



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105**

May 6, 2016

FedEx Tracking No. _____
Signature Upon Delivery Requested

**Re: Preemptive Mitigation Plan for Your Review and Approval – Addressing TCE Vapor Intrusion to Indoor Air
Residential Building # - Sunnyvale, California
Philips, Advanced Micro Devices 901-902, TRW Microwave Superfund Sites (“Triple Site”)**

Dear

Thank you for your cooperation and participation in the U.S. Environmental Protection Agency’s (EPA) vapor intrusion indoor air sampling investigations in Sunnyvale, California. EPA has tested the indoor and crawlspace air at your property referenced above. The results of the testing show evidence of trichloroethene (TCE) vapor intrusion above one of EPA’s health-protective screening levels, but still within the range that EPA considers protective of public health. However, because you will be constructing an entirely new building on your property, out of precaution, EPA recommends the installation of a preemptive mitigation system underneath your new home to prevent any TCE vapors that are rising up from potentially accumulating indoors.

Locus Technologies (Locus), a private environmental consulting firm experienced in vapor intrusion issues, has prepared a mitigation plan for your review and approval, following our meeting together in Mountain View last month. The plan is attached to this letter. Mr. J. Wesley Hawthorne of Locus will call you soon to discuss the plan and answer any questions that you may have about the system or the installation process. Mr. Hawthorne can also be reached at (415) 799-9937 or by e-mail to hawthornej@locustec.com. As a reminder, there is no cost to you for installing or maintaining the mitigation system.

Please sign and return to us as soon as possible the enclosed permission form in the envelope provided. This way we can meet your construction schedule without any delays.

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 in buildings—in the Duane/San Miguel Avenue neighborhood. Please be aware that your drinking water is not affected by contaminants in groundwater. Your water for drinking, bathing, and watering gardens comes from the Hetch Hetchy Reservoir in the Sierra Nevada Mountains.

As of this month, EPA has tested all four schools in your area and 130 households. Certain rooms in five school buildings and 20 households have been found to be affected by vapor intrusion. EPA is overseeing the development of mitigation plans and installation of the mitigation systems for all of the affected properties.

About the Proposed Mitigation System: The mitigation system that EPA recommends for your building uses the best, most reliable technology available today to prevent the potential of TCE vapors from entering your newly constructed house. The system is called a “sub-membrane depressurization system” and would be installed in the crawlspace underneath the building. It is described in detail in the attached mitigation plan, which includes a generic system diagram.

Another visit to your property will need to be arranged for making final design decisions with you and for obtaining building-specific measurements. Installation is expected to take 1 to 3 days depending on the specific site conditions. We would coordinate with you on your preferred days and times for the installation.

Should you choose to accept this mitigation system, you will need to sign the attached Access Agreement (permission form). Although you previously signed an Access Agreement, it covered only the investigation/sampling work that has been done to date. Because the installation and future monitoring of the mitigation system is more extensive, a new Access Agreement covering this additional work will need to be signed by the legal owners of the property, as well as the future tenants.

Follow-up Sampling and Inspections: After the mitigation system is installed, periodic air sampling and system inspections will be performed to confirm that the system is working correctly. Locus will work with you to schedule the sampling and inspections at times that are most convenient. Details are described in the attached mitigation plan under subheadings ‘Operation and Maintenance’ and ‘Post-Mitigation Sampling Plan.’

What Happens When the System is No Longer Needed: At the time that the mitigation system is no longer needed (refer to ‘Mitigation Termination Criteria’ in the attached mitigation plan), you may (1) continue to operate the system at your own expense; (2) turn the system off and leave it in place; or (3) request that it be disassembled and removed.

Health Protection Goals: EPA’s goal for Superfund site-related chemicals is to keep exposures as low as reasonably possible. EPA considers the safe range of TCE concentrations for residents to be below 2.0 micrograms per cubic meter or $\mu\text{g}/\text{m}^3$ (the short-term screening level). When an indoor air sample is collected and shows a concentration above the long-term screening level ($0.48 \mu\text{g}/\text{m}^3$) but below $2.0 \mu\text{g}/\text{m}^3$; EPA uses this information to decide whether additional sampling or response activities are necessary, to confirm that levels continue to remain protective over time. More information about TCE can be found at this website: <http://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=172&tid=30>

Your TCE Indoor Air Results: EPA considers TCE levels below $2.0 \mu\text{g}/\text{m}^3$ to be health protective. The sampling events in 2015 showed lower levels of TCE in the air inside your home and slightly elevated levels in the crawlspace beneath the building. These results meet EPA’s short-term health protective screening level for TCE ($2.0 \mu\text{g}/\text{m}^3$) but slightly exceed EPA’s long-term health protective screening level ($0.48 \mu\text{g}/\text{m}^3$). The results are still within the range that EPA considers protective, and the proposed mitigation system would ensure that levels continue to remain protective in your newly constructed house.

EPA considers the indoor air concentrations in your house protective of public health. However, multiple households in your neighborhood have unacceptable levels of TCE in the indoor air. Therefore, EPA recommends the installation of a preemptive mitigation system to prevent the potential for vapor intrusion from occurring in the future.

The attached mitigation plan has been prepared by Locus and approved by EPA specifically for your newly constructed house to address the potential vapor intrusion issues.

The following table shows a summary of the TCE sampling results for your building.

Sample Location	TCE Concentration October 2015
Indoor Air Sample (24-hr sample) Living Room	0.27 µg/m ³
Indoor Air Sample (13-day sample) Living Room	0.22 µg/m ³
Crawlspace Air Sample (24-hr sample)	0.69 µg/m ³
Crawlspace Air Sample (13-day sample)	0.48 µg/m ³
Outdoor Air Sample	0.17 (Highest Detected in October)
Short-term Screening Level	2.0 µg/m ³
Long-term Screening Level	0.48 µg/m ³

TCE Vapor Intrusion Findings: EPA considers the indoor air concentrations in your home health protective. However, out of precaution, a preemptive mitigation plan has been specifically developed for your newly constructed house to address potential vapor intrusion issues.

Next Steps: *Please sign and return to us the enclosed permission form as soon as possible.* In the meantime, please do not hesitate to contact me at any time at (415) 972-3050 or by email to morash.melanie@epa.gov if you have questions.

As a reminder, there is no cost to you for the installation or maintenance of this mitigation system. Thank you again for your cooperation and participation in this air sampling investigation.

Sincerely,



Melanie Morash, EPA Project Manager