

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
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April 23, 2007

Ms. Steffi Zimmerman
Ronald S. Zimmerman Estate
6330 Swainland Road
Oakland, CA 94611

Subject: Fuel Leak Case No. RO0002936, 3442 Adeline Street, Oakland, CA 94608

Dear Ms. Zimmerman:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file and the recently submitted report entitled, "Work Plan for Additional Subsurface Investigation and Migration Control," dated March 28, 2007 and prepared by the Clearwater Group Inc (Clearwater). The scope of work in the Work Plan recommends the installation of 12 soil borings either adjacent to or downgradient of the former UST location. In addition, the Work Plans suggests the installation of a groundwater excavation trench, which could be used to mitigate potential dissolved phase contamination from moving offsite beneath the adjacent residences.

ACEH has reviewed the soil boring locations as proposed in the Work Plan and determined several soil boring location are not necessary at this time. Furthermore, ACEH does not agree with the proposed remedial alternative selected by Clearwater -the installation of a groundwater extraction trench. In addition, considering the proximity of residences to the former UST location and the presence of benzene in groundwater, the vapor intrusion pathway must be evaluated in connection with the soil and groundwater investigation.

We request that you prepare a revised Work Plan that responds to the technical comments discussed below and send us the Work Plan according to the schedule below. Please provide 72-hour advance written notification to this office (e-mail preferred to steven.plunkett@acgov.org) prior to the start of field activities.

TECHNICAL COMMENTS

1. **Contamination Plume Delineation.** The lateral extent of the dissolved petroleum hydrocarbon contamination has not been determined at the subject site. Results from the preliminary site assessment conducted in June 2006 indicate that residual TPH and TPH constituents in groundwater beneath your site may be migrating off site. There has been no soil or groundwater analytical data collected downgradient of soil boring S4 to determine the lateral extent of hydrocarbon contamination.

Clearwater recommends the installation of twelve soil borings to evaluate the horizontal and vertical extent of petroleum hydrocarbon impacts to soil and to define the extent of dissolved phase petroleum hydrocarbon contamination downgradient of the site. Groundwater elevation data at nearby sites demonstrates a hydraulic gradient toward the southwest. After review of

the proposed soil boring locations, ACEH has determined the soil borings in their current configuration are unusually close spacing; in particular, the outlying soil borings S12, S14 and S16 may not be useful for dissolved phase plume characterization. While these soil-boring locations may provide additional data, more importantly, the proposed soil borings S12, S14 through S16 are unlikely to define the orientation of the dissolved plume. Furthermore, if soil and groundwater contamination is detected in soil borings S8, S10 or S11 an additional offsite investigation will be required. In addition, soil borings S7 and S9 are not necessary at this time. Therefore, ACEH has determined six soil borings are sufficient during this phase of investigation. Please present the results of the Soil and Groundwater Investigation Work Plan (SWI) requested below

2. **Interim Source Area Remediation.** The purpose of interim cleanup is to immediately remove the ongoing source(s) that may be continuing to add mass to the dissolved plume and immediately begin removal of dissolved contaminant mass in the source area.

Interim cleanup is necessary to prevent dissolved phase petroleum hydrocarbon pollution from impacting or continuing to impact drinking water supply aquifers, reduce the ultimate impact of the unauthorized release on the resource, limit continued migration and growth of the petroleum hydrocarbon plume, and reduce overall cleanup costs.

ACEH agrees with the need for source area remediation to limit offsite pollution migration. However, the proposed remedial alternative, a groundwater extraction trench is not acceptable. Groundwater elevation data at nearby UST sites demonstrate a hydraulic gradient toward the southwest. It is unlikely the extraction trench in its current location, which is cross-gradient of the source area, will be effective for the intended purpose of plume migration control. In addition, the recommendation of a "mini drawdown test" in a soil borings is not a valid or acceptable approach to determine aquifer properties. Therefore, ACEH request that you evaluate several remedial alternatives that could be used to limit offsite groundwater contamination migration. Plans for interim remediation are to be proposed following site characterization.

3. **Vapor Intrusion and Soil Gas Investigation.** Review of groundwater elevation data at nearby UST sites confirms the current groundwater flow direction for your site is toward the southwest, directly in line with nearby residences. In addition, analytical data collected during the preliminary site assessment indicate residual petroleum hydrocarbon contamination in soil may be continuing to add mass to the dissolved petroleum hydrocarbon plume. Of particular concern is the presence of benzene in groundwater at concentrations of up to 7,000 ppb, approximately 25 feet from the closest residence. ACEH requires that the vapor intrusion pathway must be evaluated in conjunction with the proposed soil and groundwater investigation. Please prepare a revised Work Plan and discuss your proposal to perform a soil vapor survey, and thus evaluate the vapor intrusion pathway. The revised work plan is to include soil vapor sampling locations and recommendations for soil vapor sample analysis.
4. **Soil Sampling and Analysis.** Previous soil sampling conducted at the site detected adsorbed petroleum hydrocarbon contamination at approximately seven feet bgs. Clearwater recommends soil sampling every four feet. ACEH generally agrees with the recommended soil sample depths as proposed by Clearwater. Additionally, ACEH recommends a soil sample be collected at the capillary fringe, and the total depth of the soil borings must be extended to 20 feet bgs. Then a soil sample shall be collected at approximately 20 feet bgs.

and placed on laboratory hold pending results from the sample interval collected immediately above (approximately 16 feet bgs). ACEH generally agrees with the soil sample analysis as recommended by Clearwater with the addition of TAME, MtBE, EDB, EDC, ETBE, DIPE, and TBA. Please present the results from soil sampling in the SWI report requested below.

5. **Groundwater Sampling and Analysis.** ACEH generally agrees with the groundwater sample analysis as recommended by Clearwater with the addition of TAME, MtBE, EDB, EDC, ETBE, DIPE, and TBA. Please present the results from soil sampling in the SWI report requested below.

Please submit a work plan detailing your proposal to define the extent of soil and groundwater contamination by **March 30, 2007**.

TECHNICAL REPORT REQUEST

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

- **May 15, 2007** – Revised Work Plan for Soil and Groundwater Investigation

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

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).

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 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.

LANDOWNER NOTIFICATION REQUIREMENTS

Pursuant to California Health & Safety Code Section 25297.15, the active or primary responsible party for a fuel leak case must inform all current property owners of the site of cleanup actions or requests for closure. Furthermore, ACEH may not consider any cleanup proposals or requests for case closure without assurance that this notification requirement has been met. Additionally, the active or primary responsible party is required to forward to ACEH a complete mailing list of all record fee title holders to the site.

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, we 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.

Ms. Steffi Zimmerman
April 17, 2007
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Sincerely,

A handwritten signature in black ink, appearing to read "Steven Plunkett", with a long horizontal flourish extending to the right.

Steven Plunkett
Hazardous Materials Specialist

cc: Robert Nelson
Clearwater Group
229 Tewksbury Avenue
Point Richmond, CA 94801

Donna Drogos, ACEH
Steven Plunkett, ACEH
File