



California Regional Water Quality Control Board

Los Angeles Region



Alan C. Lloyd, Ph.D.
Agency Secretary

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

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Arnold Schwarzenegger
Governor

June 29, 2004

Mr. Dan Truzzolino
ConocoPhillips Company
P.O. Box 25376
Santa Ana, CA 92799

Dear Mr. Truzzolino:

GENERAL WASTE DISCHARGE REQUIREMENTS FOR INJECTION OF FENTON'S REAGENT IN GROUNDWATER AT PETROLEUM HYDROCARBON FUEL AND/OR VOLATILE ORGANIC COMPOUND IMPACTED SITES – FORMER 76 STATION #5228, 672 LAS POSAS ROAD, CAMARILLO, CALIFORNIA (FILE NO. C-97041, CI NO. 8908, SERIES NO. 013, ORDER NO. R4-2005-0030)

We have completed our review of your application for coverage under General Waste Discharge Requirements to inject Fenton's Reagent at the subject site (the site) to reduce the mass of petroleum hydrocarbons in the saturated zone and to reduce any threat to underlying usable aquifers posed by residual hydrocarbon-affected soil and groundwater.

The site is a former service station located on the southeast corner of the intersection of Las Posas Road and Ponderosa Drive in Camarillo, California (Figure 1). The station formerly maintained two 12,000-gallon gasoline underground storage tanks (USTs) and a 500-gallon waste oil UST. Commercial properties are located east, south, and west of the site. Private residences are located to the north. The gasoline leak occurred during a pressure test of one of the product lines near the southwestern corner of the gasoline UST cavity in 1997.

Between 1998 and 2000, four borings, five onsite groundwater monitoring wells (MW-1 through MW-5), and four offsite groundwater monitoring wells (MW-6 through MW-9) were installed. In 2001, the site was demolished and all USTs were removed. Approximately, 431 tons of impacted soil were removed from the site. Following excavation, up to 2,000 mg/kg of TPHg, 6.2 mg/kg of benzene, and 16 mg/kg of MTBE were detected in the soil.

Quarterly groundwater monitoring has been performed at the site since March 1999. The latest groundwater monitoring event conducted in January 2005 detected up to 120,000 µg/L of TPHg, 7,300 µg/L of benzene, and 1,800 µg/L of MTBE in MW-5 (closest well to the source area).

On January 24, 2005, the Discharger submitted to the Ventura County Environmental Health Division (Ventura County) "In-situ Chemical Oxidation Workplan" (Workplan) proposing to inject Fenton's Reagent at the site to reduce the mass of petroleum hydrocarbons in the saturated zone. Ventura County approved the workplan on January 26, 2005.

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Mr. Dan Truzzolino
Former 76 Station #5228

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The Site is located in the Ventura Basin. Fresh water is reported to occur at a depth of approximately 1,800 feet bgs. First encountered groundwater beneath the site occurs at a depth of approximately 21 feet bgs. On January 24, 2005, the hydraulic gradient was to the southwest (Figure 2).

In the workplan, ISOTEC, the subcontractor to the ConocoPhillips' consultant (TRC), proposed to use the in-situ chemical oxidation technology to accomplish treatment of the impacted area, which measures approximately 6,600 square feet, by injecting Fenton's Reagent into 14 direct-push injection points (Figure 3). Ferrous catalyst and diluted hydrogen peroxide solution (12%) will be mixed and injected. The ferrous sulfate (catalyst) and hydrochloric acid (pH buffer) solution will be mixed in 300-gallon mixing bulk tanks.

Any potential adverse water quality impacts that may result shall be localized, of short-term duration, and shall not impact any existing or prospective uses of groundwater.

Regional Board staff have determined that the proposed discharge meets the conditions specified in Order No. R4-2005-0030, "*Revised 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 and revised on April 19, 2005.

Enclosed are your Waste Discharge Requirements, consisting of Regional Board Order No. R4-2005-0030 and Monitoring and Reporting Program No. CI-8908 and Standard Provisions.

The Monitoring and Reporting Program requires you to implement the monitoring program on the effective date of this enrollment (June 29, 2005) under Regional Board Order No. R4-2005-0030. All monitoring reports shall 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-8908, which will assure that the reports are directed to the appropriate file and staff. 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. R4-2005-0030 only to the applicant. A copy of the Order will be furnished to anyone who requests it.

If you have any questions, please contact Mr. Rodney Nelson at (213) 620-6119. Questions regarding the underground storage tank issues should be forwarded to Arman Toumari at (213) 576-6758.

Sincerely,

Jonathan S. Bishop
Executive Officer

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Mr. Dan Truzzolino
Former 76 Station #5228

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Enclosures: 1. Board Order No. R4-2005-0030
2. Monitoring and Reporting Program No. CI-8908

cc: Ted Johnson, Water Replenishment District of Southern California
David C. Salter, Ventura County Environmental Health Division
Mark Stewart, Central Basin Watermaster, California Department of Water
Resources
Jon Cooper, TRC

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