



San Diego Chapter
Serving the Environment in San Diego and Imperial Counties
3820 Ray Street
San Diego, CA 92104

Main Office: (619) 299 1743
Chapter Coordinator: (619)-299-1741
Fax: (619)-299-7142
Email: creiff@sierraclubsandiego.org
www.sierraclubsandiego.org

SUPPORTING DOCUMENT 4

July 28, 2008

California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4353

Subject: CRU: 000000275: MVALD

Tentative Addendum No. 2 to Order No. R9-2002-0025, NPDES Permit
No. CA0107409 for City of San Diego Point Loma Wastewater Treatment Plant
Discharge to the Pacific Ocean via the Point Loma Ocean Outfall

Dear Dr. Wright, Chair and Members of the Board:

The Sierra Club San Diego Chapter has reviewed the subject Tentative Addendum. While we agree with the intent of the addendum to permit the demonstration of an effluent disinfection system, there are a number of critical issues that should be addressed before we can support the addendum.

The City of San Diego application for the renewal of the NPDES Permit for the PLWTP Volume IV Appendix D describes the evaluation of the proposed chlorination disinfection system using sodium hypochlorite as the disinfection agent. The purpose of the disinfection system is to comply with the USEPA determination that the bacterial indicator organisms water quality objectives apply from the ocean surface to the bottom and up to three nautical miles from shore. Bench tests were conducted to estimate the chlorination dose and contact time with the effluent to comply with the new bacterial indicator water quality objectives. Acute toxicity test of the disinfected effluent indicated compliance with the NPDES permit. In order to obtain the required contact time, the prototype disinfection system uses the travel time of the effluent in the ocean outfall. In other words, disinfection is conducted "in pipe". This fact raises a number of issues that have not been addressed in the Addendum. These issues are:

- 1) Bacteria regrowth and biofilm formation harboring bacteria in the outfall may likely require higher dose rates than determined by the bench test chlorination dose.
- 2) The existing effluent sampling is located at the head of the ocean outfall. The "in pipe" disinfection system raises a concern that the end of pipe effluent is not directly monitored unless special monitoring provisions are added to the addendum. Should the required chlorination dose exceed the effluent water quality due to residual chlorine and chlorination by-products at this sampling point then how would effluent monitoring be conducted without special direct monitoring of the effluent to assure compliance with the NPDES permit?
- 3) The bench acute toxicity tests used the disinfected effluent. The concern again is that whole effluent toxicity tests (acute and chronic) would require special end of pipe effluent measurements or some indirect monitoring.
- 4) Special monitoring plan should be included in the addendum to validate that the implementing the prototype disinfection system will meet the indicator bacteria receiving water quality objectives. Seasonal and spatial variations in the indicator bacteria must be accounted.

Thank you for your consideration of these comments.

Sincerely,

Edward Kimura
Water Committee
Sierra Club San Diego Chapter