



# 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

August 4, 2005

Mr. Khosrow Lashkari  
Lashkari ARCO  
105 Oxnard Avenue  
Oxnard, CA 93030

Dear Mr. Lashkari:

**GENERAL WASTE DISCHARGE REQUIREMENTS FOR FERROUS SULFATE, SODIUM PERSULFATE, AND HYDROGEN PEROXIDE SOLUTION AND HYDROCHLORIC ACID BUFFER SOLUTION INJECTIONS AT PETROLEUM HYDROCARBON FUEL AND/OR VOLATILE ORGANIC COMPOUND IMPACTED SITES – LASHKARI ARCO SERVICE STATION, 105 SOUTH OXNARD BOULEVARD, OXNARD, CALIFORNIA (VCEHD FILE NO. C03035, CI NO. 8909, ORDER NO. R4-2005-0030, SERIES NUMBER NO. 003)**

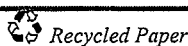
We have completed our review of your application for coverage under General Waste Discharge Requirements for the injection of hydrogen peroxide, ferrous sulfate, and hydrochloric acid buffer solution at the site referenced above in Oxnard, California.

Lashkari ARCO (hereinafter Discharger) is conducting the groundwater cleanup activities at a site (Site) located at 105 Oxnard Avenue in Oxnard, California (Figures 1 and 2) (Latitude: 34° 12'11", Longitude: 119°10'41"). Mr. Khosrow Lashkari owns the facility and operates it as a service station. Site investigations indicate that soil and groundwater have been contaminated with petroleum hydrocarbons. The maximum concentrations of total petroleum hydrocarbon as gasoline (TPHg), benzene, and methyl tertiary butyl ether (MTBE) were detected in soil at 3,500 mg/kg, 1.1 mg/kg, and 42 mg/kg, respectively. The maximum concentrations of TPHg and MTBE were detected in groundwater at 17,700 µg/L and 17,000 µg/L, respectively.

The Site is located within the Central Transverse Ranges Geographic Province of California. Specifically, the Site is located within the Oxnard Flood Plain identified by Quaternary river and flood deposits consisting of sand, gravel, silt and clay. In general, the coarser-grained sediments have been deposited near the inland hills as alluvial fans, and deposition of the progressively finer-grained material occurs near and within the flood plains. Lithology is variable, however, the contact between the aquifer and the underlying clay aquitard appears continuous and distinct. The groundwater is found at a depth of approximately 12 feet bgs, and flowing toward the southwest.

Active Oxnard City Wells 20 through 23 are located approximately 1,000 feet southeast of the Site, 90 degrees cross-gradient of the predominate southwesterly flow of groundwater at the Site.

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On December 9, 2004, Applied Environmental Technologies, Inc. (AET), on behalf of the Site owner, submitted a "Workplan for Additional Site Assessment and Interim Correction Action Plan (IRAP)" to Ventura County Environmental Health Division (VCEHD). The IRAP was approved by VCEHD on December 13, 2004. In the IRAP (final version revised on August 1, 2005), AET proposed to conduct additional remediation at wells MW-10, MW-11, MW-15, and MW-18 at the site using Fenton's Reagent, which is composed of H<sub>2</sub>O<sub>2</sub> (hydrogen peroxide) with HCL (hydrochloric acid) and FeSO<sub>4</sub> (ferrous sulfate). A 10% (or less) solution of H<sub>2</sub>O<sub>2</sub> will be mixed on Site using 30% H<sub>2</sub>O<sub>2</sub> and diluted with water. The H<sub>2</sub>O<sub>2</sub> solution will be gravity fed on a weekly to monthly basis into the wells at a rate of approximately ½ to 2 gallons/minute. The gravity feed rate will be optimized in the field. The feed rate will be controlled by a thermo-couple placed in each well so that the reaction temperature does not exceed 140°F. AET proposes to use MW-10, MW-11, MW-15, and MW-18 as the application wells and MW-8, MW-9, MW-16, MW-17, MW-19, and MW-20 as the monitoring wells.

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, "General Waste Discharge Requirements for Groundwater Remediation at Petroleum Hydrocarbon Fuel and/or Volatile Organic Compound Impacted Sites," adopted by this Regional Board on May 5, 2005.

Enclosed are your Waste Discharge Requirements, consisting of Regional Board Order No. R4-2005-0030 (Series No. 003) and Monitoring and Reporting Program No. CI-8909 and Standard Provisions.

The Monitoring and Reporting Program requires you to implement the monitoring program on the effective date of this enrollment (August 4, 2005) under Regional Board Order No. R4-2005-0030. You are required to utilize wells MW-10, MW-11, MW-15, and MW-18 as injection points dedicated to the introduction of the Fentons' Reagent in order to meet the conditions specified in Order No. R-4-2005-0030 for the proposed project. In addition, all of the injection points shall be sampled for all constituents identified in Section III-Monitoring and Reporting Requirements (Pages T-2 and T-4) prior to the introduction of any Fentons' Reagent at the site. 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-8909, 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.

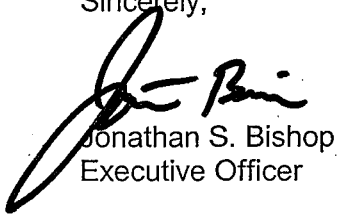
Mr. Khosrow Lashkari  
Lashkari ARCO

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August 4, 2005

If you have any questions, please contact Mr. Rodney Nelson at (213) 620-6119.

Sincerely,




Jonathan S. Bishop  
Executive Officer

Enclosures: 1. Board Order No. R4-2005-0030  
2. Monitoring and Reporting Program No. CI-8909

cc: Mr. David Salter, Ventura County Environmental Health Division (VCEHD)  
Mr. John Moreno, City of Oxnard, Water Distribution  
Ms. Amber Brooker, Komex H<sub>2</sub>O Science, Inc.  
Ms. Stacie Aichner, Applied Environmental Technologies, Inc. (AET)

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