

January 31, 2017

Ms. Linda Irokawa-Otani  
Regulations Coordinator  
Department of Pesticide Regulation  
1001 I Street, P.O. Box 4015  
Sacramento, CA 95812-4015

Subject: San Diego Unified Port District Comments on 3 CCR Section 6190  
Copper-Based Antifouling Paints and Coatings

Dear Ms. Irokawa-Otani,

The San Diego Unified Port District (District) appreciates your staff's efforts to update the regulations relating to copper-based antifouling paint and coating products (AFP), proposed as *3 CCR Section 6190 Copper-Based Antifouling Paints and Coatings*, and is providing the following comment letter in response.

For over a decade, the District has been encouraging statewide efforts to control copper-based AFPs to ensure their compatibility with the aquatic environment. The District has taken a leadership role in addressing this issue by developing model programs for hull paint research and policy-based copper reduction initiatives. We have worked closely with your agency during this time, and have been successful in establishing positive relations with the boating community locally and statewide.

More recently, the District sponsored Assembly Bill 425 (AB425). This bill, signed by Governor Brown in October 2013 directed your agency by February 1, 2014, "*to set a leach rate for copper-based antifouling paints used on recreational vessels and to make recommendations for appropriate mitigation measures that may be implemented to protect aquatic environments from the effects of exposure to that paint if it is registered as a pesticide*".

In a letter dated February 24, 2015 (Attachment A) and co-signed by the District and the San Diego Regional Water Quality Control Board Executive Officer, it was further requested that the DPR expedite their implementation strategy to ensure that paints are reformulated and readily available to the public. Specifically it was requested that DPR (1) require paint manufacturers to reformulate their paints, (2) streamline the approval process to make these paints commercially available, and (3) move forward on other mitigation measures, especially those pertaining to in-water hull cleaning. Consistent with those comments, the District is respectfully submitting the following comments and we ask that you consider these comments on the recent draft rule.

**1. The District Supports the Leach Rate Effective Date.**

The District greatly appreciates DPR's efforts to address this state-wide issue with a state-wide leach rate rule. The proposed rule sets the date of July 1, 2018, for the  $9.5 \mu\text{g}/\text{cm}^2/\text{day}$  leach rate to take effect. This leach rate was first identified in your January 30, 2014 Memorandum<sup>1</sup> (2014 Memo) in response to AB425. As such, registrants have had over four years to bring their products into compliance ahead of this deadline. Moreover, the proposed rule does not go into effect immediately, instead it identifies a delayed start date providing additional time after adoption for registrants to bring products into compliance.

The District supports this deadline. An expeditious timeline for eliminating high leach paints is critical for those marina basins faced with existing TMDL timelines.

**2. Use of a Conversion Factor is Discouraged.**

DPR is required to ensure the products they regulate are used in a manner that is protective of the environment. During the development of the maximum leach rate (2014 Memo), DPR acknowledged that calculating leach rates using the International Organization for Standardization (ISO) Method 10890:2010 was an appropriate tool for modeling copper in marinas. However, DPR also acknowledged that the ISO Method may overestimate the real world release of copper.

The leach rate modeling effort considered several leach rate scenarios ranging from 1.12 to  $24.60 \mu\text{g}/\text{cm}^2/\text{day}$ . Several model inputs were adjusted to achieve the wide range of leach rates. One such input included the use of a conversion factor to normalize the real world copper release rates. However, when initially setting the maximum allowable leach rate at  $9.5 \mu\text{g}/\text{cm}^2/\text{day}$ , DPR acknowledged that this leach rate would bring most but not all marinas within water quality standards.

Given that some of the larger marina basins may not achieve water quality standards with the  $9.5 \mu\text{g}/\text{cm}^2/\text{day}$  leach rate, the use of a conversion factor that allows for an increase in copper loading beyond what the ISO Method derives is not appropriate.

**3. Use of Other Mitigation Measures Should Be Included in the Rule.**

The DPR's 2014 Memo identified a list of mitigation measures to be used in conjunction with the AFPs, in addition to setting a maximum leach rate. In that

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<sup>1</sup> DPR Memorandum: Determination of Maximum Allowable Leach Rate and Mitigation Recommendations for Copper Antifouling Paints per AB425, January 30, 2014

Memo, DPR concluded that *"if product reformulation is to play a key part in the mitigation of copper in marinas, other critical activities need to also be implemented to ensure the overall success of this endeavor"*.

As stated above, the modeling identified many scenarios and leach rates ranging from 1.12 to 24.60  $\mu\text{g}/\text{cm}^2/\text{day}$ . Many of the leach rate scenarios factored in the use of mitigation measures such as limiting in-water hull cleaning frequencies and using specific cleaning tools. As such, for the 9.5  $\mu\text{g}/\text{cm}^2/\text{day}$  leach rate to be effective, the mitigation measures themselves must also become part of the regulation.

It is presumptuous to assume that the boating community (boaters, hull cleaners, marina operators, etc.) is fully aware of the associated mitigation measures that should be used in conjunction with the copper-based AFPs. For one, the paint application process generally occurs at a boatyard, so labeling requirements for paint maintenance and cleaning likely do not reach the boat owner or hull cleaning companies. As such, that may lead to the misuse of copper-based AFPs and negatively impact the reductions in copper loading that were assumed when setting the maximum leach rate. Moreover, compliance with those mitigation measures, if not included in the state regulation, would be left with other entities or not enforced.

For any leach rate rule to be effective an implementation strategy must be in place to ensure that, when copper-based AFPs are reformulated and readily available to the public, they are properly used by boatyards and boaters. The District recommends that DPR adopt specific mitigation measures with the existing leach rate as part of this rule OR lower the allowable leach rate to ensure that legally available copper-based AFPs do not impair aquatic environments.

#### **4. The New Leach Rates should apply to Commercial Vessels.**

While many of the dissolved copper TMDLs identify recreational vessels as a primary source of the copper impairment in marina basins, it is likely that some commercial vessels are berthed in those same basins. Additionally, many commercial vessels are painted in the same boatyards as recreational vessels making the potential for misuse likely, especially given the general resistance by some boatyards to alternative paints.

During the District's numerous efforts to encourage the use of alternate or low copper paints, it has become clear that efforts to use other paints are clearly at an economic disadvantage and their use is not wholly supported by those in the boating community with opposing financial interests.

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are not misused. This could occur through a requirement that paint applicators (or boatyards) submit certified reports on paint usage, however, the enforcement process alone would be labor intensive.

The District strongly recommends that the new leach rate standards apply to both recreational and commercial vessels. Fully regulating at the product level by completely removing AFPs that have been shown to exceed the maximum leach rate is the most effective and efficient option to ensure copper AFPs are not impacting marina waters.

On behalf of the District, I want to thank you for moving ahead with the intent of the AB425 legislation and proposing this rule formalizing the maximum leach set forth. As you state in your supporting documentation for this rule<sup>2</sup>, we are pleased that you will continue monitoring for copper contamination and evaluate compliance with water quality standards and that you have positioned your agency to move ahead on additional measures if the proposed rule is not fully effective in protecting aquatic environments.

Thank you for considering these comments. We ask that your agency work closely with the District and other stakeholders to encourage a smooth and swift transition to the new regulation and will make our staff available to assist in any way possible. If you have questions or would like further information, please contact me at (619) 725-6073 or via email at [kholman@portofsandiego.org](mailto:kholman@portofsandiego.org).

Sincerely,



Karen Holman,  
Principal, Planning & Green Port

Attachments:

Attachment A – February 24, 2015 Letter to DPR: Implementation of AB425 Measures and List of Hull Paints Meeting the AB425 Leach Rate Criteria

Cc via email      T. Scott Edwards, Jason H. Giffen, John Carter  
                         Jeremy Haas, SDRWQCB  
                         Deborah Pennell, John Adrian, Shelter Island Master Leaseholders Group  
                         Sharon Cloward, SDPTA

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<sup>2</sup>DPR: Initial Statement of Reasons and Public Report, Nov 2016, Page 5



February 24, 2015

Mr. Brian R. Leahy  
Director  
Department of Pesticide Regulation  
1001 I Street  
P.O. Box 4015  
Sacramento, CA 95812-4015

Subject: Implementation of AB 425 Measures and List of Hull Paints Meeting the  
AB425 Leach Rate Criteria

Dear Mr. Leahy,

As you are aware, the San Diego Unified Port District (District) sponsored Assembly Bill 425 (AB425), authored by Assembly Speaker Toni Atkins. This bill, signed by Governor Brown in October 2013 directed the Department of Pesticide Regulation (DPR) by February 1, 2014, *"to set a leach rate for copper-based antifouling paints used on recreational vessels and to make recommendations for appropriate mitigation measures that may be implemented to protect aquatic environments from the effects of exposure to that paint if it is registered as a pesticide"*. We appreciate your staff's diligence to complete the task by the February 1, 2014, deadline and have reviewed the Memorandum dated January 30, 2014, (Report) that you completed in response to AB425.

However, completion of the Report cannot, by itself, affect the needed behavior change and wholesale conversion to new paints. An implementation strategy must be in place to ensure that paints are reformulated and readily available to the public. Given that there is an inherent amount of time that must occur to have a wholesale conversion of boats to new paints, we strongly encourage your agency to expedite efforts to (1) require paint manufacturers to reformulate their paints, (2) streamline the approval process to make low-copper paints commercially available, (3) move forward on the other mitigation measures identified in your Report, and (4) work with us to effectively communicate how best to achieve water quality goals.



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Moreover, it is our understanding that some currently-available copper antifouling paints already meet the new leach rates. As such, we respectfully request DPR's assistance to publicize a list of paints that meet the new leach rates as soon as feasibly possible. Earlier product availability will enable more boats to convert in advance of the existing regulatory timelines, thereby improving the ability to achieve our regulatory targets; it is essential that this be expedited. Furthermore, we appreciate that DPR is working collaboratively with the State Water Board on a statewide strategy to address management of in-water hull cleaning activities. We recognize the benefits of that statewide approach, and our staffs are available for consultation as necessary from a local perspective.

The Shelter Island Yacht Basin Dissolved Copper Total Maximum Daily Load (TMDL)<sup>1</sup> is one of the leading regulatory drivers to reduce copper loading from boat hull paints. The TMDL has been in place since 2005 and stakeholders are making substantial efforts to identify copper reduction approaches to comply with this regulation. This TMDL mandates a 76-percent reduction in copper by 2022, a target that is exceedingly difficult while products containing large amounts of copper remain legally available.

For several years, the San Diego Water Board (Water Board) and the District have been at the forefront of this copper issue and have made significant progress in working to develop a core understanding of the concerns and the challenges of complying with water quality regulations that stem from the use of a legally available product, such as copper antifouling paint.

Both the Water Board and the District strongly support the use of sound science and advancements in scientific technologies. Water quality regulations are most effective when they rely on the latest, pertinent science. To that end, DPR's Report advances our collective ability to address copper impairments, and we agree the combination of less-toxic hull paints, practical management measures, and education is the right approach for guiding water quality regulations.

As indicated in the Report, the new leach rates set forth should help to decrease copper loading in our marinas. Coupled with the other mitigation measures identified in your Report, namely the product labeling and use of alternative (e.g., non-copper and non-toxic) paints, we believe that implementing the Report's findings will lead to long-term control of vessel-related copper pollution in San Diego Bay.

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<sup>1</sup> SIYB TMDL: [http://www.waterboards.ca.gov/sandiego/water\\_issues/programs/watershed/souwatershed.shtml#siybtmdl](http://www.waterboards.ca.gov/sandiego/water_issues/programs/watershed/souwatershed.shtml#siybtmdl)

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Additionally, as your Report suggests, in some marina basins, conversion to the new leach rates may reduce copper to acceptable levels. However, in others, such as Shelter Island, it does not appear that the recommended leach rates coupled with the best management cleaning practices will achieve existing water quality objectives for dissolved copper. To that end, we echo the concerns that the Los Angeles and Santa Water Boards outlined in their August 15, 2014, letter to you.

Clearly, your Report is an important milestone toward protecting the marine environment from toxic effects of copper leached from recreational vessels. We are now requesting DPR expedite follow-up efforts because implementing the recommendations becomes even more crucial as our TMDL timeline progresses and other TMDLs are adopted across the state. We look forward to hearing about DPR's implementation plan and working with you to achieve our shared water quality goals.

On behalf of the Water Board and the District, we thank you for your involvement in AB425. We firmly believe that these efforts will set the pace for addressing copper in waters. Our staff is available to assist in any way possible; please contact Karen Holman, Department Manager, at the District at (619) 725-6073, or Jeremy Haas, Environmental Program Manager, at the Water Board at (619) 521-3009.

Sincerely,



John Bolduc  
Acting President/CEO  
San Diego Unified Port District



David Gibson  
Executive Officer  
San Diego Regional Water Quality Control  
Board

cc: San Diego Unified Port District Board of Port Commissioners,  
Charles M. Andrews, Associate Director, Pesticide Programs Division, DPR  
David Duncan, Environmental Program Manager II, DPR  
Nan Singhasemanon, Sr Environmental Scientist, DPR  
Vicky Whitney, Deputy Director, Division of Water Quality, SWRCB  
Phillip Crader, Assistant Deputy Director, Division of Water Quality, SWRCB  
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Ellen Gross, SDUPD  
Karen Holman, SDUPD  
Sharon Cloward, SDPTA  
Shelter Island Master Leaseholders Group