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HEALTH CARE SERVICES

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(Sent via E-mail to:
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Robert Trommer
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Subject: Response to UST Cleanup Fund Second Five Year Review for Fuel Leak Case No. RO0000269; (Global ID # T0600101885); Chevron #9-0329, 340 Highland Avenue, Piedmont, CA 94611

Dear Mr. Cullen and Mr. Trommer:

ACEH has received the second 5-Year Review Summary Report dated October 11, 2011 from the Underground Storage Tank Cleanup Fund (USTCF) for the site listed below. The Summary Report represents the second five year review of this site managed by the ACEH Local Oversight Program by the Fund. The Fund correspondence requests that ACEH respond to the Fund correspondence within 45 days of the date of the letters (November 25th). We have reviewed the contents of the correspondence in the context of the appropriateness of recommendations. However, we have not reviewed the reports for accuracy of all information presented.

ACEH Case: RO0000269
USTCF Claim: 6001
Global ID: T0600101885
Site Name: Chevron #9-0329
Site Address: 340 Highland Avenue, Piedmont, CA

USTCF Recommendations from October 11, 2011 Review Summary:

- The Fund staff sees the January 2011, Conestoga-Rovers and Associates letter responding to the LOPs November 2010 requirement letter. Reviewing the data the Fund staff recommends this site be considered for closure. The concentrations of petroleum hydrocarbons found in well C-2 are in the source area, declining and will most likely remain above WQOs for many years. After years of monitoring, the groundwater plume is limited to the source area. WQOs have been reached in down gradient wells.

Initial ACEH Response: ACEH is not in agreement with this recommendation. ACEH is in general agreement that the site is likely mature; however, several potentially significant data gaps appear to be present in site understanding. Although the data is conflicting, weathered, but fractured, bedrock appears to be generally present at a depth of perhaps approximately <1 to 3 feet in portions of the site. Additionally offsite bedrock also appears to be shallow, and appears to be generally present at a depth of less than approximately 5 feet bgs (bore logs for wells C-5 and C-6 [power rig installed] indicate a depth of approximately 5 ft, whereas hand augers on- and just offsite encountered refusal at 1 to 3 ft bgs). Of unknown but of potential significance is the documented presence of fill soils, in two, perhaps three, soil bores onsite to a depth of 9 to 12 (and perhaps up to 15) feet bgs, each of which appeared to be significantly impacted (very strong odors and discoloration, but apparently no soil analytical data was collected) at the time of the bore installation. The origin, nature, and extent of this fill is undetermined (shell fragments, brick, and asphalt are noted) and impinges on the station building. It is uncertain if this is an old UST excavation, an old basement infill, or an in-filled natural swale in the bedrock surface. Because strong odors were

reported at depth in this fill, and because offsite bores generally were shallow, or if deeper, did not encounter significant contamination, the possibility is present that a natural swale allows contamination to bypass the well network downgradient, or that the fractured bedrock plays a role in contaminant migration. Additionally, the recent detection of TPHd at 5,000 ug/l in well C-2 nearest to the (former?) waste oil UST indicates that motor oil may also be an issue at the site and TPHmo or the analytical suite associated with waste oil USTs should be investigated (inclusive of VOCs), and defined downgradient. Because of the unresolved nature of the fill, impingement upon the site building and the potential to bypass the well network, vapor intrusion can be of concern to the site building or the adjacent office building. At the same time ACEH acknowledges that at least a portion of the groundwater plume (a very shallow near surface flow [<1 ft] of groundwater over potential bedrock) may currently be mitigated by the presence of the grease interceptor drain depending on construction specifics (installation depth, length of interceptor line, etc.). The drain is reported to be plumbed to sanitary sewer, but additional construction details are pending. Previously this drain was in disrepair and there was direct surface discharge of contaminated subsurface waters (daylighting) to the sidewalk and storm drainage system. ACEH requests a revision in Fund staff recommendations in order that the site data gaps can be resolved. ACEH requests a revised recommendation similar in nature to the previous review.

Additional Comments: The USTCF has recommended the site be considered for closure based on a review of groundwater concentrations remaining in groundwater in existing wells at the site. Upon further detailed review of what appears to be fill soils at the locations of bores C-A, C-E, and well C-2 evidence of an undocumented UST excavation is apparent. The fill, variously described as "blue sand" (C-2), or sand with shell and brick fragments (C-A and C-E), suggests the presence of either an undocumented UST basin, or a greatly expanded UST basin associated with the former waste oil UST. Review of the bore log and well construction details for well C-2 indicate apparently significantly impacted blue fill sand between approximately 1 foot and 11 feet below grade surface (bgs), and a well screen installed between 5 and 15 feet bgs. Groundwater at the site is generally encountered at a depth of 1 to 2.5 feet; thus the well screen appears to be submerged, as it would also be at wells C-1, C-3, and C-4. The presence of sheen and odor is noted on the Well Monitoring Data Sheet for well C-2 for the recent September 2011 sampling event, while 5,900 $\mu\text{g/l}$ TPHd, 4,700 $\mu\text{g/l}$ TPHg, and 190 $\mu\text{g/l}$ benzene were detected in groundwater collected from the submerged well. These data appear to confirm a significant onsite residual source. Because the UST pit has been generally unrecognized, it would appropriate to investigate for the presence of undocumented USTs at the site before close. Using grab groundwater concentrations (which tend to bias high) from downgradient soil bores HA-1 to HA-5, which were collected at a depth of 0.5 to 1.5 feet below grade surface as a guide to unmonitored residual concentrations above the well screen interval at well C-2, suggest that up to 38,000 $\mu\text{g/l}$ TPHg, and 2,300 $\mu\text{g/l}$ benzene, and etc. may be flowing offsite to preferential pathways or vicinity storm drains. The presence of continued residual contamination in close proximity to the station building indicates a need for a focused soil and groundwater investigation at the site. Because the size of the undocumented UST complex is not understood, the presence of unknown UST is uncertain, and because the area is in proximity to the station building, the investigation will additionally be requested to include a geophysical survey, and a soil vapor and sub-slab vapor sampling effort. To resolve these concerns and rapidly access this site, ACEH will be requesting a work plan to investigate existing data gaps at the site.

Thank you for providing ACEH with the opportunity to comment on the subject site. Should you have any questions regarding the responses above, please contact me at (510) 567-6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,

Mark E. Detterman, P.G., C.E.G.
Senior Hazardous Materials Specialist

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