



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
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August 20, 2008

Mr. Keith Simas
Xtra Oil Company
1701 Park Street
Alameda, CA 94501

Subject: Fuel Leak Case No. RO0000191 (Global ID #T0600101803), Xtra Oil, 1701 Park Street, Alameda, CA

Dear Mr. Simas:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above referenced site and the documents entitled "Remedial Action Work Plan (RAP)" and "Soil and Groundwater Investigation Report" dated October 24, 2007 and March 3, 2007, prepared by P & D Environmental. Recommendations from the November 2007 report conclude that soil vapor extraction (SVE) combined with air sparging (AS) and groundwater extraction will be the most effective remedial action for residual soil and groundwater contamination beneath your site. ACEH generally concurs with the proposed remedial measures.

Based on ACEH staff review of the case file, we request that you address the following technical comments and send us the reports described below. Please provide 72-hour advance written notification to this office (e-mail preferred to <mailto:steven.plunkett@acgov.org>) prior to the start of field activities.

TECHNICAL COMMENT

1. Site Conceptual Model

A redevelopment project has been proposed at the site, which includes sub-grade parking, ground-level commercial and residential with additional residential on subsequent floors. Since the risk evaluation conducted at the site does not appear to account for change in site conditions (i.e. removal of vadose zone soils, etc.), it may be advantageous to develop a site conceptual model (SCM), which synthesizes all the analytical data and evaluates all potential exposure pathways and potential receptors that may exist at the site, including identifying or developing site cleanup objectives and goals. At a minimum, the SCM should include:

- (1) Local and regional plan view maps that illustrate the location of sources (former facilities, piping, tanks, etc.) extent of contamination, direction and rate of groundwater flow, potential preferential pathways, and locations of receptors;
- (2) Geologic cross section maps that illustrate subsurface features, man-made conduits, and lateral and vertical extent of contamination;
- (3) Plots of chemical concentrations versus time;
- (4) Plots of chemical concentrations versus distance from the source;

- (5) Summary tables of chemical concentrations in different media (i.e. soil, groundwater, and soil vapor); and
 - (6) Well logs, boring logs, and well survey maps;
 - (7) Discussion of likely contaminant fate and transport.
2. **Air Sparging and Soil Vapor Extraction.** P & D Environmental (P&D) proposes the installation of four additional air sparge points to supplement the seven existing air sparge points that were installed during the SVE/AS pilot test. Results from the pilot test indicate the SVE/AS is a feasible remediation option to remediate soil vapor and groundwater contamination beneath your site. The location of the new air sparge points are intended to reduce dissolved phase benzene contamination downgradient of the source area and potentially enhance biodegradation. However, no additional SVE extraction points have been proposed to recover any newly created vapor phase contamination. Please propose additional SVE extraction points that will capture any vapor contamination mobilized in the vadoze zone. Please present the new SVE location in the SCM report requested below.
 3. **Proposed Groundwater Extraction Wells.** Groundwater extraction has been recommended to remediate offsite migration of dissolved phase contamination plume and remove residual free phase TPHd on site detected in monitoring wells MW-1 and MW-2 at concentrations of up to 75,000 parts per billion (ppb). P & D proposes the installation of five groundwater extraction wells to remediate the dissolved phase TPHd contamination plume. ACEH generally agrees with the installation of the extraction wells as proposed in the Work Plan. However, prior to the installation of the wells please submit well construction specifications in the SCM report requested below.
 4. **Proposed Groundwater Monitoring Wells.** To evaluate the efficacy of air sparging, vapor extraction and assess water quality parameters, P & D has proposed the installation of two wells for remediation system performance monitoring. ACEH recommends the use of monitoring wells capable of monitoring depth discrete zones (designed with sand pack of 5 feet or less). ACEH generally agrees with the installation of the wells to monitor remediation system performance. Please present your rationale for monitoring well construction in the SCM report requested below.
 5. **Soil Vapor Extraction Remediation System.** Pilot test data for the proposed remediation system indicate that site lithology is amenable to the success of soil vapor extraction combined with air sparging. Initial concentrations in the pilot test detected TPHg in extracted soil vapor at 29,000 parts per million volume ppmv, indicating that soil vapor extraction would result in the removal of residual vapor phase contamination in the vadoze zone. Please present results from the ongoing remediation in the report requested below.
 6. **Soil Sampling and Analysis.** ACEH agrees with the suite of analyses as proposed in the work plan. Please present results from soil sampling in the interim remediation progress reports requested below.
 7. **Groundwater Sampling and Analysis.** ACEH agrees with the suite of analyses as proposed in the work plan. Please present results from soil sampling in the interim remediation progress reports requested below.
 8. **Corrective Action Plan (CAP).** Currently, P & D recommends the implementation of interim remediation using soil vapor extraction combined air sparging. ACEH requests that the interim remediation be formalized in a CAP. In addition, please propose appropriate cleanup levels and cleanup goals in accordance with 23 CCR Section 2725, 2726, and 2727. Soil cleanup levels should ultimately (within a reasonable timeframe) achieve water quality objectives (cleanup goals) for groundwater in accordance with San Francisco Regional Water Quality Control Board Basin Plan. Please present the cleanup levels for active remediation and cleanup goals in the CAP report requested below.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Mr. Steven Plunkett), according to the following schedule:

- **October 30, 2008** – Site Conceptual Model
- **November 30, 2008** – Corrective Action Plan
- **December 30, 2008** – Quarterly Groundwater Monitoring with Remediation System Progress Report

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/electronic_submittal/report_rqmts.shtml).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by

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an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

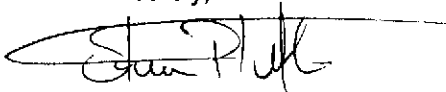
Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

If you have any questions, please call me at (510) 383-1761 or send me an electronic mail message at steven.plunkett@acgov.org.

Sincerely,



Steven Plunkett
Hazardous Materials Specialist



Donna Drogos, PE
Supervising Hazardous Materials Specialist

cc: Paul King
P & D Environmental
55 Santa Clara Avenue
Oakland, CA 94610

Donna Drogos, ACEH (sent via electronic mail), Steven Plunkett ACEH (sent via electronic mail), File