



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY • REGION IX

75 Hawthorne Street • San Francisco, CA 94105

October 2016

### **San Miguel Elementary School California Young World Sunnyvale, California**

#### **Dear Parents and Community Members:**

We are sending this letter to provide you with an update on the ongoing trichloroethene (TCE) indoor air investigation at your school associated with the long-term groundwater cleanup at the "Triple Site." We have also attached to this letter our most recent fact sheet which summarizes our findings at the other neighborhood schools and next steps for the community.

All of the sampling results that have been collected over the past year and a half at San Miguel Elementary School and California Young World continue to fully meet EPA's requirements for protecting children's health. In our sampling elsewhere in the neighborhood, we did measure elevated TCE levels at two other schools and more than 30 households, showing evidence of "vapor intrusion." EPA is overseeing the development of mitigation plans and installation of the mitigation systems for all of the affected homes and school buildings.

Due to these findings elsewhere in the neighborhood and as an additional safety measure, we are working with the school to install vapor mitigation systems into the new classroom buildings being constructed in the southern area of the campus, as well as at the California Young World building.

#### **More About San Miguel Elementary School**

All of the sampling results from San Miguel Elementary School have shown very low concentrations of TCE (similar to outdoor air levels) which do not pose a health risk. Sampling during the past year and half in the South Bay area have found typical outdoor air TCE levels have ranging from around 0.1 micrograms per cubic meter or  $\mu\text{g}/\text{m}^3$  to 0.6  $\mu\text{g}/\text{m}^3$ . As an added safety measure and because nearby homes have been found to be affected by vapor intrusion, we are installing vapor mitigation systems in the new classroom buildings being constructed this year. The mitigation systems are composed of a vapor barrier and passive venting system below the building, with the capability of being converted to an active system if necessary. We have already successfully installed five similar systems in nearby residential buildings where higher levels of TCE were detected. Sampling results in these buildings after the systems were installed showed that TCE concentrations dropped to non-detectable levels.

#### **More About California Young World**

As a precaution, we are designing and installing a mitigation system for the California Young World building concurrently with our mitigation work at San Miguel Elementary School. TCE concentrations detected inside the California Young World classroom have all been very low

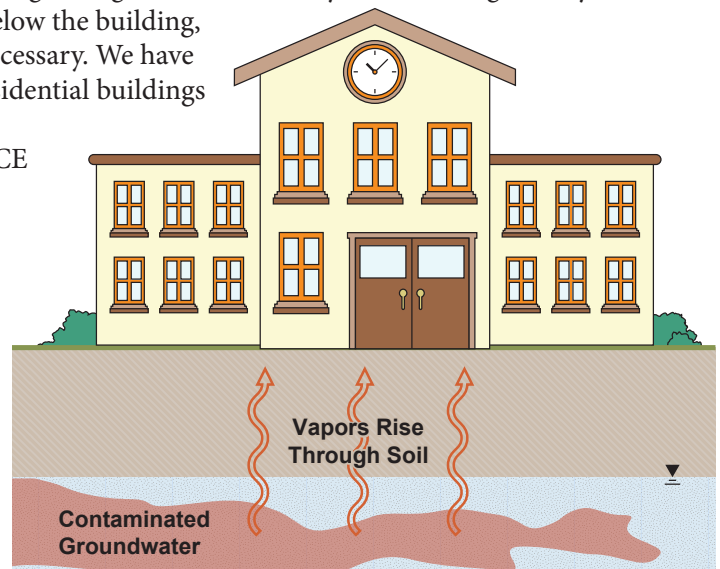


Figure 1: Vapor intrusion into a building

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and similar to outdoor air levels, fully meeting EPA's requirements for protecting children's health. Slightly elevated levels of TCE were detected underneath the building in the crawlspace, up to 1.4 µg/m<sup>3</sup>, slightly higher than outdoor air levels but still fully meeting EPA's requirements for being protective.

### **Background on EPA Investigation**

EPA has been investigating the potential for vapor intrusion – a process where vapors from groundwater contamination may migrate into the indoor air – at schools and residences in the East Duane/San Miguel Avenue neighborhood since January 2015.

EPA considers the safe range of concentrations of TCE to be below 2.0 µg/m<sup>3</sup> for “residential use,” which assumes a 24-hour-per-day/7-day-per-week exposure. These levels are very protective for school occupancy, where exposures times are much less.

### **TCE and Vapor Intrusion**

The main chemical of concern in this area of Sunnyvale is TCE. TCE can move as a vapor from groundwater up through soil under certain conditions. If vapors move under a building it is possible for them to pass through cracks and other openings in the foundation and enter the indoor air. If this happens, and if the levels are high enough and prolonged enough, it might create a health risk.

*Note: Your drinking water is not affected by this contamination in the groundwater. Drinking water in this area of Sunnyvale comes from the Hetch Hetchy Reservoir in the Sierra Nevada Mountains and meets all state and federal drinking water standards.*

### **Planned Construction Work**

EPA has been working with the school administration throughout the summer to design and install vapor intrusion mitigation systems in the new San Miguel Elementary School buildings. We are still working on our design for the California Young World building, which will be completed sometime this fall. Installation of the mitigation system at California Young World will likely take two days.

### **Looking Ahead**

After the mitigation systems are installed, EPA will test the indoor and crawlspace air two weeks later to ensure that results meet EPA's requirements. EPA will also test one month later, during the upcoming winter, and then again the following spring and second winter. Quarterly inspections of the system components will take place the first year, and annual inspections in subsequent years.

Similar to EPA's approach at the other neighborhood schools, EPA is developing a long-term air monitoring plan for the remaining San Miguel Elementary School buildings to confirm that TCE levels continue to remain within EPA's acceptable range.

Please do not hesitate to contact me at (415) 972 – 3050 or by e-mail to [morash.melanie@epa.gov](mailto:morash.melanie@epa.gov) if you have any questions. You may also contact EPA's Community Involvement Coordinator, Alejandro Diaz who is fluent in Spanish, at (415) 972 – 3242 or by e-mail to [diaz.alejandro@epa.gov](mailto:diaz.alejandro@epa.gov).

Sincerely,



Melanie Morash, EPA Project Manager

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