



August 20, 2012

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BY EMAIL, FAX AND U.S. MAIL

Charles R. Hoppin, Chair and Water Board Members
c/o Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

**Re: San Francisco's Comment Letter on the Draft Policy for Toxicity
Assessment and Control**

Dear Chair Hoppin and Water Board Members:

The City and County of San Francisco Public Utilities Commission (San Francisco) values this opportunity to comment on the Draft Policy for Toxicity Assessment and Control. San Francisco, like many of the Region 2 NPDES permit holders, has extensive experience with toxicity testing. We have been conducting Whole Effluent Toxicity (WET) testing since the late 1980s and estimate that we have conducted over two hundred chronic and over one thousand acute tests since 1990. As noted in our comments on the previous version of this policy, San Francisco supports having a well-designed toxicity testing policy.

We know that Water Board staff has put considerable time and work into developing this policy, and we appreciate the changes that have been made to the previous version to accommodate some of our requests. However, the current version still contains a number of important issues of concern. San Francisco supports the comments being submitted by the Bay Area Clean Water Association (BACWA) and the California Association of Sanitation Agencies (CASA) on the proposed toxicity policy. In addition, we would like to bring a few specific issues to your attention.

45.1 1. A permit violation for mere detection of toxicity is inappropriately punitive to POTWs

One of the fundamental challenges with toxicity is that there are numerous potential causes and introduction points, and its presentation is often ephemeral. Therefore, tracking down the cause of detected toxicity is often a highly difficult and complex endeavor. While publically-owned treatment works (POTWs) can and should investigate detected toxicity vigorously, it is inappropriately punitive to POTWs to put them in violation of their permit at the detection stage.

Edwin M. Lee
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Anson Moran
President

Art Torres
Vice President

Ann Moller Caen
Commissioner

Francesca Vietor
Commissioner

Vince Courtney
Commissioner

Ed Harrington
General Manager



45.2 → In most cases toxicity is caused or exacerbated by pollutants introduced into the wastewater system over which POTWs have no effective control. We note that the Surface Water Ambient Monitoring Program (SWAMP) report, *Summary of Toxicity in California Waters: 2001-2009* (November 2010), showed that virtually all receiving water toxicity in the State is due to pesticides.

Unfortunately, POTWs cannot ban pesticides or similar commercial products that may cause or contribute to toxicity. Accordingly, source control should be the preferred method of addressing these toxicity-causing pollutants, not putting POTWs in violation of their permit for circumstances they do not control.

45.3 2. → **Phase-in period needed**

The new methods and changes in the proposed toxicity policy are significant and sweeping. Not only does the proposed policy require use of a new test (the TST, which has not been implemented in any other jurisdiction in the country) to assess toxicity (a condition notoriously difficult to investigate and identify the cause of), but it also imposes new numeric limitations which will result in permit violations if toxicity is detected.

45.3 → At a minimum, the State Water Board should proceed with extreme caution by utilizing a phase-in period of two-to-four years. Not only is a phase-in period useful for appropriate learning and adaptive management, it is necessary in order to allow change that could otherwise be precluded by anti-backsliding and anti-degradation requirements.

3. **Single sample violation is inappropriate**

The current draft policy contains a Maximum Daily Effluent Limit (MDEL) that would assess a permit violation as a consequence of a single test result. Permit violations impose significant costs on public agencies: financially, legally, and in public trust. Therefore, even though the MDEL involves a

45.4 → higher effect level, a single toxicity test result should not be used to assess a permit violation. The result of a single bioassay is not a conclusive demonstration that a sample is toxic since there are numerous sources of uncertainty in toxicity testing. Instead, we recommend that the proposed toxicity policy include average, median, or other percentile limits that require more than one test result to assess a permit violation.

45.5 ←

45.6 4. → **TST high false detection rate will cause violations –without actual toxicity**

The new test employed by the proposed policy has an unacceptably high rate of false detections of toxicity (estimated to be between 5-15%). POTWs do not want to be in violation of their permit. It is not good policy to require use of a test which is predicted to put them in violation at least twice a permit cycle –without any actual toxicity.

45.7 5 Policy must require use of in-stream waste concentration for TST to be valid

Currently, the proposed toxicity policy inappropriately allows the Regional Boards to decide whether to allow in-stream waste concentration (IWC). The TST will always overstate the true measure of the toxicity for the effluent in the receiving water without IWC. As detailed in BACWA's comments, the EPA's NPDES Test of Significant Toxicity Technical Document makes it clear that the TST is designed to be used with IWC. While we understand the desire to allow regions the discretion to tailor the application of policies to local conditions, if the policy requires use of the TST then the policy must also require use of IWC. The toxicity policy should not require use of the TST without also requiring the use of IWC since the TST does not appear to be valid without it.

45.8 6 TRE period should be one year, not six months

A requirement that a TRE be completed within six months of the initial exceedance (Toxicity Policy III.A.7) would be onerous and impractical. Multiple reasons exist as to why a TRE may not be completed so quickly: (1) Toxicity may disappear or only be present intermittently; (2) Traditional TRE steps may not be adequate to characterize moderate toxicity; (3) Non-continuous discharges may not provide sufficient sample within six months; and (4) Planned or unplanned plant shutdowns may delay TRE progress. Instead, we respectfully request that the requirement be one year.

45.9 7 Calendar month requirement should be changed to 30 days

The requirement to complete three toxicity tests within a calendar month would similarly be quite difficult to achieve. Obstacles include: (1) Test organisms not being available; (2) Toxicity staff not being available (e.g., vacation, illness, other duties, emergency response, etc.); (3) Too little time to procure a contract with a testing laboratory; (4) Non-continuous discharge with less than three discharges within a calendar month; (5) Planned or unplanned plant shutdowns; and (6) Wide-spread power outages. In addition, it may not be possible to complete corrective action(s) within the calendar month (III.A.6.b first paragraph) due to parts availability and procurement and contracting requirements.

To preserve the intent of the MMEL without imposing the problematic calendar month restriction, we propose changing the requirement to 30 days. We have provided track change edits to the proposed toxicity policy to enact this recommendation in Appendix A.

Conclusion

San Francisco supports toxicity testing as an important aspect of determining whether effluent has the potential to harm aquatic life, and encourages the development of a well-designed toxicity policy. The current proposed policy goes beyond requiring rigorous toxicity testing, however, and develops an overly punitive approach to toxicity at the detection stage, which is especially unwarranted in cases where science cannot determine the cause of the toxicity or the POTW is unable to exercise control over the source. We greatly appreciate your time and attention and hope these comments are helpful to you in developing an effective and fair toxicity policy.

If you have any questions or concerns, please do not hesitate to contact my staff member, Laura Pagano, at 415-554-3109, lpagano@sfwater.org.

Sincerely,



Tommy T. Moala
Assistant General Manager
Wastewater Enterprise

LP/TTM/vm

APPENDIX A

Proposed Changes to Make Calendar Requirement into 30-Day Requirement

Part I: Definitions (p. 3):

L. Median monthly effluent limit (MMEL) is, for the purposes of this Policy, an effluent limit triggered by a “fail” during routine toxicity testing and based on the median results of three independent toxicity tests, conducted within 30 days of the failed test ~~the same calendar month~~, and analyzed using the TST. The MMEL is exceeded when the median result (i.e. two out of three) is a “fail.”

Part III.A.2 (p. 7): The MMEL for chronic and acute toxicity shall be expressed as the median result of three independent toxicity tests conducted within ~~the same calendar month~~ 30 days of the failed test.

Part III.A.6.b first paragraph (p. 9): Verification of the corrective action(s) will be determined with an additional toxicity test conducted within ~~the same calendar month that~~ 30 days of the exceedance occurred.

III.A.6.b second paragraph (p. 9): If an initial toxicity test (i.e. not a verification test) results in a “fail,” but the percent effect is below the MDEL, the discharger shall conduct two additional toxicity tests within ~~the same calendar month~~ 30 days of the failed test in order to determine compliance with the MMEL.

Appendix B first paragraph (p. 19): The maximum daily effluent limitation (MDEL) for chronic toxicity is expressed as the outcome of the TST approach and the resulting percent effect at the instream waste concentration (IWC) for this discharge, and the monthly median effluent limit (MMEL) for chronic toxicity is expressed as the median result of three independent toxicity tests, conducted within 30 days of the failed routine test. ~~the same calendar month.~~

Appendix B second paragraph (p. 19): In order to verify the abatement of toxicity, a result of “pass” from one additional chronic toxicity test, conducted within ~~the same calendar month that~~ 30 days of the exceedance occurred, is required.

Appendix B third paragraph (p. 19): A “fail” result with a percent effect below 0.50 is not a violation of the MDEL, but will require the permittee to complete of two additional chronic toxicity tests, within ~~the same calendar month that~~ 30 days of the “failed” test “fail” occurred, in order to determine compliance with the MMEL.