
	Grams/liter coating (minus water and exempt compounds)
General use .....	340
Specialty:	
Air flask .....	340
Antenna .....	530
Antifoulant .....	400
Heat resistant .....	420
High-gloss .....	420
High temperature .....	500

# Gloss Topcoats for Pleasure Craft

- Staff also proposing to consolidate gloss topcoats into a single category in Table 2 (Pleasure craft application)
- Category to retain lower VOC content limit of 420 g/L
- Staff proposing future effective VOC content limit of 340 g/L
  - Effective January 1, 2029
- All reported gloss topcoats reported for pleasure craft application do *not* contain pCBtF or t-BAc *however*, all contain VOC greater than 340 g/L

**Table 2 – Pleasure Craft**

Topcoats:	
Extreme High Gloss Coating	490
High Gloss Coating	420
Any Other Coating Type	420

# Gloss Topcoats

- New lower limits for high gloss coatings for marine application and for pleasure craft application would take effect January 1, 2029
- Staff acknowledges that time will be needed for reformulation
  - Based on industry feedback, two to three-year period needed for reformulation
- Future effective date proposed to allow time for reformulation
- Proposing a sell-through and use-through period for extreme high-gloss and high-gloss coatings with  $>340$  g/L VOC, manufactured prior to 2029
  - 12 months for sell-through following future effective date
  - 24 months for use-through following future effective date

# Primers

- Added **Primer** marine coating category into Table 1 for clarification
  - Currently, primers intended for marine use fall under the “Any Other Coating Type” category
- Table 2 contains a primer category and subcategories for primers intended for pleasure craft application
  - VOC limits differ from the “Any Other Coating Type” 340 g/L VOC limit
- Addition of primer category and subcategories into Table 1 would reduce confusion regarding applicable VOC limits for primers



**Table 1 – Table of Standards for Marine Coatings** **TABLE OF STANDARDS I**

MARINE COATING CATEGORY Marine Coating Category	Regulatory VOC Content Limits (g/L-Coating) VOC LIMITS Less water and exempt compounds- Grams per Liter (g/L)	
	BAKED Baked Coatings CURRENT LIMIT	AIR-DRIED Air Dried Coatings CURRENT LIMIT
	Antenna Coating	
<u>Fouling Deterrent Coatings:</u>		
Antifoulant Coatings:		400
Thermoplastic Antifouling Coating		400
<del>Aluminum Substrates</del>		560
<del>Other Substrates</del>		400
Inorganic Zinc Coating		340
Low Activation Interior Coating		420
Mist Coating		610
Navigational Aids Coating		340
Nonskid Coating		340
Organic Zinc Coating		340
<u>Undercoaters:</u>		
Primer	275	340
Pre-Treatment Wash Primer	420	420/780
Repair and Maintenance Thermoplastic Coating		340
Sealant for Wire-Sprayed Aluminum Coating		610
Special Marking Coating		420
Specialty Coatings:		
Heat Resistant Coating	360	420
High Temperature Coating		500
Tack Coating		610
Topcoats:		
<del>Extreme High Gloss Coating</del>	420	490
High Gloss Coating	275	340
Undersea Weapons Systems Coating	275	340
Any Other Coating Type	275	340

# Primers (cont.)

- Industry feedback indicates no formulation differences/needs between the finish primer surfacers and high-build primer surfacers
- Differences appear to be in definition only, based on applied wet film thickness
  - Challenging to enforce
- Many product data sheets recommend application thicknesses that span both defined thickness ranges
  - 10 mil film thickness does not appear to be a meaningful distinction

(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, or promotes a uniform surface necessary for filling in surface imperfections.

(17) HIGH BUILD PRIMER/SURFACER is any coating applied with a wet film thickness of 10 mils or more (~~one mil = 0.001 of an inch~~) prior to the application of a ~~topcoat~~ 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.

# Primers (cont.)

- No reported high-build primer surfacers contain pCBtF or t-BAc
  - All reported for pleasure craft application
  - Currently meeting proposed consolidated primer category VOC limit of 340 g/L
- All finish primer surfacers reported for marine application contain pCBtF
  - None contain t-BAc
  - No change to applicable VOC limit
  - Do not appear to be heavily reliant on pCBtF to comply with current VOC limit
- Considerable amount of finish primer surfacers reported for pleasure craft application contain pCBtF and/or t-BAc
  - Appear to be reliant on pCBtF to comply with current VOC limit of 420 g/L

# Primers (cont.)

- Staff proposing to consolidate Table 2 primer subcategories into a single primer category
- Primers to have VOC content limit of 340 g/L
- Limit would take effect January 1, 2029
- Sell-through and use-through period for primers that contain VOC greater than new proposed limits manufactured prior to 2029
- 12 months for sell-through, and 24 months for use-through, following Jan. 1, 2029



Table 2 – Table of Standards for Pleasure Craft Coatings **TABLE OF STANDARDS II**

VOC LIMITS Less water and exempt compounds Grams per Liter (g/L)		
PLEASURE CRAFT COATING CATEGORY <u>Pleasure Craft Coating Category</u>	CURRENT LIMIT <u>Regulatory VOC Content Limit (g/L- Coating)</u>	
	<u>Current Limit</u>	<u>Limit Effective 01/01/2029</u>
<u>Fouling Deterrent Coatings</u>		
Antifoulant Coatings:		
<u>Thermoplastic Antifouling Coating</u>	330	
<del>Aluminum Substrate</del>	400	
<del>Other Substrate</del>	560	
330		
Clear Wood Coatings:		
Sealers	550	TBD
Varnishes	490	TBD
<u>Primer Coatings: Undercoaters</u>		
<u>Primer</u>	340	
<del>Finish Primer/Surfacer</del>	420	
<del>High Build Primer/Surfacer</del>	340	
Marine Deck Sealant Primer	760	
Pretreatment Wash Primer	780	
Teak Primer	775	
Topcoats:		
<del>Extreme High Gloss Coating</del>	490	
High Gloss Coating	420	340
Any Other Coating Type	420	340

# Antifoulant Coatings

- Proposing to consolidate antifoulant coating subcategories into single category in Table 1 and Table 2
- CTG does not subcategorize by substrate application
- Consolidated category to retain VOC content limit of 400 g/L
  - Aligns with applicable CTG limit

**Table 1 – Marine Vessels**

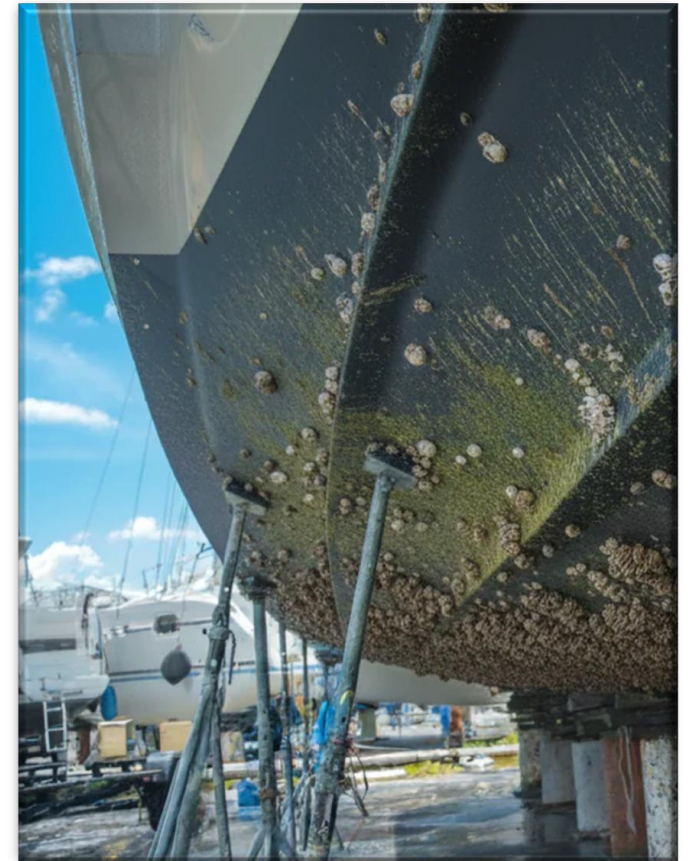
Table 1 – Table of Standards for Marine Coatings <b>TABLE OF STANDARDS I</b>		
MARINE COATING CATEGORY Marine Coating Category	Regulatory VOC Content Limits (g/L-Coating) VOC LIMITS Less water and exempt compounds Grams per Liter (g/L)	
	BAKED Baked Coatings CURRENT LIMIT	AIR-DRIED Air Dried Coatings CURRENT LIMIT
	Antenna Coating	
<b>Fouling Deterrent Coatings:</b>		
<b>Antifoulant Coatings:</b>		400
Thermoplastic Antifouling Coating		400
Aluminum Substrates		560
Other Substrates		400

## U.S. EPA CTG

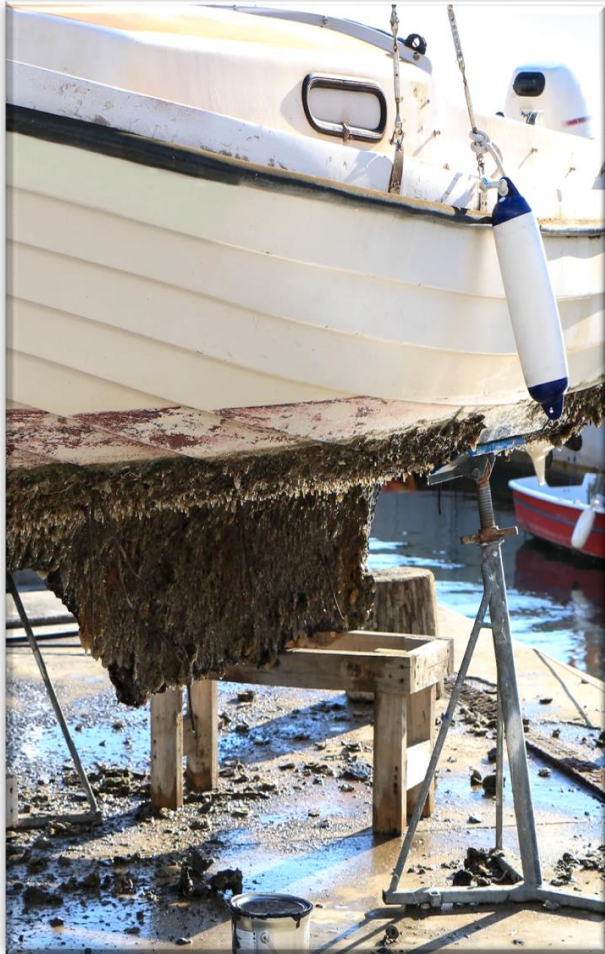
Coating Category	Grams/liter coating (minus water and exempt compounds)
General use .....	340
Specialty:	
Air flask .....	340
Antenna .....	530
<b>Antifoulant .....</b>	<b>400</b>
Heat resistant .....	420
High-gloss .....	420
High temperature .....	500

# Antifoulant Coatings (cont)

- All antifoulant coatings formulated for application to aluminum substrates reported in coating manufacturer survey contain VOC ranging from 374-379 g/L
  - None reported contain pCBtF
  - Do not appear to rely on pCBtF to comply with VOC content limits
  - Appear to be able to comply with VOC limit of 400 g/L
- Sell-through and use-through periods proposed for antifoulant coatings formulated exclusively for aluminum substrates that contain VOC greater than 400 g/L manufactured prior to effective date of lower limit
  - For both marine and pleasure craft application



# Antifoulant Coatings (cont)



- All reported antifoulant coatings formulated for non-aluminum substrates reported for pleasure craft application
  - All contain pCBtF or t-BAc
  - Do not appear to be heavily reliant to comply with VOC content limit of 330 g/L
- Staff not proposing change to applicable VOC limit

# Sell-Through and Use-Through Timeline for VOC Limit Changes

- Added paragraph specifying sell-through and use-through periods for marine and pleasure craft coatings manufactured prior to lower VOC content limit future effective dates

(4) Sell Through and Use Through for VOC limit reductions

Any Marine Coating or Pleasure Craft Coating that is manufactured prior to the future effective date of the applicable VOC content limit specified in Table 1 or Table 2, and that has a VOC content above that limit, but no more than the initial applicable limit, may be sold, supplied, or offered for sale for up to 12 months after the applicable effective date and used up to 24 months after the applicable effective date.

# Subsumed Categories

Coatings belonging to categories that will be consolidated will be able to temporarily be sold and used at current VOC levels if manufactured prior to the future effective date of VOC limit reduction

- Sell through and use through restrictions will apply

The main coating categories will remain in the Table of Standards and a new table will show the subsumed categories

# Subsumed Coating Categories

- Three coating subcategories will be subsumed into a broader category

## (5) Subsumed Coating Categories

Notwithstanding the VOC limits in Table 1 and/or Table 2 for the applicable Coating Category that Subsumes Current Category in Table 4, the following coatings that are manufactured before January 1, 2029, may be supplied, sold, offered for sale, marketed, blended, distributed, packaged, or repackaged for use within South Coast AQMD, and may be possessed, stored at a worksite, applied or solicited for use in the South Coast AQMD if it has a VOC content of less than or equal to the applicable Current Regulatory VOC Content Limit (g/L-Coating) in Table 4:

- (A) Antifoulant Coating labeled and formulated to be applied solely to aluminum substrates;
- (B) Finish Primer/Surfacer, which is any coating applied with a wet film thickness of less than 10 mils 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, or promotes a uniform surface necessary for filling in surface imperfections; and
- (C) Extreme High-Gloss Coating, which is any coating that registers a gloss of 95 or greater on a 60° meter according to ASTM D-523.

# Timelines for Subsumed Categories

- Table added to provide clarity

**Table 4: Timelines for Subsumed Categories**

<u>Current Coating Category</u>	<u>Current VOC Limit (g/L-Coating)</u>	<u>Category that Subsumes Current Category</u>	<u>Future VOC Limit (g/L-Coating)</u>	<u>Category Sunset Effective Date</u>	<u>Sell-Through End Date</u>	<u>Use-Through End Date</u>
<u>Marine Coatings Subject to Table 1</u>						
<u>Antifoulant Coatings for Aluminum Substrates</u>	<u>560</u>	<u>Antifoulant Coating</u>	<u>400</u>	<u>January 1, 2029</u>	<u>January 1, 2030</u>	<u>January 1, 2031</u>
<u>Extreme High Gloss Coating</u>	<u>420</u>	<u>High Gloss Coating</u>	<u>340</u>			
<u>Pleasure Craft Coatings Subject to Table 2</u>						
<u>Antifoulant Coatings for Aluminum Substrates</u>	<u>560</u>	<u>Antifoulant Coating</u>	<u>400</u>	<u>January 1, 2029</u>	<u>January 1, 2030</u>	<u>January 1, 2030</u>
<u>Extreme High Gloss Coating</u>	<u>490</u>	<u>High Gloss Coating</u>	<u>340</u>			
<u>Finish Primer Surfacer</u>	<u>420</u>	<u>Primer</u>	<u>340</u>			

# Thermoplastic Antifoulant Coatings

- Considering new coating category for specific type of biocide-free antifoulant coating that need higher levels of VOCs to properly function
- VOC content limit of 400 g/L
  - Same VOC limit as the Marine Coating Antifoulant
  - Lower than the VOC limit for “Any Other Coating Type” of Pleasure Craft Coatings

“Thermoplastic Antifouling Coating is a thermoplastic coating, meaning it cures through solvent evaporation not chemical reaction, applied to the underwater portion of boats, ships, vessels, or pleasure craft to prevent or reduce the attachment of biological organisms without the use of pesticides or biocides.”

# Clear Wood Coatings

- Considering lowering VOC limits for clear wood sealers and varnishes
- Evaluating other CA air district rules
  - Rule 1106 limits higher than any other air district
- Rule circumvention is an ongoing concern
  - High VOC marine varnishes and sealers used as architectural applications
  - Rule 1113 “Wood Coatings,” which includes sealers and varnishes, limits VOCs to 275 g/L
    - May be achieved with pCBtF
  - Rule 1106 survey highest Varnish VOC content 420 g/L
    - No pCBtF reported
- Considering proposing alternative reactivity-based (PW-MIR) limits equivalent to the limits being considered for Rule 1136 and 1113 for wood coatings

Table 2 – Table of Standards for Pleasure Craft Coatings **TABLE OF STANDARDS II**

VOC LIMITS Less-water and exempt compounds Grams per Liter (g/L)		
PLEASURE CRAFT COATING CATEGORY <u>Pleasure Craft Coating Category</u>	CURRENT LIMIT <u>Regulatory VOC Content Limit (g/L- Coating)</u>	
	<u>Current Limit</u>	<u>Limit Effective 01/01/2029</u>
<u>Fouling Deterrent Coatings</u>		
Antifoulant Coatings:	330	
<u>Thermoplastic Antifouling Coating</u>	400	
<del>Aluminum Substrate</del>	560	
<del>Other Substrate</del>	330	
Clear Wood Coatings:		
Sealers	550	TBD
Varnishes	490	TBD
<del>Primer Coatings: Undercoaters</del>		
<u>Primer</u>	340	

# Pretreatment Wash Primers

- Staff also considering raising pretreatment wash primer VOC content limit for marine coatings to 780 g/L
- Consistent with CTG VOC content limit
- Coating category reliant on pCBtF and t-BAc to comply with lower VOC limit
- Considering proposing PW-MIR VOC content limit similar to Rule 1151

**Table 1 – Table of Standards for Marine Coatings TABLE OF STANDARDS-I**

MARINE COATING CATEGORY <small>Marine Coating Category</small>	Regulatory VOC Content Limits <small>(g/L-Coating) VOC LIMITS</small> Less water and exempt compounds Grams per Liter (g/L)	
	BAKED <small>Baked Coatings</small> CURRENT LIMIT	AIR-DRIED <small>Air Dried Coatings</small> CURRENT LIMIT
	Antenna Coating	
<b>Fouling Deterrent Coatings:</b>		
Antifoulant Coatings:		400
Thermoplastic Antifouling Coating		400
<del>Aluminum Substrates</del>		560
<del>Other Substrates</del>		400
Inorganic Zinc Coating		340
Low Activation Interior Coating		420
Mist Coating		610
Navigational Aids Coating		340
Nonskid Coating		340
Organic Zinc Coating		340
<b>Undercoaters:</b>		
Primer	275	340
Pre-Treatment Wash Primer	420	420/780

## Rule 1151 Alternative PW-MIR Limits

	PW-MIR VOC Limits (g O <sub>3</sub> /g VOC)
Pretreatment Wash Primers	1.80

# Any Other Coatings for Pleasure Craft

- Considering aligning the “Any Other Coating Category” for Pleasure Craft with Marine Coatings
- Pleasure craft “Any Other Coating Category” is at 340 g/L

Table 2 – Table of Standards for Pleasure Craft Coatings **TABLE OF STANDARDS II**

VOC LIMITS Less water and exempt compounds Grams per Liter (g/L)		
PLEASURE CRAFT COATING CATEGORY <u>Pleasure Craft</u> Coating Category	CURRENT LIMIT <u>Regulatory VOC Content Limit (g/L- Coating)</u>	
	Current Limit	Limit Effective 01/01/2029
<b>Fouling Deterrent Coatings</b>		
Antifoulant Coatings:		
Thermoplastic Antifouling Coating	330	
<del>Aluminum Substrate</del>	400	
<del>Other Substrate</del>	560	
	330	
Clear Wood Coatings:		
Sealers	550	TBD
Varnishes	490	TBD
<b>Primer Coatings: Undercoaters</b>		
Primer	340	
<del>Finish Primer/Surfacer</del>	420	
<del>High Build Primer/Surfacer</del>	340	
Marine Deck Sealant Primer	760	
Pretreatment Wash Primer	780	
Teak Primer	775	
Topcoats:		
<del>Extreme High Gloss Coating</del>	490	
High Gloss Coating	420	340
Any Other Coating Type	420	340



# **Prohibition Timeline for pCBtF and t-BAc**

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# Prohibition Timelines

- Prohibition timeline formatted to:
  - Mitigate potential stranded assets already in supply chain at time of rule adoption
  - Allow time to reformulate coatings and coating components
  - Guide transition from products that contain pCBtF and/or t-BAc
- Staff received stakeholder feedback regarding reformulation time needed for various coating categories
- Prohibition timelines to include:
  - Final manufacture date(s)
  - Sell-through date(s)
  - Use-through date(s)



# pCBtF and t-BAc Prohibition Timeline Explained

- **Final Manufacture Date** is the last date that products containing greater than 0.01 percent by weight of pCBtF or t-BAc may be manufactured for use in South Coast AQMD
- **Sell-Through Date** is the last date that products containing greater than 0.01 percent by weight of pCBtF or t-BAc may be sold for use in South Coast AQMD
- **Use-Through Date** is the last date that products containing greater than 0.01 percent by weight of pCBtF or t-BAc may be used in South Coast AQMD



# Prohibition Timelines (cont.)

- Proposing longer prohibition timeline for antifoulant coatings to accommodate potential time needed for new pesticide registration
- Shorter prohibition timeline proposed for:
  - High-Build Primer Surfacer
  - Marine Deck Sealant Primers
  - Clear Wood Coatings
- No reported products from above categories in survey contain pCBtF or t-BAc

**Table 5: pCBtF and t-BAc Prohibition Timeline**

<u>Category</u>	<u>Prohibition Effective Date</u>	<u>Sell-Through End Date</u>	<u>Use-Through End Date</u>
<u>Antifoulant Coatings</u>	<u>January 1, 2031</u>	<u>January 1, 2032</u>	<u>January 1, 2033</u>
<u>Colorants</u>	<u>January 1, 2030</u>	<u>January 1, 2031</u>	<u>January 1, 2032</u>
<u>Primers</u>	<u>January 1, 2027</u>	<u>January 1, 2028</u>	<u>January 1, 2029</u>
<u>Marine Deck Sealant Primers</u>			
<u>Clear Wood Coatings</u>			
<u>All Other Coating Categories</u>	<u>January 1, 2028</u>	<u>January 1, 2029</u>	<u>January 1, 2030</u>



# **Other Rule Considerations and Exemptions**

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# Other Rule Considerations

- Staff revised previous initially proposed language in paragraph (f)(1) regarding metal compound concentration thresholds based on stakeholder feedback previous WGM
  - Maintains existing prohibitive language
  - Relocated and reformatted

## ~~(e)~~(f) Prohibition of Possession, Specification and Sale

- (1) ~~No~~ ~~For the purpose of this rule, no person~~ Person shall supply, sell, market, blend, distribute, package, or repackage ~~store at a worksite~~ any marine coating Marine Coating or ~~pleasure craft coating~~ Pleasure Craft Coating subject to this rule for use within ~~the~~ South Coast AQMD, ~~jurisdiction that is not in compliance with the requirements shown in the Tables of Standards of paragraphs (d)(1), (d)(2), and (d)(3) unless the following condition applies;~~ nor shall any owner or operator of a Facility possess, apply, or solicit for use any Marine Coating or Pleasure Coating for use within South Coast AQMD, that contains any of the following chemicals indicated below:

- (A) Cadmium, nickel, lead or hexavalent chromium that was introduced as a pigment or as an agent to impart any property or characteristic to the Marine Coating or Pleasure Craft Coating during manufacturing, distribution, or use of applicable Marine Coatings or Pleasure Craft Coatings;

# Other Rule Considerations (cont)

- Staff added an effective date of January 1, 2028 for new labeling requirements
- No longer proposing an alternative compliance schedule plan for antifoulant coatings
  - Extended prohibition timeline proposed instead
- Considering proposing alternative PW-MIR for individual coating categories

## (2) Labeling Requirements

On and after January 1, 2028, the manufacturer of Marine Coatings and Pleasure Craft Coatings shall include the following information on all product containers:

(A) Applicable coating category;

(B) Whether the product is intended for Marine or Pleasure Craft use, or both; and

(C) Date of manufacture of the coating or a code indicating the date of manufacture. The manufacturer shall file an explanation of each code with the Executive Officer.

# Exemptions

- Streamlined the exemption subdivision
  - Grouped and clarified exemptions (showing clean language)

Modified Exemption,  
discussed on next  
slide

New Exemption  
for R&D

## (j) Exemptions

- (1) With the exception of paragraphs (f)(1), the provisions of this rule shall not apply to Marine Coatings or Pleasure Craft Coatings that have a VOC content of 50 g/L or less, or its equivalent, less water and exempt compounds, as applied.
- (2) The provisions of paragraphs (d)(1), (d)(2), and (d)(3) shall not apply:
  - (A) Marine Coatings applied to interior surfaces of potable water containers;
  - (B) Any Marine Coating or Pleasure Craft Coating that is supplied, sold, offered for sale, marketed, manufactured, blended, packaged or repackaged for use within the South Coast AQMD in half pint or smaller containers and is applied by brush or air brush to cover minor imperfections or minor mechanical damage incurred prior to initial use;
  - (C) Marine Coatings or Pleasure Craft Coatings which are applied to test specimens in Facility laboratories for purposes of research, development, quality control, and testing for production-related operations; or
  - (D) Marine Coatings that are used for vessels that are intended to submerge to at least 500 feet below the surface of the water provided that the total combined usage of such coatings does not exceed 12 gallons per calendar year and such coatings are in compliance with the VOC limits in the U.S. EPA National Emission Standards for Hazardous Air Pollutants (NESHAP) for Shipbuilding and Ship Repair (Surface Coatings).<sup>1</sup>

# Exemption for Touch up

- Moved definition for “touch-up coatings” to the exemption subparagraph
- Narrowed exemption to only allow ½ pint or smaller containers
- Exemption is intended for touch up of new boats, prior to use
  - If damage occurs during delivery, higher VOC coatings, compliant outside the South Coast AQMD, are allowed to fix any damage
  - Allows for the original coating to be used for touch up, regardless of the VOC content

~~(3)(C) Touch-up coatings, as defined by paragraph (c)(39) of this rule. Any Marine Coating or Pleasure Craft Coating that is supplied, sold, offered for sale, marketed, manufactured, blended, packaged or repackaged for use within the South Coast AQMD in half pint or smaller containers and is applied by brush or air brush to cover minor imperfections or minor mechanical damage incurred prior to initial use.~~

# Exemptions (cont)

- Moved mention of unsaturated polyester resin (fiberglass) coating from definition to exemption
  - Subject to Rule 1162 – Polyester Resin Operations
- Added exemption for stationary structures such as piers, bridges, and their appurtenances
  - Subject to Rule 1113 – Architectural Coatings
- Added provision to clarify that Vessels that are permanently docked and operating as a stationary business are exempt
  - Subject to Rule 1113 – Architectural Coatings
  - Excluding below the waterline (antifoulant) coatings from exemption

(4) The provisions of this rule shall not apply to:

- (A) Aerosol Coating Products;
- (B) Unsaturated polyester resin or fiberglass coatings, which are subject to Rule 1162 – Polyester Resin Operations;
- (C) Coatings applied to piers and bridges which are subject to Rule 1113 – Architectural Coatings (Rule 1113); or
- (D) The above the waterline portions of permanently docked Vessels serving as a stationary business, which are subject to Rule 1113.

# Exemptions

- Staff added exemption of possession of certain coatings shipped into South Coast AQMD to be stored, reformulated or repackaged and then sold outside South Coast AQMD

(5) The prohibitions of possessing and repackaging Marine Coatings and Pleasure Craft Coatings in paragraphs (d)(1), (d)(2), (d)(3) and (f)(1) shall not apply to Marine Coatings or Pleasure Craft Coatings that are:

(A) Shipped into the South Coast AQMD to be reformulated or repackaged for sale and use outside of the South Coast AQMD; or

(B) Temporarily being stored at a Facility and marked for use outside the South Coast AQMD jurisdiction.



# Questions

# Next Steps

Complete BARCT Assessment



Continue to hold individual stakeholder meetings, and conduct site visits



Continue to review existing products on the market



Release Preliminary Draft Proposed Amended Rule and Staff Report



Anticipated Public Hearing – 3<sup>rd</sup> Quarter

# Working Group Materials

- Working group materials for each working group meeting will be made available: <https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/proposed-rules>

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For current rule forecast please see the monthly [Governing Board Agenda](#).

Rule Name	Description
Regulation III	Fee Rules
Rule 218.2 and Rule 218.3	Proposed Rule 218.2 - Continuous Emission Monitoring System: General Provisions Proposed Rule 218.3 - Continuous Emission Monitoring System: Performance Specifications

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