UST CASE CLOSURE SUMMARY

Agency Information

Agency Name: Orange County Healthcare Agency	Address: 1241 East Dyer Road, Suite 120 Santa Ana, CA 92705
Agency Caseworker: Mr. Kevin Lambert	Case No.: 89UT097

Case Information

USTCF Claim No.: 10540	Global ID: T0605900038
Site Name: ARCO #1055	Site Address: 9001 Garden Grove Boulevard Garden Grove, CA 92844 (Site)
Responsible Party: Tesoro Refining & Marketing Company, LLC Attention: Mr. Robert C. Donovan	Address: 3450 South 344th Way, Suite 201 Auburn, WA 98001
USTCF Expenditures to Date: $0	Number of Years Case Open: 25

URL: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0605900038

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 when petroleum constituents were detected during a preliminary site assessment in 1989. Four underground storage tanks (USTs) were replaced in May 1989. A soil vapor extraction (SVE) system was operated between July 1996 and December 2003. The SVE system removed approximately 69,844 pounds of petroleum constituents. A groundwater extraction (GWE) system began operating in March 1999 and operated until February 2004. The GWE system removed approximately 2,887,155 gallons of petroleum-impacted groundwater. Four USTs were removed from the Site in October 2001. A high-vacuum dual phase extraction pilot test was conducted at the Site in December 2011, removing approximately 4,795 gallons of groundwater and approximately 0.04 pounds of vapor-phase hydrocarbons. The Site is operated as a retail paint store.

The average depth to groundwater at the Site is 11 feet below ground surface. The groundwater plume exceeding water quality objectives is less than 250 feet long and has been stable or decreasing since 2010. 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.

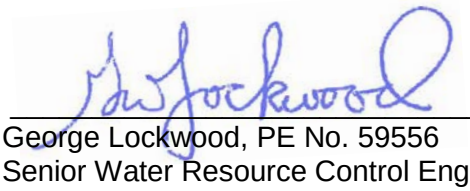
- Groundwater Media-Specific Criteria – Site meets the criterion in **CLASS 2**. The contaminant plume that exceeds water quality objectives is less than 250 feet in length. There is no free product. The nearest water supply well and surface water body are greater than 1,000 feet from the defined plume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

- Petroleum Vapor Intrusion to Indoor Air Criteria – Site meets Policy **CRITERION (2)** Scenario 3(b). The maximum benzene concentration in groundwater is less than 1,000 µg/L. The depth to groundwater is greater than 10 feet, and the soil in the bioattenuation zone contains less than 100 mg/kg of total petroleum hydrocarbons.

- 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. 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.

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.



10/28/2014

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