

**Attachment 9**  
**Comments on the HHRA from the California**  
**Department of Public Health**

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MARK B HORTON, MD, MSPH  
*Director*

State of California—Health and Human Services Agency  
California Department of Public Health



ARNOLD SCHWARZENEGGER  
*Governor*

January 13, 2009

Ms. Bruni Davila  
Remedial Project Manager  
U.S. Environmental Protection Agency, Region IX  
75 Hawthorne Street  
Mail Code SFD-7-4  
San Francisco, CA 94105

Dear Ms. Davila,

The California Department of Public Health (CDPH), under a cooperative agreement with the Agency for Toxic Substances and Disease Registry, is writing this letter to the U.S. Environmental Protection Service (EPA) to provide a public health technical review of the February 2008 Remedial Investigation (RI) pertaining to the AMCO Chemical Superfund Site.

As you know, CDPH has been involved with the AMCO site in the past, having released a public health assessment (PHA) in September 2005.

The CDPH review of the RI document consisted of significant time analyzing both previous and recent data. Groundwater, soil and soil gas data were thoroughly reviewed in relevance to vapor intrusion issues and the CDPH reviewed calculations of exposure levels for hazardous chemicals reported above ATSDR screening levels. This letter addresses previous concerns raised by the CDPH in the PHA and presents an overall review of the RI.

The principal public health concern from the PHA was the need to further evaluate the possible volatile organic compound (VOCs) vapor intrusion pathway for the adjacent residences from the site and the office facility located on-site. EPA conducted several sampling events from May 2005 through October 2008 to address this issue.

Based on the laboratory analysis from sampling events reported in the RI, VOC vapors detected and believed to be originating via soil gas from the shallow groundwater are intruding into crawl spaces and indoor ambient air, but not at levels that would pose a health risk. However, the VOC detection suggests that people living in these residences or former/current workers in the on-site office may have inhaled VOC contaminants.

As reported in the RI, the shallow groundwater contamination is expanding generally to the south and away from the abutting residences located immediately west of the site. A change in groundwater direction towards the west could move the shallow VOC plume beneath the abutting residences and increase the VOC vapor intrusion exposure risk. Therefore, CDPH recommends continued monitoring of the shallow groundwater zone and associated shallow VOC plume. If analyses from groundwater monitoring events indicate a change in groundwater direction towards the abutting residences, CDPH recommends conducting full range VOC air monitoring of indoor, ambient, crawlspace, and soil gas.

Another concern raised in the PHA was to maintain the on-site pavement to prevent exposures occurring from the subsurface. As reported in the RI, concrete thickness and condition was characterized by concrete core sampling throughout the site. The sampling found that the medium concrete thickness at the site was 16 inches and the concrete condition to be relatively smoothly finished. CDPH recommends that a continued effort be in place to monitor and maintain the on-site pavement to prevent exposure to subsurface contamination.

An additional concern raised in the PHA was to include 1,4-dioxane in the groundwater analysis. The inclusion of 1,4-dioxane in groundwater analysis began in 2005.

The final concern raised in the PHA was in regards to exploring if there are private wells located within the vicinity and if so, if or how they are they being utilized and/or if they are contaminated. As reported in the RI, there are nine documented industrial or irrigation water wells located within a 1-mile radius of the site; however, the groundwater in those areas are not being affected by the contaminated groundwater beneath the site. One undocumented well was discovered in a residence located adjacent to the site. EPA sampled the well as a potential human health risk in September 2004 and June 2005. Both sampling events reported very low to below laboratory reporting limits for VOCs, SVOCs, 1,4-dioxane, TAL metals, mercury, hexavalent chromium, organochlorine pesticides or PCBs. The well was historically used for irrigation and is currently covered over with flooring materials, and is not being used by the property owner. Based on the results of the two sampling events and the location of the well away from the contaminant plume, CDPH agrees with EPA that further sampling is not justified.

Since the release of the PHA, soil sampling detected high levels of lead in residential backyard soils located within the block of the former AMCO facility. Based on the high levels of lead, EPA remediated all contaminated soil by excavating and removing the soil to a state certified off-site location. Excavations were carried out for all residences located within the site street block from July 23 through September 19, 2007. CDPH does not recommend that any further action is warranted regarding the removal of soil contaminated with lead. CDPH recommends that EPA maintain the local county health officials as collaborative partners concerning possible health effects resulting from lead exposure.

CDPH found the RI to be correct and consistent with the findings and conclusion in regards to public health and appreciates the opportunity to have continued collaborative communication regarding the AMCO site.

CDPH is always available to discuss their results of our evaluation. If you have any questions, please do not hesitate to call either Russell Bartlett at (510) 620-3671 or Marilyn Underwood at (510) 620-3610.

Sincerely,



Marilyn C. Underwood, Ph.D., REHS, Chief  
Site Assessment Section  
Environmental Health Investigations Branch