

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
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July 31, 2008

Mrs. Shirley Thompson
Thompson Edward C & Shirley E Trust
1155 Hopkins Street
Berkeley, CA 94702-1359

Subject: Fuel Leak Case No. RO0002933 Global ID T0600158621, Thompson Property, 1409-1417 12th Street, Oakland, CA 94607-2003

Dear Mrs. Thompson:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above referenced site, including the recently submitted report entitled, "Remediation Workplan," dated October 18, 2007 and prepared by Impact Environmental Services (Impact). The workplan recommends remediation activities to remove residual separate free phase product from soil and groundwater beneath the site, and prevent the offsite migration of dissolved phase petroleum hydrocarbon contamination. Also, the workplan recommends a phased approach starting with the installation of groundwater monitoring wells and the implementation of quarterly groundwater monitoring and sampling followed by interim remedial action using a mobile vacuum enhanced multi phase extraction prior to the implementation of Dual Phase Vapor Extraction (DPE) pilot testing.

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 COMMENTS

- 1. Monitoring Well Installation and Groundwater Monitoring.** Recently, groundwater monitoring wells have been installed and quarterly groundwater monitoring and sampling has been completed at the site. ACEH is currently awaiting submission of the monitoring well installation and groundwater sampling report. During a conversation with Impact, ACEH discussed provisional soil and groundwater data collected during the well installation and sampling. The provisional data indicate that limited soil and groundwater contamination exists near monitoring well MW-8. ACEH requests results from the monitoring well installation and groundwater sampling be presented in the SWI report requested below.
- 2. Installation of Dual Phase Vapor Extraction (DPE) wells.** Impact recommends the installation of up to 15 DPE wells located throughout the site. However, the exact number and location of extraction wells will be based on site lithology, soil characteristics and soil and groundwater data collected during monitoring well installation and groundwater sampling. Once soil and groundwater data have been evaluated, extraction well location, well design

and construction will be considered. DPE wells must be located in the area where soil and groundwater contamination is well defined, ideally in or near the source area(s). Please present a detailed discussion regarding DPE well location and well design in the SWI report requested below.

3. **Mobile Enhanced Multi-Phase Vacuum Extraction (MEME).** The purpose of MEME is to remove residual free product that remains in soil and groundwater and to limit offsite migration of the dissolved phase hydrocarbon plume. A review of provisional soil and groundwater data collected during the monitoring well installation and groundwater sampling indicate the MEME may not be necessary at this time (see comment 5 below). Please explain your rationale and justification for the use of MEME in the SWI report requested below.
4. **Floating Product Bail-Down Test.** After our discussion with Impact regarding provisional groundwater data collected during the monitoring well installation and sampling, ACEH has determined that this test is no longer necessary. However, should site conditions change and free product be discovered during subsequent groundwater monitoring and sampling events free product removal will be required.
5. **Dual Phase Vapor Extraction Pilot Test.** Impact recommends a DPE pilot test to evaluate the efficacy of DPE. The pilot test should consider vadoze zone soil characteristics such as soil moisture and structure, intrinsic permeability, radius of influence for extraction wells, soil vapor concentrations and depth to groundwater. Additionally, the pilot test can be used to replace the need for MEME. ACEH concurs with the recommendation for a DPE pilot test. Please present the results from the pilot test in the interim remediation report requested below.
6. **Remediation System Design and Installation.** When soil characteristics (as discussed in comment 5) have been evaluated and soil and groundwater data have been reviewed, then remediation system design and installation should be considered. Once a final remediation system design has been presented, ACEH will consider system design and determine if additional enhancements to the remediation system are necessary.
7. **Pumping Test.** Prior to our approval of a pumping test to determine if groundwater extraction is viable, a thorough evaluation of site lithology and groundwater analytical data is required. Furthermore, considering provisional water quality data, groundwater extraction may not be a beneficial remedial option at this site. Once your evaluation of all soil and groundwater data has been completed, present your rationale and justification of a pumping test in the SWI report requested below.
8. **Quarterly Groundwater Monitoring and Sampling.** Quarterly groundwater monitoring and sampling is an important component of site assessment and site remediation. At this time, please initiate quarterly groundwater sampling at the site. Please include analysis for TPH-gasoline, TPH-diesel, TPH-motor oil, benzene, toluene, ethyl benzene, xylenes (BTEX).

TECHNICAL REPORT REQUEST

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

- **October 7, 2008** – Soil and Groundwater Investigation Report
- **November 7, 2008** – Interim Remediation Results

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

Effective **January 31, 2006**, the Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will 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 (ftp) Instructions." Please do not submit reports as attachments to electronic mail.

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. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for 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 monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

In order to facilitate electronic correspondence, we request that you provide up to date electronic mail addresses for all responsible and interested parties. Please provide current electronic mail addresses and notify us of future changes to electronic mail addresses by sending an electronic mail message to me at <mailto:steven.plunkett@acgov.org>.

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

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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 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

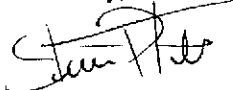
Please be aware that you may be eligible for reimbursement of the costs of investigation from the California Underground Storage Tank Cleanup Fund (Fund). In some cases, a deductible amount may apply. If you believe you meet the eligibility requirements, I strongly encourage you to call the Fund for an application.

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) 383-1767

Sincerely,



Steven Plunkett
Hazardous Materials Specialist



Donna Drogos, PE
Supervising Hazardous Materials Specialist

cc: Joseph Cotton
Impact Environmental Services
39120 Argonaut Way, Suite 223
Fremont, CA 94538

Pat Presslar
OSCA Account Manager
State Water Resources Control Board
PO Box 944212
Sacramento, CA 94244-2120

Leroy Griffim
Oakland Fire Department
250 Frank H. Ogawa Plaza, Ste. 3341

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Oakland, CA 94612-2032 (sent via electronic mail to lgriffin@oaklandnet.com)

Donna Drogos, ACEH, Steven Plunkett, ACEH, File