



Re: ATSDR review of TCE-Havertown indoor air data 

Robert Helverson to: Ruth Scharr

Cc: Jill Lowe, Lora Werner, txf5

06/17/2011 12:59 PM

History: This message has been forwarded.

Thanks Ruth,

You got it right. And, yes, 10 homes not 11, as you mentioned too. Let me know if you need further assistance.

Robert H. Helverson
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Ruth Scharr

Bob, If I understand your message, the data for...

06/17/2011 12:34:28 PM

From: Ruth Scharr/R3/USEPA/US
To: Robert Helverson/R3/USEPA/US@EPA
Cc: Lora Werner/R3/USEPA/US@EPA, txf5@cdc.gov, Jill Lowe/R3/USEPA/US@EPA
Date: 06/17/2011 12:34 PM
Subject: Re: ATSDR review of TCE-Havertown indoor air data

Bob, If I understand your message, the data for the homes sampled (there were 10) does not show a health risk to the residents. TCE, and its breakdown products, was not found in indoor air above the quantitation limit of 1 ppbv.

The one home where you indicated a slight concern due to benzene and 1,2,4-trimethylbenzene, the following should be taken into consideration. The house was a split level, there was an attached garage on the same grade as the low level indoor sample. We were not able to get a sub-slab sample due to the high water table. The crawl space air sample is on the same grade as the lower level, and the crawl space was used for storage. There were sliding doors used to access this space. These doors were not air tight. On the day the canisters were placed for sampling, we removed several cans of paint, a can of what looks like roof muck, and two large 5 gallon cans of something that the owner said was used to patch and level concrete sidewalks. Since we were not able to get a sub-slab sample, I agree that it is not clear whether the low level of benzene and 1,2,4, trimethylbenzene is due to VI or from other sources in the home.

I have shared the data set and will share the Trip Report with the Remedial Project Manager for the Havertown PCP site for appropriate follow-up.

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Robert Helverson

Hi Ruth, Here's our final summary for the TCE-H...

06/14/2011 03:47:48 PM

From: Robert Helverson/R3/USEPA/US
To: Ruth Scharr/R3/USEPA/US
Cc: txf5@cdc.gov, Lora Werner/R3/USEPA/US@EPA
Date: 06/14/2011 03:47 PM
Subject: ATSDR review of TCE-Havertown indoor air data

Hi Ruth,

Here's our final summary for the TCE-Havertown data. Please let me know if you would like to discuss this review further.

On May 2, 2011, EPA provided ATSDR with sub slab , crawl space, basement, lower level, first floor and outdoor air sampling results from summa canister /TO-15 sampling at 11 residences of the TCE Havertown site . ATSDR reviewed the analytical data from EPA removal 's vapor intrusion assessment at this site . The data are too limited to determine whether vapor intrusion (migration from sub slab or crawl space into the home) is occurring. Determining vapor intrusion from this data set is even more difficult when a majority of the contaminant concentrations are below quantitation limits . Yet, many of the same chemicals reported in the sub slab and crawl space are also present inside the homes , including the lower levels of split-level homes, basements and first floors . A number of chemicals were detected by laboratory analyses but could not be quantified because their detections were too low (the quantitation limit is also below health -based comparison values).

TCE was not found above detection limits in any of the samples .

Chemicals with reported concentrations were below health -based comparison values in the indoor air of 10 of the 11 homes assessed .

ATSDR would like to call attention to the results to the one particular home (site 54) with exceedances of health -based comparison values . The benzene value in this home was 4.9 parts per billion (ppb) in the crawl space, 4 ppb on the lower level and 3.4 ppb on the first floor (ATSDR chronic exposure screening level is 3 ppb) with no sub-slab or soil vapor data for comparison or to identify potential vapor intrusion . The 1,2,4-trimethylbenzene level in this home was non-detect in the crawl space , 2.8 ppb in the lower level and 2.4 ppb on the first floor (EPA Risk Screening Level is 1.4 ppb). Based on ATSDR's evaluation of this data set , non-cancer health effects are not expected from exposures at these concentrations . Regarding estimations of cancer risk , a very low hypothetical increased excess cancer risk is possible from exposure over many years to the carcinogens (i.e., benzene and PCE) detected in the indoor air of this home . It cannot be determined with the data available whether the presence of these chemicals in this home was due to vapor intrusion or other sources of chemicals within the home .

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