



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

November 2015

**Re: Indoor Air Sampling Results & Recommendation for Mitigation
Residential Building # 21
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. This letter confirms in writing the results of EPA’s indoor air sampling for trichloroethene (TCE), conducted at your home between January and August 2015.

Your TCE Indoor Air Results: EPA considers TCE levels below 2 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to be health protective. The sampling event in August showed low levels of TCE in the air inside your home (up to $0.26 \mu\text{g}/\text{m}^3$ in the living room). However, higher levels of TCE were detected underneath your home in the crawlspace (up to $2.2 \mu\text{g}/\text{m}^3$ in crawlspace air).

EPA considers the living room air concentrations protective of your health, but the crawlspace levels measured during this and several other sampling events slightly exceed EPA’s requirements, indicating a potential for unacceptable vapor intrusion to occur in the future. Therefore, a mitigation plan is being prepared to address potential vapor intrusion issues.

Background on EPA Investigation: As you may know, 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.

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 residences to be below $2 \mu\text{g}/\text{m}^3$ (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 $2 \mu\text{g}/\text{m}^3$, EPA uses this information to decide whether additional sampling or remediation is 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>

More About Your Results: Low levels of TCE were detected in the air in your home during the 2015 sampling

events, but higher levels were detected in the crawlspace underneath the house. While the living room sampling results meet EPA's requirements, the crawlspace air results exceed both EPA's short-term health protective screening level for TCE (2 µg/m³) and EPA's long-term health protective screening level (0.48 µg/m³). The table below shows a summary of the TCE sampling results for your home.

Sample Location	TCE Concentrations (micrograms per cubic meter or µg/m ³)						
	January 2015 (24-Hour Samples)	January 2015 (7-Day Samples)	February 2015 (7-Day Samples)	July 2015 (24-Hour Samples)	July 2015 (2-Week Samples)	August 2015 (24-Hour Samples)	August 2015 (2-Week Samples)
Indoor Air Sample (Living Room)	0.60	--	0.47	0.52	0.32	--	0.26
Crawlspace Air Sample (Under House)	0.69	0.65	0.98	2.3	2.1	2.0	2.2
Outdoor Air Sample	0.27 (Highest Sample Detected in Neighborhood)						
EPA Screening Levels							
Short-term Screening Level	2.0						
Long-term Screening Level	0.48						

TCE Vapor Intrusion Findings: EPA considers the living room air concentrations protective of your health, but the crawlspace concentrations do not meet EPA's requirements. The higher crawlspace levels show that there may be a potential for unacceptable vapor intrusion to occur in the future. Therefore, a mitigation plan is being prepared to address potential vapor intrusion issues.

Next Steps: I will contact you soon to discuss the testing results and our recommendations for your home. In the meantime, we are developing a set of mitigation plans for you to review and approve. We will provide those plans to you very soon. Please do not hesitate to contact me at any time at (415) 972-3050 or by e-mail to morash.melanie@epa.gov if you have questions. **Again, there is no cost to you for this mitigation process.** Thank you again for your cooperation and participation in this air sampling investigation.

Sincerely,



Melanie Morash, EPA Project Manager