



California Council for Environmental and Economic Balance

101 Mission Street, Suite 1440, San Francisco, California 94105
415-512-7890 phone, 415-512-7897 fax, www.cceeb.org

Public Comment
Toxicity Provisions
Deadline: 12/21/18 by 12 noon



VIA ELECTRONIC SUBMISSION

commentletters@waterboards.ca.gov

December 21, 2018

Ms. Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

Subject: Comment Letter – Toxicity Provisions

Dear Ms. Townsend,

On behalf of the California Council for Environmental & Economic Balance (CCEEB) and its Water Quality Task Force, I appreciate the opportunity to review and provide technical comments on the State Water Resources Control Board's (SWRCB) recently issued draft proposed amendments pertaining to aquatic toxicity (Toxicity Provisions) (SWRCB 2018a) and the accompanying Staff Report (Staff Report) (SWRCB 2018b).

CCEEB is a coalition of business, labor, and public leaders that works together to advance strategies to achieve a sound economy and a healthy environment. Founded in 1973, CCEEB is a non-profit and non-partisan organization.

The Toxicity Provisions should allow dose-response data from a full dilution series to be considered along with TST results.

The proposed Toxicity Provisions would replace current toxicity methods with the TST method. The Toxicity Provisions still require toxicity data to be collected using methods identified in the Code of Federal Regulations, title 40, part 136 ("40 CFR 136 methods"), which require testing of a "dilution series" that involves a range of effluent concentrations. However, the proposed TST method evaluates toxicity in only two samples: a control and an effluent sample. Thus, the proposed Toxicity Provisions do not allow consideration of dose-response data from the full dilution series.

As a result, the proposed Toxicity Provisions prescribe a method that fails to consider valuable dose-response data. Dose-response data show an organism's response to increasing concentrations of effluent, allowing identification of potential testing errors and confirmation of trends in the organism's response to the effluent. Evaluation of a control and a single effluent sample, following the TST methodology, cannot provide these same benefits. The Toxicity

Provisions should be revised to allow consideration of dose-response information from a full dilution series when evaluating the toxicity of an effluent.

Toxicity Provisions should account for the fact that storm water events are typically short and occur on irregular intervals.

For non-storm water discharges, the Toxicity Provisions require toxicity sampling at regular intervals, and follow-up sampling within 30 days of the determination that a sample is toxic (Section IV.B.2.c). While the SWRCB seems not to have intended to apply these requirements to stormwater (SWRCB 2018a, Section IV.B.3 at p. 25), the regular and follow-up sampling schedules specified for non-storm water discharges are likely not possible for storm water discharges given the irregular intervals on which they occur. Also, storm water events are often shorter than four days—the averaging period for determining chronic toxicity. Therefore, chronic toxicity monitoring should not be required for such short-duration storm water events.

Toxicity Provisions should allow at least 45 days for accelerated monitoring to accommodate realistic laboratory analysis times and limited laboratory capacity.

According to the proposed Toxicity Provisions, if a routine sample at the Instream Waste Concentration (IWC) “fails” a test of chronic toxicity, follow-up chronic toxicity testing must be conducted within 30 days of the routine sample (Staff Report at p. 19). Given that this provision could require that three sets of chronic toxicity tests be conducted in series, along with time for transport, interpretation, and reporting, a 30-day turn-around time is not practical. CCEEB recommends that the Toxicity Provisions allow at least 45 days for completion of routine and follow-up chronic toxicity testing for cases in which a routine monitoring test results in a “fail” at the IWC.

Allowable methods for calculating dilution credits should be expanded to allow for cases in which traditional methods are ineffective.

The Toxicity Provisions require that dilution ratios be calculated according to the traditional methods outlined in Table 3 (pp. 20-21) involving critical low flow conditions in receiving waters (1Q10 and 7Q10 flow rates). However, use of these low flow conditions is inappropriate for dilution ratio calculations in many receiving waters, such as lakes, tidal estuaries, reservoirs, enclosed bays, storm-water discharges, and tidally-influenced rivers. Given that these kinds of receiving water often provide significant dilution, alternative methods of calculating dilution credits should be allowed, including those listed on p. 20 of the Toxicity Provisions for mixing zone studies (e.g., tracer studies, dye studies, modelling studies, and monitoring upstream and downstream of the discharge).

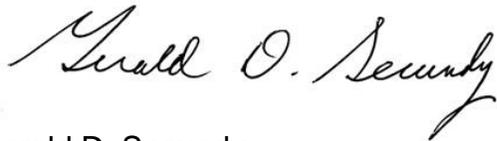
The Toxicity Provisions should not require the use of receiving waters for control testing and dilution water.

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According to the Toxicity Provisions (p. 5), control testing and IWC testing should be conducted using receiving waters and not laboratory water, which has been used in the past. The purpose of toxicity testing is to control other variables and isolate the effects of constituents causing toxicity in the tested effluent sample. By using ambient receiving waters (which vary in their chemical composition), significant and unnecessary variability is introduced into the toxicity testing. Therefore, the Toxicity Provisions should not require the use of receiving waters in toxicity testing of effluent samples. Rather, the Toxicity Provisions should require dilution to be conducted consistent with the requirements of existing 40 CFR 136 methods.

I appreciate your consideration of CCEEB's comments. If you have any questions, please contact CCEEB Water, Chemistry and Waste Project Manager Dawn Koepke with McHugh Koepke & Associates at (916) 930-1993.

Sincerely,

A handwritten signature in cursive script that reads "Gerald D. Secundy". The signature is written in black ink and is positioned above the printed name and title.

Gerald D. Secundy
CCEEB President

Cc: Members, CCEEB WCW Project

REFERENCES

SWRCB. 2018a. Draft Water Quality Control Plan for Inland and Surface Waters, Enclosed Bays, and Estuaries of California. October 19.

SWRCB. 2018b. Draft Staff Report, Including Substitute Environmental Documentation for the Proposed Establishment of the Water Quality Control Plan for Inland and Surface Waters, Enclosed Bays, and Estuaries of California; and Toxicity Provisions. October 19.

U.S. EPA. 2010. National Pollutant Discharge Elimination System Test of Significant Toxicity Technical Document. EPA 833-R-10-004. Office of Wastewater Management. Washington, DC.