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May 16, 2011

Mr. George Lockwood (Sent via E-mail to: glockwood@waterboards.ca.gov)
State Water Resources Control Board
Division of Water Quality
1001 I Street
Sacramento, CA 95814

Subject: Fuel Leak Case No. RO0000279 and GeoTracker Global ID T0600100672, Telegraph Business Park, 5427 Telegraph Avenue, Oakland, CA 94609

Dear Mr. Lockwood:

Alameda County Environmental Health (ACEH) has prepared this letter in response to the "Petition for Closure Review of Underground Storage Tank Case, Telegraph Business Park, 5427 Telegraph Avenue, Oakland, Alameda County" dated March 21, 2011. The petition was submitted by Mr. Jon Legallet on behalf of Telegraph Business Properties who is the primary responsible party for the case. Mr. Legallet submitted his petition for closure review along with supporting documentation from ECM Group (ECM).

The remaining data gaps appear to be the incomplete risk assessment and unevaluated impact to deeper groundwater due to chlorinated volatile organic compounds (CVOCs). Additionally, based on the data at this site it appears that the CVOCs portion of contamination now comprises the greater release and this LOP site should be moved into ACEH's Site Cleanup Program.

In the discussion below, ACEH has reviewed the case in light of ECM's six statements for case closure. Our review, which is presented below, demonstrates why the case cannot be closed at this time. Therefore, the petition should be denied until the data gaps identified below have been adequately addressed.

1) ECM states that "the results of site investigations demonstrate that all potential exposure pathways at this site are incomplete."

   ACEH response: Please refer to the discussion presented in item 3 below regarding potential risks related to vapor intrusion to indoor air.

2) "Due to the lack of analytes in soil or groundwater downgradient of the site, there is no potential risk to indoor air in buildings downgradient of the site.

   ACEH response: Based on the existing data, we concur that there does not appear to be a potential risk of vapor intrusion for the off-site buildings.

3) Sub-slab samples demonstrate that ESLs for soil gas have not been exceeded in the onsite building, so there is no potential risk to indoor air in on-site buildings.

   ACEH response: We do not believe that the two sub-slab vapor samples provide an adequate basis to conclude that vapor intrusion is not a risk for the on-site building based on the following:

   a. The two sub-slab samples were collected west of the hallway where the former USTs were located with one of the sub-slab samples collected approximately 85 feet south of the former USTs. The piping observed during tank removal extended from the USTs beneath the eastern portion of the building. Based on the potential for additional sources of chlorinated solvents as well as contamination from the USTs to extend to the east, the eastern portion of the building is the more critical area for an evaluation of vapor intrusion. No soil, soil vapor, or groundwater sampling has been conducted beneath the eastern portion of the building. Further assessment is needed to address the complete lack of data beneath the eastern portion of the building.

   b. Sub-slab sample VS-1, which was collected approximately 85 feet south of the former USTs, contained 189 micrograms per cubic meter ($\mu g/m^3$) of PCE, which is less the Environmental Screening Level (San Francisco Bay Regional Water Quality Control Board May 2008) of 1,300 $\mu g/m^3$ for vapor intrusion under a commercial land use scenario. However, the concentrations of PCE in sub-slab vapors are likely to increase to the north from VS-1 with closer proximity to the former USTs. Further assessment is required to assess the potential for vapor intrusion between VS-1 and the former USTs.

   c. Only one sub-slab sampling event was conducted which is not adequate to assess temporal variability.

   d. No indoor air analyses have been performed for chlorinated solvents. The two indoor air samples collected in November 1996 were analyzed for petroleum hydrocarbons but not chlorinated solvents. Therefore, the indoor air data do not provide supplemental information regarding the potential for vapor intrusion due to chlorinated solvents.

   e. PCE was detected in soil samples at concentrations up to 210 milligrams per kilogram, which is likely near the saturation limit for PCE in the sandy soils present at the site. The presence of PCE at near saturation limits indicates a high potential for PCE to be present at elevated concentrations in soil vapor. Given this higher potential for PCE in soil gas in this area, an assessment that includes more than two sub-slab vapor samples is necessary.

4) The 1997 sensitive receptor survey indicated that groundwater in the area is not being used as a source of drinking water. Due to the heavily urban character of the surrounding area. The proximity of San Francisco Bay, and the availability of municipal water, the potential for future development of groundwater as a drinking water source is virtually nonexistent.

   ACEH response: PCE concentrations of 210 ppm were detected in soil collected beneath the Stoddard Solvent tank in the hallway. This elevated concentration of PCE is likely near the saturation limit for PCE in sandy soils and could be indicative of possible downward dense non-aqueous phase migration. The vertical extent of CVOCs has not been defined for the site. ACEH believes that one soil boring is needed in the CVOC source area to confirm that a significant source of CVOCs does not remain at the site and that groundwater quality will be restored within a reasonable time period consistent with the requirements of State Water Board Resolution 92-49.

5) Site conditions do not present a potential threat to human health or safety, or to the environment.

   ACEH response: As discussed above in item 3, the sub-slab soil vapor samples do not provide a sufficient basis to assess whether site conditions pose a potential threat to human health or safety. In addition, there has been no assessment of potential future risks due to site redevelopment.

   As discussed in item 5, no vertical assessment of the CVOCs has occurred.

6) Residual hydrocarbons in soil and groundwater will continue to degrade.

   ACEH response: Residual contamination remains in the area of the former USTs beneath the hallway of the on-site building at concentrations of 210 mg/kg PCE and 35 mg/kg TCE. Soil was not over excavated from this area when the USTs were removed and chlorinated solvents do not biodegrade under all conditions. No further sampling was performed in this area to support the assertion that degradation of CVOCs will occur.

Conclusion

This case does not meet the criteria for low-risk case closure for the reasons discussed in this letter. The secondary source in soil has not been removed and the risk to human health due to CVOCs at the Telegraph Business Properties have not been appropriately evaluated. Also, the vertical extent of contamination has not been defined in groundwater. 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.

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,

Digitally signed by Barbara J. Jakub
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Barbara J. Jakub, P.G.
Hazardous Materials Specialist

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Donna L. Drogos, P.E.
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