



Matthew Rodriguez
Secretary for
Environmental Protection



Department of Toxic Substances Control

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Edmund G. Brown Jr.
Governor

March 2, 2016

Mr. Larry Agran

Irvine, California 92612

Dear Mr. Agran:

I write this letter on behalf of Secretary Rodriguez, who asked me to respond to your inquiry concerning the adequacy of clean up activities at the Portola High School in Irvine, California. I would like to inform you that the Department of Toxic Substances Control (DTSC) has conducted a review of site documents and has determined that further subsurface sampling should be conducted at the site. This additional sampling will assess the site for the potential presence of contaminants that could pose a threat to the health of individuals who attend classes or work at the school, or people who might otherwise use the school's property.

The basis for this review is predicated on three factors: the prior use of this site by the military; the occurrence of contamination at a storm drain located at the northern corner of the property; and past sampling that found low levels of volatile organic compounds in certain areas of the property. Please allow me to briefly describe each of these factors, and then to describe the path forward to conduct further subsurface sampling.

Past investigations indicate that the property was undeveloped prior to school construction and that the site was historically leased by the military to farmers. The subsurface investigation was conducted with this conceptual understanding of the site in mind. However, a review of aerial photographs suggests a non-farming use of the site, with a network of roads and what may be buildings or tanks in 1946, 1968 and 1977. The use of these roads is unknown, and thus there is the possibility of past releases of contamination. Further investigation is warranted to determine whether this road network is associated with military operations rather than agricultural use.

Contamination was encountered during the installation of a storm drain at the northern corner of the school property that was not anticipated based on the conceptual understanding of the site. The origin of this contamination is unknown and cannot be attributable to known past operations at the property. Further investigation of this contamination is warranted to determine whether this contamination is an isolated occurrence or whether it is indicative of a more extensive site-wide issue.

Soil gas sampling during the Supplemental Site Investigation found low levels of volatile organic compounds, specifically tetrachloroethene (PCE), trichloroethene (TCE), benzene, toluene, ethylbenzene, and xylenes (BTEX). The origin of the PCE and TCE is unknown and cannot be attributable to known past operations at the property, as indicated in the Preliminary Environmental Assessment. The origin of the BTEX may be attributable to the former pipeline at the property. Therefore, further investigation is warranted to determine the source of these contaminants.

I am directing the Irvine School District to submit a work plan for additional subsurface sampling. The proposed sampling activities should be discussed with DTSC, the public and other interested stakeholders, prior to the formal submittal of the work plan to the Department.

At a minimum, the work plan, and subsequent final report, will include the following elements:

1. **Sampling Depths.** Contamination at the storm drain was encountered at 16 to 20 feet at depth. Soil and soil gas sampling of the school property should be focused at this depth.
2. **Soil Gas Sampling.** All soil gas samples should be collected pursuant to DTSC's 2015 Active Soil Gas Investigations Advisory. Leak check compounds and shut-in testing should be used to demonstrate that no sampling system leaks have occurred during sample collection. Temporary soil gas probes should be installed and sampled at least twice to evaluate potential temporal variability of soil gas contaminants.
3. **Soil Sampling.** All soil samples for VOC analysis should be collected using USEPA Method 5035 pursuant to DTSC's 2004 Method 5035 Guidance Document.
4. **Final Characterization Report.** The final report should provide a comprehensive summary of all subsurface data collected at Portola High School. The data should be interpreted pursuant to the revised conceptual understanding of the site. Sources of contamination, if encountered, should be identified and described. Data should be presented in both table and map formats for easy access by the general public. The final report should provide risk estimates for exposure to subsurface contaminants to both students and faculty. The report should be signed and stamped by a professional civil engineer or professional geologist.

Mr. Larry Agran
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Best regards,



Barbara A. Lee
Director