

## **Los Angeles Region**

Recipient of the 2001 Environmental Leadership Award from Keep California Beautiful

Augore

Arnold Schwarzenegger

Alan C. Lloyd, Ph.D Agency Secretary

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July 12, 2005

Mr. Fred Mautner Shatto Investment Company 3715 Valley Meadow Road Encino, CA 91436

GENERAL WASTE DISCHARGE REQUIREMENTS FOR INJECTION OF OZONE INTO GROUNDWATER – SHATTO INVESTMENT COMPANY, 3151 WEST 6<sup>TH</sup> STREET, LOS ANGELES, CA (FILE NO. 900200125) (ORDER NO. R4-2005-0030, SERIES NO. 010; CI NO. 8921)

Dear Mr. Mautner:

On May 21, 2003, you submitted an application for waste discharge requirements for the injection of ozone into groundwater. The injection of ozone is for remediation of petroleum hydrocarbon impacted groundwater at the subject site.

Shatto Investment Company (hereinafter Discharger) owns the site located at 3151 West 6<sup>th</sup> Street, Los Angeles, in the Central Groundwater Basin. The site consists of two lots. An automotive repair facility is located on the eastern lot and a restaurant exists on the western lot. The eastern lot was formerly a gasoline station with underground storage tanks removed. The station is located at the intersection of 6<sup>th</sup> Street and Shatto Place. The surrounding land uses are primarily commercial. Groundwater was encountered in all existing 12 monitoring wells at approximately 23 to 26 feet bgs. The nearest water well to this site is well No. 3987A, located approximately 21,463 feet

In November 1989, three USTs were removed from the site. Analytical results indicated that soil samples collected from the excavation pit contained TPH 120 mg/kg. Between November 1990 - December 2003, 12 groundwater monitoring wells were installed and numerous soil borings advanced to define the extent of petroleum hydrocarbons and to characterize soil and groundwater beneath the site. Historically free product has been detected in wells MW3 and MW9. Since November 2001 no free product has been detected in any wells. The highest concentrations of TPHg, benzene, MTBE, and TBA detected in soil during these investigations were 5,400; 3.2; 37; and 0.136 mg/kg; respectively. Periodic groundwater monitoring also recorded TPH, benzene, MTBE, and TBA at concentrations up to 130,000; 4,060; 322; and 4,000  $\mu$ g/L; respectively.

To remediate the petroleum hydrocarbon impacted groundwater beneath the site, you submitted a remedial action plan dated February 28, 2003, in which you proposed to utilize a C-Sparge system. The proposed C-Sparge system includes utilizing well AS1, installation/construction of three sparge wells and a control panel with built in compressor and ozone generator. The Regional Board approved the remedial action plan on June 17, 2003.

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The C-Sparge technology combines low-flow air sparging with ozonation. Ozone will be introduced below water table through sparge points to oxidize contaminants into benign byproducts. These byproducts and residual compounds include acetate, butyrate, formate, propionate, carboxylic acids, tertiary butyl formate, formaldehyde, carbon dioxide, hydrogen peroxide, and oxygen. The release of oxygen with hydrogen peroxide to groundwater promotes aerobic bacterial growth that will consume the byproducts.

We have reviewed the information provided and 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, Monitoring and Reporting Program No. CI-8921, and Standard Provisions.

The Monitoring and Reporting Program requires you to implement the monitoring program on the effective date of this enrollment (July 12, 2005) under Regional Board Order No. R4-2005-0030. All monitoring reports shall be sent to the Regional Board, <u>ATTN: Information Technology Unit.</u>

When submitting monitoring or technical reports to the Regional Board per these requirements, please include a reference to Compliance File No. CI-8921, 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 can be download from <a href="https://www.waterboards.ca.gov/losangeles">www.waterboards.ca.gov/losangeles</a> or will be furnished upon request.

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. R4-2002-0030

2. Monitoring and Reporting Program No. CI-8921

cc: Ms. Yvonne Shanks, SWRCB, Underground Storage Tank Cleanup Fund Ms. Nancy Matsumoto, Water Replenishment District of Southern California

Mr. Steven Ridenour, Linmark Engineering