

ERRATA SHEET

TENTATIVE ORDER NO. R9-2009-0081
NPDES NO. CA0109185
WASTE DISCHARGE REQUIREMENTS
FOR THE
UNITED STATES DEPARTMENT OF THE NAVY
NAVAL BASE CORONADO
SAN DIEGO COUNTY

The following revisions will be made to tentative Order No. R9-2009-0080. Some changes/corrections below are shown in **bold and underline**/strikeout format to indicate added and removed language, respectively.

| Errata # | SECTION | REVISION |
|----------|--|---|
| 1. | <p>Limitations and Discharge Requirements</p> <p>Section V.A.</p> <p>Page 26</p> | <p>V. RECEIVING WATER LIMITATIONS</p> <p><u>The discharge of waste shall not cause, have the reasonable potential to cause, or contribute to an excursion above the following water quality objectives in the receiving water:</u></p> <p>A. Surface Water Limitation</p> <p>The discharge of waste shall not cause or contribute to an exceedance of any applicable water quality objective or standard contained in applicable statewide water quality control plans, the California Toxics Rule, or the San Diego Basin Plan.</p> <p><u>Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order. The discharge shall not cause the following in the receiving water:</u></p> <p>1. Physical Characteristics</p> |

| Errata # | SECTION | REVISION |
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| 2. | Limitations and Discharge Requirements Section V.A.7. Page 28 | 7. Other Water Quality Objectives a. CTR Priority Pollutants as specified in the Table of Paragraph (b)(1) of 40 CFR 131.38. b. Ocean Plan Water Quality Objectives as specified in Table B. |
| 3. | Monitoring and Reporting Program Attachment E Section V.E.3. Page E-17 | If one of the additional toxicity tests (in section V.E.1. or V.E.2.) are reported as “Fail” for acute toxicity, then, within 14 days of receipt of this test result, at the next storm event, the Discharger shall initiate a TRE as specified in section VI.C.2.a.ii of the Order. |
| 4. | Monitoring and Reporting Program Attachment E Section IX.A.3.c. Page E-21 Table E-13 Parameter Column | Acute Toxicity ⁴ Acute Toxicity Other Pollutants ⁵ Pollutants ⁴ Remaining CTR Priority Pollutants ⁶ Pollutants ⁵ |

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|----------|--|--|
| 5. | Monitoring and Reporting Program Attachment E Section IX.A.3.c. Page E-21 Table E-13 Footnote * | *Sampling shall occur during storm events, <u>or if collected, prior to release to receiving water</u> . If there are no storm events during the year, then sampling shall occur as soon as possible. If there are no storm events during the fifth year and conditions for administrative extension are met, then sampling shall occur as soon as possible. |
| 6. | Monitoring and Reporting Program Attachment E Section IX.A.3.c. Page E-21 Table E-13 Footnotes 4, 5, and 6 | ⁴ The presence of acute toxicity in the storm water shall be determined as specified in section V of this MRP. ⁵⁴ Pollutants that are likely to be present in storm water discharges in significant quantities shall be sampled. The pollutants shall be selected based upon the pollutant source assessment required in section VII of the SWPPP requirements contained in Attachment G, visual observations, and inspection records. If these pollutants are not detected in significant quantities after two consecutive sampling events, the Discharger may eliminate the pollutant from future analysis until the pollutant is likely to be present again. The Discharger shall select appropriate analytical test methods that indicate the presence of pollutants in storm water discharges in significant quantities. ⁶⁵ As specified in the Table of Paragraph (b)(1) of 40 CFR 131.38. |

| Errata # | SECTION | REVISION |
|----------|--|---|
| 7. | Monitoring and Reporting Program Attachment E Section X.B.3. Page E-24 Table E-14 | Annual Storm Water Report (IX.A.6 of this MRP) First day of calendar month following permit effective date or on permit effective date if that date is first day of the month July 1 through June 30 September 1 Separate report submitted with Annual Report |
| 8. | Tentative Order (global) | Other typographical errors and other minor corrections to the wording in the tentative Order have been or will be made prior to sending out the final version. |

ERRATA SHEET FOR TOXICITY TESTING
TENTATIVE ORDER NO. R9-2009-0081
NPDES NO. CA0109185
WASTE DISCHARGE REQUIREMENTS
FOR THE
UNITED STATES DEPARTMENT OF THE NAVY
NAVAL BASE CORONADO
SAN DIEGO COUNTY

ERRATA #9

- Monitoring and Reporting Program, Attachment E, Section IV.
 Table E-2, Effluent Monitoring for Steam Condensate
 Table E-3, Effluent Monitoring for Diesel Engine Cooling Water
 Table E-4, Effluent Monitoring for Pier Boom Cleaning
 Table E-5, Effluent Monitoring for Utility Vault and Manhole Dewatering
 Table E-6, Effluent Monitoring for Pier Washing
 Table E-7, Effluent Monitoring for ROWPU Product Water
 Table E-8, Effluent Monitoring for Boat Rinsing
 Table E-9, Effluent Monitoring for Swimmer Rinsing
 Table E-10, Effluent Monitoring for Marine Mammal Enclosure Cleaning
 Table E-11, Effluent Monitoring for Miscellaneous Discharges

| <i>Non-Conventional Pollutants</i> | | | | |
|---|------------------|-------------|---------------------------------|----------|
| <u>Acute Toxicity</u> | <u>Pass/Fail</u> | <u>Grab</u> | <u>1/five year permit cycle</u> | <u>1</u> |
| <u>Chronic Toxicity</u> | <u>TUc</u> | <u>Grab</u> | <u>1/five year permit cycle</u> | <u>1</u> |

ERRATA #10
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V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity

A.1. Monitoring Frequency

The Discharger shall analyze a representative sample of the discharge for acute toxicity using a grab effluent sample.

The Discharger must analyze a representative sample from each area at the Facility at which industrial activities are conducted for acute toxicity

during at least two storm water discharge events annually on grab effluent samples. If a single representative sample for an industrial area is not feasible, monitoring of individual discharge points for that area is required.

Once each year (July-June), at a different time of year from the previous years, the Discharger shall split a single storm water and a single non-storm water effluent sample and concurrently conduct two toxicity tests using a fish and an invertebrate species; the Discharger shall then continue to conduct routine toxicity testing using the single, most sensitive species, including testing for accelerated monitoring, until the next sensitivity testing the following year. The split sample from a storm water location and from a non-storm water location must be from a sample location ~~s~~ which most expected toxicity and, if possible, at a different location from previous years.

During years 1 and 5 of the Order, a split of each sample shall be analyzed for all other monitored parameters at the minimum frequency of analysis specified by the effluent monitoring program. For storm water sampling, sampling shall occur during storm events [or if collected, prior to release to receiving water](#). If there are no storm events in the first year then sampling shall occur as soon as possible, likewise for the fifth year, if conditions for administrative extension are met.

B.2. Marine and Estuarine Species and Test Methods

Species and short-term test methods for estimating the acute toxicity of NPDES effluents are found in the fifth edition of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (EPA/821/R-02/012, 2002; Table IA, 40 CFR Part 136). In a 96-hour static renewal test, the renewal shall be made at 48-hours using the original effluent sample. The Discharger shall conduct 96-hour static renewal toxicity tests with the following vertebrate species:

- The topsmelt, *Atherinops affinis* [Larval Survival and Growth Test Method 1006.0 (Daily observations for mortality make it possible to calculate acute toxicity for desired exposure periods (i.e., 96-hour Pass-Fail test)] in the first edition of Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms (EPA/600/R-95/136, 1995) (specific to Pacific Coast waters));

And the following invertebrate species:

- The West Coast mysid, *Holmesimysis costata* (Table 19 in the acute test methods manual) (specific to Pacific Coast waters);

- The mysid, *Americamysis bahia*, only if *Holmesimysis costata* is not available. (Acute Toxicity Test Method 2007.0).

C.3. Compliance determination

The determination of Pass or Fail from a single-effluent-concentration (paired) acute toxicity test shall be determined using a one-tailed hypothesis test (t-test). As specified in Section 11.3 of the fifth edition of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (EPA/821/R-02/012, 2002), the t statistic for the single-effluent concentration acute toxicity test shall be calculated and compared with the critical t set at the 5% level of significance. If the calculated t does not exceed the critical t, then the mean responses for the single treatment and control are declared “not statistically different” and the Discharger shall report “Pass” on the DMR form. If the calculated t does exceed the critical t, then the mean responses for the single treatment and control are declared “statistically different” and the Discharger shall report “Fail” on the DMR form. This Order requires additional toxicity testing if the effluent limitation for acute toxicity is reported as “Fail”.

D.4. Quality Assurance

1.a. Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manual previously referenced. Additional requirements are specified, below.

2.b. This discharge is subject to a determination of Pass or Fail from a single-effluent-concentration (paired) acute toxicity test using a one-tailed hypothesis test called a t-test. The acute instream waste concentration (IWC) for this discharge is 100% effluent. The 100% effluent concentration and a control shall be tested.

3.c. Control water shall be prepared and used as specified in the test methods manual Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (EPA/821/R-02/012, 2002); and/or, for *Atherinops affinis*, Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms (EPA/600/R-95/136, 1995). If the dilution water is different from test organism culture water, then a second control using culture water shall also be used. If the use of artificial sea salts is considered provisional in the test method, then artificial sea salts shall not be used to increase the salinity of the effluent

sample prior to toxicity testing without written approval by the permitting authority.

4.d. If organisms are not cultured in-house, then concurrent testing with a reference toxicant shall be conducted. If organisms are cultured in-house, then monthly reference toxicant testing is sufficient. Reference toxicant tests and effluent toxicity tests shall be conducted using the same test conditions (e.g., same test duration, etc.).

5.e. If either the reference toxicant or effluent toxicity tests do not meet all test acceptability criteria in the test methods manual, then the Discharger must resample and retest at the next storm event.

6.f. Not Applicable - Following Paragraph 12.2.6.2 of the test methods manual, all acute toxicity test results from the multi-concentration tests required by this permit must be reviewed and reported according to USEPA guidance on the evaluation of concentration-response relationships found in Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing (40 CFR 136) (EPA/821/B-00/004, 2000).

7.g. Within-test variability of individual toxicity tests should be reviewed for acceptability and variability criteria (upper and lower PMSD bounds) should be applied, as directed under Section 12.2.8 - Test Variability of the test methods manual, Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms. Under Section 12.2.8, the calculated percent minimum significant difference (PMSD) for both reference toxicant test and effluent toxicity test results must be compared with the upper and lower PMSD bounds variability criteria specified in Table 3-6 - Range of Relative Variability for Endpoints of Promulgated WET Methods, Defined by the 10th and 90th Percentiles from the Data Set of Reference Toxicant Tests, taken from Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications Under the National Pollutant Discharge Elimination System Program (EPA/833/R-00/003, 2000), following the review criteria in Paragraphs 12.2.8.2.1 and 12.2.8.2 of the test methods manual. Based on this review, only accepted effluent toxicity test results shall be reported on the DMR form. If excessive within-test variability invalidates a test result, then the Discharger must resample and retest within 14 days.

E.5. Accelerated Toxicity Testing and TRE/TIE Process

1.a. If the results of acute toxicity monitoring are reported as "Fail" and the likely source of toxicity is known (e.g., a temporary

plant upset), then the Discharger shall conduct one additional toxicity test using the same species and test method. This test shall begin at the next storm event. If the additional toxicity test does not result in a determination of “Fail”, then the Discharger may return to their regular testing frequency. The determination of the likely source of toxicity must be demonstrated by implementing the first two parts of the TRE workplan (VI.C.2.a.i. (a) and (b) of this Order.

2.b. If the results of acute toxicity monitoring are reported as “Fail” and the source of toxicity is not known, then the Discharger shall conduct accelerated toxicity testing using the same species and test method. The accelerated toxicity monitoring shall include monitoring of the next 4 storm events. This testing shall begin at the next storm event. If none of the additional toxicity tests result in a determination of “Fail”, then the Discharger may return to the regular testing frequency.

3.c. If one of the additional toxicity tests (in section V.E.1 or V.E.2) are reported as “Fail” for acute toxicity, then, at the next storm event, the Discharger shall initiate a TRE as specified in section VI.C.2.a.ii of the Order.

4.d. Any TIE conducted as a part of the TRE as specified in section VI.C.2.a of this Order shall be based on the same sample that exhibited toxicity and from samples collected during subsequent storm events. Therefore, the discharger shall collect additional sample volume, sufficient for a TIE, when in an accelerated testing phase.

F.6. Reporting of Acute Toxicity Monitoring Results

1.a. A full laboratory report for all toxicity testing shall be submitted as an attachment to the DMR for the month in which the toxicity test was conducted and shall also include: the toxicity test results—for determination of Pass/Fail; LC50; TU_a = 100/LC50; NOAEC; TU_a = 100/NOAEC—reported according to the test methods manual chapter on report preparation and test review; the dates of sample collection and initiation of each toxicity test; all results for effluent parameters monitored concurrently with the toxicity test(s); and progress reports on TRE/TIE investigations.

2.b. The Discharger shall notify the Regional Water Board in writing within 14 days of an acute toxicity test resulting in a determination of “Fail”. This notification shall describe actions the Discharger has taken or will take to investigate, identify, and correct the causes of toxicity; the status of actions required by this Order;

and schedule for actions not yet completed; or reason(s) that no action has been taken.

B. Chronic Toxicity

1. Monitoring Frequency

The permittee shall conduct annual chronic toxicity tests on effluent grab samples. Each year (July-June), at a different time of year from the previous years, the permittee shall split an effluent sample and concurrently conduct two toxicity tests using a fish and an invertebrate species; the permittee shall then continue to conduct routine toxicity testing using the single, most sensitive species, until the next sensitivity testing the following year.

Chronic toxicity test samples shall be collected for each point of discharge at the designated NPDES sampling station for the effluent (i.e., downstream from the last treatment process and any in-plant return flows where a representative effluent sample can be obtained). During years 1 and 5 of the permit, a split of each sample shall be analyzed for all other monitored parameters at the minimum frequency of analysis specified by the effluent monitoring program.

2. Marine and Estuarine Species and Test Methods

Species and short-term test methods for estimating the chronic toxicity of NPDES effluents are found in the first edition of *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995) and applicable water quality standards; also see 40 CFR Parts 122.41(j)(4) and 122.44(d)(1)(iv) and 40 CFR Part 122.21(j)(5)(viii) for POTWs. The permittee shall conduct a static renewal toxicity test with the topsmelt, *Atherinops affinis* (Larval Survival and Growth Test Method 1006.0 (Daily observations for mortality make it possible to calculate acute toxicity for desired exposure periods (i.e., 7-day LC50, 96-hour LC50, etc.)); a static nonrenewal toxicity test with the giant kelp, *Macrocystis pyrifera* (Germination and Growth Test Method 1009.0); and a toxicity test with one of the following invertebrate species:

- Static renewal toxicity test with the mysid, *Holmesimysis costata* (Survival and Growth Test Method 1007.01);

- Static non-renewal toxicity test with the Pacific oyster, *Crassostrea gigas*, or the mussel, *Mytilus* spp., (Embryo-larval Shell Development Test Method 1005.0);
- Static non-renewal toxicity test with the red abalone, *Haliotis rufescens* (Larval Shell Development Test Method);
- Static non-renewal toxicity test with the purple sea urchin, *Strongylocentrotus purpuratus*, or the sand dollar, *Dendraster excentricus* (Embryo-larval Development Test Method); or
- Static non-renewal toxicity test with the purple sea urchin, *Strongylocentrotus purpuratus*, or the sand dollar, *Dendraster excentricus* (Fertilization Test Method 1008.0).

If laboratory-held cultures of the topsmelt, *Atherinops affinis*, are not available for testing, then the permittee shall conduct a static renewal toxicity test with the inland silverside, *Menidia beryllina* (Larval Survival and Growth Test Method 1006.0), found in the third edition of *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms* (EPA/821/R-02/014, 2002; Table IA, 40 CFR Part 136).

3. Quality Assurance

- Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manual previously referenced. Additional requirements are specified, below.
- For this discharge, a mixing zone or dilution allowance is not authorized. The chronic instream waste concentrations (IWCs) for this discharge are 100% effluent and 62.5% effluent. A series of at least five effluent dilutions and a control shall be tested. At minimum, the dilution series shall include the IWCs and three dilutions below the IWCs (e.g., 100%, 62.5%, 50%, 25% and 12.5%).
- Effluent dilution water and control water should be prepared and used as specified in the test methods manual *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995) and/or *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms* (EPA/821/R-02/014, 2002). If the dilution water is different from test organism culture water, then a second control using culture water shall also be used. If the use of artificial sea salts is considered provisional in the test method, then artificial sea

salts shall not be used to increase the salinity of the effluent sample prior to toxicity testing without written approval by the permitting authority.

- d. If organisms are not cultured in-house, then concurrent testing with a reference toxicant shall be conducted. If organisms are cultured in-house, then monthly reference toxicant testing is sufficient. Reference toxicant tests and effluent toxicity tests shall be conducted using the same test conditions (e.g., same test duration, etc.).
- e. If either the reference toxicant or effluent toxicity tests do not meet all test acceptability criteria in the test methods manual, then the permittee must resample and retest during the next rain event.
- f. Following Paragraph 10.2.6.2 of the freshwater test methods manual, all chronic toxicity test results from the multi-concentration tests required by this permit must be reviewed and reported according to USEPA guidance on the evaluation of concentration response relationships found in *Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing (40 CFR 136)* (EPA/821/B-00-004, 2000).
- g. Because this permit requires sublethal hypothesis testing endpoints from test methods in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995), within-test variability must be reviewed for acceptability and a variability criterion (upper %MSD bound) must be applied, as directed under each test method. Based on this review, only accepted effluent toxicity test results shall be reported on the DMR form. If excessive within-test variability invalidates a test result, then the permittee must resample and retest within 14 days.
- h. If the discharged effluent is chlorinated, then chlorine shall not be removed from the effluent sample prior to toxicity testing without written approval by the permitting authority.
- i. pH drift during the toxicity test may contribute to artifactual toxicity when pH-dependent toxicants (e.g., ammonia, metals) are present in an effluent. To determine whether or not pH drift during the toxicity test is contributing to artifactual toxicity, the permittee shall conduct three sets of parallel toxicity tests, in which the pH of one treatment is controlled at the pH of the

effluent and the pH of the other treatment is not controlled, as described in Section 11.3.6.1 of the test methods manual, *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA/821/R-02/013, 2002). Toxicity is confirmed to be artifactual and due to pH drift when no toxicity above the chronic WET permit limit or trigger is observed in the treatments controlled at the pH of the effluent. If toxicity is confirmed to be artifactual and due to pH drift, then, following written approval by the permitting authority, the permittee may use the procedures outlined in Section 11.3.6.2 of the test methods manual to control sample pH during the toxicity test.

4. Reporting of Chronic Toxicity Monitoring Results

- a. A full laboratory report for all toxicity testing shall be submitted as an attachment to the DMR for the month in which the toxicity test was conducted and shall also include: the toxicity test results—in NOEC; $TU_c = 100/NOEC$; EC25 (or IC25); and $TU_c = 100/EC25$ (or IC25)—reported according to the test methods manual chapter on report preparation and test review; the dates of sample collection and initiation of each toxicity test; all results for effluent parameters monitored concurrently with the toxicity test(s); and progress reports on TRE/TIE investigations.