Nowell, Keith, Env. Health

To: wannetta4414@yahoo.com; louisbadertscher@gmail.com
Cc: Paul.King@rgaenv.com; Roe, Dilan, Env. Health
Subject: Fuel Leak Case RO280- Scooter Wilson, 3600 MacArthur Blvd, Oakland

Dear Ms. Hall and Mr. Badertscher:

Alameda County Environmental Health (ACEH) staff has reviewed the case file including the document entitled, *Conceptual Site Model and Data Gap Investigation Work Plan* (SCM-DGI) dated February 17, 2014, prepared by RJA Environmental (RJA) for the referenced site on your behalf. The SCM illustrates contaminant distributions, release mechanisms, exposure pathways and migration routes, and potential receptors. The DGI identified data gaps in the SCM that need to be addressed to further refine the SCM, and presents a strategy to acquire the missing information.

ACEH has evaluated the data and recommendations presented in the above-mentioned 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 ACEH staff review, the proposed scope of work may be implemented provided that the modifications requested in the technical comments below are addressed and incorporated during the field implementation. Submittal of a revised Work Plan is not required unless an alternate scope of work outside that described in the Work Plan and technical comments below is proposed.

Technical Comments

A. LTCP General Criteria c (Primary Source Removal) and f (Secondary Source Removal) – It is unclear to ACEH that primary source removal (tank, pipe, or other appurtenant structures) and secondary source removal, defined as petroleum-impacted soil or groundwater located at or immediately beneath the point of release from the primary source, has been met. The case file does not contain records of the status of the product piping removal and whether sampling and analysis was performed beneath the product dispenser piping and beneath the product dispensers. Additionally, excavated soil from the fuel UST and waste oil UST pits were returned to their respective open excavations as tank backfill. The work plan proposes to conduct an exploratory excavation with a backhoe to locate the former UST product piping trench and determine if the piping was removed or grouted in-place.

   ACEH requests if product piping (primary source) is determined to be present, the piping should be removed and disposed of at a licensed facility. Please collect one soil sample for every 20 linear feet piping and from beneath piping fittings. Soil samples should be recovered from a minimum of two feet beneath the piping and fittings. Additionally, please collect one soil sample recovered from a minimum of two feet beneath the each dispenser. Analyze piping/fitting soil samples for TPHg, TPHd, BTEX, MTBE, TBA, the fuel oxygenates diisopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl and methyl ether (TAME) the lead scavengers 1,2-dibromroethane (EBD) and 1,2-dichloroethane (EDC), and naphthalene.

   ACEH notes that contaminated soil from the waste oil UST was used as backfill for the tank pit. If the results of the groundwater and soil gas samples indicates this source requires remediation, a work plan will be required.

B. Media-Specific Criteria for Groundwater – The scope of work proposes to define the downgradient extent of petroleum in groundwater by advancing boreholes at three off-site locations (B-9, B-10, and B-11) to evaluate the extent of petroleum in groundwater and assess the origin of elevated TPHd and TPHg in groundwater on the west side of MacArthur Boulevard at location the nearby former Chevron site off-site boring B-15. The work plan proposes to analyze groundwater samples for TPHg and TPHd by EPA Test Method 8015; BTEX, MTBE, and TBA by EPA Test Method 8260B. Please include the fuel oxygenates diisopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl and methyl ether (TAME) the lead scavengers 1,2-dibromroethane (EBD) and 1,2-dichloroethane (EDC), and naphthalene to the analysis suite.

   Significant differences in TPHg and benzene concentrations of have been reported when comparing the two most recent groundwater monitoring events. Please perform an additional round of monitoring and sampling of the groundwater monitoring wells to support the decreasing trend. Add DIPE, ETBE, TAME, EBD, EDC and naphthalene to the suite of analysis.

C. Media-Specific Criteria for Vapor Intrusion to Indoor Air – Groundwater at the site is typically reported at depths of less than five feet. Hence, exposure to petroleum vapors migrating from soil or groundwater to indoor air may pose unacceptable health risks as no bioattenuation zone exists to mitigate vapor intrusion to indoor air. The work plan proposes to evaluate the potential for vapor intrusion to indoor air by the installation of a permanent soil gas well, designated SG-1, to a depth of five (5) feet below the ground surface (bgs) and analyzing a soil gas sample collected from the well for TPHg, BTEX, MTBE, TBA, DFA and oxygen, methane and carbon dioxide.

Based on the variability of groundwater flow beneath the site, ACEH requests that a second permanent soil gas well be installed mid-way between the proposed SG-1 soil gas well, and MacArthur Boulevard. The second soil gas well should be located along a perpendicular line extending from MacArthur Boulevard and passing through the SG-1 location. Soil gas well construction and soil gas analysis should be similar to that of SG-1. Additionally, as these wells will be permanent sample points, please survey the points and upload their coordinates to Geotracker.

Technical Report Request

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

- **July 21, 2014– Soil, Groundwater, and Soil Gas Investigation** (file name: RO0000280_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.

Respectfully,

Keith Nowell

Keith Nowell PG, CHG
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda , CA 94502-6540
phone: 510 / 567 - 6764
fax: 510 / 337 - 9335
email: keith.nowell@acgov.org

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

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