



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

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

Arnold Schwarzenegger
Governor

June 28, 2005

Ms. Shari London
ConocoPhillips Company
3611 South Harbor Boulevard, Suite 200
Santa Ana, CA 92704

GENERAL WASTE DISCHARGE REQUIREMENTS COVERAGE FOR PROPOSED OZONE SPARGING TO GROUNDWATER (ORDER NO. R4-2005-0030) (SERIES NO. 009) 76 STATION No. 5523, 1121 SOUTH VICTORIA AVENUE, VENTURA, CALIFORNIA (FILE #C95026, CI-8912)

Dear Ms. London:

We have received ConocoPhillips Company (ConocoPhillips)'s application for coverage under General Waste Discharge Requirements for ozone-sparging to address the petroleum hydrocarbons and methyl tertiary butyl ether (MTBE) plume originating from the subject site.

The site is an active 76 Station operated by ConocoPhillips Company (ConocoPhillips) located at the corner of South Victoria Avenue and Telephone Road, in Ventura, California. The Station consists of two 15,000-gallon gasoline underground storage tanks (USTs), one 10,000-gallon diesel UST, six fuel dispenser islands, a carwash and a station building. The site has been a service station since 1965. Petroleum hydrocarbon contamination was detected at the site in May 1987. In April 1995, station upgrade activities were completed which included the removal of the waste oil tank, a clarifier and two hydraulic hoists from the site. A total of 1,579 tons of petroleum hydrocarbon-impacted soil were removed and transported offsite for disposal.

Since 1995, assessment activities at the site included the completion of 10 hand-auger borings (HA-1 through HA-10), 33 soil borings (B1 through B25 and GP-1 through GP-8), eight onsite groundwater monitoring wells (B-10, B-11, B-12, B-18, B-20/MW-1, MW-2, MW-3, MW-4), three offsite groundwater monitoring wells (MW-5, MW-6 and MW-7), and nine vadose zone wells (B7 through B9, B13 through B17, and B19). The extent of soil contamination has been delineated. Quarterly groundwater monitoring activities were initiated at the site in July 1995.

Based on the results of First Quarter 2004 Groundwater Monitoring Report prepared by TRC, the maximum total petroleum hydrocarbons as gasoline (TPHg) and methyl tertiary butyl ether (MTBE) concentrations were 5,500 ug/L and 1,600 ug/L from well MW-3, respectively. The maximum concentrations of benzene and tertiary butyl alcohol (TBA) were 360 ug/L and 1,900 ug/L, respectively.

In 1995, a soil vapor extraction (SVE) pilot test was conducted subsequent to the installation of the monitoring wells. Following results of the test, an SVE system was permitted and installed. An SVE system has been in intermittent operation since January 1999 and has removed approximately 24,830 pounds of petroleum hydrocarbons to date.

California Environmental Protection Agency



Recycled Paper

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

In 2004, an air-sparging pilot test was conducted using newly installed well CS-1. Based on the results of the pilot test, ozone sparging was recommended as a viable remedial method for the dissolved-phase hydrocarbons in a report dated April 5, 2004. In a letter dated July 19, 2004, VCEHD approved the installation of the ozone-sparging system.

ConocoPhillips plans to use an ozone generator to inject ozone into groundwater. The ozone-sparging system consists of sparging points, an ozone generator, conveyance piping, and monitoring devices, including pressure indicators and depth-to-water gauges. The ozone-sparge system is capable of generating approximately 3 to 6 SCFM of an ozone/air mixture at a maximum pressure of approximately 60 pounds per square inch. Ozone is generated within a corona discharge tube, which ionizes di-atomic oxygen (O₂) produced by an oxygen generator into ozone (O₃). When the ozone/air mixture is sparged through the well points set in the aquifer, the ozone will oxidize petroleum hydrocarbons in situ, such as benzene and MTBE, and other oxygenates including TBA.

Regional Board staff have determined that the proposed discharge meets the conditions specified in Regional Board Order No. R4-2005-0030, "*General Waste Discharge Requirements for Groundwater Remediation at Petroleum Hydrocarbon Fuel and/or Volatile Organic Compound Impacted Sites*," adopted by this Regional Board on April 19, 2005.

Enclosed are Waste Discharge Requirements, Order No. R4-2005-0030, and Monitoring and Reporting Program No. CI-8912.

The "Monitoring and Reporting Program" requires you to implement the monitoring program on the effective date of this enrollment under Regional Board Order No. R4-2005-0030. Your first monitoring report is due to this Board two months after the injection. All monitoring reports 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-8912," 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. R4-2005-0030 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.

Sincerely,

Jonathan A. Bishop
Executive Officer

Enclosures

California Environmental Protection Agency



Ms. Shari London
ConocoPhillips Company

-3-

June 28, 2005

Board Order No. R4-2005-0030
Monitoring and Reporting Program No. CI-8912

Cc: Yvonne Shanks, State Water Resources Control Board, Underground
Storage Tank Cleanup Fund(w/o Board Order No. R4-2005-0030)
David Salter, Ventura County Environmental Health Division
Richard Chandler, ATC Associates Inc

California Environmental Protection Agency



Recycled Paper

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