ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
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September 20, 2013

Mr. Brian Waite
Chevron Environmental Management Co.
6101 Bollinger Canyon Road
San Ramon, CA 94583
(Sent via electronic mail to:
BWaite@chevron.com)

Mr. Rene Boisvert
800 Center LLC
c/o Boulevard Equity Group
484 Lake Park Ave #246
Oakland, CA 94610-2730

Mr. Terrilla Sadler
618 Brooklyn Avenue
Oakland, CA 94606-1004

Subject: Path To Closure and Followup to September 9, 2013 Meeting; Fuel Leak Case No. RO0000454 (Global ID # T0600102230), Chevron #20-6145 / Signal SS, 800 Center Street, Oakland CA 94607

Dear Messrs. Waite, Boisvert, and Sadler:

On September 9, 2013, Alameda County Environmental Health (ACEH) staff met with Mr. Brian Waite of Chevron Environmental Management Co. to discuss ACEH's review comments on the *Closure Request* dated November 29, 2012, that was contained in our directive letter of March 14, 2013, and to identify Path To Closure possibilities for the site. ACEH's review of the case file determined that the site did not meet the LTCP general criteria b (unauthorized release consists only of petroleum), f (secondary source removal), and Media-Specific Criterions for Vapor Intrusion and the Direct Contact and Outdoor Air.

During the meeting with Mr. Waite ACEH explored the data gaps and the possibility of closing the case under the LTCP based on alternate interpretations of the criteria. At the conclusion of the meeting ACEH indicated that the site may be closable with conditions that included development of a Site Management Plan to address non-petroleum contamination in shallow soils, and the installation of vapor barriers beneath future buildings to mitigate vapor intrusion to indoor air, and direct contact and outdoor air exposures.

Subsequent to the meeting and based on a further review of the case file, ACEH identified additional data gaps that needs to be addressed in conjunction with this identified path to closure. Therefore ACEH requests that we schedule another meeting to discuss the technical comments below.

TECHNICAL COMMENTS

1. **General Criteria b – Does the Unauthorized Release Consist Only of Petroleum? –** ACEH concurs that the release from the USTs is separate from surficial contamination of lead, PCBs, and organochlorine pesticides on the various parcels associated with the case. An existing proposal in the case file indicates that the removal of approximately two feet of surficial soil could be conducted to remove these contaminants during site redevelopment. ACEH understands that there are no current plans for redevelopment, but that Chevron is currently marketing the three parcels for sale. During the meeting, two options were identified to manage shallow contamination at the site. The first option included the closure of the UST case, and the opening of a separate non-LUFT environmental case with Chevron as the Responsible Party to manage the shallow soil contamination. The second option discussed included closure of the UST case, with the condition that shallow soil would be removed at a later date by the new owner during site redevelopment. To facilitate this action under the second option, a Site Management Plan would be required as a condition of closure of the UST case. It is our understanding as discussed in the meeting, that Chevron prefers the second option. ACEH would like to confirm this in our telephone conversation.

2. **General Criteria f: Has Secondary Source Been Removed to the Extent Practicable? –**Significant residual petroleum hydrocarbons remain in soil at the site (up to 3,400 mg/kg TPHd, 18,000 mg/kg

TPHg, 92 mg/kg benzene, 440 mg/kg ethylbenzene, and uncharacterized for naphthalene and PAHs). Residual contamination is predominately located between 5 and 10 feet below grade surface, extends to at least 16 feet bgs, but is undefined vertically in a central residual soil contamination core zone. Analytical data also indicates significant residual source zone contamination remains below the former UST and dispenser island locations. Concentrations up to 1,100 mg/kg TPHd, 6,900 mg/kg TPHg, 41 mg/kg benzene, and 200 mg/kg ethylbenzene are documented to be present below the zone of excavation (12 to 14 feet in depth) in these two source zones.

The Low-Flow Air Sparge pilot test conducted in early 2011 without vapor extraction mobilized residual contamination at the site and resulted in increased groundwater concentrations and significantly elevated soil vapor concentrations. Partly as a result of these significant changes in concentrations the pilot test was discontinued and concentrations dropped below levels of concern.

As discussed in the meeting, it appears that residual contamination is sequestered in the formation and as long as there are no disturbances in the subsurface residual contamination appears to be degrading under lower threat diffusive conditions and may not pose a vapor intrusion concern to future site occupants. However, based on further consideration, ACEH remains concerned that subsurface disturbances at or after redevelopment could potentially be created due to leaks in pressurized utility lines (i.e. natural gas, water lines, etc.) that would result in advective flow conditions and subsequent soil gas generation that would overwhelm the assimilative biodegradation capacity of the subsurface soil.

Therefore, there appear to be two options at the site. The first includes additional remediation of residual contamination. The second option includes the installation of a vapor barrier system beneath future buildings to control exposure and mitigate risk to human health. Under this scenario ACEH would require use of institutional controls, such as a deed restriction, to ensure the vapor barrier remains intact and unbreached in perpetuity. ACEH requests clarification on Chevron's preference.

3. **Media-Specific Criteria 2 – Petroleum Vapor Intrusion to Indoor Air –** During the meeting, it was ACEH's understanding that the site had the requisite bioattenuation zone characteristics to satisfy the media specific criteria for vapor intrusion to indoor air. However, further review of site analytical data indicate that there are areas of the site where TPH is greater than 100 mg/kg in the 0 to 5 foot depth interval. Although these areas are relatively limited, and do not appear to be in the principal core contamination area with elevated residual concentrations of benzene and ethylbenzene in soil, the results of the air sparge pilot test as discussed above indicate that soil vapor can be mobilized under advective flow conditions and have the potential to migrate to areas where TPH concentrations in soil would prevent bioattenuation. Therefore it appears that there are several options to manage this criterion, including:

    a. A Site Management Plan as discussed above to require the use of a vapor intrusion barrier in future construction at the site;

    b. Collection of additional data to determine if a site specific risk assessment can demonstrate that human health is protected; or

    c. Additional remediation of this shallow contamination.

   Please note that if options b or c are selected, ACEH requests the collection of naphthalene and PAH data as the areas identified with shallow TPH contamination are in the vicinity of the former waste oil UST and these analytes do not appear to have been previously analyzed for.

4. **Media-Specific Criteria 3 – Direct Contact and Outdoor Air Exposure, or does the site Qualify for the Exemption? –** As cited above, significant residual petroleum hydrocarbons remain in soil beneath the site including in source zones. These concentrations fail the residential, commercial, and utility worker direct contact and outdoor air values of Table 1 of the LTCP. During the meeting Chevron stated that residual contamination exceeding the direct contact and outdoor air criterion could be managed with a Site Management Plan. Upon further evaluation, although risk to utility works and direct contact can be mitigated under a Site Management Plan, ACEH is concerned that unless the entire site (three parcels) is covered with a building, the potential exists for risk to human health due to outdoor air exposure under the criteria identified by the LTCP. Therefore there appears to be two options to address this criterion.

The first option includes the development of a site specific risk assessment incorporating all petroleum related analytes that will remain in soil at the site upon closure. Please note that under this option the shallow soil contamination (lead, chlorinated pesticides, and PCBs) would be excluded from the risk assessment as it is assumed that it would be managed under a Site Management Plan as discussed above.

Because of the uncertainty of the future site redevelopment configuration it is not feasible to manage outdoor air exposure risk with a Site Management Plan. Therefore either additional data needs to be collected to support closure under this criterion or additional remediation needs to be conducted in the 5 to 10 foot interval to mitigate outdoor air exposure to future site occupants.

Please contact ACEH to schedule a meeting to discuss these items further.

If you have any questions, please call me at (510) 567-6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,

Digitally signed by Mark Detterman
DN: cn=Mark Detterman, o, ou,
email=mark.detterman@acgov.org, c=US
Date: 2013.09.20 17:14:39 -07'00'

Mark E. Detterman, PG, CEG
Senior Hazardous Materials Specialist

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

cc: Greg Barclay, Conestoga-Rovers & Associates, 5900 Hollis Street, Suite A, Emeryville, CA 94608 (sent via electronic mail to GBarclay@craworld.com)

Brandon Wilken; Conestoga-Rovers & Associates, 5900 Hollis Street, Suite A, Emeryville, CA 94608; (sent via electronic mail to BWilken@craworld.com)

Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032 (Sent via E-mail to: lgriffin@oaklandnet.com)

Dilan Roe, (sent via electronic mail to: dilan.roe@acgov.org)
Mark Detterman (sent via electronic mail to mark.detterman@acgov.org)
Electronic File, GeoTracker

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT/DATA REQUESTS

These reports/data are being requested pursuant to Division 7 of the California Water Code (Water Quality), Chapter 6.7 of Division 20 of the California Health and Safety Code (Underground Storage of Hazardous Substances), and Chapter 16 of Division 3 of Title 23 of the California Code of Regulations (Underground Storage Tank Regulations).

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (Local Oversight Program [LOP] for unauthorized releases from petroleum Underground Storage Tanks [USTs], and Site Cleanup Program [SCP] for unauthorized releases of non-petroleum hazardous substances) require submission of reports in electronic format pursuant to Chapter 3 of Division 7, Sections 13195 and 13197.5 of the California Water Code, and Chapter 30, Articles 1 and 2, Sections 3890 to 3895 of Division 3 of Title 23 of the California Code of Regulations (23 CCR). Instructions for submission of electronic documents to the ACEH FTP site are provided on the attached "Electronic Report Upload Instructions."

Submission of reports to the ACEH FTP site is in addition to requirements for electronic submittal of information (ESI) to the State Water Resources Control Board's (SWRCB) Geotracker website. In April 2001, the SWRCB adopted 23 CCR, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1 (Electronic Submission of Laboratory Data for UST Reports). Article 12 required electronic submittal of analytical laboratory data submitted in a report to a regulatory agency (effective September 1, 2001), and surveyed locations (latitude, longitude and elevation) of groundwater monitoring wells (effective January 1, 2002) in Electronic Deliverable Format (EDF) to Geotracker. Article 12 was subsequently repealed in 2004 and replaced with Article 30 (Electronic Submittal of Information) which expanded the ESI requirements to include electronic submittal of any report or data required by a regulatory agency from a cleanup site. The expanded ESI submittal requirements for petroleum UST sites subject to the requirements of 23 CCR, Division, 3, Chapter 16, Article 11, became effective December 16, 2004. All other electronic submittals required pursuant to Chapter 30 became effective January 1, 2005. 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, 7835, 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, late 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 SCP)	**REVISION DATE:** July 25, 2012
	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 (petroleum UST and SCP) 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.