

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT (Naomi Feger)
MEETING DATE: October 11, 2006

ITEM: 13

SUBJECT: Proposed Amendment to the Water Quality Control Plan (Basin Plan) for the San Francisco Bay Region to Establish New Water Quality Objectives and Implementation Plan for Cyanide for San Francisco Bay - Hearing to Consider New Basin Plan Amendment (No Action Will Be Taken)

CHRONOLOGY: The Board has not previously considered this matter.

DISCUSSION: This is the first of two hearings on a Basin Plan amendment (Appendix A) to establish site-specific marine water quality objectives for cyanide for San Francisco Bay. The 45-day public comment period on the proposed amendment and supporting staff report (Appendix B and C) closed on October 2, 2006. In addition to our presentation of the proposed amendment package to the Board, this hearing provides an opportunity for stakeholders to communicate their interests directly to the Board. At the second hearing, currently scheduled for the December 2006 Board meeting, the Board will be asked to consider adopting the proposed amendment and supporting documents, which will include all comments, our prepared responses, and if warranted, revisions to the Basin Plan amendment and supporting staff report.

The proposed Basin Plan amendment will establish the following:

- Site-specific marine cyanide objectives (acute 9.4 µg/l and chronic 2.9 µg/l) for all segments of San Francisco Bay to replace the existing National Toxics Rule (NTR) acute and chronic objectives of 1 µg/l;
- Dilution credits for cyanide for all shallow water wastewater dischargers; and
- An implementation plan that requires NPDES permits for municipal and industrial wastewater dischargers to include cyanide effluent limits and monitoring and surveillance requirements to prevent degradation of water quality.

The proposed site-specific objectives are based on both state and federal guidance and policy that address development of site-specific objectives. The state Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) allows for consideration of site-specific objectives when permit limits based on existing water quality objectives may not be attainable, the current objectives are not appropriate for the water body, and there is no evidence of adverse water quality impacts. All these conditions are met for cyanide in San Francisco Bay. In particular, Regional Program Monitoring data for cyanide in San Francisco Bay reflect concentrations that are well below the existing NTR objective. In addition, cyanide does not persist in natural waters, has been found to degrade rapidly into harmless by-products and does not bioaccumulate in biota.

Federal guidance allows for revising a water quality objective using new or site-specific information via a “recalculation procedure.” A main factor affecting the existing NTR objectives is cyanide’s toxicity to an east-coast crab species. Using the “recalculation procedure,” we replace the east coast crab data with new west-coast crab toxicity data and demonstrate that higher cyanide water quality objectives are protective of aquatic life in San Francisco Bay. U.S EPA has approved the same resulting cyanide objectives, which were adopted by the state of Washington.

Implementation of the site-specific objectives for cyanide will be accomplished primarily via numeric effluent limits in NPDES wastewater permits derived in accordance with the SIP. The proposed Basin Plan amendment includes specified dilution credits to establish limits for shallow water wastewater dischargers that reflect site-specific conditions. Dischargers will also be required to implement pollution prevention measures and to conduct surveillance and monitoring.

We have received written comments (Appendix D) from the U.S. EPA, seven San Francisco Bay wastewater dischargers, the Bay Area Clean Water Agencies and the Tri-TAC which is jointly sponsored by California Association of Sanitation Agencies, California Water Environment Association and League of California Cities. Overall the comments from the discharger community are favorable.

U.S. EPA commented that the proposed cyanide site-specific objectives are consistent with its methods and protective of beneficial uses of San Francisco Bay. However, it expresses concerns regarding mixing zones associated with dilution credits for shallow water dischargers. Mixing zones reflect the portions of receiving waters that are used to dilute discharges. We have been working with U.S. EPA staff to resolve its concerns and to demonstrate that application of dilution credits and associated mixing zones will not result in adverse water quality impacts.

RECOMMEN-
DATION

No action is necessary at this time.

APPENDIX:

- A. Proposed Basin Plan Amendment
- B. Supporting Staff Report
- C. Appendices to Staff Report
- D. Comment Letters