



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

July 31, 2014

Deanna J. Santana
City Manager
456 West Olive Avenue
Sunnyvale, CA 95086

Re: Indoor Air Sampling Update

Dear Ms. Santana,

As requested, here is an update regarding indoor air sampling being overseen by the Environmental Protection Agency (EPA) and the San Francisco Bay Regional Water Quality Control Board (Regional Water Board) at residential and business properties in Sunnyvale. These properties are located above groundwater plumes that were contaminated with trichloroethene (TCE) many years ago due to business practices at the time. TCE was a commonly used solvent and is now a known human carcinogen. *It is important to note that Sunnyvale's drinking water is not affected by this groundwater contamination.*

EPA is using newly developed and more stringent testing strategies to better determine the extent of vapor intrusion (VI) of TCE. VI is when TCE and other vapors in the groundwater come up through the soil and accumulate in buildings located above the contamination. The testing is designed to determine if there are higher than allowed levels of TCE in these buildings. If so, appropriate mitigation measures are taken, which may include sealing conduits where vapors are entering buildings, improving ventilation, installing air purifiers or installing sub-slab depressurization systems. In general, the air monitoring devices used in residences are small and unobtrusive; larger, basketball-sized canisters are typically used in commercial settings.

There are five testing sites in Sunnyvale: 1) Intersil/Siemens, 2) National Semiconductor, 3) AMD 1165/1175 Arques (also known as Monolithic Memories), 4) AMD 915 and 5) the "Triple" Site (AMD 901/902 / TRW Microwave / Philips). EPA and the Regional Water Board have contacted the companies responsible for cleaning up the groundwater plumes and have been working with them since around 2009 to develop workplans that address VI testing requirements and to oversee the public notification process and testing.

Main Findings in Sunnyvale to Date:

- The majority of the data collected from residences in the last four months has shown no evidence of VI. One home out of nine tested in one neighborhood had some elevated TCE levels but EPA believes this was related to products being stored or used on the premises. That homeowner declined any further involvement with the study; however, EPA followed up with official correspondence that advises the homeowner of their right to request additional sampling in the future, if they change their mind.
- The commercial testing has shown mixed results so far. Some buildings do not appear to be affected by VI. Others have been impacted and EPA is working cooperatively with the responsible parties to expeditiously and appropriately address the VI wherever impacts are found.
- In May 2014, Philips, one of the responsible parties for the Triple Site, submitted a workplan for investigating VI in the residential neighborhood next to the site. This is the neighborhood around and north of East Duane and Britton Avenues, which includes four schools. This area is also identified in the official cleanup decision document for the site as the "Offsite Operable Unit" or OOU. EPA has determined that

Philips' workplan does not meet all of the requirements for evaluating VI and the agency is evaluating options on how to proceed. This is not too atypical of other sites where EPA and the State Regional Water Quality Board have needed to work more closely with responsible parties to negotiate an acceptable workplan.

Site-Specific Update:

Intersil/Siemens (Site is in Cupertino with groundwater plume extending into Sunnyvale)

- Twenty-five homes in the neighborhood of Homestead Road, Swallow Drive, Quail Avenue and Lorne Way were offered testing. Nine homes along Homestead Road (between Quail and Swallow) accepted testing and were sampled with two-week samplers.
- All residents were offered two rounds of testing (to capture any potential variation that may occur over time), and most accepted the second round.
- EPA has detected no VI in any of the homes sampled (with the one exception discussed in *Main Findings*). In August, a second round of sampling will be conducted at two remaining homes in the test area.
- EPA detected low-level VI in certain commercial buildings tested in Cupertino, but the data is well below action levels.

National Semiconductor (Site is in Santa Clara with groundwater plume extending into Sunnyvale)

- Sampling and mitigation in approximately 20 commercial buildings is ongoing, with mixed results (noted in *Main Findings*).
- The responsible party, Texas Instruments, is currently in the process of attempting to obtain access for testing from certain remaining Sunnyvale commercial business owners in the study area.

AMD 1165/1175 Arques (Monolithic Memories)

- The responsible party, AMD, is conducting investigation and mitigation work at one commercial building where floor drains in a restroom have been identified as the major pathway for VI into the building.

Triple Site (AMD 901/902) & Nearby AMD 915 Site

- The responsible party, AMD, submitted reports to EPA that evaluate the indoor air sampling conducted in the past at the on-site commercial buildings. EPA is currently reviewing the reports to ensure that the sampling previously conducted complies with its updated testing guidelines. If not, EPA will work with the Regional Water Board to request additional sampling work.

Triple Site (TRW Microwave)

- The one on-site building is unfinished and without a tenant. Indoor air sampling shows the building to be impacted by VI, and mitigation work is in progress by Northrop Grumman, the responsible party, which will be completed prior to any new tenant occupying the building.

Triple Site (Philips)

- This site includes a residential neighborhood in the vicinity of Duane Avenue and areas to the north, with over 100 single-family and multi-family residences and four schools – The King's Academy (a high school), Rainbow Montessori Child Development Center (an elementary school), San Miguel Elementary School, and Children's Creative Learning Center (a daycare and preschool).
- The responsible party, Philips, submitted a workplan in May 2014 for investigating VI, which EPA is currently reviewing (noted in *Main Findings*).
- The Montessori school has been regularly tested by Philips on an annual basis for the past ten years; recent indoor air sampling results from that location continue to fall within EPA's health protective range for children.

Looking Ahead:

In the months ahead, EPA and the Regional Water Board will work with all of the Triple Site responsible parties to revise their workplan, and expects to receive additional workplans for the National Semiconductor commercial investigation as they gain access to additional buildings. Sampling and mitigation continues and it is anticipated that work will continue into 2015. EPA also will continue to keep City staff apprised of its progress.

Background Information:

www.epa.gov/region9/cleanup/california.html

This webpage contains links to each site. Note that the Intersil/Siemens site link is listed under Cupertino and the National Semiconductor site is listed under Santa Clara. Each EPA website also has a link on the top, right-hand corner of the site to the Regional Water Board's websites.

Thank you for the opportunity to provide this update. Please do not hesitate to contact me at (415) 972-3050 or by e-mail to morash.melanie@epa.gov if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Melanie Morash".

Melanie Morash, Remedial Project Manager
Superfund Division
EPA Region 9