

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
320 West 4th Street, Suite 200, Los Angeles, California 90013

FACT SHEET
WASTE DISCHARGE REQUIREMENTS
FOR
FORMER PIERCE SERVICE STATION
ORDER NO. R4-2002-0030: SERIES NO. 025
(UST ID# 900340061)

FACILITY ADDRESS

Former Pierce Service Station
2868 Robertson Boulevard
Los Angeles, CA 90034

FACILITY MAILING ADDRESS

Mr. Bernard Cohen
12720 Hartland Street
North Hollywood, CA 91605

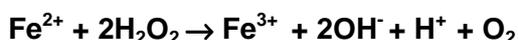
PROJECT DESCRIPTION

Mr. Bernard Cohen operated the Former Pierce Service Station at 2868 South Robertson Boulevard, Los Angeles, California (Site). In March 1992, nine underground storage tanks (USTs) were removed. Analytical results of soil samples collected during the tank removal indicated the presence of hydrocarbon-impacted soil at the site. Several site assessments have been conducted since 1992 to identify and delineate petroleum hydrocarbon contamination associated with the USTs. A quarterly groundwater monitoring program has been implemented since December 1994. Currently 17 groundwater monitoring wells were included in the quarterly groundwater monitoring program. Four new groundwater monitoring wells (MW-18 through MW-21) were installed to provide additional monitoring for the in-situ treatment.

A dual-phase remediation system has been performed since April 1998. The on-going remediation has reduced total petroleum hydrocarbon as gasoline (TPH_G) and benzene concentrations to nearly non-detectable levels in vadose zone soils and in the on-site groundwater monitoring wells. However, a residual offsite plume still presents offsite southwest of the site, beneath Robertson Boulevard. In August 2000, the offsite well MW-10 was connected to the dual-phase remediation system. Mr. Cohen's consultant, Tait Environmental Management, Inc., (TEM) proposes additional in-situ treatment using hydrogen peroxide compound and catalyst mixture (HPC) to remove any residual hydrocarbon plume outside the capture radius of the extraction wells. On April 25, 2003, TEM conducted a bench scale testing to evaluate the effectiveness of the treatment by the HPC. The results of the testing indicated that the HPC effectively reduced the contaminant in all treated samples.

HPC PRODUCT DESCRIPTION

TEM proposes to use classic Fenton's Chemistry, which utilizes a small amount of acid to reduce the pH to between 4 and 5 and a ferrous sulfate catalyst. The acidic solution releases hydroxyl radicals that oxidize petroleum hydrocarbon compounds. The creation of hydroxyl radical occurs according to the following chemical reaction:



The hydroxyl radical can attack C-H bonds of organic molecules and is capable of degrading aromatic compounds and chlorinated solvents:



INJECTION PROCEDURES

The HPC will be injected to 22 short-term temporary injection along east and west side of Robertson Boulevard (see attached figure). The hydrogen peroxide and catalyst mixtures will be mixed separately in two storage tanks. The hydrogen peroxide solution used for injection is estimated to be a 8.5 to 17 % solution. Approximately 500 to 800 gallons of diluted hydrogen peroxide solution, 100 gallons of catalyst and 5 gallons of hydrochloric acid per well will be pumped through the separate geoprobe screens at the exposed screen intervals. The groundwater conditions will be monitored and sampled during and after the injection to evaluate the effectiveness of the process. It is anticipated that a second injection event will be necessary at approximately two months after the initial event.

GROUNDWATER MONITORING PROGRAM

The groundwater monitoring program CI-8588 will be performed for groundwater monitoring wells MW-5, MW-9, MW-10, MW-18, MW-19, MW-20 and MW-21 to assess the groundwater contamination plume and the effectiveness of the HPC treatment.