ALAMEDA COUNTY
**HEALTH CARE SERVICES**
AGENCY
DAVID J. KEARS, Agency Director

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February 9, 2008

Mr. Aaron Costa
6001 Bollinger Canyon Road RM 3360
PO Box 6012
San Ramon, CA 94583-2324

Mr. Shaddirck Small
Oakland Housing Authority
1805 Harrison Street
Oakland, CA 94612

Subject: Fuel Leak Case No. RO0000143 (Global ID # T0600100304), Chevron #9-0020, 1633 Harrison Street, Oakland CA 94612

Dear Mr. Costa and Mr. Small:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above referenced site and the document entitled "Remediation Activities Report," dated July 11, 2008, prepared by Conestoga Rovers Associates (CRA). Remediation activities include the excavation of contaminated soil by bucket auger, replacement of soil vapor probes and soil vapor sampling, and excavation of the former used oil tank pit. ACEH's technical comments focus on the following issues: residual soil contamination associated with the 1st generation USTs on the corner of 17th and Harrison (source area 1); soil excavation and residual contamination associated with the waste oil UST (source area 2); characterization of the 2nd generation USTs system (source area 3). 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.

Additionally, we understand that the site is proposed for redevelopment as senior housing. We have no objections to the proposed plan for redevelopment provided the technical comments below are addressed prior to redevelopment activities.

## TECHNICAL COMMENTS

1. **Risk Assessment**. CRA preformed a Tier II risk assessment to evaluate the human health risk associated with residual contamination in the vadose zone. The findings from the risk assessment only address residual contamination in shallow soil onsite, neglecting the residual contamination remaining at depth and any other valid exposure scenario for the site, the potential soil vapor to indoor air migration pathway associated with adjacent buildings (source 2 waste oil UST area), and the potential continuing contribution of residual onsite soil pollution to the offsite dissolved phase contaminant plumes migrating down-gradient.

   The risk assessment did not include descriptions or figures showing the proposed building construction or include an evaluation of the data with reference to the proposed construction in relation to areas of residual contamination. Please include graphics clearly depicting locations of residual pollution in relation to the new building/use to support your evaluation.

   Table 4 uses residential ESLs where groundwater is not a current or potential source of drinking water. Please use the appropriate designation per the Basin Plan which designates this site as being located in an area where

groundwater is a potential drinking water source. In addition, in Table 2 uses residential ESLs for direct contact. Since direct contact is a highly unlikely exposure scenario, please also evaluate using final ESLs for soil >10 feet bgs.

Please address these comments in the Addendum report requested below.

2. **1st Generation UST Source Area 1.** Soil excavation was performed to remove contaminated soil in the location of the 1st generation USTs. Approximately 810 $yd^3$ of contaminated soil was removed from a total of 105 auger borings. Once the maximum depth of between 23 to 25 feet below ground surface (bgs) was reached in each excavation boring, non discrete confirmation soil samples were collected from the auger flights. Petroleum hydrocarbon contamination was detected at maximum concentrations of up to 6,400 mg/kg TPHg and 0.235 mg/kg EDB in boring 1 between 23 to 25 feet bgs suggesting that residual contamination remains in place in 13 auger boring locations above residential ESLs. Further, we note that non discrete soil samples collected from the auger flight would likely undergo heating and volatilization of contamination and thus may not yield samples representative of soil conditions at depth. Please justify if soil samples collected in this manner are representative of actual soil conditions at depth in the Addendum report requested below.

   Post excavation soil vapor sampling conducted adjacent to the bucket auger excavation detected vapor phase contamination in the vadose zone at maximum concentrations up to 1,100 $\mu g/m^3$ TPHg and 14 $\mu g/m^3$ benzene and the risk evaluated. However, other possible risk scenarios including residual soil contamination at depth and the potential for volatilization of dissolved phase contamination were not addressed. Also, since direct contact is a highly unlikely exposure scenario, please use final ESLs for soil >10 feet bgs. Please address these comments in the Addendum report requested below.

   Due to the apparent residual pollution in soil and groundwater in the vicinity of Harrison & 17th St. we request that soil and vapor sampling be completed in this area. We request that you prepare a scope of work that includes the installation of groundwater monitor wells and submit the work plan report requested below.

   Please evaluate the potential for continuing contribution of residual onsite soil pollution, at the 1st generation USTs, to the offsite dissolved phase contaminant plumes migrating down-gradient of your site. Include your evaluation in the Addendum report requested below.

3. **Waste Oil UST Source Area 2.** Approximately 112 $yd^3$ of contaminated soil was excavated from the former waste oil UST location and nine post excavation confirmation soil samples were collected from the excavation sidewalls and bottom. Contamination above residential ESLs was detected in sidewall samples at concentrations up to 680 mg/kg TPHG, 7,800 mg/kg TPHd and 8,970 mg/kg TPH oil and grease (TPHo&g) and in bottom samples at 460 mg/kg TPHo&g. BTEX was not detected above laboratory reporting limits.

   Soil vapor sampling completed in the excavation backfill did not detect vapor phase contamination in the vadose zone at concentrations above laboratory reporting limits. However, soil vapor sampling was conducted in clean imported Class 2 gravel backfill and would be unlikely to detect residual contamination in the vadose zone. Collection of soil vapor samples from undisturbed locations outside of the excavation backfill is needed. Also, the potential soil vapor to indoor air migration pathway for the adjacent properties was not considered. Additionally, since direct contact is a highly unlikely exposure scenario, please use final ESLs for soil >10 feet bgs. Please address these comments in the work plan requested below.

   An evaluation of the potential for continuing contribution of residual onsite soil pollution, at the waste oil UST, to the dissolved phase contaminant plumes was not performed. Please evaluate this in the Addendum report requested below.

4. **2nd Generation USTs Source Area 3.** ACEH is unable to locate any documentation or information regarding the 2nd generation UST system removal including tank removal permits, tank or soil disposal manifests or confirmation soil sampling data. Furthermore, no soil or groundwater data has been collected near the 2nd generation UST system to determine if contamination exists at this location. Soil vapor sampling down-gradient of the USTs detected up to 38,000 µg/$m^3$ TPHg indicating that a source may be present in this area. Therefore, we request that you prepare a work plan to evaluate this data gap including the collection of samples at the 2nd generation dispensers and USTs. Please submit the work plan by the date below.

5. **Dissolved Contaminant Plume Definition.** Elevated levels of dissolved phase contamination have been detected in offsite down-gradient well MW-16 (over 100 feet down-gradient of the site) at concentrations of up to 8,000 µg/L TPHg and 300 µg/L benzene. Consequently, the lateral extent of dissolved phase contamination down-gradient of your site remains undefined. In a directive letter dated July 5, 2007, ACEH requested a work plan for offsite plume characterization be submitted by October 2008. To date, ACEH has not received the previously requested work plan. We require that offsite definition be performed and the previously requested work plan be submitted by the date below.

## TECHNICAL REPORT REQUEST

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

- **March 23, 2009** – Addendum to Remedial Activities Report
- **March 30, 2009** – Work Plan

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 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 L. Drogos, PE
Supervising Hazardous Materials Specialist

cc: Charlotte Evans
CRA
2000 Opportunity Drive, Suite 110
Roseville, CA 95678

Leroy Griffin (OFD) via email, Jeff Angell (CEDA) via e-mail
Donna Drogos, Steven Plunkett, File