
San Francisco Bay Regional Water Quality Control Board

TO: VIVIAN GOMEZ-LATINO, USTClosuresComments@waterboards.ca.gov
STATE WATER RESOURCES CONTROL BOARD
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FROM: BRUCE WOLFE
EXECUTIVE OFFICER
SAN FRANCISCO BAY REGIONAL WATER QUALITY CONTROL BOARD

DATE: December 23, 2013

SUBJECT: Circle K #270576, 34867 Ardenwood Boulevard, Fremont, Alameda County,
Comment Letter to Proposed Case Closure

Regional Water Board staff has reviewed available files for the subject site and the State Board's *UST Case Closure Summary* (Summary) dated October 18, 2013. Based on our review, we do not concur with the Summary's conclusion that subject case meets all of the required criteria for case closure under the Low-Threat Underground Storage Tank Case Closure Policy (Policy). We do not concur that the Conceptual Site Model (CSM) is complete. Especially, we do not agree that the source of the release has been properly identified, and the groundwater plume is stable and decreasing in areal extent. The following are site conditions which demonstrate that the CSM is incomplete and the site does not meet all the general criteria for case closure under the Policy:

1. This site does not meet the Policy's General Criteria (e): A CSM that assesses the nature, extent, and mobility of the release has been developed. The Policy states that "*all relevant site characteristics identified by the CSM, shall be assessed and supported by data so that the nature, extent and mobility of the release have been established to determine conformance with applicable criteria in this policy.*" The Antea Group (Antea) submitted a "Site Conceptual Model" dated July 3, 2012, stating that "**MTBE [methyl tert butyl ether] is not fully defined down-gradient to the west and northwest, up-gradient to the east or vertically.**" The State Board's Summary dated October 18, 2013, contradicts Antea's CSM and states that the MTBE plume has been stable to decreasing in areal extent since 2008; however, the Summary did not reference any supporting data. Monitoring well MW-7, installed down-gradient of MW-4 in 2011, has detected MTBE at concentrations consistently higher than the on-site wells. A large portion of the contaminant plume has migrated off-site. Currently, the highest MTBE concentration at the site is detected at MW-7; yet, this well is being used as a boundary well. Without further down-gradient wells, there is no data to determine the movement of the contamination in the vicinity of MW-7. If

the movement of the plume cannot be properly assessed, then its distance to the nearest receptor is unknown, and the number and locations of impacted off-site properties are unknown.

Furthermore, the vertical extent of groundwater contamination is also undefined. Even though the site is located above a drinking water aquifer, which could be present at a depth as shallow as 45 feet, groundwater data has never been collected to verify if the drinking water aquifer beneath this site has been impacted. **The lack of data regarding the vertical migration of contaminant plume was also recognized in Antea's CSM.** The Summary does not address the issue of vertical definition and the potential impact on the drinking water aquifer beneath the site.

In September 2012, Antea submitted a workplan to address the data gaps identified in their CSM described above. Alameda County Water District (ACWD) provided comments and tentatively approved the workplan. In November 2012, Antea requested case closure under the Policy without completing any of the proposed work.

2. This site does not meet the Policy's General Criteria (f): Secondary source has been removed to the extent practicable. The policy states that "*petroleum-release sites are required to undergo secondary source removal to the extent practicable*". The source of the release(s) at this site is unknown, and subsurface cleanup activity has never been conducted. Even though a failed integrity test of a dispenser island and secondary piping was reported in November 2007, a month after the discovery of groundwater contamination during an unrelated due diligence investigation, it is likely that the 2007 release was not the only contributor to the groundwater contamination at this site. The majority of the contamination detected in groundwater is MTBE, with almost no detection of benzene, toluene, ethylbenzene, and xylenes (BTEX). The addition of MTBE to gasoline was banned in California at the end of 2003. Therefore, the lack of BTEX detection in groundwater, and the detection of MTBE hundreds of feet from the tank area suggest that a release(s) occurred sometime between the opening of the station in 1993 and the ban on MTBE in 2003. **According to Antea, in 1998, there was a release of 600 gallons of gasoline into the "UST sump." No Unauthorized Release Form was filed for the release and no documentation of cleanup activities was found.**

In addition, during the 2007 due diligence investigation, MTBE concentrations exceeding 1,000 ug/L were detected near the USTs and dispenser island area, with the highest concentration of 41,000 ug/L of MTBE in borehole ATC-2. An attempt was made to install a monitoring well adjacent to ATC-2, however, an obstruction was encountered during drilling so the well was re-located slightly up-gradient. Additional investigation near the UST area should be conducted to verify contaminant concentrations immediately down-gradient from the USTs and to resolve any conflicting historical results.

In February 25, 2013, ACWD completed the State Board's Low Threat Closure Policy Checklist on GeoTracker identifying the impediments to closure as described above. In March 27, 2013, the Sullivan International Group, Inc. (Sullivan) an USEPA contractor reviewed the data and agreed with the identified impediments. The checklist was validated again by a different Sullivan staff on

October 25, 2013, and again the reviewer supports ACWD's position that this site has not meet all the required criteria for case closure.

Because this site does not meet all of the general criteria for closure as set forth by the Policy, the Regional Water Board objects to the closure of this site at this time. The site will be ready for closure once all potential secondary source areas are investigated (and if necessary remediated), the lateral and vertical extent of the groundwater plume is defined, and plume stability is demonstrated.

If you have any questions regarding this letter, please contact Barbara Sieminski of my staff at (510) 662-2423 or via email at Barbara.Sieminski@waterboards.ca.gov.

cc:

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[Via email only]

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