

NORTHROP GRUMMAN

**Item No. 08
Doc. No. 8**

Vicente Rodriguez

AN DIEGO REGIONAL
WATER QUALITY
CONTROL BOARD
Northrop Grumman Corporation
Ship Building
Continental Maritime

1995 Bay Front Street
San Diego, California 92113

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June 11, 2008

John H. Robertus
Executive Officer
California Regional Water Quality Control Board
Region 9, San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123

Hand Delivery

Reference: CR: 215572: VRodriguez

Dear Mr. Robertus:

Continental Maritime of San Diego, Inc. (CM), hereby submits comments to Tentative Order No. R9-2008-0049, NPDES No. CA0109142.

General Comment

Comment: The Cover Page of the Order has an incorrect NPDES Number CA0109134 (should be CA0109142).

Findings

Section II.O. Anti-Backsliding Requirement

Anti-backsliding provisions require effluent limits in any subsequent permit or reissuance to be at least as stringent as those in the prior permit, with some situation-specific exceptions where limitations may be adjusted if there is sufficient demonstrable basis for an alternative threshold. Changes have been made at the facility since the previous Order. The discharge of fire protection water has been eliminated by the Discharger and is no longer authorized under this Tentative Order. Thus, effluent limits and specifications applicable to the fire protection water have been removed.

Comment: Because of this change, acute and chronic toxicity testing of the facility's regular effluent discharge is no longer required. All references to toxicity testing in the Tentative Order should pertain to storm water monitoring only.

Tentative Order R9-2008-0049, NPDES No. CA0109142

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Limitations and Discharge Requirements

2. a. i. Toxicity Reduction Evaluation (TRE)

A TRE is a process review conducted to evaluate material storage, handling, and use policies and procedures, identify potential causative agents of toxicity, isolate the sources, evaluate the effectiveness of any control option or practice, and confirm the reduction of toxicity. Steps may include the collection of relevant data and information, additional testing, and an evaluation of the facility operations, maintenance practices, and the manner of storage and use of chemicals on-site. If the cause of toxicity cannot be determined with this macro review process, a Toxicity Identification Evaluation (TIE) may be required. A TIE is an in-depth series of toxicity tests that is able to isolate and identify the cause of toxicity in a water sample.

Section VI.C.2.a.i. and ii.

An Initial Investigation TRE Workplan must be submitted to the Board within 90 days of the Order adoption date. This workplan is a 1 – 2 page summary of the steps that will be taken if any acute toxicity test performed by the Discharger is reported as “Fail”. If a sample from the Discharger is reported as “Fail” during a storm water event, the Discharger will be required to conduct an accelerated testing program consisting of additional tests (described later). If the Discharger reports another “Fail” during the accelerated phase, initiation of the steps detailed in the TRE workplan is required to begin within 14 days of receiving notification of a “Fail” result. At this time, the Discharger will be required to develop and implement a Detailed TRE Workplan, which will be a more specific report of the actions taken, their findings, steps taken to prevent recurrence of toxicity, as well as the schedule for all these actions and events.

Comment: The Order language should be clarified to specify if a “Fail” occurs during accelerated testing with a storm water sample, and a TIE is required, that the TIE should be performed on the actual storm water sample material that resulted in toxicity (not material from the subsequent storm event). Note: the Discharger will need to collect additional sample volume when in an accelerated testing phase, to allow a TIE to be conducted with the same sample.

Comment: It should be noted that EPA TIE Guidance (EPA/600/6-91/003) recommends that a number of samples over time be tested to assess variability of the discharge prior to initiating a TIE. A recommendation can be provided in the TRE Plan. A suggestion would be to allow some flexibility to assess magnitude and consistency among the first couple of samples during accelerated testing prior to determining when a TIE should be initiated.

III. D. Discharge Prohibitions

Discharging the first flush of storm water collected is prohibited, unless the pollutants in the discharge are reduced to the extent that meets compliance with the acute toxicity limits of this Order.

Comment: This section requires clarification, as it states that any storm water discharge must meet the acute toxicity limits. However, the Order requires acute toxicity testing only once per year.

Attachment E – MRP

IX. 3. b. Sampling and Analysis

To qualify a storm event for collection, the rain must be preceded by a minimum 7-day dry period. The first storm event of the storm season that produces a discharge should be targeted, as well as at least one additional storm event. The Discharger should collect storm water samples during the first hour of discharge from every discharge location required by their permit. Analytical chemistry (Table E-3 in Section E.IX.A.3.c.) is required for two storm events. Acute toxicity testing is required only for one storm event. Each storm water discharge site requires acute testing once per calendar year.

Comment: Section V.A. uses the term “calendar year” under monitoring frequency. The Order needs to be clarified whether a one-year period goes from January to December (calendar) or from July to June (Order). This is especially important with regards to storm water monitoring and a storm season that goes from October to May. Samples must to be collected and tested at a different time of the year from the previous sampling events (this being a 5-year permit, the Discharger will likely want to test during different months of the storm season).

Comment: Request flexibility in the sampling schedule, as the Discharger is dependant on when an actual storm event occurs. In addition to annual toxicity testing, during Years 1 and 5 of the permit, the Discharger will also be required to have analytical chemistry (as specified in the Order) performed on these same effluent samples.

Comment: Section V.A. says that, during Years 1 and 5, each sample shall be analyzed for all other monitored parameters, in addition to the annual toxicity testing. However, Table E-3 of Section E.IX.A.3.c. states that analytical chemistry will be performed twice each year. Clarification needs to be made as to what exactly is required during Years 1 and 5.

Acute Toxicity Testing Requirements

Split the storm water sample and perform 2 acute toxicity tests, one with a vertebrate species and the other with an invertebrate species. The preferred species include the Pacific topsmelt (*Atherinops affinis*) and the mysid shrimp (*Americamysis bahia*). (Section E.V.A.) The Tentative Order requires the conduct of acute tests with two different species, then states “continue to conduct routine toxicity testing using the single, most sensitive species.”

Comment: Request clarification of this language, as the Discharger is only required to conduct acute testing once per year. Does this mean, perform the 2 tests and determine the most sensitive species the 1st year, and then test in subsequent years only with the most sensitive species? Or, is the Discharger required to test 2 species in each year?

Perform a 96-hour static-renewal acute toxicity test, following the procedures in the acute protocol EPA/821/R-02/012, 2002. Testing will be performed with a single concentration of undiluted effluent sample, concurrent to a test control for comparison.

Perform a statistical analysis on the test results (see Statistical Analysis below), comparing the effluent results to the control. If there is no statistical difference, the effluent sample receives a "Pass" and the Discharger continues with their regular monitoring program. If there is a statistical difference, the effluent sample receives a "Fail".

Comment: Results relative to control also need to be greater than the lower 10% percentile PMSD as specified in Quality Assurance Section E.V.D.7. of the Permit. This section references Table 3-6 in EPA/833/R-00/003, 2000. This clarification needs to be added to Section E.V.C. Compliance Determination.

If a "Fail" occurs, the Discharger is required to initiate an accelerated testing program. If the source of toxicity is known based on review of housekeeping records, the Discharger is required to conduct only one additional test within 14 days of being notified of the failure, or during the next storm event (if another sample cannot be collected within those 14 days). If this additional test receives a "Pass", the Discharger returns to their regular testing frequency.

Comment: (Section E.V.E.1.) Suggest adding "likely" before "source of toxicity" and "and or previous investigations that have identified the cause of toxicity" after housekeeping records.

If the source of toxicity is not known (when entering an accelerated testing program), the Discharger is required to conduct an acute toxicity test on the next 4 storm water events that occur. If the results of all 4 tests receive a "Pass", the Discharger returns to their regular testing program.

If any one test receives a "Fail" during the accelerated testing program, the Discharger is required to initiate their TRE Workplan (as described earlier) within 14 days of being notified of the test failure.

If any acute toxicity test does not meet the minimum test acceptability criteria (as defined in the EPA test protocol), the test is deemed invalid and retesting must occur within 14 days of notification, or during the next storm event.

Comment: In Section E.V.D.6, the paragraph discusses reporting requirements when performing multi-concentration tests. However, all acute toxicity tests required by this Order are performed using a single concentration of undiluted sample material. Therefore, this paragraph does not apply to this Order and should be struck or designated 'not applicable'.

If the test organisms used to meet the requirements of this Order are not cultured in-house, a reference toxicant test is required to be conducted concurrent to every effluent test. Reporting of acute toxicity results should include: Pass or Fail rating, NOEC, LC50, and TUa values.

Comment: Because acute testing is performed with a single concentration, it should be noted that an accurate LC50 cannot be determined if more than 50% mortality occurs in the single concentration. Also, if more than 50% mortality occurs, a precise TUa value cannot be determined, as the LC50 is used to calculate the TUa value. Therefore, when more than 50% mortality occurs, it can only be accurately reported that the LC50 < 100% and the TUa > 1.0.

Statistical Analysis of Test Data

(Section E.V.C.) For acute toxicity tests with a single effluent concentration, a result of "Pass" or "Fail" is determined using a one-tailed hypothesis test called a t-test. The objective of this analysis is to determine if the survival in the effluent sample is significantly different from the survival in the control. For the single effluent concentration analysis, the t statistic shall be calculated and compared with the critical t (set at a 5% level of significance). If the calculated t does not exceed the critical t, the comparison between the effluent sample and the control is declared as not statistically different, and a result of "Pass" will be reported by the Discharger. If the calculated t does exceed the critical t, the comparison between the effluent sample and the control is declared as statistically different, and a result of "Fail" will be reported by the Discharger. Any result of "Fail" will require the Discharger to go into an accelerated testing phase, and if another "Fail" occurs in this phase, activation of the TRE program will be required.

Comment: Please refer to prior comments provided under the TRE section.

Section E.V.D.7.

Within-test variability of any acute toxicity test should be reviewed for acceptability and variability criteria, with regards to the upper and lower PMSD bounds. The calculated percent minimum significant difference (PMSD) must be within the acceptable range for the upper and lower PMSD bounds (90th and 10th percentiles), as specified in Table 3-6 of Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications Under the NPDES Program (EPA/833/R-00/003, 2000). Both the effluent and reference toxicant tests must meet this acceptability criterion. If excessive variability invalidates a test result, the Discharger is required to retest within 14 days of being notified of the result, or during the next discharge or storm event.

Comment: In addition to using statistical significance to determine a test exceedance, mean sample results relative to the concurrent control also need to be greater than the lower 10% percentile PMSD as specified in Quality Assurance Section E.V.A.4.g of the Acute Testing Requirements. It should be further clarified that the lower 10% percentile PMSD value is not an acceptability criterion, but rather used to avoid erroneously concluding that an effect exists when differences from control are small and consequently penalizing data that is less variable than typical (EPA/833/R-00/003, 20)

Section E 1.

CMSD has not been issued a sediment Cleanup and Abatement Order.

Comment: Delete language.

Section E. IX. Para. 3. a.

'Sampling of stored or contained storm water shall occur at the time the stored or contained storm water is released.'

Comment: Sampling of stored or contained storm water shall occur *prior to or* at the time the stored or contained storm water is released.

X 3. Table E.8 Monitoring Periods and Reporting Schedule.

Annual Sediment Analysis reporting is currently submitted with the Annual Storm Water Report due September 1st. Table E.8 of the Tentative Order would require reporting March 1st. Sediment sampling has already been conducted for the current 2008 report due September 1, 2008.

Comment : Continue sediment monitoring reporting on the current schedule of September 1st.

Attachment F - Fact Sheet

Section 1. B., para. 2.

CMSD has not been issued a sediment Cleanup and Abatement Order.

Comment: Delete language.

Section 2. B., para 3.

CMSD has not been issued a sediment Cleanup and Abatement Order.

Comment: Delete language.

Section E. 3.

The General Shipyard Permit for CMSD was Order 97-37 NPDES, No. CAG039002, **not** Order 97-36, NPDES CAG 039001. CMSD believes Order 97-36 was NASSCO or BAE (Southwest Marine). CMSD has not been issued a sediment Cleanup and Abatement Order.

Comment: Delete language.

June 11, 2008

Please feel free to call me at (619) 234-8851 ext. 531 if you have any questions or concerns regarding the above comments.

Sincerely,
CONTINENTAL MARITIME OF SAN DIEGO, INC.



Russell McCarthy
Manager, Environmental Health and Safety

Tentative Order R9-2008-0049, NPDES No. CA0109142