



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
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March 4, 2016

Pacific Gas & Electric Company
3401 Crow Canyon Road
San Ramon, CA 94583
Attn.: Ben LePage (*Sent via electronic mail to Ben.LePage@pge.com*)

Subject: Work Plan Review; Voluntary Remedial Action Program Case No. RO0003196 and GeoTracker
Global ID T10000008040, CNG Station, 205 Brush Street, Oakland, CA 94607

Dear Mr. LePage:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site, including the document entitled *Site Characterization Investigation Work Plan (Work Plan)*, dated November, 2015 and the revised groundwater sampling location map provided as an electronic mail attachment on January 13, 2016. Both documents were prepared by Environmental Resources Management (ERM). The Work Plan proposes to further delineate soil and groundwater contamination identified in the November 19, 2015 Phase II Environmental Site Investigation (Phase II) conducted by ERM. The Phase II was performed to address potential environmental concerns identified in a 2013 Phase I Environmental Site Assessment (ESA-I) also performed by ERM. Thank you for the Work Plan and the initial work at the site.

The Work Plan presents three phases of investigation. The initial phase proposes to advance 14 soil bores for the recovery of soil and/or grab groundwater samples and four soil-vapor sampling points for the collection of soil-gas samples. The second phase of work proposes to provide vertical delineation of groundwater contamination, and the third phase of work will involve installation of permanent monitoring points. ACEH will review the findings of the first phase of the investigation for discussion prior to authorizing the subsequent phases of work.

Based on ACEH staff review of the referenced documents and of the case file, we generally concur with the recently proposed first phase scope of work, provided that the modifications requested in the technical comments below are addressed and incorporated during the field implementation. While the comments below request a number of additional soil bores, sample collection, and modifications to scope of analysis, submittal of a revised Work Plan is limited to a revised figure indicating the proposed boing locations, unless an alternate scope of work outside that described in the Work Plan and technical comments below is proposed. We request that you address the following Technical Comments, submit the requested document, and upon ACEH approval, perform the proposed work, and send us the technical reports requested below. Please provide 72-hour advance written notification to this office (electronic mail preferred to: keith.nowell@acgov.org) prior to the start of field activities.

TECHNICAL COMMENTS

- 1. Sample Collection and Analysis** – ACEH recommends collection and analysis of soil samples at intervals of no more than five feet, areas of obvious contamination, the soil/groundwater interface, and at significant changes in lithology. If staining, odor, or elevated PID readings are observed over an

interval of several feet, a sufficient number of soil samples from this interval should be submitted for laboratory analyses to characterize the contaminants within this interval.

2. **Silica Gel Cleanup:** San Francisco Bay Region, Regional Water Quality Control Board (SFBR-RWQCB) does not utilize silica gel clean up (SGC) when evaluating concentrations of total petroleum hydrocarbons (TPH) as diesel (TPHd) and TPH as motor oil (TPHmo) with the Environmental Screening Levels (ESLs). For consistency, ACEH follows the SFBR-RWQCB lead when evaluating cases having TPHd and TPHmo concentrations with regard to the ESLs. Therefore, TPHd and TPHmo analyses should be performed without SGC. However, ACEH acknowledges that useful information may be gathered when comparing TPH concentrations for a sample analyzed both with and without SGC. Therefore, SGC may be used on selected samples for comparison with non-SGC concentrations.

3. Additional Bore Locations –

- A. **Vicinity of SB-2** – The Phase II report documents polycyclic aromatic hydrocarbon (PAH) concentrations at the location of soil bore SB-2 in both soil and groundwater. The source of the PAHs is not identified. The benzo(a)pyrene toxicity equivalent (BaPe) concentrations of PAHs in soil in the 8.5- to 9.0- foot interval is 4.2 milligrams per kilogram (mg/kg), approaching the 4.5 mg/kg threshold for utility workers in the 0- to 10-foot zone identified in Table 1 of the California State Water Resources Control Board (SWRCB) Low Threat Underground Storage Tank Case Closure Policy (LTCP) for Direct Contact. ACEH requests the addition of a sufficient number of soil bores in the vicinity of SB-2 to delineate the PAH contaminant concentrations. Please include the locations of these soil bores on the figure requested below.

It unclear to ACEH if the BaPe concentration of 0.68 mg/kg for direct contact at commercial/industrial sites identified in Table 1 of the LTCP is exceeded in the 0- to 5-foot interval. Should PAH concentrations increase with depth. Therefore, ACEH requests the collection of soil samples at a depth of approximately 4 feet in addition to 8 feet to evaluate the BaPe in the vicinity of bore SB-2.

Additionally, the soil and groundwater samples collected from soil bore SB-2 contain significant concentrations of TPH, benzene, toluene, ethylbenzene, and xylenes (collectively BTEX) and naphthalene. Please include these compounds in the scope of analysis for the soil and groundwater samples recovered. Recover soil samples from these additional bores using the methodology described in Technical Comment 1 above. Analyze for TPHg and TPHd using EPA Test Method 8015M; BTEX, methyl tertiary butyl ether (MTBE), and naphthalene as part of a full scan EPA Test Method 8260B. EPA Test Method 8260B may be used as an alternative to the 8015M analysis for the TPHg determination.

- B. **Vicinity of SB-4** – Two shallow bores, identified in the Work Plan as SB-17 and SB-18, are proposed to delineate metals contamination in the vicinity of bore SB-4. ACEH requests addition of a third boring south-southwest of SB-4, beyond the arc transcribed by SB-17 and SB-18. Please include the location of this soil bore on the figure requested below.

4. Additional Analysis –

- A. **Soil Bore SB-19** – Significant metal concentrations were reported in nearby soil bore SB-5, depicted approximately 45 feet to the northeast of SB-19. ACEH requests the addition of CAM-17 metals analysis for near surface soil samples collected from SB-19 to aid in the metals contamination delineation.
- B. **Soil Bore SB-22** – Soil bore SB-22 is located in the vicinity of SB-2 and may suitable for the delineation of TPH contamination addressed in Technical comment 3A above. Therefore, ACEH

requests the recovery of soil samples, in accordance with Technical Comment 1 above, and the analysis of soil samples for TPHg, TPHd, TPHmo, BTEX, MTBE, and naphthalene. Additionally, significant concentrations of metals in groundwater were reported for bore SB-3, located approximately 20 feet from the proposed SB-22 location. As the source of the metals have not been identified, please include CAM-17 metals analysis for the soil and groundwater samples recovered from this soil bore.

C. Soil Bore SB-23 – ACEH requests that soil bore SB-19 be advanced prior to SB-23. If field observations made for SB-19 suggest TPH contamination, ACEH requests bore SB-23 be used as a step-out boring and the recovery of soil samples for TPHg, TPHd, TPHmo, BTEX, MTBE, and naphthalene analysis.

5. Soil-Gas Sampling – The Phase II does not discuss leak detection. It is unclear to ACEH that leak detection was performed as the proposed leak detection compound, isopropyl alcohol, does not appear as an analyte in the Method TO-15 analysis, making it difficult to determine if leakage occurred. ACEH requests the soil-gas analysis include the trace gas for leak determination. Alternatively, present why tracer gas analysis does not need to be performed for leak detection.

Additionally, levels of oxygen, carbon dioxide, and methane present in soil gas are indicators of biological activity. Measurement of these gases can prove useful. ACEH requests these compounds be added to the scope of analysis of the soil-gas samples.

6. Additional Phases of Investigation – As indicated above, the Work Plan proposes three phases of investigation. Prior to the initiation of the second and third phases of investigation, ACEH requests a meeting to discuss the justification of the proposed work. Implementation of these phases of work may not proceed without ACEH review and approval.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health according to the following schedule:

- **April 5, 2016** – Work Plan Addendum (Figure) - Provided as an electronic mail attachment, Attn.: Keith Nowell.
- **July 6, 2016** – Tentative date- due 90 days following approval of the Work Plan Addendum (Figure). Soil, Groundwater and Soil Gas Investigation (File to be named RO0003196_SWI_R_yyyy-mm-dd).

Thank you for your cooperation. ACEH looks forward to working with you and your consultants to advance the case toward closure. Should you have any questions regarding this correspondence or your case, please call me at (510) 567-6764 or send an electronic mail message at keith.nowell@acgov.org.

Sincerely,

Keith Nowell, PG, CHG
Hazardous Materials Specialist

Mr. Ben LePage
RO0003196
March 4, 2016, Page 4

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

cc: John Lucio, Project Manager, Environmental Resources Management, 1277 Treat Boulevard, Suite 500, Walnut Creek, CA (*sent via electronic mail to john.lucio@erm.com*)

Dilan Roe, (*sent via electronic mail to dilan.roe@acgov.org*)

Keith Nowell, (*sent via electronic mail to keith.nowell@acgov.org*)

Electronic File, GeoTracker

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: May 15, 2014
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010, July 25, 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.