



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
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June 24, 2010

Mr. Aaron Costa
Chevron Corporation
6111 Bollinger Canyon Road, Rm 3660
San Ramon, CA

Mr. Mark Hom and Anna Cheng
3135 Gibbons Drive
Alameda, CA, 94501-1749

JL and Jane Bolton
3135 Gibbons Drive
Alameda, CA 94501-1749

(sent via electronic mail to acosta@chevron.com)

Subject: Approval of Vapor Survey With Modifications and Request for Feasibility Study; Fuel Leak Case No. RO0000341; (Global ID # T0600100330); Chevron #9-1153, (3126 Fernside Blvd), 3135 Gibbons Drive, Alameda, CA 94501

Ladies and Gentlemen:

Alameda County Environmental Health Department (ACEH) staff has reviewed the case file, and the most recently submitted reports prepared by Conestoga-Rovers & Associates (CRA) for this site, *Work Plan for Remediation and Vapor Survey*, dated January 14, 2010; *Fourth Quarter 2009 Groundwater Monitoring Report*, dated April 30, 2010; and *First Quarter 2010 Groundwater Monitoring Report*, dated May 5, 2010. Thank you for submitting the reports, and thank you for forwarding extraction trench construction design documents in the work plan. As you are aware, this is a residential property. During the October 2008 sampling event approximately 0.4 feet of free phase (FP) petroleum hydrocarbon was detected in onsite monitoring well C-1. Between September 2008 and December 2008 free-phase was again present in this well at increased thicknesses in comparison to previous monthly measurements. The recently submitted reports document a reduction in FP thickness in well C-1 since approximately February 2009.

Based on Alameda County Environmental Health (ACEH) staff review of the work plan we request additional information prior to initiation of the proposed scope of work for the surfactant pilot test; however, are in general agreement with the sub-slab soil vapor scope of work. We request that you address the following technical comments regarding the proposed surfactant work, perform the proposed soil vapor work, and send us the technical reports requested below. Please provide 72-hour advance written notification to this office (e-mail preferred to: mark.detterman@acgov.org) prior to the start of field activities.

TECHNICAL COMMENTS

1. **Surfactant Injection and Extraction.** The work plan proposes to conduct a pilot test in well C-1 using the surfactant Gold Crew Release[®] in an effort to decrease the surface tension between the FP and water, allowing desorption of residual FP from saturated soil. The surfactant is also reported to be biodegradable and of food-grade quality. Due to the shallow depth of groundwater, the work is planned to occur near the end of the dry season during the annual low groundwater level, (i.e. early fall). The approach is intriguing; however, ACEH has a number of concerns that require a better understanding prior to initiation of the pilot test. Please address the following comments and submit the requested items:

- a. **Preferential Pathway Evaluation** - ACEH is concerned that the flow of groundwater (and potentially injected fluids), may not be adequately understood in the vicinity of the site. This can be more critical at the site due to downgradient close proximity of the Oakland – Alameda Estuary; a straight-line distance of under approximately 400 feet by utility conduits. Underground utilities downgradient and in the site vicinity appear to range between approximately 1.5 to 3.6 feet below grade surface, and depths to groundwater have been generally within that range. In conjunction with these observations are notes contained on old bore logs (e.g. C-1 and B-1) that appear to indicate significant hydrocarbon impacts in these depth ranges. Should the injection of surfactant successfully liberate adsorbed free-phase, unintended flow along preferential pathways may occur. As a consequence, please conduct a preferential pathway survey including a conduit and well survey. Utility laterals emanating from vicinity parcels, onsite utility corridors, storm drop inlets, and buried PG&E lines are to be included. Please evaluate the potential for fluid flow along all potential conduits; please note several gradient maps suggest flow towards to a drop box on the far side of High Street from the site. Available sources of information include the May 15, 1996 *Evaluation of Potential Migration Pathway via Buried Utilities* which did not evaluate laterals, onsite corridors, or PG&E lines at the site and vicinity and the June 26, 1996 *Geophysical Investigation for Buried Underground Storage Tanks*; copies can be found on the ACEH website.

As a part of the preferential pathway study please include the results of a well survey. A *Well Completion Report Release Agreement* form was submitted to, and approved by, ACEH in January 2009, but results have not been forwarded.

- b. **Justification of Pilot Test Appropriateness** - Please also note that ACEH is not convinced that the proposed interim remediation pilot test could not be described as a spot treatment of one or more wells, and not of the site, due to the depth of impacted soil as described in older bore logs including those noted above, and previously observed flow patterns at the site. Considering the site is close to the estuary and is a residential property the use of surfactant appears to be inappropriate remedial technology, and that other options would be more appropriate; in particular when coupled with wells currently spaced a minimum of 50 feet apart and intervening underground utility lines. Significant unintended flow of liberated product can occur prior to recognition or could be missed completely with the existing well network. As a consequence, a denser monitoring well network would be required.

Please evaluate interim use of skimmers or socks in well C-1 as temporary measures to increase the capture of free product at the site between site visits; they do not appear to be utilized currently.

Please justify the evaluation of this potential interim remedial alternative in lieu of other options such as the pilot testing of vapor extraction, dual-phase extraction, or other potentially appropriate remedial options as a part of a Feasibility Study (FS). The FS, prepared in accordance with Title 23, California Code of Regulations, Section 2725, must include a concise background of soil and groundwater investigations performed in connection with this case and an assessment of the residual impacts of the chemicals of concern (COCs) for the site and the surrounding area where the unauthorized release has migrated or may migrate. The FS should also include, but not limited to, a detailed description of site lithology, including soil permeability, and most importantly, contamination cleanup levels and cleanup goals, in accordance with the San Francisco Regional Water Quality Control Board (SFRWQCB) Basin Plan and appropriate environmental screening levels (ESL) guidance for all COCs and for the appropriate groundwater designation. Please note

that soil cleanup levels should ultimately (within a reasonable timeframe) achieve water quality control objectives (cleanup goals) for groundwater in accordance with the SFRWQCB Basin Plan. Please propose appropriate cleanup levels and cleanup goals and the timeframe to reach these levels and goals in accordance with 23 CCF Section 2725, 2726, and 2727 in the FS/CAP for active remediation and final cleanup goals. These can be applicable and justified ESLs or calculated site-specific risk-based cleanup goals and water quality objectives.

The FS/CAP must evaluate at least three viable alternatives for remedying or mitigating the actual or potential adverse effects of the unauthorized release(s) besides the 'no action' and 'monitored natural attenuation' remedial alternatives. Each alternative shall be evaluated for cost-effectiveness and the Responsible Party must propose the most cost-effective corrective action and shortest timeframe to reach water quality objectives (cleanup goals).

2. **Installation of Vapor Points.** Due to the shallowness of groundwater at the site the installation of "permanent" single depth sub-slab vapor probes, at both indoor and outdoor locations, was proposed in the work plan. Indoor and outdoor background air sampling is also proposed after completion of a Building Survey Form to help identify sources of contaminants derived from consumer products. The number of probes, probe locations, and location of ambient indoor and outdoor air sampling were proposed to be identified after incorporation of utility corridors, the residential site plan, and other site features, and then submitted for ACEH concurrence prior to work initiation. The approach described in the work plan generally appears reasonable. Please incorporate sub-slab sampling protocols contained in Appendix G of the DTSC *Interim Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air*, dated December 15, 2004, revised February 7, 2005. For all consumer products identified during the building survey please include a list of active or known inactive ingredients in the resulting report.

TECHNICAL REPORT REQUEST

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

- **July 30, 2010** - Preferential Pathway Survey and proposed vapor points
- **August 20, 2010** – Feasibility Study
- **September 20, 2010** – Vapor Survey Report
- **30 days after approval of Feasibility Study** – Pilot Test Work Plan
- **60 days after approval of Pilot Test Work Plan** – Interim Corrective Action 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.

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Should you have any questions, do not hesitate to call me at (510) 567-6876.

Sincerely,

Mark E. Detterman, PG, CEG
Hazardous Materials Specialist

cc: Nathan Lee, Conestoga-Rovers & Assoc., 5900 Hollis Street, Suite A, Emeryville, CA 94608
(sent via electronic mail to NLee@croworld.com)

Donna Drogos (sent via electronic mail to donna.drogos@acgov.org),
Mark Detterman (sent via electronic mail to mark.detterman@acgov.org),
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.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.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	ISSUE DATE: July 5, 2005
	REVISION DATE: March 27, 2009
	PREVIOUS REVISIONS: December 16, 2005, October 31, 2005
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

- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**. (Please do not submit reports as attachments to electronic mail.)
- 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)

Additional Recommendations

- A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in **Excel** format. These are for use by assigned Caseworker only.

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 dehloptoxic@acgov.org
 - Or
 - ii) Send a fax on company letterhead to (510) 337-9335, to the attention of My Le Huynh.
 - 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 and Firefox browsers will not open the FTP site.
 - b) Click on File, then on Login As.
 - 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 dehloptoxic@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.