V. Rodriguez

DEPARTMENT OF THE NAVY
COMMANDER NAVY REGION SOUTHWEST
937 NO. HARBOR DR.
SAN DIEGO, CALIFORNIA 92132-0058

IN REPLY REFER TO:
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July 30, 2008

Item No. 08
Doc. No. 14

Executive Officer
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340

Mr. John Robertus:

SUBJECT: COMMENTS REGARDING ADOPTION OF WASTE DISCHARGE REQUIREMENTS FOR CONTINENTAL MARITME Tentative ORDER NO. R9-2008-0049 NPDES PERMIT NO. CA0109142

Enclosure (1) is Navy comments regarding the subject tentative waste discharge requirements for Continental Maritime of San Diego Inc.

If there are any questions regarding this submittal, please feel free to contact myself or Mr. John Locke at (619) 532-2730.

Sincerely,

Brian S. Gordon

BRIAN S. GORDON
Director, Compliance and
Technical Division
By direction

Enclosure (1) Comments for Waste Discharge Requirements for Continental Maritime Tentative Order No R9-2008-0049 NPDES Permit No. CA0109142

SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD
2008 JUL 30 P 3:28

SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD
2008 JUL 30 P 3:09

COMMENTS FOR WASTE DISCHARGE REQUIREMENTS
FOR CONTINENTAL MARITIME
TENTATIVE ORDER NO. R9-2008-0049
NPDES PERMIT NO. CA0109142

1. High risk areas (Definitions, Page A.3): The definition is broad, nonspecific, and could arguably be applied to any industrial area. The term "significant quantities" needs to be added to the definition for high risk areas. Significant quantities is already defined in the permit as "volumes, concentrations, or masses of pollutants that can cause or threaten to cause pollution, contamination, or nuisance; adversely impact human health or the environment; and/or cause or contribute to a violation of any applicable water quality standard for the receiving water or any receiving water limitation."

2. Split Sample (Monitoring and Reporting Program, Attachment E, Page E-3): A split sample is required each year to determine the most sensitive species. The permit should state clearly that only a single sample must be split not all of the samples collected.

3. Species List (Monitoring and Reporting Program, Attachment E, Page E-4): A list of species is provided. The permit should clearly state that only one of the species may be selected for testing and not all of them at once.

4. Next Qualifying Storm Event (Monitoring and Reporting Program, Attachment E, Page E-5): Permit states that sampling is required within 14 days, if test is not acceptable. This cannot be completed if there is no qualifying storm event. The permit needs the following statement added "within 14 days *or the next qualifying storm event*".

5. Constituent Table (Monitoring and Reporting Program, Attachment E, Page E-9): Permit shows a table of constituents that must be sampled for each storm event. The tentative permit did not include a condition or methodology to reduce monitoring or eliminate constituents when the constituents are not found in the storm water samples. We recommend that monitoring be reduced to once every year if the constituent is not detected after the first two storm events, and eliminated if not detected in the second year of monitoring. This eliminates unnecessary

monitoring requirements and allows resources to be redirected to implementation of Best Management Practices to prevent and minimize pollutants in storm water discharges.

6. Spills Definition (Monitoring and Reporting Program, Attachment E, Page E-11): Tentative permit requires reporting all spills/illicit discharges each quarter without defining what constitutes a spill. Reporting should be limited to reportable spills (into a storm drain, receiving water, above an RQ, or reportable in accordance will any other applicable law/regulation). As currently written, this requirement could be applied to a drop of oil and at some point would be infeasible to implement for large, complex facilities. In addition, the use of the term "Significant Materials", which is defined in the permit, would add clarity to what types of spills must be reported.

7. Economic Considerations (Monitoring and Reporting Program, Attachment E, Page E-6 & E-10): The tentative permit requires sampling the next 4 storm events if there is a failure in acute toxicity (Page E-6). In addition, the permit no longer limits storm water sampling to normal operating hours (Page E-10). The large number of additional samples and the potential for sampling during non-normal business hours present a large cost increase and logistical issues. These requirements are very expensive and may impose undue economic hardship.

Before a Regional Board imposes these requirements, the Porter-Cologne Act, Section 13241 requires that the RWQCB "shall take into consideration" factors including "economic considerations" and "water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area." Through Porter-Cologne, the California Legislature required consideration of economics and environmental benefits when establishing water quality standards, and again when issuing discharge permits. The cost of these additional monitoring requirements within the tentative permit, do nothing directly to improve water quality within San Diego Bay nor protect the beneficial uses of the bay, and are not reasonable requirements to improve the water quality.

A statement of the goals to be achieved by the proposed monitoring and an explicit consideration of these goals

given the costs should be presented by the RWQCB. The reasons for choosing the next 4 storm events, rather than a lesser number, for example 1 or 2 storm events should be provided. Reducing the monitoring requirements allows resources to be directed toward structural and/or procedural BMPs while providing adequate monitoring to demonstrate the BMPs are effective and the discharge is in compliance with the permit conditions. The Navy requests that the RWQCB provide an economic analysis of these monitoring conditions as required under Porter-Cologne Section 13241. This economic analysis makes the regulatory process more transparent.

8. Acute toxicity standard (Section VII, Compliance Determination, Page 23): The proposed standard includes a statistical one-tailed hypothesis t-test and also requires that Continental Maritime pass the t-test each and every time at the end of the pipe. The previous toxicity standard was based on a 90% survival threshold 50% of the time.

Modification of the toxicity threshold from 90% survival to a t-test acknowledges the appropriate use of statistical evaluations in identifying when a test result is different from a set of controls. However, the t-test alone does not take into account the fact that each toxicity test method has inherent variability not captured by the t-test. The method variability, described by the Minimum Significant Difference (MSD), is the smallest difference that is measurable between a control sample and another test treatment and is specific to each species and endpoint. The EPA has described the MSD at length (EPA, 2000) and identifies the use of MSD as part of test acceptability criteria. In this document, the EPA stated: *"The most significant recommendation is to use and report the values for the percent minimum significant difference (PMSD) with all WET data results..... Using this information, the regulatory authority and permittees can better evaluate WET test results."*

The 90th percentile MSD value describes a significant difference from control that 90% of laboratories would be able to correctly identify. Thus, the 90th percentile MSD value should be included as part of the statistical evaluation. Doing this will account for the full range in method variability and will more accurately reflect when a result can be declared significantly toxic.

The modification of passing toxicity 50% of the time requirement to passing toxicity 100% of the time is overly conservative. The underlying assumption for Whole Effluent Toxicity (WET) testing is that the toxicity measurement is representative of the exposure conditions expected in the receiving environment. The Navy's four-year study (Katz et al., 2006) showed that less than 1% of receiving water samples measured directly outside outfalls exhibited toxicity and that exposure conditions (spatial extent and duration) in the receiving environment were clearly less than those represented by first flush samples collected at the end-of-pipe. Thus the 50% of the time criterion is still a conservative requirement to ensure that receiving waters are protected.

TOXICITY RECOMMENDATION:

a) Use the 90th percentile PMSD test statistic when declaring a toxicity test result as "toxic"
b) Use the 50% of the time criterion to identify when a receiving water impact is likely to occur

REFERENCES:

EPA, 2000. *Understanding and accounting for method variability in whole effluent toxicity applications under the national pollutant discharge elimination system program.* USEPA, OWM, EPA 833-R-00-003, June 2000. (http://meso.spawar.navy.mil/Newsltr/Refs/833-R-00-003.pdf)

Katz, C, G. Rosen, and E. Arias, 2006. *Storm Water Toxicity Evaluation at Naval Station San Diego, Naval Submarine Base San Diego, Naval Amphibious Base Coronado, and Naval Air Station North Island*, SPAWAR Systems Center San Diego Technical Report 1938, May 2006, 180 pp.