

From: [Roe, Dilan, Env. Health](#)
To: [Charles Gurney](#)
Cc: [Detterman, Karel, Env. Health](#); [gabe stivala](#)
Subject: Site Cleanup Case No. RO0003097 Revised Data Gap Work Plan Implementation, Site Cleanup Program 580 Market Place Shopping Center, Geotracker Global ID T10000004345, 3735-4065 East Castro Valley Boulevard, Castro Valley, CA
Date: Tuesday, September 30, 2014 7:27:48 PM

Good Evening Chuck:

Alameda county Environmental Health (ACEH) has completed a preliminary review the Revised Data Gap Assessment Report dated July 30, 2014 submitted on your behalf by Cardno ATC. Karel and I spent four hours this afternoon combing over the report and data and writing this directive. We are concerned with analysis and conclusions presented in the report with respect to the following:

- 1) During the June 11, 2014 meeting, ACEH spent considerable time going over data quality issues related to the previous submittal including the use of appropriate screening levels for evaluation of risk to indoor air. Our guidance was not incorporated into this revised submittal. Of most concern is the continued use of inappropriate screening levels (i.e., DTSC CHHSLs) instead of the screening levels provided in the DTSC Human Health Risk Note No. 3 (dated May 21, 2013 and subsequently revised on July 14, 2014). As discussed in the meeting, the DTSC no longer considers the CHHSLs valid. Additionally, as discussed in the meeting, PCE and TCE should also be evaluated using the criteria presented in EPA Region 9 Interim Action Levels and Response Recommendation to Address Potential Developmental Hazards Arising from Inhalation Exposures to TCE in Indoor Air from Subsurface Vapor Intrusion (dated December 3, 2013 and subsequently revised on June 30, 2014).

Subslab samples SS-1 through SS-10 should be evaluated using an attenuation factor of 0.05 (for existing commercial buildings). Using the appropriate calculations (i.e., Indoor air concentration = attenuation factor times subslab vapor concentration) the calculated indoor air concentrations ranged from 5 to 340 micrograms per cubic meter (ug/m³) for PCE, all exceeding the screening level of 2.08 ug/m³. Similarly the calculated TCE concentrations ranged from 5 to 19 ug/m³ all exceeding the screening level of 3.0 ug/m³. Please note, the low end of the calculated indoor air values (5 ug/m³) utilized the analytical laboratory detection limits of 100 ug/m³ for both TCE and PCE. These detection limits are too high and render the data unusable.

The ACEH approved work plan included installation of up to four permanent subslab vapor wells in order to collect seasonal and temporal data. The report indicates that with the exception of SS-3, all sub-slab vapor samples were collected from temporary sampling points. This is unfortunate and costly as additional data is required to be collected to assess the risk to building occupants.

A calculated concentration of 19 ug/m³ of TCE in sub-slab SS-9 exceeds the EPA Region 9 Accelerated Response Action level of 8 ug/m³ for a commercial 8-hour workday and 7 ug/m³ for a 10-hour work day. In the event of an exceedance of the Accelerated Response Action levels, the EPA recommends early or interim mitigation measure be evaluated and

implemented quickly and their effectiveness confirmed promptly (i.e., all actions completed and confirmed within a few weeks). Potential early or interim measures include increasing building pressurization and/or ventilation, sealing potential conduits where vapors may be entering, treating indoor air (carbon filtration or air purifiers), installing and operating engineered exposure controls like subslab depressurization systems, or temporarily relocating the occupants.

The 15 outdoor soil gas samples collected from 5 feet below ground surface should also be evaluated in a similar manner however using an attenuation factor of 0.0005 for future commercial buildings. Using the same methodology as described above, none of the calculated values for the SV samples exceeded the screening levels due to the assumption that future buildings have better foundations and therefore better attenuation factors. The data indicates that there is source area outside of the building, however does not eliminate the need for further assessment of source beneath the building.

Additionally the explanation provided for the high leak detection compounds in the samples is insufficient and based purely on conjecture. If a shroud was used, the shroud concentration should have been measured in accordance with DTSC guidance rather than assumed as presented in the revised report.

- 2) Benzene concentrations in the SS soil gas data clearly indicate a petroleum hydrocarbon related release at the site. A release is additionally supported by a Napthalene concentration in soil at boring location CB-8 at 10 to 10.5 feet below ground surface of 18 milligrams per kilogram (mg/kg). The vertical and lateral extent of the benzene plume in soil gas is not defined and is not accurately presented in the plume map submitted with the revised report. Additionally it is not clear whether Napthalene was analyzed in in the soil gas samples. The source of this petroleum related hydrocarbon release and its effect on the degradation of the chlorinated hydrocarbons has not been assessed as requested by ACEH. An evaluation of the effect of anthropogenic carbon (i.e., BTEX source) should be conducted to evaluate the natural attenuation of the chlorinated solvent plume and ability of vinyl chloride (VC) to continue on the path of reductive dechlorination. This request was dismissed by Cardno ATC as being inconsequential to understanding the potential risks at the site.

Technical Report and Actions Required:

1. **Risk Characterization and Uncertainty Analysis** – Consistent with the October 2011 DTSC *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance)*, ACEH requests that a Risk Characterization and an Uncertainty Analysis be conducted in order to preliminarily determine health risks at the subject site. If the estimated risk is greater than 10^{-4} or the Hazard Index is less than 1, response actions are needed (vapor intrusion mitigation and source remediation).
2. **Public Outreach to Building Occupants.** In accordance with DTSC guidance, when people have been exposed to contamination, providing them with accurate and timely information is extremely important. Timely sharing of information should be balanced against having enough information to answer the questions likely to be asked. Subsequent to completion of the Risk Characterization and Uncertainty Analysis public notification fact sheets must be generated to

communicate the results of the sub-slab sampling to building occupants and proposed mitigation measures and additional data collection including indoor air sampling in conjunction with sub-slab sampling. The fact sheets must conform to the requirements of the March 2012 DTSC *Vapor Intrusion Public Participation Advisory*. Consistent with the referenced October 2011 DTSC *Vapor Intrusion Guidance* this should be done individually or in small groups.

- 3. Interim Mitigation Measures** – Submittal of a work plan for interim mitigation measures which may include modification of the Heating, Ventilation, and Air Conditioning (HVAC) system in the affected tenant spaces, and the installation of fresh air and exhaust fans. The work plan must be prepared in accordance with the October 2011 DTSC *Vapor Intrusion Guidance*. Consistent with this guidance, ACEH does not consider mitigation to be a long-term solution. ACEH considers remediation and mitigation as complimentary components of a response action for Volatile Organic Compounds (VOCs).
- 4. Indoor Air, Subslab, and Soil Investigation Work Plan.** Submittal of a work plan with proposed indoor air sampling to be conducted in conjunction with additional sub-slab soil gas sampling in order to assess the risk to building occupants and evaluate a site specific attenuation factor across the slab. Include standard operating procedures for soil gas and indoor air sampling, quality control and quality assurance methods including specification of appropriate analytical laboratory limits.
- 5. Remedial Actions** – A Remedial Action Plan will be required to evaluate feasible remedial alternatives for the site and to recommend final alternatives in accordance with DTSC guidelines. The Remedial Action Work Plan must include an assessment of the petroleum hydrocarbon release at the site.

Compliance Dates:

Immediate action is required to address Items 1 through 4 above. Please submit the Risk Characterization and Uncertainty Analysis, Public Outreach Fact Sheet, and Interim Mitigation Measures Work Plan by Friday October 17, 2014. Submittal of the Indoor Air, Sub-slab Soil Gas, and Soil Investigation Work Plan must be submitted by October 24, 2014.

Please submit these document as draft to ACEH via email to (dilan.roe@acgov.org) in order to facilitate timely review and response and contact me with questions as Karel Detterman, the primary caseworker, will be on vacation during the next two weeks.

Dilan Roe, P.E.

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PDF copies of case files can be reviewed/downloaded at:

<http://www.acgov.org/aceh/lop/ust.htm>

From: Charles Gurney [mailto:CGurney@Weingarten.com]

Sent: Tuesday, September 30, 2014 6:55 AM

To: gabe stivala; Detterman, Karel, Env. Health; Roe, Dilan, Env. Health

Subject: RE: RO0003097 Revised Data Gap Work Plan Implementation, Site Cleanup Program 580 Market Place Shopping Center, Geotracker Global ID T10000004345, 3735-4065 East Castro Valley Boulevard, Castro Valley, CA

Karel and Dilan, I am asking that you review the Revised Data Gap Work Plan at your earliest convenience and provide comments. I sent in the additional fees as requested and it was received by the County. We have been working on this site for 2 years with very little progress. I know this is not a concern of yours, but we have a substantial amount of money tied up in escrow until we get closure and would really like to move toward closure. We will be happy to meet with you or address your comments in your review immediately in an effort to move toward closure. I appreciate your help on this.

Chuck Gurney
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832-372-3815 (cell)

From: gabe stivala [<mailto:gabe.stivala@cardno.com>]

Sent: Friday, September 26, 2014 6:35 PM

To: Detterman, Karel, Env. Health; Roe, Dilan, Env. Health

Cc: Charles Gurney

Subject: RE: RO0003097 Revised Data Gap Work Plan Implementation, Site Cleanup Program 580 Market Place Shopping Center, Geotracker Global ID T10000004345, 3735-4065 East Castro Valley Boulevard, Castro Valley, CA

Hi Karel and Dilan,

Just checking in. Do you have a feel for when you may have comments to us on the Revised Data Gap Work Plan?

Please let me know.

Thanks,

Gabe Stivala, P.G

SENIOR PROJECT MANAGER/SENIOR GEOLOGIST
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