



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

March 30, 2011

Mr. George Lockwood
State Water Resources Control Board
Division of Water Quality
1001 I Street
Sacramento, CA 95814

Subject: Fuel Leak Case No. RO0000291 and Geotracker Global ID T0600101605, Kawahara Nursery, 16650 Ashland, Avenue, San Lorenzo, CA 94580

Dear Mr. Lockwood:

Alameda County Environmental Health (ACEH) has prepared this letter in response to the "Petition to Close the Former Underground Storage Tank Site at (Kawahara Nursery, 16550 Ashland Ave., San Lorenzo, CA)" dated November 10, 2010. The petition was submitted by Mr. John Kawahara on behalf of Kawahara Nursery, Inc., who is the primary responsible party for the case. Mr. Kawahara submitted his petition for closure review along with supporting documentation from Environmental Forensics & Hydrogeological Consulting (EFHC).

The primary concern for this site is the fact that two underground storage tanks (USTs) appear to remain at the site. The case was originally opened to investigate soil contamination detected beneath a 5,000-gallon diesel UST in the south central portion of the site during a tank removal on December 1, 1993. During subsequent site investigation activities, elevated concentrations of total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and xylenes (BTEX) were detected in soil and groundwater in the northern portion of the site adjacent to a lath house and residence. The TPHg and BTEX detected in the northern portion of the site are related to a source other than the diesel UST removed in 1993. ACEH and the Petitioner appear to agree upon this point.

The Petitioner has reported that a 1,000-gallon gasoline UST was removed in 1954. No documentation exists to confirm that a UST was removed. A geophysical survey conducted in the area of the suspected gasoline UST in 1999, found two magnetic anomalies that could be USTs or could be metallic debris in fill material. Based on the potential presence of two USTs, excavation of the magnetic anomalies was proposed in 2001 to remove the USTs, piping, and associated contamination that may still remain in place in the northern portion of the site. However, the proposed excavation was never conducted. To advance this case to closure,

excavation of the two magnetic anomalies is required to either remove the two USTs, piping, and associated contamination or to confirm that the USTs were previously removed.

In the discussion below, ACEH has reviewed the case to evaluate whether the case meets the criteria for low-risk closure described in the San Francisco Bay Regional Water Quality Control Board's Interim Guidance on required Cleanup at Low Risk Fuel Sites (December 8, 1995). Our review, which is presented below, indicates that the case does not meet these criteria and the petition should be denied.

Criteria 1. The leak has stopped and ongoing sources, including free product, have been removed or remediated.

ACEH's major concern with the site is that the source has not been removed. A neighbor reported to a previous consultant for the site that two USTs existed between MW-3 and MW-5. Subsequently, Blymyer contracted with JR Associates to conduct a magnetic survey at the site. Two magnetic anomalies were identified that appear to indicate that USTs remain at the site. Since the USTs may not have been properly closed in place or removed, the primary source appears to still be present at the site. Consequently, compliance with Criteria #1 has not been met.

Criteria 2. The site has been adequately characterized.

This site does not appear to be adequately characterized. Several data gaps remain at the site that need to be addressed before the site is considered adequately characterized. These data gaps include the need for recent data from the irrigation well, an evaluation of the potential for vapor intrusion to the residence and an evaluation of the extent of contamination beneath the remaining source (the apparent two remaining USTs). Thus the site has not been adequately characterized and does not meet Criteria #2.

Criteria 3. The dissolved hydrocarbon plume is not migrating.

Borings B-4 and B-5 which were advanced in 1999, indicated up to 140,000 µg/L TPHg, 990,000 µg/L TPHd, and 2,300 µg/L benzene in groundwater. This location is in the northern portion of the site where the USTs appear to remain in place and adjacent to the lath house and residence. Neither wells nor borings were installed in the downgradient direction to determine if hydrocarbons were migrating in this direction leaving the extent of the dissolved contaminant plume undefined. Therefore, the site does not meet Criteria #3.

Criteria 4. No water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are likely to be impacted.

No recent water quality data appears to have been collected for the on-site irrigation well (the last known sampling results appear to date back to 1994). Therefore, the current impact to deeper drinking water resources is unknown. The test that was used to infer that the deeper groundwater well is not in communication with the shallow zone included measuring water levels in three shallow wells, pumping the irrigation well of an unknown volume of water, turning off the pump, and waiting another 48 hours to measure the depth to water in the shallow wells again. None of the wells were instrumented during the test and only 6 water measurements were made during the entire 4 days. The test was not conclusive and it remains unknown if the deeper drinking aquifer is impacted by the shallow zone. Therefore, the site does not meet Criteria #4.

Criterion 5 and 6. The site presents no significant risk to human health or the environment.

A soil gas survey was performed in 1994. At that time, the regulatory procedures for soil vapor sampling were not rigorously established. In addition, the sample results are suspect in that analysis of a soil vapor sample collected from one-foot above groundwater did not detect benzene in soil vapor and reported TPHg at a concentration of 500 $\mu\text{g}/\text{m}^3$. In contrast, groundwater approximately one foot below the soil vapor sample contained 3,600 $\mu\text{g}/\text{L}$ of benzene and 35,000 $\mu\text{g}/\text{L}$ of TPHg. This data indicates that the soil vapor data may not be reliable and the risk to human health has not been appropriately evaluated. Therefore, the site is not in compliance with Criterion #5 and #6.

Conclusion

This case does not meet the criteria for low-risk case closure for the reasons discussed in this letter. The source has not been removed, the extent of contamination adjacent to the source and the risk to human health at the residence have not been appropriately evaluated. Therefore, this case cannot be closed at this time without addressing the issues discussed above. ACEH requests that this petition for case closure be denied.

Mr. Lockwood
RO0000291
March 30, 2011, Page 4

Thank you for the opportunity to respond to the petition. If you have any questions regarding this response, please call Barbara Jakub at (510) 639-1287.

Sincerely,

Barbara J. Jakub, P.G.
Hazardous Materials Specialist

Donna L. Drogos, P.E.
Division Chief

cc: Dave and John Kawahara
Kawahara Nursery Inc.
698 Burnett Ave.
Morgan Hill, CA 95037

Chuck Headlee (via electronic mail: cheadlee@waterboards.ca.gov)
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94512

Kevin Graves (via electronic mail: kgraves@waterboards.ca.gov)
State Water Resources Control Board
Division of Water Quality
P.O. Box 2231
Sacramento, CA 95812

Frank Goldman
Environmental Forensics and Hydrogeological Consulting
PO Box 224
Roseville, CA 95661

D. Drogos, B. Jakub, Geotracker, File