



Department of Toxic Substances Control

Matthew Rodriguez
Secretary for
Environmental Protection

Barbara A. Lee, Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Edmund G. Brown Jr.
Governor

August 2, 2016

Robert Laughton, LEED AP
Director, Environmental Health and Safety
Los Angeles Unified School District
333 South Beaudry Avenue, Floor 21
Los Angeles, CA 90017

RE: LEAD IN SOILS AT THE LORENA STREET ELEMENTARY SCHOOL, ROWAN AVENUE ELEMENTARY SCHOOL, AND FISHBURN AVENUE ELEMENTARY SCHOOL CAMPUSES, LOS ANGELES UNIFIED SCHOOL DISTRICT

Dear Mr. Laughton,

In July 2015, Exide Technologies' (Exide) consultant, Avocet Environmental, Incorporated, conducted soil sampling in accordance with a Department of Toxic Substances Control (DTSC) approved sampling work plan. The sampling was overseen by representatives of DTSC and Los Angeles Unified School District (LAUSD or District) personnel. Recently, DTSC sent you letters describing the results of that soil sampling and testing at the Lorena Street Elementary School, Rowan Avenue Elementary School, and Fishburn Avenue Middle School campuses. Each of the campuses is located within an area referred to as the Preliminary Investigation Area (PIA). The PIA is the area surrounding Exide's Battery Recycling Facility in Vernon, California (Facility) that DTSC has determined is likely to have been impacted by past and recent emissions from the currently non-operating Facility. Our letters indicated that to delineate the extent of the lead found in soil and to obtain a more robust dataset further sampling would be necessary at these campuses

As you are aware, DTSC adopted the California Environmental Protection Agency Office of Environmental Health Hazard Assessment's (OEHHA) residential soil screening level of 80 parts per million (ppm) for lead. The residential screening level was derived using the modeling spreadsheet "Leadsread," which at 80 ppm predicted an increase in blood lead of 1 microgram per deciliter (ug/dL) at the 90th percentile for a population of children exposed to lead in soils at their home, and a subsequent decrease of one IQ point in the children. A concentration of 80 ppm lead does not necessarily trigger cleanup. In general, many factors go into determining the need to cleanup soils, including, but not limited to, ease of access and the duration of exposure to contaminated soil. Once all the factors for determining if cleanup is indeed necessary, it is DTSC's policy to clean up to 80 ppm based on a calculated 95% Upper Confidence Level (UCL) of the targeted area's data set.

DTSC understands that the District requires clarification of the risk posed by the levels of lead found at these campuses. Based on the data and available site specific information, it is DTSC's position that although a risk of lead exposure to students in the areas identified for all three campuses exists, that risk is considered minimal. A brief discussion of the lead found at each campus and our recommended interim measures to the District to minimize exposure to the lead found are presented below.

Lorena Street Elementary School Campus, SCH -07

Laboratory analysis of a five-part composite soil sample collected from four depths below ground surface (0-1", 1-3", 3-6", 6-12", and 12-18"), detected lead at concentrations of 81.7 parts per million (ppm), 87.3 ppm, 81.5 ppm, 66.4 ppm, and 17.1 ppm, respectively. In accordance with the approved work plan, since the three surface composite soil samples (SCH-07-01, SCH-07-03, and SCH-07-06) exceeded the residential screening level of 80 ppm, 15 discrete samples collected at the 0-1", 1-3", and 3-6" depth interval were analyzed for lead separately. Nine (9) of the 15 discrete surface samples collected at three locations had lead concentrations below 80 ppm; six of the discrete samples had concentrations of lead ranging from 158 ppm to 219 ppm at locations 2D and 3D.

Locations 2D and 3D are located outside of and well away from play yard areas, and within an area covered by grass. In general, a grass covering inhibits direct contact with the soil, thus reducing the exposure potential. Additionally, because this area is rarely used and it is not an area where students congregate, it is our opinion that the lead in soil found at locations 2D and 3D does not pose an immediate threat to the health of students and staff that utilize the Lorena Elementary School campus grounds. Should the area become void of a vegetated covering and the underlying soils become exposed, mitigation measures such as covering with mulch or installing temporary fencing would be warranted until a more thorough assessment can be made.

Rowan Avenue Elementary School Campus, SCH-09

Laboratory analysis of a five-part composite soil sample collected from four depths below ground surface (0-1", 1-3", 3-6", 6-12", and 12-18"), detected lead at concentrations of 68.6 ppm, 70.1 ppm, 112 ppm, 52.6 ppm, and 29.9 ppm, respectively. In accordance with the approved work plan, since the 3-6" composite soil sample (SCH-09-06) exceeded the *residential screening level* of 80 ppm, five (5) discrete samples collected at 3-6" depth interval were analyzed for lead separately. Two (2) of the five discrete samples collected at locations 2D, and 5D had lead concentrations below 80 ppm; three of the samples had concentrations of lead at 105 ppm, 139 ppm, and 193 ppm at locations 1D, 3D, and 4D, respectively.

Location 3D is covered with grass and located in an area rarely used, and it is not an area where students frequently congregate. It is our opinion that the lead found at location 3D does not pose an immediate threat to the health of students and staff that utilize the Rowen Avenue Elementary School campus grounds. As stated before, should this area become void of a vegetated covering and the underlying soils become exposed, mitigation measures such as covering with mulch or installing temporary fencing would be warranted until a more thorough assessment can be made.

Location 1D is located within a tree well on the southeast corner of the campus' southern play area. Location 4D is in an area covered with grass, although the grass appears stressed by recent drought conditions. Locations 1D and 4D are located in areas that are likely frequented by students. While three inches of soil with very low lead levels generally prevents, or at the most limits a direct exposure route with soils that exhibit higher concentrations of lead at the 3" to 6" depth, DTSC believes that installing temporary fencing to secure these areas would be a reasonable precaution until a more thorough assessment can be made.

Fishburn Avenue Elementary School Campus, SCH-13

Laboratory analysis of a five-part composite soil sample collected from four depths below ground surface (0-1", 1-3", 3-6", 6-12", and 12-18"), detected lead at concentrations of 88.1 ppm, 74.8 ppm, 70.4 ppm, 45.3 ppm, and 22.1 ppm, respectively. Since the 0-1" composite soil sample (SCH-13-01) exceeded the residential screening level of 80 ppm lead in soil, five (5) discrete samples collected at 0-1" depth interval were analyzed for lead separately. Three (3) of the five discrete samples collected at locations 3D, 4D, and 5D had lead concentrations below 80 ppm; two of the samples had concentrations of lead at 183 ppm and 144 ppm at locations 1D and 2D, respectively.

Locations 1D and 2D are located outside of campus play yard areas, within areas covered by grass, in areas rarely used, and not where students frequently congregate. Because a grass cover inhibits direct contact with the soil, thus reducing the exposure potential, it is our opinion that the lead found in soil at locations 1D and 2D does not pose an immediate threat to the health of students and staff that utilize the Fishburn Avenue Elementary School campus. However, should the area become void of a vegetated covering and the underlying soils become exposed, mitigation measures such as covering with mulch or installing temporary fencing would be warranted until a more thorough assessment can be made.

In closing, it is our goal to perform the additional sampling at the schools in the very near future. We understand that students will return to the campuses on August 16, 2016; DTSC will make every effort to perform the sampling before that date. If you have any questions regarding this letter, please contact me at (916) 255-3630 or at Peter.Ruttan@dtsc.ca.gov.

Sincerely,



Peter Ruttan
Project Manager
Exide Project Division

cc: (via email)
Mr. Pat Schanen, LAUSD
Mr. Bill Piazza, LAUSD