

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
REBECCA GEBHART, Acting Director



May 24, 2016

ENVIRONMENTAL HEALTH DEPARTMENT
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

City of Emeryville
Successor to Emeryville Redevelopment Agency
c/o Nancy Humphrey
1333 Park Ave.
Emeryville, CA 94608
(sent via electronic mail to: nhumphrey@ci.emeryville.ca.us)

Subject: Request for Work Plan; Fuel Leak Case No. RO0000061 and GeoTracker Global ID T0600101925, City of Emeryville Fire Station #2, 6303 Hollis Street, Emeryville, CA 94608

Dear Ms. Humphrey:

Alameda County Environmental Health (ACDEH) has reviewed the case file, including the *Data Gap Investigation Report*, dated March 31, 2016. The report was prepared and submitted on your behalf by OTG EnviroEngineering Solutions, Inc (OTG). Thank you for submitting the report.

The report documents the installation of soil bores B-17 to B-19, the collection of soil samples, and the attempted collection of groundwater. Analytical data indicates that limited concentration changes appear to have occurred in soil since the original soil samples were collected in 1995 and 1997. The report also documents the apparently compromised condition of well MW-1, the only well at the site, and recommends that it be replaced. Although groundwater appears to have been previously present at the site in 1995 and 1997 within approximately 10 feet of the surface, no groundwater was encountered and thus no groundwater data could be collected during the investigation.

The work was undertaken as an initial attempt to move the case towards closure with the collection of select, but limited data. Changed conditions at the site did not apparently allow for sufficient data collection to meet those ends.

Utilizing the recently collected data, ACDEH has evaluated site data and recommendations presented in the referenced report, 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 continues to fail to meet the LTCP General Criteria d (Free Product), f (Secondary Source Removal), and the Media-Specific Criteria for Groundwater, and the Media-Specific Criteria for Vapor Intrusion to Indoor Air, (see Geotracker for an updated LTCP checklist). Based on existing and the recently collected data, the site appears to meet the Media-Specific Criteria for Direct Contact and Outdoor Air.

At this juncture ACDEH requests that you prepare a Data Gap Investigation Work Plan that is supported by a focused Site Conceptual Model (SCM) to address the Technical Comments provided below. Much of the discussion below is derived from the December 31, 2013 directive letter, but is updated using recent data where available. Prior to submitting the work plan, ACDEH would like to invite you to a meeting, or to partake in a conference call, to discuss the site and strategize about the most efficient path towards closure. ACDEH requests notification of suitable dates and times for the meeting / conference call.

TECHNICAL COMMENTS

- 1. LTCP General Criteria d (Free Product)** – The LTCP requires free product to be removed to the extent practicable at release sites where investigations indicate the presence of Light Non-Aqueous Phase Liquids (LNAPL) by removing in a manner that minimizes the spread of the unauthorized release into previously uncontaminated zones by using recovery and disposal techniques appropriate to the hydrogeologic conditions at the site, and that properly treats, discharges, or disposes of recovery byproducts in compliance with applicable laws. Additionally, the LTCP requires that abatement of free product migration be used as a minimum objective for the design of any free product removal system.

ACDEH's review of the case files indicates that insufficient data collection and analysis has been presented to assess the potential for LNAPL at the site. As before, and specifically, a concentration of 29,000 µg/l TPH as gasoline was detected in grab groundwater SB-16 at the time of the last known site investigation. ACDEH notes that the location of this boring is substantially lateral to the presumed groundwater gradient defined by vicinity site data. This concentration is substantially above concentrations cited in the *Technical Justification for Vapor Intrusion Media-Specific Criteria*, and generated in support of the LTCP, suggest is "indirect" evidence of Light Non-Aqueous Phase Liquids (LNAPL; >20,000 ug/l TPH as gasoline in groundwater). The length of this potential LNAPL plume in the vicinity of soil bore SB-16 remains undefined.

Consequently, please present a strategy in the Data Gap Work Plan (described in Technical Comment 5 below) to address the items discussed above. Alternatively, please provide justification of why the site satisfies General Criteria d in the focused SCM described in Technical Comment 5 below.

- 2. General Criteria f – Secondary Source Has Been Removed to the Extent Practicable** – "Secondary source" is defined as petroleum-impacted soil or groundwater located at or immediately beneath the point of release from the primary source. Unless site attributes prevent secondary source removal (e.g. physical or infrastructural constraints exist whose removal or relocation would be technically or economically infeasible), petroleum-release sites are required to undergo secondary source removal to the extent practicable as described in the policy. "To the extent practicable" means implementing a cost-effective corrective action which removes or destroys-in-place the most readily recoverable fraction of source-area mass. It is expected that most secondary mass removal efforts will be completed in one year or less. Following removal or destruction of the secondary source, additional removal or active remedial actions shall not be required by regulatory agencies unless (1) necessary to abate a demonstrated threat to human health or (2) the groundwater plume does not meet the definition of low threat as described in this policy.

ACDEH's review of the case files indicates that insufficient data collection and analysis has been presented to assess the extent of secondary source removal at the site. Specifically, two concerns with available data are present. This includes the undefined quality of backfill used for the two USTs at the site (overexcavated but returned to the excavation), and the extent of removal of potential LNAPL in soil bore SB-16.

Please present a strategy in the Data Gap Work Plan (described in Technical Comment 5 below) to address the items discussed above. Alternatively, please provide justification of why the site satisfies this general criterion in the focused SCM described in Technical Comment 5 below.

- 3. 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 stability or plume classification as follows:

- a. Plume Length and Lateral Extent** – The downgradient and lateral extent of the plume from the subject site has not been defined. Groundwater monitoring well MW-1 did not appear to be monitoring a downgradient location, but rather a position lateral to groundwater flow. The recommended replacement of well MW-1 is an appropriate time to modify the placement of wells

at the site in order to better define the plume length and extent. Additionally, groundwater concentrations downgradient of soil bore SB-16 have not been defined.

- b. Plume Stability** – Existing data indicate that groundwater concentration trends at well MW-1 appeared to be increasing; however, are based on a limited data set.
- c. Distance to Closest Water Supply Well or Surface Water** – The closest known water supply well surface water is undetermined.
- d. Presence of LNAPL** – The presence or absence of LNAPL, and the length of any associated LNAPL plume, at the site has not been determined.

Please present a strategy in the Data Gap Work Plan (described in Technical Comment 5 below) to address the items discussed above. Alternatively, please provide justification of why the site satisfies the Media-Specific Criteria for Groundwater in the focused SCM described in Technical Comment 5 below.

- 4. 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, as depth to groundwater is approximately 3 feet below grade surface (bgs), there are multiple detections of TPH >100 mg/kg in the 0 to 5 foot soil interval, potential for LNAPL is present at the site, there is no documentation of the subsequent removal of the contamination, and there are increasing trends in groundwater concentrations in MW-1; all do not allow an analysis of site residual contamination and the potential for vapor intrusion at the site. Based on the vicinity groundwater gradient, ACDEH notes that the Fire Station may lay directly downgradient of the former UST location.

Conversely, please provide justification of why the site satisfies the Media-Specific Criteria for Vapor Intrusion to Indoor Air in a SCM that assures that exposure to petroleum vapors in indoor air will not pose unacceptable health risks to future buildings at the site.

Please note, that if direct measurement of soil gas is proposed, ensure that your strategy is consistent with the field sampling protocols described in the Department of Toxic Substances Control's Final Vapor Intrusion Guidance (April 2012). Consistent with the guidance, ACDEH requires installation of permanent vapor wells to assess temporal and seasonal variations in soil gas concentrations.

- 5. Data Gap Investigation Work Plan and Focused Site Conceptual Model** – Please prepare Data Gap Investigation Work Plan to address the technical comments listed above. Please support the scope of work in the Data Gap Investigation Work Plan with a focused SCM and Data Quality Objectives (DQOs) that relate the data collection to each LTCP criteria. For example please clarify which scenario within each Media-Specific Criteria a sampling strategy is intended to apply to.

In order to expedite review, ACDEH requests the focused SCM be presented in a tabular format that highlights the major SCM elements and associated data gaps, which need to be addressed to progress the site to case closure under the LTCP. Please see Attachment A "Site Conceptual Model Requisite Elements". Please sequence activities in the proposed revised data gap investigation scope of work to enable efficient data collection in the fewest mobilizations possible.

- 6. Electronic Report and Data Upload Compliance** – A review of the case file and the State's Geotracker database indicates that the site is not in compliance with previous directive letters. Compliance is a State requirement. Pursuant to California Code of Regulations, Title 23, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1, beginning September 1, 2001, all analytical data, including monitoring well samples, submitted in a report to a regulatory agency as part of the UST or LUST program, must be transmitted electronically to the SWRCB GeoTracker system via the internet. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs, including SLIC programs. Beginning July 1, 2005, electronic

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submittal of a complete copy of all reports for all sites was required in GeoTracker. At present missing data and documents include, but may not be limited to, older reports, older EDF submittals, current EDF submittals, GEO MAPS, GEO WELL data, and all bore logs. Please see Attachment 1 for limited additional details, and the state GeoTracker website for full details. ACDEH requests notification of, and a list of, the documents uploaded to Geotracker. Please upload all submittals to GeoTracker as well as to ACDEH's ftp website by the date specified below.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACDEH 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:

- **June 24, 2016** – Potential Meeting Dates
- **August 5, 2016** – SCM and Data Gap Work Plan
File to be named: RO61_WP_R_yyyy-mm-dd
- **60 Days After Work Plan Approval – Site Investigation and Groundwater Monitoring**
File to be named: RO61_SWI_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>.

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

Sincerely,

Mark Detterman, PG, CEG
Senior Hazardous Materials Specialist

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

cc: Xinggang Tong, OTG EnviroEngineering, Solutions, Inc, 770 Edgewater Drive, Suite 260, Oakland, CA 94621 (sent via email to: xtong.otg@gmail.com)

Dilan Roe, ACDEH, (sent via email to: dilan.roe@acgov.org)
Mark Detterman, ACDEH, (sent via electronic mail to mark.detterman@acgov.org)
Geotracker, Electronic Files

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.