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January 21, 2011

Ms. Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
1001 "I" Street
Sacramento, CA 95814

Via email to commentletters@waterboards.ca.gov

SUBJECT: SRCSD Comment Letter – Policy for Toxicity Assessment and Control and Related Staff Report

Dear Ms. Townsend:

Thank you for the opportunity to review and provide comments on the subject document. The following comments are being provided by the Sacramento Regional County Sanitation District (SRCSD) related to the Draft Policy for Toxicity Assessment and Control. We are also providing comments on the portions of the Staff Report related to this policy.

Comments Specific to the Draft Policy for Toxicity Assessment and Control:

Comment #1 Policy:
The TST statistical method estimated a false positive error of 5%; however, USEPA testing using blank, non toxic samples calculated a significantly higher false positive rate. The error rates are dependent on the species. For example, USEPA testing of blank, non toxic ceriodaphnia samples showed that approximately 15% were determined toxic. SRCSD agrees with CASA and Tri-TAC that error rates are underestimated and false positive rates will be significantly higher than estimated in the TST method. These false positive rates will likely result in significantly more accelerated monitoring testing, and potentially unnecessary or false TRE initiation.

Comment #2 Policy:
Numeric Effluent Limitations in Permits: Page 5 of the Draft Policy states that "*Numeric effluent limitations for chronic or acute toxicity shall be expressed as **maximum daily effluent limitations**, as referenced in 40 C.F.R section 122.45(d)(1). This is because a single daily discharge of toxic effluent can exceed the water quality objectives established in Part II and impact aquatic life, and thus it*

Comment #2 Policy: *(continued)*
would be impractical to impose average weekly and average monthly effluent limitations."
A toxicity limit expressed as a maximum daily effluent limitation is confusing because the tests are conducted for 96 hours or more (4 days or more). If a test resulted in a fail, would each of the days during the test be listed as days in a permit violation condition? The endpoint of chronic and acute tests are based on multiple days; however, it does not mean that the effluent was toxic during each day of the test. The Policy should be reworded to clarify this. One alternative would be to allow a single test maximum effluent limitation.

Comment #3 Policy:
The workshop discussions and draft policy imply that dischargers will be required to perform chronic toxicity testing on ONLY the "most sensitive species". The Policy states *"A discharger whose discharge demonstrates reasonable potential shall use the test species that exhibits the highest percent effect among all test endpoints (most sensitive species) for routine monitoring, as provided in Part III, Section A-4."* and *"the test species that exhibits the highest percent effect at the IWC during this analysis shall be utilized for routine monitoring during the permit cycle."* This language seems to infer, but does not clearly state, that only one species will be used for testing.

SRCSD recommends rewording this sentence to state, *"**ONLY THE SINGLE** test species that exhibits the highest percent effect at the IWC during this analysis shall be utilized for routine monitoring during the permit cycle."* This modification will clarify the policy's intent to test the single most sensitive species so that there will not be an extra burden on dischargers to test multiple species.

Comment #4 Policy and Analysis:
The TST end point cannot be calculated when both the control and treatment replicates have zero variance. While it may be unlikely that this would occur in a chronic test dataset, it is reasonable to assume that this could occur in an acute test where there is equal survival among controls and the survival among replicates at the IWC are also the same. The policy should provide further guidance on how the TST would be interpreted under these circumstances.

Comment #5 Policy and EPA Referenced Documents:
The USEPA method for TST that is referenced in this draft WET Policy as a basis for this Policy is incorrectly referenced or is not publically available through the USEPA at
http://www.epa.gov/epahome/publications.htm#search or
http://www.epa.gov/waterscience/methods/wet/ on 11/11/10.

Comment #6 Policy versus Staff Report:
Compliance Determination – Fail: Page 11 of the draft Policy states that *"Failure to initiate an accelerated monitoring schedule may result in appropriate enforcement action. A test result indicating a "fail" at the IWC during accelerated monitoring is a Class II violation pursuant to the Water Quality Enforcement Policy adopted on November 17, 2009 (Resolution No. 2009-0083)."* This text should be revised to clearly state what is included in the Staff Report on page 45, which discusses the violation determination and minimum mandatory penalty assessment. The staff report states that *"A discharger with an NPDES permit or WDR that relies solely on toxicity limits to control pollution could potentially receive a MMP of $3,000 after the fourth violation, and each violation thereafter, within any consecutive six-month period. This provision, however, applies only to those facilities with permits that do not contain effluent limitations for specific toxic pollutants (CWC §13385(i))."*

The staff report indicates that facilities with effluent limitations for specific toxic pollutants will not be assessed MMP's for toxicity exceedances. The Policy should clearly reflect this.

Comment #7 Policy and TST Method for Acute Toxicity:
Many dischargers follow the EPA test manual for acute toxicity testing which allows for 2 replicates and have percent survival as the only test end point. In these cases, the low number of replicate samples may create two potential issues with the TST statistics:

1. If there is no variation, the discharger cannot calculate a T statistic and determine pass or fail. There needs to be clarification for how the discharger should determine compliance in these situations.
2. The T statistics provide inconsistent results at given test end points. Some tests that meet the same end points for percent survival can result in either a pass or fail. For example, when control tank survival is 95%, some effluent tests resulting in 80% result in a pass, and some result in a fail or a violation. This will result in a higher percentage of false positives than is expected for the test method.

Requiring more than 2 replicates for acute toxicity testing increases costs to the discharger, and is inconsistent with the EPA test method for acute toxicity tests.

Comment #8 Policy Comment Related to Acute Tests:
It should be noted that many dischargers conduct flow through bioassay tests. The TST method implementing testing at *In Stream Waste Concentrations* will make it very difficult to continue performing acute flow through bioassay tests. It will require the installation of an additional pump and piping system for many dischargers to continuously deliver flow from a receiving water to the test apparatus, and a dilution/mixing system to reach instream waste concentrations which would be difficult to achieve. Static renewal tests that use daily composite samples may be substituted for this test and should be specified in the Policy. Please clarify how this would be interpreted to dischargers using flow through bioassay tests.

Comments Specific to the Staff Report:

Comment #9 Staff Report:
The Issue Description that is listed on page 38 of the Staff Report states: *"Discrepancies exist in NPDES wastewater permits and point source WDRs between, and within, Regions."* It is unlikely that the implementation of this policy will make toxicity evaluation or NPDES permit requirements consistent between or within regions, given the allowable variations for regional waterboards to interpret the draft policy as is currently written such as tested species, the number of test replicates versus the conclusion of the test as to indication of toxicity, acute toxicity testing requirements and frequency. It is unclear how the exclusive use of the TST method provides either a net benefit to the environment, a better indicator of toxic effects, or an improvement in the method to determine the cause of toxicity if detected, when compared to the use of other current methods such as the NOEC and IC-25.

Comment #10 Staff Report Costs:
The Staff Report indicates in Exhibit 5-1 that there will be an overall net cost savings to Sacramento Regional County Sanitation District of (-$21,600) for monitoring and $0 for compliance actions. We disagree that there will be any cost savings resulting from implementation of the proposed policy, but rather a high likelihood of an increased cost due to a number of factors including the following items that are expected to be required when this policy is implemented:

1. An increase in false positive results for the chronic toxicity testing will result in added accelerated testing and more frequent TREs. There is also a potential for NPDES violations. The cost range for this is anticipated to be $100,000 to $2,000,000 per event depending on the severity and the success of locating an actual source of toxicity, if one exists.
2. An increase in the number of replicates required for acute toxicity testing from two to four or more for SRCSD will require a capital improvement project to accommodate replicates plus controls, and additional staff time for monitoring and reporting. The frequency of this testing is not stated in the Policy. The cost for this project has not yet been determined.
3. The costs to perform accelerated monitoring and TREs do not appear to be included for acute toxicity testing. This would significantly increase discharger costs.
4. An increase in false positive results for the acute toxicity testing will result in additional accelerated testing and TREs as described in item 1 above with similar cost implications.
5. The unit cost for a single toxicity test can be more than a factor of three times higher than the $308 value used in the cost analysis.
6. Cost estimates were based on chronic testing for only the most sensitive species. It is doubtful that the regional boards will implement this policy consistently to require testing a single species for chronic toxicity unless the State Policy precludes multiple species testing.

Comment #11 Staff Report:
SRCSD objects to the following comment that is included on page 38 of Appendix A of the Staff Report and asks that it be removed or clarified as it is a misleading statement for a staff report that is dated 2010: "However, as a result of baseline toxicity, the facility has been conducting a TRE since April 2004 (SRCSD, 2008)." There is also an error in the draft Staff Report – Policy for Toxicity Assessment and Control, Appendix H (Economic Impacts) Part A.12.5 (page 38). The draft report inaccurately states that the Sacramento Regional County Sanitation District (SRCSD) has been conducting a TRE for baseline toxicity since 2004. The 2009 final TRE report (SRCSD 2009) submitted by SRCSD to the Central Valley Regional Water Quality Control Board documents the conclusion of a TRE that began in 2004 and ended in September 2007 (toxicity ceased in December, 2006). This TRE is not ongoing. The referenced TRE determined that toxicity during this period was due to an artifact of the sampling system and not necessarily indicative of effluent toxicity. These results were reported to the CVRWQCB in the final report (2009). The incorrect statement that the TRE is ongoing is used as a basis for concluding that the incremental costs to conduct a TRE under the new Policy would be zero.

Comment #12 Staff Report:
Section A.12.5 Potential Incremental Impact Summary states that "There will be no acute monitoring under the Policy, as shown in the table below." However, acute monitoring is required in the current Sacramento Regional Wastewater Treatment Plant NPDES permit, Order No. R5-2010-0114 and NPDES No. CA0077682.

In addition to the comments provided above, SRCSD supports the comments provided by CASA, CVCWA and Tri-TAC regarding the subject Policy and related Staff Report.

We appreciate the opportunity to provide comments on the Policy and related Staff Report. If you have questions or comments regarding the items above, please feel free to contact Lysa Voight at (916) 876-6038 or voightl@sacsewer.com

Sincerely,

Terrie Mitchell
Manager, Legislative and Regulatory Affairs

cc: Stan Dean, SRCSD District Engineer
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