



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
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August 9, 2016

Ms. Carryl MacLeod
Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, CA 94583
(Sent via electronic mail to: CMacleod@chevron.com)

9401 San Leandro LP
104 Caledonia Street
Sausalito, CA 94965

Linda Hothem Trust
c/o Mr. Jan Greban
Greben & Associates
1332 Anacapa Street
Suite 110
Santa Barbara, CA 93101
(Sent via electronic mail to:
Jan@grebenlaw.com)

Mr. Francis Meynard
Pacific American Group
104 Caledonia Street
Sausalito, CA 94965
(Sent via electronic mail to:
FMeynard@pacamgroup.com)

Ms. Gene Kida
Gerber Products
12 Vreeland Road
Fiorham Park, NJ 07932

Subject: Status of Well P-2 and Methane Mitigation; Fuel Leak Case No. RO0000412 and Geotracker Global ID T0600101789, Chevron #9-1723; 9757 San Leandro Street, Oakland, CA 94603

Dear Ladies and Gentlemen:

Alameda County Department of Environmental Health (ACDEH) staff has reviewed the case file including the *First Quarter 2016 Semi-Annual Groundwater Monitoring Report*, dated May 5, 2016, and the *Low-Threat Closure Policy Evaluation and Request for Closure (RFC)*, dated June 10, 2016. The documents were prepared and submitted on your behalf to ACDEH and Geotracker by Stantec Consulting Services, Inc (Stantec). Thank you for undertaking the work and submitting the reports. They provide further data, pertinent details, and interpretations in regards to the site, and help move the case towards closure.

ACDEH has evaluated the data and recommendations presented in the above-mentioned reports, in conjunction with the case files, to determine if the site is eligible for closure as a low risk site under the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP). Based on ACDEH staff review, we have determined that the site fails to meet the LTCP General Criteria h (nuisance), the Media-Specific Criteria for Groundwater, and the Media-Specific Criteria for Vapor Intrusion to Indoor Air (see Geotracker).

Based on ACDEH staff review of the case file, we request that you address the following technical comments and send us the reports described below.

TECHNICAL COMMENTS

- 1. LTCP Media Specific Criteria for Groundwater** – To satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent, and meet all of the additional characteristics of one of the five classes of sites listed in the policy.

Our review of the case files indicates that insufficient data collection and analysis has been presented to support the requisite characteristics of plume classification as follows:

- a. Status of Water Production Well P-2** – Industrial water production well P-2 is cited to be located approximately 100 feet downgradient of the subject property and is within the estimated hydrocarbon groundwater plume. It is understood to be "closed-in-place" but it cannot be determined if this refers to

inappropriately “abandoned” or destroyed and backfilled in accordance with State well destruction standards. The referenced report reasons that because the screen interval is at a depth of 160 to 590 feet, there is limited potential for near-surface contaminated groundwater to affect the deeper screened groundwater zone. However, if the well was inappropriately abandoned and the well casing was simply cut at an unknown depth close to the surface and the well was not, or was poorly backfilled, the potential for an open well casing or rusted casing to be a direct conduit to deep groundwater-bearing zones is present. Therefore, prior to closure ACDEH requests that the status of the well be determined. This may require field efforts. Depending on the findings, it is possible that well destruction can be coordinated with destruction of the groundwater monitoring wells associated with the subject site.

- 2. LTCP Media Specific Criteria for Vapor Intrusion to Indoor Air** – The LTCP describes conditions, including bioattenuation zones, which if met will assure that exposure to petroleum vapors in indoor air will not pose unacceptable health risks to human occupants of existing or future site buildings, and adjacent parcels. Appendices 1 through 4 of the LTCP criteria illustrate four potential exposure scenarios and describe characteristics and criteria associated with each scenario.

Our review of the case files indicates that the site data collection and analysis fail to support the requisite characteristics of one of the four scenarios. Specifically, recently generated data from the site documented soil vapor concentrations, collected at a depth of 5.5 feet bgs, of benzene that ranged between <3,600 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to 120,000 $\mu\text{g}/\text{m}^3$, ethylbenzene, between <4,900 and 22,000 $\mu\text{g}/\text{m}^3$, naphthalene between <24,000 and <27,000 $\mu\text{g}/\text{m}^3$, and oxygen concentrations that ranged between 0.78 and 1.6 percent (%) beneath the site. The data indicates the site does not meet the LTCP Criteria for a commercial site lacking a bioattenuation zone. The referenced RFC is in general agreement with this analysis.

Conversely, ACDEH recognizes that there are currently no buildings constructed at the site. Under the current land use as a commercial truck staging and parking lot, there does not appear to be an onsite risk of vapor intrusion due to the lack of buildings at the site. The referenced RFC report also provided additional data interpretations that indicate the immediately adjacent offsite buildings appear to be protected from the potential of petroleum vapor intrusion hazards.

Cognizant that while there may not currently be a vapor intrusion risk to indoor air as the property is currently used, closure at this juncture without meeting this LTCP criteria will not allow the current property owner free and unencumbered use of their property. In this proposed closure scenario, case closure will require a land use restriction to the current commercial land use (truck parking and staging) that the current property owner must accept. Any site redevelopment, including the construction of any commercial building, would trigger a case review.

- 3. General Criteria h – Nuisance As Defined by Water Code Section 13050** – Water Code section 103050 defines nuisance as anything which meets all of the following requirements:

- Is Injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life of property,
- Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal, and
- Occurs during, or as a result of, the treatment or disposal of wastes.

As noted above, the subject site does not meet the Vapor Intrusion to Indoor Air Media-Specific LTCP Criteria; however, at present no buildings are present at the site. Thus there does not appear to be a risk of vapor intrusion at the site. Conversely, methane from the degradation of petroleum hydrocarbons, is present in all vapor wells at concentrations close to or significantly over the Upper Explosive Level (UEL; approximately 15%). Methane concentrations ranged between 13 and 42% methane during the most recent sampling event in July 2015. These concentrations will decline into the explosive interval for methane (approximately 4.4 to 15%) in the future at more locations. Additionally, the report also documented carbon dioxide between 22 and 30% (atmospheric concentration is 0.04%). At a minimum, these concentrations document the presence of significant vadose zone residual petroleum contamination at the site

The measurement of methane vapors in well boxes, well casings, and catch basins included in the referenced report indicates that methane is accumulating in some structures. This also suggests that most structures are not vapor tight and are currently venting to the surface in some manner. Review of the subject site on Google Earth Street View indicates that the pavement at the subject site is older and contains a substantial amount of cracking and weeds. While current conditions may allow for adequate venting of methane and carbon dioxide, upon closure ACDEH cannot, within the land use constraints imposed at closure, prevent a property owner from using their property as it suits their purposes. This can include site improvements as limited as repaving the property with a more competent concrete section which will then match the remainder of the truck yard. This has the potential to impede methane and carbon dioxide venting at the site.

Consistent with this LTCP general criteria, ACDEH's review of the case files indicates that the generation of methane due to the biodegradation of petroleum hydrocarbon contamination is likely to affect the free use of the property after closure, has the potential to affect the entire surrounding community, and is the result of disposing of hydrocarbon waste materials. Therefore, at a minimum it appears appropriate to require the installation of a methane mitigation system at the site prior to closure. In the event the proposed closure scenario is acceptable to the current property owner, please present a strategy in the Methane Mitigation Plan described in Technical Comment 4 below to address the items discussed above.

4. **Methane Mitigation Plan** – Due to potentially explosive methane concentrations beneath the property, it is prudent to install a Methane Mitigation System (MMS) to minimize risk to property users. A MMS Basis of Design Report, including system construction plans and specifications, Construction Quality Assurance Plan (CQAP) for installation of the system, and an Operations and Maintenance Plan must be submitted for ACDEH for review and approval by the date specified below. Please submit a MMS design and CQAP by the date identified below.

The CQAP must specify the qualifications and experience of contractors and inspectors involved in the construction of the MMS, and provide procedures for construction monitoring and documentation, including responsibility and authority, construction inspections (i.e. smoke or vent testing etc.), and as-built documentation.

The Basis of Design Report must also include a construction schedule and sequencing plan that provides details on construction measures and sequencing events, designed to protect the MMS during future site subgrade activities.

Following construction of the MMS, a report must be submitted to and approved by ACDEH, which includes as-built drawings, copies of permits, construction monitoring and documentation, post-construction sub-slab and vent riser sampling results verifying system integrity, and other information relevant to the installation of the mitigation system.

5. **Long Term Site Management Plan (SMP) and Land Use Covenant (LUC)** – Prior to site closure a Long Term SMP must be prepared and LUC implemented for the site to prevent inappropriate activities and use of the property, with consideration of potential explosive risk due to significant residual soil contamination. The SMP and ICs will provide legal and administrative controls and methods for the dissemination of information to minimize risk during property use including future below ground construction and maintenance, and long-term site use. Please submit a draft Long Term SMP by the date identified below.

- **Long Term Site Management Plan** - The long term SMP must be prepared as an element of long-term site management and will include a discussion of environmental conditions at the site and the mitigation elements included in the MMS that must be maintained and protected. Prior to site closure, the SMP must be submitted to ACDEH for review and approval. The purpose of the SMP is to provide for communication primarily with contractors who will be maintaining the site. The SMP must provide details regarding the location and construction of the VMS, precautions should subsurface work be required in the area of the VMS, precautions for handling potentially impacted soil or groundwater, and notification procedures should the MMS be damaged. The SMP should document proposed operations, maintenance, and monitoring of the system, emergency contact information, and protocols for approval of future modifications in the areas of the MMS. The MMS design documents must be included as an attachment to the SMP. The SMP must be maintained at the site address by the property manager or designated representative and must be recorded at the Alameda County Clerk Recorder's office. The site owner will have responsibility for implementation of the SMP.

The SMP must address on-going system inspections to be arranged by the site owner to observe and document the integrity and maintenance of the mitigation system, including observation of turbines, system maintenance records, and confirming that required onsite documentation is available (e.g. copy of the SMP). The SMP must specify actions required by the owner should any action inconsistent with the SMP be discovered during site inspections, including, but not limited to notification of ACDEH, and the submittal of documentation describing actions taken to correct the situation.

- **LUC Institutional Control** – The LUC will document legal and regulatory requirements for the site. As currently understood by ACDEH the site will be maintained as a commercial truck parking and staging lot. To minimize contact with impacted media, the recorded LUC will prohibit alteration, disturbance, or removal of any component of the MMS. Additional components of the LUC will include but may not be limited to:
 - i. Notification to the City of Oakland Building Department of the MMS and the potential flagging of the property such that ACDEH will be notified if building permits are to be issued (to prevent impacting the MMS);
 - ii. Prohibition of new construction activities that could encounter or breach the MMS without the express knowledge of ACDEH and the City of Oakland Building and Public Works Departments, including for utility repair and installation;
 - iii. Lease documents, if any, that include CCRs that will serve as the primary communication tool for the site's occupants; and
 - iv. The provision to maintain inspection and monitoring records associated with MMS.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Mark Detterman), and to the State Water Resources Control Board's Geotracker website, in accordance with the following specified file naming convention and schedule:

- **October 21, 2016** – Vapor Mitigation System Design and CQAP
File to be named: RO412_RDIP_R_YYYY-MM-DD
- **October 21, 2015** – DRAFT Long Term Site Management Plan
File to be named: RO412_SITE_MANAGE_R_YYYY-MM-DD
- **November 11, 2016** – Semi-Annual Groundwater Monitoring
File to be named: RO412_GWM_R_YYYY-MM-DD

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.

Online case files are available for review at the following website: <http://www.acgov.org/aceh/index.htm>. Additionally, if your email address does not appear on the cover page of this notification, ACDEH is requesting you provide your email address so that we can correspond with you quickly and efficiently regarding your case.

If you have any questions, please call me at 510-567-6876 or send me an email at mark.detterman@acgov.org.

Sincerely,

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

Ladies and Gentlemen
RO0000412
August 9, 2016, Page 5

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

cc: Travis Flora, Stantec Consulting Services, Inc., 15575 Los Gatos Blvd, Los Gatos, CA 95032; (Sent via
electronic mail to: travis.flora@stantec.com)

Peter Krasnoff, West Environmental Services & Technology, Inc, 711 Grand Avenue, Suite 220, San
Rafael, CA 94901; (Sent via electronic mail to: peterk@westenvironmental.com)

Dilan Roe, ACDEH, (Sent via electronic mail to: dilan.roe@acgov.org)

Mark Detterman, ACDEH, (Sent via electronic mail to: mark.detterman@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.