



California Regional Water Quality Control Board

Los Angeles Region



Winston H. Hickox
Secretary for
Environmental
Protection

Over 50 Years Serving Coastal Los Angeles and Ventura Counties

Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

Gray Davis
Governor

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: <http://www.swrcb.ca.gov/rwqcb4>

June 28, 2002

Mr. Ed Dienzo
Southwest Division
Naval Facilities Engineering Command
1220 Pacific Coast Highway, Suite 1100
San Diego, CA 92101

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
CLAIM NO. 7001 2510 0000 4661 0304

Dear Mr. Dienzo:

GENERAL WASTE DISCHARGE PERMIT COVERAGE (ORDER NO. R4-2002-0030: SERIES 002) FOR PROPOSED HYDROGEN RELEASE COMPOUND (HRC™) INJECTION TO GROUNDWATER AT INSTALLATION RESTORATION SITE 14 AT FORMER NAVAL STATION LONG BEACH, LONG BEACH, CALIFORNIA (DOD SITE ID NO. 1654100)

We have completed our review of your application for coverage under General Waste Discharge Requirements to inject Hydrogen Release Compound (HRC™) to groundwater at the subject site for use in in-situ bioremediation to address the volatile organic compounds in groundwater.

HRC will be delivered into the saturated zone via approximately 32 injection points. The injection field includes an array of eight by four injection points, covering an 80-foot by 40-foot area (32,000 square feet). The injection points will have a spacing of 10 feet. The dosing rate of HRC will be 2.2 pounds of gel HRC per foot of saturated zone per injection point. The target saturated zone is approximately 25 feet, resulting in a total of 55 pounds per injection point and 1,760 pounds for the entire injection field. HRC will be applied to the saturated zone using direct-push hydraulic equipment.

A groundwater and subsurface bioprocesses monitoring program will be implemented for a minimum of two years to verify the efficacy of the HRC addition to this site.

The injection activities are expected to start on July 8, 2002. Any potential adverse water quality impacts that may result will be localized, of short-term duration, and will not impact any existing or prospective uses of groundwater. Groundwater quality will be monitored to verify no long-term adverse impact to water quality. There may be small increases associated with soluble gases such as methane, ethane, ethene, and carbon dioxide. The Installation Restoration Site 14 is located in the City of Long Beach approximately at Latitude: N33° 45' 24", Longitude: W118° 14' 16". The quantities of HRC injected will be required to be documented per the Monitoring and Reporting Program No. 8417.

Regional Board staff have reviewed the information provided and have determined that the proposed discharge meets the conditions specified in Regional Board Order No. R4-2002-0030, "General Waste Discharge Requirements for Groundwater Remediation at Petroleum Hydrocarbon Fuel and/or Volatile Organic Compound Impacted Sites," adopted by this Regional Board on January 24, 2002. Refer to the attached Fact Sheet.

California Environmental Protection Agency

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption
For a list of simple ways to reduce demand and cut your energy costs, see the tips at: <http://www.swrcb.ca.gov/news/echallenge.html>



Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

Mr. Ed Dienzo
Southwest Division
Naval Facilities Engineering Command

- 2 -

June 28, 2002

Enclosed are your Waste Discharge Requirements, consisting of Regional Board Order No. R4-2002-0030 (Series 002) and Monitoring and Reporting Program No. CI-8417. Please note that the discharge limits in Attachment A (DWR Basin No. 4-11 (Central Basin)) of this Order No. R4-2002-0030 are applicable to your discharge.

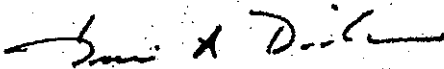
The "Monitoring and Reporting Program" requires you to implement the monitoring program on the effective date of this enrollment (July 8, 2002) under Regional Board Order No. R4-2002-0030. All monitoring reports (two copies each) should be sent to the Regional Board, ATTN: Information Technology Unit.

When submitting monitoring or technical reports to the Regional Board per these requirements, please include a reference to "Compliance File No. CI-8417", which will assure that the reports are directed to the appropriate file and staff. Also, please do not combine other reports with your monitoring reports. Submit each type of report as a separate document.

We are sending a copy of Order No. R4-2002-0030 only to the applicant. A copy of the Order will be furnished to anyone who requests it.

If you have any questions, please contact me (213) 576-6605, or Kwang-il Lee at (213) 620-2269.

Sincerely,



Dennis A. Dickerson
Executive Officer

Enclosures

Board Order No. R4-2002-0030
Monitoring and Reporting Program No. CI-8417
Fact Sheet

cc: Mr. Mike Floyd, Division of Water Quality, State Water Resources Control Board
Mr. Robert Sams, Office of Chief Counsel, State Water Resources Control Board
Mr. Michael Lauffer, Office of Chief Counsel, State Water Resources Control Board
Ms. Ana Townsend, California Regional Water Quality Control Board - Los Angeles Region
Mr. Richard Wagner, Department of Health Services, County of Los Angeles
Ms. Melinda A. Sperry, Water Replenishment District of Southern California
Mr. Tom Johnson, Port of Long Beach
Mr. Abram Eloskof, Foster Wheeler Environmental Corporation (San Diego)

California Environmental Protection Agency

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption
For a list of simple ways to reduce demand and cut your energy costs, see the tips at: <http://www.swrcb.ca.gov/news/echallenge.html>



Recycled Paper

For the benefit of present and future generations.