

Copper Antifouling Paint Sub-Workgroup 5/26/05 Meeting Notes

In-Person Participants:

August, Mike, Dept. of Parks and Recreation
Edwards, Diane, SWRCB
Kubiak, Rachel, DPR
Lee, Marshall, DPR
Singhasemanon, Nan, DPR
Smith, Ty, DTSC
Sniderman, Lisa, CCC
Yee, Betty, RWQCB 5

Phone Participants:

Brown, Paul, Port of San Diego
Candelaria, Linda, RWQCB 8
Chambliss, Ben, U.S. EPA
Chavira, Ray, U.S. EPA Region IX
Davy, Paul, County of San Diego, CAC
Dobalian, Lesley, RWQCB 9
Johnson, Leigh, UC Sea Grant
Little, Dan, RWQCB 5
Michael, Pete, RWQCB 9
Miller, Rebecca, U.S. EPA
Moran, Kelly, TDC Environmental

These meeting notes contain highlights of announcements, discussion topics, and pending action items. Highlighted topics are organized in a bulleted form. Pending action items are tasks that require follow up. These are denoted as “**Action Item**”. An attendance/contact information list that contains participants’ agency names, email addresses, and telephone numbers will accompany these meeting notes in a separate Excel file.

Introductions/Agenda Review:

- Twenty-one individuals (8 in person and 11 by phone) participated in the fifth Copper Sub-Group meeting. Nan Singhasemanon (DPR) welcomed the participants and briefly covered the topics on the agenda for this meeting.

News and Developments:

- Nan talked about how discussions of monitoring needs and opportunities for a workgroup coordinated statewide study did not get very far at the previous meeting. Differences in agency priorities, regional jurisdictions, and funding availability appeared to hinder group collaboration on a statewide scale. Nan suggested that if a workgroup-coordinated statewide study is not practical or efficient, then partnership on a number of smaller regional studies might be more productive. Such an approach would not require intensive workgroup coordination and may be spearheaded by interested agencies outside the auspices of the workgroup.

Nan also posed the question of whether the workgroup should to continue to meet, particularly if more intensive interactions were no longer needed and if the workgroup objectives have been met. Nan then asked the workgroup to reevaluate the four existing workgroup objectives together. It was fairly clear that the first objective “identify existing studies and information” have been completed. Objectives #2 through #4 were less definitive and were considered more ongoing; however, these have been met in varying degrees.

Nan then suggested that since these objectives were ongoing informational items, perhaps they could continue as part of the Marina and Recreational Boating Workgroup (MRBW). If the workgroup wanted to continue then it should explore changing its objectives or purpose to be reflective with its activities and functions. Nan presented these possibilities to the workgroup and asked for feedback.

The group had mixed responses. Linda Candelaria (Region 8) thought that the workgroup should continue as is and that it may not be necessary to change the objectives. Kelly Moran (TDC Environmental) questioned whether objective #4 has really been fulfilled to suggest that the workgroup should continue. Pete Michael and Lesley Dobalian (Region 9) were in favor of having fewer meetings as long as the work gets done. Diane Edwards (SWRCB) expressed her support in dedicating the later portion of the MRBW meeting to copper AFP discussions.

In the end, there was a consensus that devoting the latter portion of the MRBW meeting to copper issues would really not be that different than to maintain the sub-workgroup as is. The MRBW would also have to expand its participants and interested parties list. Having a number of participants calling in during the meeting would also be disruptive.

Therefore, the group decided that the sub-workgroup should remain distinct from the mother workgroup. Nan then suggested that the workgroup objectives should then be adjusted to be more definitive. Marshall Lee (DPR) added that perhaps the purpose of the workgroup could be adjusted to have a pre-defined endpoint; otherwise, the workgroup may not know when it has reached its goals. Linda suggested that the group should know when it is done. **Action Item:** Nan should work on revising the purpose/objectives and then propose them to the group via email.

Nan then asked if the group wanted to meet once every four months instead of at the current bimonthly frequency. He said that the workgroup has been meeting lately at the rate of once every four months. The slower pace resulted in more robust agenda this way and would result in less cancellations and postponements. After some discussion, the group decided that it would be best to keep the bimonthly schedule.

- Leigh Johnson (UC Sea Grant) suggested that a list that describes workgroup member's copper or AFP related activities would be useful to have. Several members agreed. **Action Item:** Nan will coordinate the creation of this list with some help from the members.
- Rebecca Miller and Ben Chambliss from the U.S. Environmental Protection Agency (EPA) Headquarters in Washington, D.C. and Ray Chavira (EPA, Region IX) updated the group on the cuprous oxide reregistration process and upcoming SMART meetings.

SMART meetings allow EPA to verify pesticide use information (e.g., use rates, supported uses, use patterns) in order to develop accurate pesticide exposure and risk assessments. These meetings usually involve the U.S. Department of Agriculture, pesticide registrants, and other key stakeholders. The first SMART meeting on cuprous oxide will be on June 7, 2005.

Although EPA focuses its attention on the technical registrants on a company-specific basis, it also encourages these registrants to communicate with suppliers and formulators. SMART meetings can some time get very large, so it is typically not the best forum to interact in and share concerns. The Copper Sub-Group (or individuals from the workgroup) should consider meeting separately with EPA or use the public participation process to better communicate with the agency on the reregistration of cuprous oxide.

EPA also suggested that the workgroup should submit what data and information it has on cuprous oxide, particularly non-monitoring data, as soon as possible to Rebecca with a cc: to Ray. Ideally, non-monitoring data should be submitted by the end of June 2005. Non-monitoring data will be useful toward risk assessment evaluation. Monitoring data will be more useful toward

risk mitigation evaluation. Nan will be the workgroup's contact person. **Action Item:** Nan will organize available workgroup information/data and submit them to EPA before the end of June.

There are currently four copper cases being evaluated: compounds, sulfates, oxides, and salts. Current internal meetings on streamlining could lead to a reorganization of copper into complexed and non-complexed categories. Cuprous oxide is a non-complexed form of copper. Once this categorization takes place, there will likely be pressure on EPA to conclude its SMART meetings for cuprous oxide since the meetings for other non-complex copper active ingredients will have been completed.

EPA expects the preliminary risk assessment portion of reregistration to be completed by October or November 2005. The reregistration eligibility decision (RED) for cuprous oxide will be available in August 2006.

Rebecca Miller's contact information is:

U.S. EPA
1200 Pennsylvania Ave.
Washington, D.C. 20460
Attn: Rebecca Miller, MC 7510C

Phone: (703) 305-0012

Email: Miller.Rebecca@epamail.epa.gov

- Kelly pointed out that EPA needed to consider the California Toxics Rule (CTR) as an important part of its ecological risk assessment process. The agency itself promulgated the CTR, which established the acute and chronic water quality criteria as water quality standards in the state. Much of California's regulatory activities for metals in surface water evolve around the CTR. Many workgroup members concurred with this point.
- Rachel Kubiak (DPR) said that she had a difficult time envisioning any significant use restrictions resulting from the EPA reregistration process. Current alternatives are either just as toxic or not as proven. She thought that for an alternative to be accepted by industry and the public, it would have to be as effective, cheap, and easy to use as copper.
- Linda Candelaria (Region 8) reported that her region is gearing up to conduct copper sampling in several Lower Newport Bay marinas. The focus will be on rectangular and u-shaped marinas rather than "pass-through" ones with better flushing. This scheme will minimize dilution effects and increase the likelihood of observing elevated copper levels. Moreover, samples will be taken from bay/channel, boatyards, and storm drain locations. Some of the target marinas have storm drain inputs. Sampling will occur in the summer and winter periods. Copper will be analyzed for in water column and sediment samples. In the water samples, both dissolved and total copper will be quantified.

Nan added that DPR plans to work with Region 8 on this study. DPR will likely provide supplemental funding on this project. DPR may also be interested in expanding the scope of the study to include toxicity testing and other types of analysis.

- Nan noted that although Region 4 did not call in to this meeting, they are a couple of months away from completing a draft Toxics TMDL for Marina del Rey that may potentially name Cu

AFPs as a significant source of copper in that water body. Nan also announced that there is a new lead person (Ginachi Amah) on this TMDL.

- Betty Yee (Region 5) said that her region is developing a monitoring plan to look at a number of marina pollutants including pathogens, petroleum, copper, and other metals. The plan is still in an early stage of development.
- Lesley Dobalian (Region 9) reported that her Board has approved a resolution to amend the SIYB Copper TMDL and implementation plan into the Region 9 Basin Plan. She is trying to assemble the administrative record on this to transmit to the SWRCB by early June. The SWRCB has to still approve the resolution. Then, the Office of Administrative Law will follow with its own review. EPA will be concurrently reviewing the TMDL and implementation plan.

Dischargers named in the TMDL include the Port of San Diego, SIYB marina operators, persons owning boats moored at SIYB, SIYB underwater hull cleaners, and the City of San Diego. The TMDL implementation plan listed a number of possible best management practices for dischargers. Enforcement of discharge compliance could include one or a combination of waste discharge requirements, waivers, or prohibitions. Region 9 will specify the enforcement details at a later date.

Almost all of the water samples taken from yacht basins and marinas in San Diego Bay contained copper levels above the CTR chronic values.

- Leigh mentioned that a recent attempt to introduce a non-toxic epoxy AFP (Aquaply M) in Suffolk County, New York faced some problems. The New York's Department of Environmental Quality considered these non-toxic alternatives to be pesticides; therefore, the department determined that these compounds be registered with EPA first before they could be legally used in the State of New York. Since then, EPA has initiated dialogue with the State of New York to determine if registration is necessary.
- Leigh also gave an overview of the recent workshop on hull management for aquatic invasive species (AIS). The State Lands Commission and UC Sea Grant held the workshop at San Francisco's Civic Center on May 11th. In the morning, workshop speakers presented a variety of topics related to AIS including regional experiences in New Zealand, Hawaii, and other ports. The afternoon portion of the workshop involved breakout sessions for participant groups to discuss possible management practices for hull-transported AIS.

Researchers historically a vessel's ballast water to be the primary vector for AIS transport. Recent studies suggested that AIS transport via hull fouling is also significant route. The types of AFPs used can lead to different levels of control against fouling and thus transport of AIS. Any future promotion of non-toxic AFPs may have significantly negative effects on the control of AIS in California and other regions. Leigh added that more aggressive and effective hull cleaning practices might have to be employed with non-toxic AFPs to deal with heavier fouling and still limit the spread of AIS. The UC Sea Grant Program is preparing a workshop report as well as a "white paper" to identify potential conflicts between the two issues.

- In a letter dated February 15, 2005, the San Diego Unified Port District requested that DPR initiate reevaluation action on Cu AFPs. Moreover, the Port would like DPR to consider elevated copper levels in marinas as a statewide problem. In the response letter, DPR formally recognized the Port's reevaluation request and explained current DPR assessment activities. DPR

management also stated that it had asked staff to determine if existing evidence supported the use of available DPR regulatory authority.

At this point, staff has prepared a draft issue memo containing background and specific recommendations. This memo is an internal and pre-decisional document. Nan noted that the management team has expressed great interest in this issue lately and has also requested a meeting with staff in early June to engage in more detailed discussions. Nan will keep the workgroup and other stakeholders informed of any departmental decisions.

- DPR received a letter from legal representatives of the Kona Kai Marina in SIYB. In this letter, the marina owners expressed their support of the Port's request for reevaluation and asked that DPR consider more significant regulatory actions. There appears to be a movement among the SIYB dischargers and San Diego area stakeholders to seek some level of statewide regulation. This would help reduce the copper loading from AFPs in SIYB and render the discharger actions required under the TMDL implementation plan unnecessary. Nan said that dischargers and stakeholders may also be talking to U.S. EPA.

Paul Brown (Port of San Diego) noted that the limited effectiveness and feasibility of currently available non-toxic AFPs concerned his agency. The Port is also concerned with the non-target toxicity of some of the potential replacement AFPs (i.e., Irgarol, zinc).

Assessment Activities:

- Diane Edwards talked about possible funding that might be available for copper sampling work in California. The specific source of the funds is somewhat mysterious at this point. Diane said that she asked Nan in May if he could provide her with a short scope of work with a cost estimate. Nan suggested a budget of approximately \$120,000 for the analysis of 200 water and 100 sediment samples. The anticipated sampling period is December 2005 to December 2006. Diane and Nan will keep the workgroup updated on this as more information becomes available.
- Pete Michael (Region 9) provided a status update on the Harbor Monitoring Program. The overall goal is to assess water quality status and trends and establish baseline conditions in five harbors. These are Dana Point Harbor, Oceanside Harbor, Del Mar Boat Basin at Marine Corps Base Camp Pendleton, Mission Bay, and San Diego Bay. Pete said that his Board has augmented the \$100,000 of funding from the Surface Water Ambient Monitoring Program (SWAMP) by 10 percent using unspent contract laboratory funds.

SCCWRP is working with local agencies to finalize the program workplan. Status and trend monitoring will be based on a probabilistic study design that is compatible with SWAMP. Focused sampling efforts, such as for dissolved copper in marinas, may also be accomplished. The program plans to sample for dissolved copper at 30 stations in 12-14 marina areas. Pete expects monitoring to begin in August 2005. Water samples will be taken for trace metal analysis, toxicity testing, and toxicant identification evaluations (TIEs). Six TIEs will be done to assist in determining which chemicals in Bay water are responsible for causing toxicity.

- The owners of Kona Kai Marina provided a summary of monitoring data from California water bodies to DPR as an attachment to the previously mentioned letter. The Kona Kai Marina (perhaps in conjunction with a number of other San Diego Bay marinas) had contracted with the consulting firm Tetra Tech to do a literature search for copper data in the state.

A look at the data table suggests that Tetra Tech contacted staff from various Regional Boards to obtain ambient surface water data on copper. Much of the data is not specific to marinas or boatyards. Some are bay, channels, or creek samples. In fact, it is difficult to tell where exactly some of the monitoring stations are without further inquiries, but this summary could be useful for verifying the workgroup's own list of California monitoring studies. **Action Item:** Nan will determine if there is new information here that can be incorporated into the workgroup's monitoring study document. Nan mentioned that he only has a hard copy of the summary.

Beyond this data collection effort, the owners of the Kona Kai Marina have expressed their interest in possibly working with DPR to assess copper levels in marinas elsewhere in the State. This could include gaining cooperation from other marina owners in future sampling efforts. The owners of the Kona Kai Marina have also offered their marina facilities for any special studies.

Other Items/Next Meeting/Adjourn:

- Nan confirmed with the workgroup that meeting would continue to be held at a bimonthly interval.
- The next Copper Sub-Group meeting is Thursday, July 14, 2005.

Meeting Notes Prepared by: Nan Singhasemanon (DPR) with notetaking assistance from Betty Yee (Region 5). Thanks, Betty!

Copper Antifouling Paint Sub-Workgroup (Copper Sub-Group)									
Participant	Agency	Email Address	Phone Number	Attendance					
				3/11/2004	5/13/2004	9/9/2004	1/13/2005	5/26/2005	
Acosta, Vic	Dept. of Pesticide Regulation	vacosta@cdpr.ca.gov	(916) 445-3908		Yes	Yes	Yes		
Amah, Ginachi	RWQCB 4	gamah@waterboards.ca.gov	(213) 576 6685						
Arias, Christina	RWQCB 9	carias@waterboards.ca.gov	(858) 627-3931	Yes	Yes				
August, Mike	Dept. of Parks & Recreation	maugu@parks.ca.gov	(916) 653-9962	Yes	Yes			Yes	
Bacey, Nina	Dept. of Pesticide Regulation	nbacey@cdpr.ca.gov	(916) 445-3755				Yes		
Boles, Jerry	Dept. of Water Resouces	bolesj@water.ca.gov	(530)529-7326	Yes					
Boullion, Tom	Dept. of Water Resouces	tomb@water.ca.gov	(530) 529-7307		Yes				
Brown, Paul	Port of San Diego	pbrown@portofsandiego.org	(619) 686-6597				Yes	Yes	
Byerly, Peggy	Dept. of Pesticide Regulation	pbyerly@cdpr.ca.gov	(714) 279-7693	Yes					
Candelaria, Linda	RWQCB 8	lcandelaria@waterboards.ca.gov	(909) 782-4906	Yes	Yes	Yes	Yes	Yes	
Chavira, Ray	U.S. EPA Region 9	Chavira.Raymond@epamail.epa.gov	(415) 947-4218			Yes		Yes	
Davy, Paul	San Diego Co. Ag. Commissioners	paul.davy@sdcountry.ca.gov	(858) 694-3122				Yes	Yes	
Dobalian, Lesley	RWQCB 9	ldobalian@waterboards.ca.gov	(858) 637-7139	Yes		Yes	Yes	Yes	
Edwards, Diane	SWRCB	dedwards@waterboards.ca.gov	(916) 341-5908	Yes	Yes	Yes	Yes	Yes	
Flood, Harold	Dept. of Boating & Waterways	hfflood@dbw.ca.gov	(916) 263-8165			Yes			
George, Robert	U.S. Navy	robert.george@navy.mil	(619) 553-2776				Yes		
Gonzalez, Jamie	UC Extension Sea Grant Program	jagonzalez@ucdavis.edu	(858) 694-3414		Yes	Yes	Yes		
Gregg, Jack	California Coastal Commission	jgregg@coastal.ca.gov	(415) 904-5246			Yes			
Hosea, Bob	Dept. of Fish and Game	Bhosea@ospr.dfg.ca.gov	(916) 358-2954	Yes					
Huckaby, Corinne	RWQCB 3	chuckaby@waterboards.ca.gov	(805) 549-3504	Yes					
Johnson, Leigh	UC Extension Sea Grant Program	ljohnson@ucdavis.edu	(858) 694-2852		Yes			Yes	
Kozelka, Peter	U.S. EPA Region IX	kozelka.peter@epamail.epa.gov	(415) 972-3448	Yes					
Kubiak, Rachel	Dept. of Pesticide Regulation	rkubiak@cdpr.ca.gov	(916) 323-5143	Yes		Yes	Yes	Yes	
Lee, Marshall	Dept. of Pesticide Regulation	mlee@cdpr.ca.gov	(916) 324-4269			Yes		Yes	
Little, Dan	RWQCB 5	dlittle@waterboards.ca.gov						Yes	
Looker, Richard	RWQCB 2	rlooker@waterboards.ca.gov	(510) 622-2451	Yes	Yes	Yes	Yes		
Matuk, Vivian	California Coastal Commission	vmatuk@coastal.ca.gov	(415) 904-6905	Yes	Yes	Yes	Yes		
Michael, Pete	RWQCB 9	pmichael@waterboards.ca.gov	(858) 467-2990		Yes	Yes	Yes	Yes	
Moran, Kelly	TDC Environmental	kmoran@tdcenvironmental.com	(650) 627-8690		Yes	Yes	Yes	Yes	
Newman, Jenny	RWQCB 4	jnewman@waterboards.ca.gov	(213) 576-6808				Yes		
Redfield, Tanya	Contra Costa County	tredfiel@pw.co.contra-costa.ca.us	(925) 313-2313			Yes			
Rivera, Ignacio	U.S. Navy	ignacio.rivera@navy.mil	(619) 553-2373			Yes	Yes		
Singhasemanon, Nan	Dept. of Pesticide Regulation	nsinghasemanon@cdpr.ca.gov	(916) 324-4122	Yes	Yes	Yes	Yes	Yes	
Smith, Ty	Dept. of Toxic Substances Control	tsmith@dtsc.ca.gov	(916) 323-0288					Yes	
Sniderman, Lisa	California Coastal Commission	lsniderman@coastal.ca.gov	(415) 904-5270		Yes	Yes		Yes	
Von Langen, Peter	RWQCB 3	pvonlangen@waterboards.ca.gov	(805) 549-3688			Yes			
Trumbo, Joel	DFG	jtrumbo@ospr.dfg.ca.gov	(916) 358-2952			Yes			
Ward, Kim	SWRCB	kward@waterboards.ca.gov	(916) 341-5576	Yes	Yes		Yes		
Yee, Betty	RWQCB 5	byee@waterboards.ca.gov	(916) 464-4643		Yes	Yes		Yes	

Interested Party							
Name	Agency	Email Address					
Bireley, Richard	Dept. of Pesticide Regulation	rbireley@cdpr.ca.gov					
Blossom, Neal	American Chemet	nblossom@chemet.com					
Breninger, Dave		dbreninger@pcwa.net					
Chaney, Van	Dept. of Pesticide Regulation	ycheney@cdpr.ca.gov					
G. Fred Lee	G. Fred Lee & Associates	qfredlee@aol.com					
Goh, Kean	Dept. of Pesticide Regulation	kqoh@cdpr.ca.gov					
Gouveia, Patricia	SWRCB	pgouveia@waterboards.ca.gov					
Krause, Bill	Ramkote	ramkote@aol.com					
Monk, Steven	Dept. of Pesticide Regulation	smonk@cdpr.ca.gov					
O'Mally, Dan	SD Marina LLC	domalley@mpowercom.net					
Oppen, Richard	Oppen & Varco LLP	roppen@envirolawyer.com					
Rentz, Mark	Dept. of Pesticide Regulation	mrentz@cdpr.ca.gov					
Sanders, John	Dept. of Pesticide Regulation	jsanders@cdpr.ca.gov					
Schwartzbart, David	RWQCB 3	dschwartzbart@waterboards.ca.gov					
Sheids, Ralph	Dept. of Pesticide Regulation	rshields@cdpr.ca.gov					
Past Participants							
Name	Agency	Reason for Leaving	Attendance				
			3/11/2004	5/13/2004	9/9/2004	1/13/2005	
Blocker, John	San Diego Co. Ag. Commissioners	retirement		Yes	Yes		
Brunetti, Kathy	Dept. of Pesticide Regulation	retirement				Yes	
Christmann, Rebecca	RWQCB 4	change in responsibility	Yes				
Goff, Gina	Dept. of Boating & Waterways	agency change	Yes	Yes			
Lee, Derek	Coastal Commission	agency change	Yes				
Pap, Ruby	Bay Conservation & Development C	agency change	Yes	Yes			
Reid, Mike	SWRCB	retirement	Yes	Yes			
Seligman, Peter	U.S. Navy	retirement	Yes	Yes	Yes		
Soderberg, Shiela	RWQCB 3	change in responsibility	Yes				