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Arnold Schwarzenegger
Governor

April 29, 2004

Mr. Don Shores
Pacific State Logistics Management, LLC
5900 Cherry Avenue
Long Beach, CA 90805

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
CLAIM NO. 7000 0520 0020 1693 5558

Dear Mr. Shores:

GENERAL WASTE DISCHARGE REQUIREMENTS FOR GROUNDWATER REMEDIATION AT PETROLEUM HYDROCARBON FUEL AND/OR VOLATILE ORGANIC COMPOUND IMPACTED SITES – FORMER PACIFIC TRANSPORTATION FACILITY, 10869 DRURY LANE, LYNWOOD, CALIFORNIA (FILE NO. R-25782)

We have completed our review of your application for Waste Discharge Requirements to inject hydrogen peroxide with pH buffer into the groundwater at the above referenced site (see Figure 1) for the remediation of dissolved-phase petroleum hydrocarbon.

Mr. Don Shores of Pacific State Logistics Management, LLC (hereinafter Discharger) operated the former Pacific Transportation Facility located at 10869 Drury Lane in Lynwood, California, until 1982 and is the current property owner. Walt's Tow Service, a towing company, began leasing the site in January 1998.

The Discharger indicated that a gasoline underground storage tank (UST) was removed from the site in 1982. On April 24, 1998, one 5,000-gallon diesel UST was removed from the site. Total petroleum hydrocarbons (TPH), ethylbenzene, toluene, and xylene were detected in soil samples collected during the UST removal.

Quarterly groundwater monitorings, utilizing the 10 groundwater monitoring wells installed in May 2000 and May 2002, were conducted. Benzene, trichloroethylene (TCE), cis-1,2-dichloroethylene (c-1,2-DCE), 1,2-dichloroethane (1,2-DCA), and trans-1,2-dichloroethylene (t-1,2-DCE) were detected in groundwater samples collected during this period at maximum concentrations of 12,000 micrograms per liter ($\mu\text{g/L}$), 180 $\mu\text{g/L}$, 1,100 $\mu\text{g/L}$, 580 $\mu\text{g/L}$, and 84 $\mu\text{g/L}$, respectively.

In December 2003, one additional groundwater monitoring well (MW-11) and 3 additional wells/piezometers were installed in preparation for chemical oxidation pilot testing. Currently there are 10 groundwater monitoring wells on-site and 1 dual-nested groundwater monitoring well off-site. During the December 2003 monitoring event, the maximum concentrations of benzene, TCE, c-1,2-DCE, 1,2-DCA, and t-1,2-DCE, detected in groundwater were 11,000 $\mu\text{g/L}$, 150 $\mu\text{g/L}$, 1,100 $\mu\text{g/L}$, 270 $\mu\text{g/L}$, and 84 $\mu\text{g/L}$, respectively.

The site is located in the Central Groundwater Basin of the Coastal Plain Hydrographic Subunit. Historic groundwater levels on the site have been between 30.01 and 33.71 feet below ground surface (bgs). The groundwater has generally retained a south to southwest flow direction

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since groundwater monitoring began in 2000 with some groundwater depression around the area of the former UST. The groundwater gradient north of the site is approximately 0.02 feet/foot decreasing to 0.0055 feet/foot across the site.

The Discharger proposes to conduct in-situ chemical oxidation pilot testing by injecting chemical oxidation solution (hydrogen peroxide with pH buffer) into the shallow groundwater via temporary injection well casings to reduce concentrations of petroleum hydrocarbons and VOCs in the vadose and saturated zones. A total of twelve casings will be installed. Each casing will be installed to a total depth of 40 feet bgs and screened from 15 to 40 feet bgs. Each casing (including screen interval) will be composed of PVC. The chemical oxidation compounds will be hydrogen peroxide solution (5% to 15% by volume) and a pH buffer (sulfuric acid, 5% to 25% by volume). The Discharger indicated that based on the Engineering Handbook for Industrial Plastic Piping Systems, PVC is compatible with 5% to 25% concentration sulfuric acid and 5% to 15% concentration hydrogen peroxide solution. The chemical oxidation compounds will be injected to depths of up to 40 feet bgs. A total volume of approximately 3,200 gallons of hydrogen peroxide solution and 3,200 gallons of pH buffer solution will be injected through 12 injection points over the course of 3 to 5 days. The proposed pilot test area and injection point locations are shown in Figure 2. The infiltration rate is estimated at 130 to 200 gallons per hour.

Regional Board staff have reviewed the information provided and have determined that the proposed discharge meets the conditions specified in 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.

Enclosed are your Waste Discharge Requirements, consisting of Regional Board Order No. R4-2002-0030 (Series No. 048) and Monitoring and Reporting Program No. CI-8740 and Standard Provisions. Please note that the discharge limits in Attachment A (Los Angeles Coastal Plain – Central Groundwater Basin) of 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 (April 29, 2004) under Regional Board Order No. R4-2002-0030. 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-8740", 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. R4-2002-0030 only to the applicant. A copy of the Order will be furnished to anyone who requests it.

Mr. Don Shores
Former Pacific Transportation Facility

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April 29, 2004

If you have any questions, please contact Mr. David Koo at (213) 620-6155.

Sincerely,

Dennis A. Dickerson
Executive Officer

Enclosures:

1. Board Order No. R4-2002-0030
2. Monitoring and Reporting Program No. CI-8740
3. Standard Provisions applicable to Waste Discharge Requirements (addressee only)

cc: Mr. Robert Sams, State Water Resources Control Board, Office of Chief Counsel
Mr. Hari Patel, State Water Resources Control Board, Underground Storage Tank
Cleanup Fund
Mr. Tim Smith, L.A. County Department of Public Works, Environmental Program Division
Mr. Bruce Mowry, Water Replenishment District of Southern California
Mr. Jacob Barnes, Earth Tech (Long Beach Office)

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