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June 4, 2013

Mr. Pete Mizera  
State Water Resources Control Board  
1001 I Street, 16<sup>th</sup> Floor  
Sacramento, CA 95814  
(Sent via E-mail to: [USTClosuresComments@waterboards.ca.gov](mailto:USTClosuresComments@waterboards.ca.gov))

Subject: **Comment Letter – Pacific Supply Case Closure Summary**, Notice of Opportunity for Public Comment; Underground Storage Tank Cleanup Fund Case Closure Recommendation; Claim Number 2343; Fuel Leak Case No. RO0000514 and GeoTracker Global ID T0600101039, Pacific Supply 1735 24<sup>th</sup> Street, Oakland, CA 94607

Dear Mr. Mizera:

Alameda County Environmental Health (ACEH) staff has received the Underground Storage Tank Cleanup Fund's (USTCF's or Fund's) *Notice of Opportunity for Public Comment* dated April 4, 2013, for the subject site. The purpose of the Notice is to inform interested parties of 1) the USTCF's intent to recommend closure of the subject site to the California State Water Resources Control Board's (SWRCBs) Executive Director, and 2) the sixty day public comment period on the Fund's *UST Case Closure Summary Report* (Case Closure Summary), dated March 29, 2013. According to the Notice, written comments to the SWRCB on the Fund's Case Closure Summary must be received by 12:00 noon on April 4, 2013. This letter herein transmits ACEH's comments.

### **Requirements for Investigation and Cleanup of Unauthorized Releases from USTs**

ACEH reviewed the USTCF's *UST Case Closure Review Summary Report*, dated March 29, 2013, prepared by Kirk Larson and signed by Lisa Babcock, (including *Attachment 1: Compliance with State Water Board Policies and State Law* (i.e., the SWRCB's Low-Threat UST Case Closure Policy Paper Check List), and *Attachment 2: Summary of Basic Site Information (Conceptual Site Model)*) in conjunction with the case files for the above-referenced site. A complete record of the case files (i.e., regulatory directives and correspondence, reports, data submitted in electronic deliverable format, etc.) can be obtained through review of both the SWRCB's Geotracker database, and the ACEH website at <http://www.acgov.org/aceh/index.htm>.

ACEH's review was guided by the requirements for investigation and cleanup of unauthorized releases from underground storage tanks (USTs) contained in the following resolutions, policies, codes, and regulations:

- SWRCB's Low-Threat Underground Storage Tank Case Closure Policy (LTCP), adopted on May 1, 2012; and effective August 17, 2012;
- California Code of Regulations (CCR) Title 23, Article 5 and Article 11, Underground Storage Tank Regulations, as amended and effective July 1, 2011;
- California Health & Safety Code (HS&C) Sections 25280-15299.8, Underground Storage of Hazardous Substances, as amended on January 1, 2011;
- SWRCB Resolution 1992-0049, Policies and Procedures for the Cleanup and Abatement of Discharges under California Water Code Section 13304, as amended on April 21, 1994 and October 2, 1996;

- San Francisco Bay Regional Water Quality Control Board's (RWQCB) San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan).

### Application of Case Review Tools

ACEH's case closure evaluation was also guided by the application of the principles and strategies presented in the *Leaking Underground Fuel Tank Guidance Manual* (CA LUFT Manual), dated September 2012, developed by the SWRCB "...[t]o provide guidance for implementing the requirements established by the Case Closure Policy" and associated reference documents including but not limited to:

- *Technical Justification for Vapor Intrusion Media-Specific Criteria*, SWRCB dated March 21, 2012;
- *Technical Justification for Groundwater Media-Specific Criteria*, SWRCB dated April 24, 2012;
- *Technical Justification for Soil Screening Levels for Direct Contact and Outdoor Air Exposure Pathways*, SWRCB dated March 15, 2012;
- *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, Final DTSC*, dated October, 2011;
- *Evaluating LNAPL Remedial Technologies for Achieving Project Goals, Interstate Technology Regulatory Council*

ACEH also utilized other case review tools developed by the SWRCB to aid in determining compliance of the subject fuel leak site with LTCP criteria, including both the paper *Policy Checklist* (available at [www.waterboards.ca.gov/ust/docs/checklist.pdf](http://www.waterboards.ca.gov/ust/docs/checklist.pdf)) and the electronic version of the *Policy Checklist* (available on the SWRCB's GeoTracker website at <http://geotracker.waterboards.ca.gov>). Additionally, ACEH staff utilizes a *Data Gap Identification Tool* (DGIT) to facilitate consistent application of the LTCP by ACEH staff, assist in identification of impediments to closure, and document our decision making process as transparently as possible for interested parties.

ACEH's evaluation of the subject site is presented below.

### Summary of ACEH's Review of the USTCF's UST Case Closure Summary

ACEH does not agree with the USTCF's technical analysis presented in the *UST Case Closure Summary Report*, dated March 29, 2013. ACEH's review indicates that the Conceptual Site Model (CSM) is deficient and that the site is uncharacterized in a number of elements, including the delineation of the downgradient extent of the plume, vapor intrusion to indoor air potential, and direct contact and outdoor exposure. Details of our analysis are provided in the narrative section below.

<b>General Criteria a: The unauthorized release is located within the service area of a public water system.</b>
The site meets this General Criteria.
<b>General Criteria b: The unauthorized release consists only of petroleum.</b>
The site meets this General Criteria.
<b>General Criteria c: The unauthorized ("primary") release from the UST system has been stopped.</b>
The site meets this General Criteria.
<b>General Criteria d: Free product has been removed to the maximum extent practicable.</b>
The site meets this General Criteria.
<b>General Criteria e: A conceptual site model has been developed.</b>
The site does not meet this General Criteria.
A CSM that is deficient in adequately assessing the vertical and lateral extent of the soil and groundwater plume has been generated. The vertical and offsite extent of the plume remains undefined beneath the

warehouse and downgradient of the property.

Post remediation confirmation borings (borings CB-7 and CB-8) adjacent to the warehouse building structure documented residual total petroleum hydrocarbon as gasoline (TPHg) concentrations of up to 5,700 milligrams per kilogram (mg/kg) with benzene concentrations below an elevated laboratory method detection limit of 2.5 mg/kg at eight feet below ground surface (BGS). The reported TPHg concentration in boring CB-8, located adjacent to the office area of the warehouse, is significantly higher than the concentrations reported in soil samples from adjacent pre-remediation samples from MW-2 and VWR-1 collected at similar depths. As boring location CB-8 is closer to the building than either MW-2 or VWR-1, the TPHg concentration indicates the radius of influence of the remediation system may not have effectively addressed the portion of the contamination beneath the building.

Depth to water has been as shallow as 3.37 feet BGS and is typically in the 6- to 7.5-foot range. These depths are shallow enough for utility trenches to potentially act as preferential pathways. Brunsing Associates, Inc., consultant for the Responsible Party, identified the preferential pathway data gap and recommended an investigation be conducted with respect to the sewer utility trenches within 24<sup>th</sup> Street.

ACEH has requested a soil gas study be performed to evaluate potential indoor air hazards at the site.

**General Criteria f: Secondary source removal has been addressed. The secondary source is the petroleum-impacted soil, free product, or groundwater that acts as a long-term source releasing contamination to the surrounding area. Unless site conditions 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.**

A determination of the extent of removal of the secondary source has not been established. Substantial deterioration of the tank was documented at the time of its removal and gasoline odors were noted emanating from the tank pit; however, there is no indication that any removal of the secondary source was performed.

**General Criteria g: Soil or groundwater has been tested for MTBE and results reported in accordance with Health and Safety Code section 25296.15.**

The site meets this General Criteria.

**General Criteria h: Nuisance as defined by Water Code section 13050 does not exist at the site.**

The downgradient extent of groundwater contamination has not been determined as discussed previously above; specifically whether the 24<sup>th</sup> Street utility trenches are impacted by contaminated groundwater.

**Media-Specific Criteria 1. Groundwater:** If groundwater with a designated beneficial use is affected by an unauthorized release, to satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal (sic) extent, and meet all of the additional characteristics of one of the five classes of sites listed in the Policy. A plume that is "stable or decreasing" is a contaminant mass that has expanded to its maximum extent: the distance from the release where attenuation exceeds migration.

Residual hydrocarbon mass remains in soil as evidenced by samples CB-4 and CB-8 containing TPHg at concentrations of 1,700 mg/kg and 5,400 mg/kg, respectfully. However only one post remediation ground water sample was recovered (CB-3), reported to contain 23,000 micrograms per liter (µg/L) TPHg and 1,100 µg/L benzene, from a depth of 8 to 10 feet BGS. ACEH is concerned that consistently submerged wells screens for the onsite monitoring wells have been providing non-representative dissolved phase contaminant concentrations.

The USTCF states that the Groundwater-Specific Criteria is met by Class 2 which requires a finding that the plume has been delineated to less than 250 feet in length, has no free product, the nearest surface water body is greater than 1,000 feet, and benzene and MTBE concentrations are less than 3,000 and 1,000 µg/l, respectively. As discussed in General Criteria e above, the plume length has not been delineated along 24<sup>th</sup> Street and therefore does not meet this Class 2 scenario.

**Media-Specific Criteria 2. Petroleum Vapor Intrusion to Indoor Air:** The low-threat vapor-intrusion criteria in the Policy apply to release sites and impacted or potentially impacted adjacent parcels when: (1) existing buildings are occupied or may be reasonably expected to be occupied in the future, or (2) buildings for human occupancy are reasonably expected to be constructed in the near future.

The site is not an active gasoline service station; and very few soil samples have been collected within the top 5 feet at the site. Shallow soil samples collected in the upper 5 feet are reported to contain up to 100 mg/kg TPHg and 9.1 mg/kg benzene. Based on the concentrations reported in soil and groundwater in the vicinity of the building, contamination is likely present beneath the structure; however, no vapor intrusion to indoor air studies have been performed.

The USTCF states that the Media-Specific Criteria is met by Class 3 which requires a finding that, for sites with no oxygen data and benzene concentrations less than 100 µg/L, the bioattenuation zone is a continuous zone that provides a separation of at least 5 vertical feet between the dissolved phase benzene and the foundation of the existing or potential buildings; and contains a total TPH (TPHg and TPHd combined) less than 100 mg/kg throughout the entire depth of the bioattenuation zone. There is no supporting documentation that the 5-foot vertical separation condition has been met. Groundwater has been as shallow as 3.37 feet, and the depth of the foundation of the warehouse building has not been provided. Two data points exist in the case file documenting soil concentrations in the upper 5 feet of soil. One fails the TPH concentration criteria. The most recent soil data documents TPHg at 5,700 mg/kg at 8 feet BGS alongside the building with older data documenting up to 7,000 mg/kg TPHg at 7.0 feet. It is the opinion of ACEH that the site fails to meet any of the scenarios for the Media-Specific Criteria 2- Vapor Intrusion to Indoor Air.

**Media-Specific Criteria 3. Direct Contact and Outdoor Air Exposure.** Release sites where human exposure may occur satisfy the media-specific criteria for direct contact and outdoor air exposure and shall be considered low-threat if they meet any of the following:

- a. Maximum concentrations of petroleum constituents in soil are less than or equal to those listed in Table 1 for the specified depth below ground surface (bgs). The concentration limits for 0 to 5 feet bgs protect from ingestion of soil, dermal contact with soil, inhalation of volatile soil emissions and inhalation of particulate emissions, and the 5 to 10 feet bgs concentration limits protect from inhalation of volatile soil emissions. Both the 0 to 5 feet bgs concentration limits and the 5 to 10 feet bgs concentration limits for the appropriate site classification (Residential or Commercial/Industrial) shall be satisfied. In addition, if exposure to construction workers or utility trench workers are reasonably anticipated, the concentration limits for Utility Worker shall also be satisfied; or
- b. Maximum concentrations of petroleum constituents in soil are less than levels that a site specific risk assessment demonstrates will have no significant risk of adversely affecting human health; or
- c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, the regulatory agency determines that the concentrations of petroleum constituents in soil will have no significant risk of adversely affecting human health.

Limited soil samples have been collected within the top 5 feet at the site. As discussed in our evaluation of the Media Specific Criteria for Vapor Intrusion criteria above, although two pre-remediation data points exist in the case file documenting soil concentrations in the upper 5 feet of soil, there is no confirmation sampling data from beneath the dispenser island or confirmation post-remediation data in this interval. Therefore, this concentration in shallow soil remains a data gap.

**Low-Threat Case Closure:** If a case has been determined by the regulatory agency to meet the criteria in this policy, the regulatory agency shall notify responsible parties that they are eligible for case closure and that the following items, if applicable, shall be completed prior to the issuance of a uniform closure letter specified in Health and Safety Code section 25296.10:

- a. **Notification Requirements:** Municipal and county water districts, water replenishment districts, special acts districts with groundwater management authority, agencies with authority to issue building permits for land affected by the petroleum release, and the owners and occupants of all parcels adjacent to the impacted property shall be notified of the proposed case closure and

provided a 60 day period to comment.

- b. **Monitoring Well Destruction:** All wells and borings installed for the purpose of investigating, remediating, or monitoring the unauthorized release shall be properly destroyed prior to case closure unless a property owner certifies that they will keep and maintain the wells or borings in accordance with applicable local or state requirements.
- c. **Waste Removal:** All waste piles, drums, debris and other investigation or remediation derived materials shall be removed from the site and property managed in accordance with regulatory agency requirements.

ACEH has not been made aware of the extent of public notification that has been conducted for the site by the USTCF.

### Conclusions

ACEH is in disagreement that the site can currently be closed under the LTCP and recommends additional downgradient delineation of the groundwater plume and a vapor intrusion study. These studies would address the threat to indoor air for the current site workers, delineate the plume length, and establish if a nuisance condition exists as a result of the unauthorized release(s).

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 Keith Nowell at (510) 567-6764 or send him an electronic mail message at [keith.nowell@acgov.org](mailto:keith.nowell@acgov.org).

Sincerely,

Dilan Roe, P.E.  
Supervising Hazardous Materials Specialist

Keith Nowell, PG, CHG  
Hazardous Materials Specialist

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Electronic File, GeoTracker