

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
ALEX BRISCOE, Director



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
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April 16, 2012

Mr. John Buestad
Foley Street Investments LLC
2533 Clement Avenue
Alameda, CA 94501
(sent via electronic mail to:
john@buestad.com)

Mr. John F. Buono, Jr.
Good Chevrolet
P.O. Box 1730
Alameda, CA 94501

Subject: Corrective Action Plan for Fuel Leak Case No. RO0000008 and GeoTracker
Global ID T0600100655, Good Chevrolet, 1630 Park Street, Alameda, CA 94501

Dear Messrs. Buestad and Buono:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site including the recently submitted documents entitled, "Investigation and Remedial Action Work Plan" (IRAWP), dated January 12, 2012 and "Corrective Action Plan" (CAP), dated February 3, 2012, prepared by AEI Consultants for the subject site. A commercial development project with at-grade parking is currently proposed to be built under an accelerated development schedule. The IRAWP proposed adding nine soil and groundwater sampling locations to define the extent of contamination in the southeast to southwest directions of the northern former tank pit (tank pit), proposed adding eight additional dual-phase extraction (DPE) wells, and provided the status of the high vacuum dual-phase extraction (HVDPE) pilot test interim removal action. The CAP presented the results of nine soil and groundwater sampling locations to the southeast to southwest directions of the tank pit, a partial HVDPE pilot test report conducted for a period of approximately 30 days, a site conceptual model (SCM), a feasibility study, three remedial alternatives, and recommended selection of HVDPE. Since data from the IRAWP investigation indicated that site characterization is incomplete to the east and west of the tank pit, we conclude that the CAP is premature and cannot be approved. Furthermore, the HVDPE alone does not appear to be appropriate, especially when using a mobile treatment system, due to the uncertainty of the length of time required for use. Numerous mobilizations would likely make HVDPE not cost effective. Consequently, we don't concur using HVDPE as the only remedial method nor continuation of the HVDPE pilot test, especially when using a mobile treatment system. We request that you address the following technical comments and send us the reports by the dates listed below.

TECHNICAL COMMENTS

1. **Additional Site Characterization: The following deficiencies have been identified in site characterization efforts at the site:**
 - a. **Data Gap Work Plan:** The new data provided in the IRAWP indicated that site characterization is incomplete to the east and west of the tank pit and may signify the presence of another source. Grab groundwater samples from AEI-20 through AEI-23 for total petroleum hydrocarbons as gasoline (TPHG) concentrations (AEI-20=130,000 parts per billion [ppb], AEI-21=110,000 ppb, AEI-22=61,000 ppb, AEI-23=9,000 ppb) as well as historic grab groundwater samples from borings GP-1, GP-4, GP-5, and EB-5 for TPHG concentrations (GP-1=70,000 ppb, GP-4=46,000 ppb, GP-5=12,000 ppb, EB-5=83,000 ppb) indicate that the extent of contamination is not defined to the west or east of the tank pit. Please provide a data gap work plan by the date requested below to define the lateral extent of groundwater contamination. To ensure an accurate portrayal of the lateral extent of groundwater contamination, please ensure that all figures in the data gap work plan are updated with the new data provided in IRAWP. In subsequent reports, present the newest data on figures in the report in which the new data is presented.
 - b. **A Complete Utility Survey:** A preferential pathway study was requested in ACEH's November 3 and 23, 2011 letters, and remains an unfulfilled request. It is understood that portions of the preferential pathway survey have been completed; however, the data has not been submitted or used in the SCM. As discussed in more detail in previous letters the purpose of the preferential pathway study is to locate potential migration pathways and conduits and determine the probability of a non-aqueous phase liquid (NAPL) and/or a groundwater plume encountering preferential pathways and conduits that could spread contamination. The results of your study shall contain all information required by California Code of Regulations, Title 23, Division 3, Chapter 16, §2654(b). We request that you complete a preferential pathway study that details the potential migration pathways and potential conduits (wells, utilities, utility laterals, pipelines, and etc.) for vertical and lateral migration that may be present in the vicinity of the site. Please complete the utility survey component of the preferential pathway study, present the complete preferential pathway study, and update the SCM using the results of the completed preferential pathway study in the revised SCM, by the schedule specified below.
2. **Appropriate Timely and Cost Effective Remedial Actions:** Significant residual contamination appears to be present in the vicinity of the former tank pit. The recommended remedial option does not appear to take into account physical limitations (plastic liner) which are present in that location. These are discussed in more detail below.
 - a. **Historical Evidence of Suspected Tank Pit Hot Spot:** Based on a detailed review of the existing site data, it appears that the tank pit is a continuing source of petroleum hydrocarbons due to commonly accepted pre-1990's tank removal methods. In general, tanks were removed, followed by little or no sidewall soil removal, lining of the tank pit with plastic and subsequent backfilling of the tank pit with or without treatment of the removed soil. It is understood by ACEH that the plastic liner in the underground storage tank (UST) excavation was encountered in recent site activities. While the 1986 tank removal is undocumented, a February 1987 letter from ACEH inferred that the tank excavation was to be refilled with the soil that had been aerating on-site, and which was reported (but undocumented) to contain less than 100 parts per million (ppm) total hydrocarbons. An April 1987 report by Groundwater Technology, Inc. (GTI) indicated that during the October 1986 tank removal, a soil sample taken at 10 feet in the tank pit contained 2,509 ppm TPHG, the pit was excavated to 14 feet, resampled, and found to contain 1,441 ppm TPHG. This report also stated that the "excavated soils were placed on the site for aeration under the supervision of GTI". Unfortunately, the extent or success of the aeration is undocumented and we infer

from the limited documentation that the aerated soils were returned to the tank pit and, along with the unexcavated soil, are likely providing a continuing contaminant source.

- b. The recent pilot test further indicates that the presence of the plastic liner would significantly limit the ability of HVDPE to achieve a timely and cost effective remediation of the core contaminated zone. At the beginning of the 30-day HVDPE pilot test, TPHG groundwater concentrations in tank pit well DPE-3 (screened 7-14 feet) were 6,400 ppb while at the end of the study, concentrations nominally declined to 5,500 ppb, again indicating the presence of a significant contaminant source. The nominal TPHG reduction indicates that the HVDPE alternative alone will not be timely or cost effective. However, a combination of a focused hot spot source removal followed by an additional remedial action would be expected to shorten the time interval needed to permit construction to start and to ultimately obtain case closure.

If the tank pit source is not removed, it will pose an ongoing impediment during site development as the contaminated soil will constantly have to be dealt with, causing reoccurring contaminated soil and groundwater handling and disposal costs, nuisance odor conditions, additional worker safety protection measures, additional regulatory time, any and all of which may result in cost over runs and time delays. Since the preliminary site development plans indicate that the new building will be placed directly over the tank pit and core of the groundwater plume, vapor intrusion risk will have to be addressed, potentially preventing agency approval to build and/or allow tenants to occupy the new building. Additional site investigations and groundwater monitoring could likely continue long after completion of the new construction.

- c. **Inconsistency of Site Cleanup Objectives and Chosen Remedial Option:** The CAP states that the primary objective of the interim action was to remove source mass that may pose a threat to human health and act as a source for further groundwater impact, and a secondary objective to reduce the impact to groundwater and control migration of the dissolved petroleum hydrocarbon plume. Three remedial alternatives were proposed: soil excavation, HVDPE, and in-situ chemical oxidation (ISCO). The CAP states that the soil excavation alternative “has a high degree of certainty of removal, and given the clients time constraints on the project, is one of the more expedient remedial options”, but goes on to say that “while HVDPE was effective in removing hydrocarbons from the vapor stream, it was less effective at removing hydrocarbons from the groundwater stream”. Consequently, it would appear that soil excavation and not HVDPE would best achieve the primary and secondary objectives. Critically, based on the cost estimates provided in Appendix C of the CAP, HVDPE is the most expensive method, particularly when estimated over a time period of a minimum of 12 months or more, which in ACEH experience is more likely a realistic period.
- d. **Request for Re-Evaluation of Remedial Options:** ACEH recommends evaluation of a remedial option which focuses on focused hot spot source removal consisting of excavation of the tank pit, removal of the plastic liner, over excavation and performance of lateral and vertical confirmatory sampling to approved clean up levels, followed by implementation of another cost-effective alternative to remove the remaining TPH contamination. HVDPE appears to be effective at this site but with the apparent presence of a plastic liner in the UST excavation if used alone, would not be cost effective or timely. Hot spot source removal followed by HVDPE or another viable cost effective remedial option would be expected to shorten the time required to achieve the clean up objectives. Please address all issues discussed in Technical Comment 2 when submitting the revised CAP by the schedule specified below.

- 3. Corrective Action Plan Requirements.** A Draft Corrective Action Plan (Draft CAP) must meet the provisions of section 2725 of the UST regulations (CCR, Title 23, Chapter 16, section 2600, et seq.) and is to include the following minimum information:
- A. Proposed cleanup goals and the basis for cleanup goals.
 - B. Summary of site characterization data.
 - C. Receptor information including likely future land use scenarios, adjacent land use and sensitive receptors, and potential groundwater receptors.
 - D. Evaluation of a minimum of three active remedial alternatives including discussion of feasibility, cost effectiveness, estimated time to reach cleanup goals, and limitations for each remedial alternative.
 - E. Detailed description of proposed remediation including confirmation sampling and monitoring during implementation.
 - F. Post-remediation monitoring.
 - G. Schedule for implementation of cleanup.
- a. CAP Deficiencies:** Each of the sections listed above were either missing from the CAP or were inadequately addressed. Please provide thorough coverage of each section in the revised CAP by the schedule specified below. cursory treatment will only serve to delay regulatory approval.
- b. Cost effectiveness:** Based on an analysis of the cost estimate, it appears that 4 months of HVDPE has been reached with limited contaminant reduction indicating that HVDPE budget severely underestimated the time required to achieve cleanup or a critical factor was overlooked, such as the existence of an on-going contaminant source. Please make sure the cost estimates for all alternatives are thorough and complete to facilitate the cost effectiveness evaluation.
- c. Hydraulic Lift Area:** A cost estimate was included to excavate and dispose of approximately 355 cubic yards of soil contaminated with oil-range petroleum hydrocarbons in the former hydraulic lift area in the northeastern part of the existing building. Please provide the rationale for determining the areal and vertical extent of excavation, sampling protocols, and disposal details.
- d. Estimated time to reach cleanup goals:** Three remedial alternatives are proposed in the CAP; however a timeframe to reach cleanup levels (18 to 36 months) is only provided for one of the three alternatives (ISCO); please provide a timeframe to reach cleanup levels for all three alternatives.
- 4. HVDPE Pilot Test Report:** A pilot test report was submitted with the CAP for the December 5, 2011 to January 9, 2012 time frame, however, it is ACEH's understanding that the HVDPE system was restarted on January 25, 2012 and continued operation through March or April, however status reports have not been received. Please conclude the pilot test and provide a final HVDPE pilot test report for the entire period of operation by the date specified below; refer to Technical Comment 2b in our November 3, 2011 letter for pertinent information to be included in the report.
- 5. Request for final building plans:** Please submit the final City of Alameda Building Department-approved construction plans displaying the Building Department's approval stamp.
- 6. Updated "Alameda Station Tentative Entitlement Schedule":** Thank you for submitting the previous schedule. Please submit an updated schedule which accommodates the following items: 60-days for all ACEH review periods (due to the accelerated development schedule, we will attempt to provide expedited reviews); installation and operation of chosen remedial option; a minimum of two years of post construction groundwater monitoring and sampling; vapor sampling; and future well decommissioning.

TECHNICAL REPORT REQUEST

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

- **May 4, 2012** - Data Gap Work Plan
- **May 18, 2012** – Final HVDPE Pilot Test Report for the entire period of operation
- **60 days after Data Gap Work Plan approval** - Revised SCM including the Preferential Pathway Study and Data Gap Report
- **60 days after Revised SCM approval** - Revised CAP

If you have any questions or concerns regarding this correspondence or your case, please call me at (510) 567-6708 or send me an e-mail at karel.detterman@acgov.org.

Sincerely,

Karel Detterman, PG
Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements/Obligations
Electronic Report Upload (ftp) Instructions

cc: John F. Buono, Jr., Good Chevrolet, P.O. Box 1730, Alameda, CA 94501

Peter McIntyre, AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597 (Sent via E-mail to pmcintyre@aeiconsultants.com)

Sunil Ramdass, Underground Storage Tank Cleanup Fund, SWRCB, PO Box 944212,
Sacramento, CA 94244-2120, (sent via electronic mail to sramdass@waterboards.ca.gov)

Margaret Kavanaugh-Lynch, City of Alameda Planning and Building Development, 2263 Santa Clara Avenue, Room 190, Alameda, CA 94501-4477 (Sent via E-mail to: mkavanaughl@ci.alameda.ca.us)

Donna Drogos, ACEH (Sent via E-mail to: donna.drogos@acgov.org)
Karel Detterman, ACEH (Sent via E-mail to: karel.detterman@acgov.org)
GeoTracker, Electronic Case File

Attachment 1

Responsible Party(ies) Legal Requirements / Obligations

REPORT REQUESTS

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.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

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.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	REVISION DATE: July 20, 2010
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

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.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

- 1) Obtain User Name and Password
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to deh.loptoxic@acgov.org
 - b) In the subject line of your request, be sure to include "**ftp PASSWORD REQUEST**" and in the body of your request, include the **Contact Information, Site Addresses,** and the **Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
 - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
 - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload.** (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.