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January 21, 2011

Charles R. Hoppin, Chair, and Members
State Water Resources Control Board
c/o Jeanine Townsend
Clerk to the Board

State Water Resources Control Board
1001 I Street, Sacramento, CA 95814

commentletters@waterboards.ca.gov

SUBJECT: COMMENT LETTER- Proposed Policy for Toxicity Assessment and Control

Dear Chair Hoppin and Members of the Board:

The National Association of Clean Water Agencies (NACWA) appreciates the opportunity to weigh in on the proposed California State Water Resources Control Board (SWRCB or Board) Policy for Toxicity Assessment and Control. NACWA represents the interests of nearly 300 public wastewater treatment agencies nationwide, including 30 utilities in California. The proposed policy will have immediate consequences for publicly owned treatment works (POTWs) in California, and will potentially set a dangerous precedent that could ultimately impact utilities in other states.

NACWA supports the goals of the proposed policy, but believes the current proposal falls short of providing a reasonable approach to assessing effluent toxicity that does not unfairly penalize POTWs for the limitations associated with conducting and interpreting whole effluent toxicity (WET) tests. NACWA has been working for nearly two decades to ensure the use of WET testing in Clean Water Act (CWA) programs is done appropriately and adequately accounts for the variability inherent in the testing of biological organisms.

While NACWA has had concerns with the entire suite of WET methods and endpoints, the Association's primary focus continues to be on chronic toxicity issues where permit compliance or reasonable potential determinations may be more a function of the method itself, rather than effluent quality. NACWA has placed significant attention on the procedures for evaluating WET test results (i.e., hypothesis testing and point estimates) as a way of moderating some of the acknowledged uncertainties in the methods. Last year, NACWA commented on a



National Association of
Clean Water Agencies
1816 Jefferson Place, NW
Washington DC 20036-2505

p 202.833.2672 f 202.833.4657
www.nacwa.org · info@nacwa.org

guidance document from the U.S. Environmental Protection Agency (EPA) detailing the test of significant toxicity (TST) for evaluating WET tests. Although EPA had not officially released the guidance for public review and comment, NACWA and several other stakeholders wrote to EPA to raise concerns with the use of the TST approach in CWA programs.

As it considers the proposed policy, it is important for the SWRCB to understand that the TST approach for interpreting WET test results has not been implemented anywhere in the country to our knowledge. Therefore, the implications of this method for CWA programs are largely unknown. Though the TST approach has never been made officially available for public comment, it has raised significant concerns from stakeholders nationwide, particularly due to its high rate of false determinations of toxicity. Other elements of the proposed policy, including its un rebuttable presumption of reasonable potential to exceed or contribute to an exceedance of water quality standards for all major POTWs and its treatment of single WET test failures as CWA violations, run counter to basic tenets in the federal CWA rules. While states may be more stringent than the federal program, NACWA cautions the Board to carefully review these elements of the proposed policy. As proposed, POTWs under the proposed policy will incur violations, be exposed to enforcement actions and citizen suits, and be required to expend significant resources where there is no actual toxicity, simply as a result of the single test TST approach.

It bears emphasis that entirely missing from the national dialogue on WET testing is comprehensive implementation guidance from EPA. NACWA continues to believe that EPA must develop this guidance before it pushes states to develop or modify existing programs to be 'consistent with the federal program.' EPA has attempted to develop this guidance in the past, but has been unable to sufficiently address and compensate for the inherent variability in the WET test methods, opting instead to let the states figure out implementation. This creates variability in implementation across the country, ultimately resulting in numerous different toxicity water quality criteria being applied to waters that have the same designated uses and water quality, leading to different conclusions on whether designated uses are met when all other implementation variables are held constant. The TST approach only adds to this confusion and does not hold EPA to a single WET definition. EPA only supports one national criterion paradigm for other pollutants (e.g., metals). It is unclear why WET should be different. In addition, major issues remain in dealing with discharges with little or no dilution, unnecessary conservatism in the *Technical Support Document for Water Quality-based Toxics Control* (TSD) (March 1991) reasonable potential procedures, and in implementing chronic WET requirements in permits.

Many states across the country are watching the development of this policy carefully. NACWA offers the Board these comments as it considers the proposed policy.

Concerns with Use of the Test of Significant Toxicity

When it provided its comments to EPA on the TST approach, NACWA raised concerns over the continued reliance on hypothesis testing. Most states, dischargers, and even EPA have recognized that point estimates (EC/IC25 calculations) provide a superior approach. There are limitations to using hypothesis tests in the reasonable potential (RP) calculations advocated by EPA that the TST approach or any other concept to refine hypothesis tests cannot adequately address. EPA is also aware of these limitations.

One of the stated goals of the policy is to reduce the incidence of false negative and false positive determinations of toxicity. Following NACWA's review of EPA TST guidance, the TST approach does appear to reduce the rate of false negative determinations of toxicity for WET tests. Unfortunately, the TST approach

does **not** reduce the existing statistical false positive rate of 5 percent or the overall rate of false determination of toxicity. In fact, according to an analysis of EPA non-toxic blank data, the TST approach actually results in more non-toxic samples being identified as toxic.

A high false positive determination rate is troublesome for a number of reasons. For regulators, false positive toxicity determinations divert enforcement resources away from “real” water quality violations. False positive toxicity determinations in receiving waters lead to inappropriate impairment listings that ultimately consume regulatory resources through the development of unnecessary total maximum daily loads (TMDLs). For dischargers, false positive toxicity determinations can represent effluent violations and are subject to enforcement action and citizen lawsuits. Dischargers are also put in the untenable position of being required to solve a problem that does not exist or attempt to unsuccessfully identify sources of toxicity in response to false positive results.

Other Concerns with the Proposed Policy

The determination of reasonable potential is a basic tenet of the federal CWA regulations. Permit limits are not required until it has been demonstrated that there is at least a reasonable potential that the discharge will negatively impact water quality standards. For WET, 40 CFR 122.44(d)(1)(iv) states that when a permitting authority determines “that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the numeric criterion for whole effluent toxicity, the permit must contain effluent limits for whole effluent toxicity.” The proposed policy, however, imposes numeric chronic toxicity limits automatically for every major POTW discharger (greater than 1 million gallons per day) without considering the factors cited in 40 CFR 122.44 (dilution, sensitivity of species, and variability). SWRCB staff has indicated that even major POTWs with data indicating that their discharges are not exhibiting chronic toxicity will receive a limit. Combined with the flaws of the TST approach, this reasonable potential presumption will all but guarantee that every major POTW in the state will be out of compliance with its WET limits within one permit term even though an exceedance of water quality standards may not have taken place. POTWs will immediately be exposed to civil penalties, enforcement, and citizen suits upon issuance of their new permit independent of the quality of the effluent they discharge. With a single exceedance, which is insufficient to draw conclusions regarding the presence of toxicity, these POTWs will also trigger costly accelerated testing and toxicity identification and reduction evaluations.

Since the mid-1990s, EPA has consistently relied upon its 1995 *National Policy Regarding Whole Effluent Toxicity Enforcement* (EPA Memo to Water Division Directors, Regional Counsels, and State NPDES Directors, August 14, 1995) to largely dismiss POTW concerns over the variability of the WET test methods, particularly those for chronic toxicity. That policy states, “EPA does **not** recommend that the initial response to a single exceedance of a WET limit, causing no known harm, be a formal enforcement action with a civil penalty.” While SWRCB staff have acknowledged this policy and have indicated that enforcement discretion will be used for a single exceedance under the proposed policy, a test failure, even though it could simply be an artifact of flaws in the test method or the statistical approach used to evaluate the test results, remains a CWA permit violation. POTWs are understandably reluctant to agree to permit terms that will guarantee that they will be out of compliance despite compliance with water quality standards. Even with ‘enforcement discretion’, through which the POTW may avoid civil penalties, the single exceedance still triggers accelerated testing, TIE/TREs, and exposes the utility to third party lawsuits. Again, combined with the flaws in the TST approach and presumed reasonable potential, this approach to handling single WET test failures will result in a false public perception of ongoing toxicity and water quality issues.

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In 2004, the Court of Appeals for the District of Columbia Circuit¹ upheld EPA's WET test methods, but in doing so the Court noted that significant flexibility in implementation was needed given the inherent uncertainty in the test methods. The District Court specifically endorsed EPA's flexible enforcement policy regarding single test exceedances, noting that "WET tests will be wrong some of the time" The Court, however, went further and noted that while, "by EPA's calculations, WET tests will be wrong some of the time", this uncertainty was further tempered by an additional safeguard of "designing the tests to give permittees the benefit of the doubt, limiting false positive rates to at most 5%, while allowing false negative rates up to 20%." NACWA believes the proposed policy does not provide sufficient safeguards to protect against the inherent variability in the WET test methods and unfairly exposes POTWs to CWA violations, civil penalties, enforcement actions, and citizen suits for WET test results that may not reflect actual toxic impacts.

Again, NACWA appreciates the opportunity to provide some national perspective on the SWRCB's proposed WET policy.

Sincerely,

A handwritten signature in black ink, appearing to read "K Kirk".

Ken Kirk
Executive Director

¹ Edison Elec. Inst., NACWA, et al. v. EPA, et al., No. 96-1062 (D.C. Cir. Dec. 10, 2004) (rehearing denied 2005)