



Alan C. Lloyd, Ph.D.  
Agency Secretary

# State Water Resources Control Board

Division of Water Quality  
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Arnold Schwarzenegger  
Governor

JAN 28 2005

Mr. Robert W. Lawhn  
Environmental Director  
Reliant Energy, West Region Operations  
7251 Amigo Street, Suite 120  
Las Vegas, NV 89119

Dear Mr. Lawhn:

RELIANT ENERGY GENERATING STATION, NPDES PERMIT CA0001180

We have reviewed your letter addressed to Dominic Gregorio, Ocean Standards Unit, dated October 2, 2004. In your letter you requested that compliance with the Generating Station's existing 30-day average copper effluent limitation be determined after allowance for the ambient copper levels in the plant intake water.

We examined the monitoring data you provided and agree that your facility is not significantly *adding* copper to the effluent discharge during the May or November months. We cannot, however, make allowances for compliance with your copper effluent limitations due to high copper levels in your plant intake water. Our explanation follows.

Your facility discharges wastes into the Pacific Ocean and is therefore subject to regulations in the State Water Resources Control Board 2001 California Ocean Plan as well as the federal Clean Water Act (CWA). The CWA requirement to protect and enhance water quality is not conditioned on factors such as intake water quality, and it would be inappropriate for the California Ocean Plan to impose such a condition. The California Ocean Plan specifically defines waste as "a discharger's total discharge, of whatever origin, i.e., gross, not net, discharge."

As noted, the CWA does not make special allowances for intake pollutants. Use of intake water as cooling water by an industrial facility and the subsequent discharge of that cooling water is an "addition" subject to CWA regulation. The simple fact that the pollutants were withdrawn by the facility so that they were no longer in waters of the United States means that the subsequent release of those pollutants into the receiving water is an addition of pollutants from the facility. It is irrelevant that the pollutants are originally from the Pacific Ocean or from the Edison Canal. Dischargers do not have a right to discharge intake water pollutants since the discharge of intake pollutants by a point source constitutes an "addition." Intake pollutant relief cannot be reconciled with the requirement to establish limits that implement water quality standards, even if the pollutant of concern can be characterized as ubiquitous.

*California Environmental Protection Agency*

Section 301(b)(1)(C) of the CWA requires the issuance of effluent limitations necessary to meet water quality standards. Similarly, federal National Pollutant Discharge Elimination System (NPDES) regulations at 40 Code of Federal Regulations (CFR) 122.44(d)(1)(vii) require that water quality-based permit limits be derived from and comply with all applicable water quality standards.

Four mechanisms are available under the CWA which allow a permitting authority to determine appropriate water quality-based effluent limitations when a receiving water exceeds a water quality criterion: (1) temporary variances to water quality standards, (2) removal of non-existing beneficial uses, (3) site-specific modifications to water quality criteria, and (4) wasteload allocations established through total maximum daily load (TMDL) strategy. TMDLs are a mechanism for determining the assimilative capacity of a water body and fairly allocating that capacity among sources of a pollutant (CWA section 303(d); 40 CFR 130.7). However, the Pacific Ocean in the vicinity of your discharge (receiving water) is not on the State's 303(d) list, and therefore a TMDL is not currently relevant to your discharge.

Our records indicate that your facility is granted a minimum initial dilution factor (Dm) of 2.6. The dilution factor is used when setting effluent limits for water quality objectives contained in Table B of the California Ocean Plan. One option for your facility is to modify your discharge outfall in order to increase the initial dilution factor. More mixing with seawater (e.g., if the outfall is moved to a submarine location further offshore) will give a higher minimum initial dilution factor. For example, increasing Dm to 10 would increase your average monthly copper effluent limitation from the existing 5.6 ug/L to 13.0 ug/L. If you plan to modify your outfall, we suggest that you perform a modeling study to determine the increased dilution for various outfall scenarios.

In addition, based on the November monitoring data that you provided, we estimate that you could achieve compliance with such an increased copper effluent limit over 93 percent of the time. An additional advantage can be gained from collecting more than one sample during each month. By averaging the results of four samples collected in a month, we estimate that you could achieve compliance with an average monthly copper effluent limit of 13 ug/L over 99 percent of the time.

Also, you should be aware that the California Ocean Plan contains a special compliance determination provision for power plants. Concentration-based effluent limitations for most water quality objectives are supposed to be converted to mass emission-based effluent limitations by multiplying the concentration limit by the discharge flow rate in million gallons per day.

It is obvious that the Edison Canal is the source of the elevated copper levels in the intake water. Channel Islands Harbor (Harbor) is 303d listed for lead and zinc (in sediments). Edison Canal, while in hydrologic continuity with the Harbor, is not specifically listed for any impairment. The Harbor should not be ruled out as at least one source of copper in your intake, given the tidal

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nature of Edison Canal. We encourage you to work with other stakeholders and the appropriate Regional Water Quality Control Board to address pollution sources in the Edison Canal and the Harbor.

If you have any questions, please call me at (916) 341-5458. The staff person who is most knowledgeable on this subject is Steve Saiz, and he can be reached at (916) 341-5582. You may also call Gerald Bowes, Chief of the Standards Development Section, at (916) 341-5567. For specific questions regarding your NPDES permit or any potential modifications to your outfall, you should contact the Los Angeles Regional Water Quality Control Board.

Sincerely,



Stan Martinson, Chief  
Division of Water Quality

cc: Mr. David Hung ✓  
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