UST CASE CLOSURE SUMMARY

Agency Information

Current Agency Name: Los Angeles Regional Water Quality Control Board	Address: 320 West 4th Street, Suite 200 Los Angeles, CA 90013
Current Agency Caseworker: Mr. Noman Chowdhury	Case No.: 908050634

Case Information

USTCF Claim No.: 18426	Global ID: T0603701812
Site Name: Karen Oil Co., Inc. (Arco Station)	Site Address: 5742 Orange Avenue Long Beach, CA 90805 (Site)
Responsible Party: Karen Oil Company Attention: Mr. Rico Michaeli	Address: 123 South Westgate Avenue Los Angeles, CA 90049
USTCF Expenditures to Date: $477,884	Number of Years Case Open: 17

URL: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0603701812

Summary

The Low-Threat Underground Storage Tank Case Closure Policy (Policy) contains general and media-specific criteria, and cases that meet those criteria are appropriate for closure pursuant to the Policy. This case meets all of the required criteria of the Policy.

The release at the Site was discovered in September 1998, when concentrations of petroleum constituents were identified from 2 to 10 feet below ground surface (bgs) in soil samples obtained from the Site following removal of USTs, dispensers, and associated product lines. An unknown quantity of petroleum impacted soil was removed from the Site at that time. Further investigation in 1998 detected concentrations of petroleum constituents from 15 to 26 feet bgs. Between 2006 and 2008 a total of six dual phase extraction events were conducted at the Site, removing approximately 1,332 pounds of petroleum constituents from soil and groundwater. The Site is operated as an active fueling facility.

Groundwater was measured at approximately 26 feet bgs. The groundwater plume that exceeds water quality objectives (WQOs) is less than 250 feet in length. The nearest public supply well and surface water body are greater than 1,000 feet from the Site. Additional corrective action will not likely change the conceptual site model. Residual petroleum constituents pose a low risk to human health, safety, and the environment.

Rationale for Closure under the Policy

- General Criteria – Site **MEETS ALL EIGHT GENERAL CRITERIA** under the Policy.

- Groundwater Media-Specific Criteria – Site meets the criteria in **CLASS 2**. The contaminant plume that exceeds WQOs is less than 250 feet in length. There is no free product. The nearest water supply well or surface water body is greater than 1,000 feet from the defined plume boundary. The dissolved concentration of benzene is less than 3,000 µg/L, and the dissolved concentration of MTBE is less than 1,000 µg/L.

- Petroleum Vapor Intrusion to Indoor Air Criteria – Site meets **EXCEPTION**. Exposure to petroleum vapors associated with historical fuel system releases is comparatively insignificant relative to exposures from small surface spills and fugitive vapor releases that typically occur at active fueling facilities.

- Direct Contact and Outdoor Air Exposure Criteria – Site meets **CRITERION 3 (a)**. Maximum concentrations of residual petroleum constituents in soil are less than or equal to those listed in Table 1 of the Policy. The estimated naphthalene concentrations are less than the thresholds in Table 1 of the Policy for direct contact. There are no soil sample results in the case record for naphthalene. However, the relative concentration of naphthalene in soil can be conservatively estimated using the published relative concentrations of naphthalene and benzene in gasoline. Taken from Potter and Simmons (1998), gasoline mixtures contain approximately 2% benzene and 0.25% naphthalene. Therefore, benzene concentrations can be used as a surrogate for naphthalene concentrations with a safety factor of eight. Benzene concentrations from the Site are below the naphthalene thresholds in Table 1 of the Policy. Therefore, estimated naphthalene concentrations meet the thresholds in Table 1 and the Policy criteria for direct contact with a safety factor of eight. It is highly unlikely that naphthalene concentrations in the soil, if any, exceed the threshold. Although poly-aromatic hydrocarbons were not analyzed, there does not appear to be a significant release that would result in concentrations in the soil exceeding concentrations listed in Table 1 of the Policy. Furthermore, the Site is paved and accidental access to Site soils is prevented. As an active fueling facility, any construction worker working at the Site will be prepared for exposure in their normal daily work.

Recommendation for Closure

The corrective action performed at this Site ensures the protection of human health, safety, and the environment, and is consistent with chapter 6.7 of the Health and Safety Code and implementing regulations, applicable state policies for water quality control, and the applicable water quality control plan, and case closure is recommended.

2/23/2015

George Lockwood, PE No. 59556 — Date
Senior Water Resource Control Engineer