



ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION  
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October 16, 2008

Mr. Natale and Darlene Piazza  
7613 Peppertree Road  
Dublin, Ca 94568-3343

Mr. Franklin and Priscilla Mays  
7567 Amarillo Road  
Dublin, CA 94568-2223

Subject: Fuel Leak Case No. RO00002739 (Global ID #T06019758706) Piazza Property, 20987 Baker Road, Castro Valley, CA

Dear Mr. Piazza:

Alameda County Environmental Health Department (ACEH) staff has reviewed the case file for the above mentioned site. In April 2004, two 1,000 gallon USTs were removed from the site and confirmation soil sampling was conducted in the tank pit. Petroleum hydrocarbon contamination was detected in soil at concentrations of up to 1,400 mg/kg TPHg and 10,000 mg/kg TPHd, confirming that an unauthorized release occurred beneath your site. Further evaluation of the soil and groundwater analytical data confirm that residual petroleum hydrocarbon contamination remains in soil in the former tank pit, and dissolved phase petroleum hydrocarbon contamination is present groundwater beneath your site. In addition, we understand the site will be redeveloped into residential condominiums constructed over the source area. Your consultant presents various hypotheses for the degradation of contamination by bioattenuation without presenting data to support their conclusion. We request that you submit the information requested below so that we can evaluate your case for closure.

Based on ACEH staff review of the documents referenced above, we request that you address the following technical comments. Please provide 72-hour advance written notification to this office (e-mail preferred to [steven.plunkett@acgov.org](mailto:steven.plunkett@acgov.org)) prior to the start of field activities.

#### **TECHNICAL COMMENTS**

1. **Evaluation of Soil and Groundwater Conditions.** The UST removal and excavation conducted in April 2004 detected contamination in soil collected from the side walls of tank pit one and tank pit two (sample ID #T1W-EB8, T2W-EB8, T1E-EB8 and T2E-EB8) at a depth of 8 feet bgs; maximum concentrations of 1,400 mg/kg TPHg and 10,000 mg/kg TPHd were detected in soil. Groundwater was not encountered during the tank removal.

In May 2005, a phase II investigation was conducted to assess soil and groundwater conditions near the former tank pits. Results from the investigation detected dissolved phase hydrocarbon contamination in a grab groundwater sample collected from soil boring SB-2 (next to pit #2) at concentrations of up to 7,300 µg/L TPHg, and 23,000 µg/L TPHd. BTEX and MtBE were not detected above laboratory reporting limits. Soil samples from

soil borings SB-1 to SB-8 did not detect TPHg, TPHd, BTEX, MtBE or CAM17 metals above laboratory reporting limits.

Then, in October 2007 AEI installed four monitoring wells (MW-1 to MW-4) to evaluate the lateral extent of the dissolved hydrocarbon plume. An additional monitoring well IN-1, originally intended to be used as an injection well, was installed between the two tank pits. Our review of the boring logs indicate that a water bearing zone is present between approximately 10 feet and 13 feet bgs; the water bearing zone is underlain by an indurated claystone. Soil samples collected at 10 feet bgs and 12 feet bgs did not identify contamination above laboratory detection limits.

However, ACEH notes that TPHg and TPHd detected during the tank removal remain in soil beneath the former tank pit. In addition, groundwater analytical data from soil boring SB-2 disagree with groundwater analytical data from well MW-2. AEI suggests that soil and groundwater contamination detected in the tank pit and SB-2 has been reduced by natural attenuation processes over the last three years. However, no data, analysis or line of reasoning has been presented to substantiate the natural attenuation hypothesis. Therefore, ACEH requests that you present a plausible explanation as to the disposition of the hydrocarbon contamination in the former tank pit and discuss the variability of data between SB-2 and MW-2. Please present your conclusion in the report requested below.

2. **Air Sampling of Monitoring Wells.** AEI collected air samples from each of the well heads using a RKI Eagle 4 gas analyzer, which is used to detect CO<sup>2</sup>, CH<sup>4</sup>, O<sup>2</sup> and total hydrocarbons. The conclusion that air samples collected from groundwater monitoring wells are equivalent to "vapor samples collected from the vadoze zone" is implausible. The sampling methodology used for air sampling is, to our knowledge, not consistent with the currently accepted DTSC January 2003, Active Soil Gas Investigation Advisory or the February 1997, RWQCB Interim Guidance for Active Soil Gas Investigation. ACEH is uncertain of the value of air samples collected in this manner. Furthermore, AEI states that results from air samples collected from monitoring wells indicate that low levels of biodegradation is occurring and low levels of residual hydrocarbons remain beneath the site. To evaluate biodegradation of hydrocarbons in groundwater, a known suite of water quality data are collected and analyzed to determine the extent of biodegradation of the dissolved phase contamination. Please address these technical comments in the report requested below.
3. **Site Residential Redevelopment.** A proposal to redevelop the site as residential condominiums is currently planned, with the proposed residences constructed over the source area. ACEH has determined that residual soil contamination (TPHg 1,400 ppm, TPHd 10,000 ppm) in the source area exceed residential environmental screening levels (*Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater, San Francisco Bay Regional Water Quality Control Board, California EPA ESLs, November 2007.*) More importantly, no evaluation has been submitted by you to verify that the site meets residential cleanup standards for all media (soil, groundwater, soil vapor) and that residual contamination in the source area will not pose a risk to human health or the environment. Please present your evaluation in the report requested below

#### **TECHNICAL REPORT REQUEST**

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

- **December 1, 2008** – Additional Information 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](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 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.

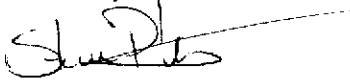
**AGENCY OVERSIGHT**

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.

Natale Piazza and Franklin Mays  
October 16, 2008  
RO0002739  
Page 4

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

Sincerely,



Steven Plunkett  
Hazardous Materials Specialist



Donna Drogos, PE  
Supervising Hazardous Materials Specialist

cc: Robery Flory  
AEI Consultants  
2500 Camino Diablo  
Walnut Creek, CA 94597

Cherie McCaulou  
Regional Water Quality Control Board  
1515 Clay Street  
Oakland, CA 94612

Donna Drogos, ACEH, Steven Plunkett ACEH, File