Vapor Intrusion Subcommittee of the Cleanup Standards Scientific Advisory Board Meeting Minutes August 6, 2004

The Vapor Intrusion Subcommittee held a conference call on Friday August 6, 2004 at 9:00 a.m. in the Rachel Carson State Office Building (PADEP) in Harrisburg. The following subcommittee members that were present for the conference call:

Annette Guiseppi-Elie Dupont

Charles Campbell Science Applications International Corporation

Kevin Reinert Rohm and Haas Company Craig Robinson Groundwater Sciences Corp

William Deibelbis Penn State University

Sam Fang DEP Randy Roush DEP

Tobyhanna Indoor Air/Soil-Gas Data

Sam Fang conducted a statistical analysis of the indoor air and soil-gas samples collected at the Tobyhanna site. A non-parametric/sign test was used for the analysis. Sam summarized the indoor air data by indicating that there was no statistical difference in the data that was collected in Feb and June of 2003. It was concluded that at least for this particular site, contaminant, and limited sampling that seasonality and sampling timing was not significant. The subcommittee accepted the data analysis and agreed not to make any change in the vapor guidance as to indoor air seasonality sampling. We did note that this conclusion was based on a limited number of samples and therefore comparisons.

Sam indicated that the same conclusion regarding the seasonality and sampling timing was drawn from the soil-gas data that were provide during the same timeframe of Feb.& June of 2003.

Annette Guiseppi-Elie indicated that with soil-gas sampling, that when wet & dry conditions exist or during groundwater table high & low levels, they are more apt to impact the data. This concept is supported by recent data sent to the team.

• Chuck Campbell will add seasonality/sampling timing items in the white paper that was submitted to the subcommittee entitled, "Seasonal Considerations for Collecting Indoor Air and Soil Gas Samples" for members to review and consider for guidance.

McGlade Data & De Minimis Issue

Sam Fang had plotted the groundwater data for TCE vs. the indoor air data from a site located in New Cumberland. Due to the very limited data and the difficulty in trying to extrapolate a groundwater concentration from nearby monitoring wells to a receptor, a conclusion could not be drawn

The members felt that it would be hard pressed to come up with a de minimis level and that either modeling or IA/Soil-Gas sampling was appropriate according to the flowcharts in the guidance, even at depths less than 5 feet.

Sam Fang indicated that if soil contamination or contaminated groundwater were above the basement floor, J&E modeling would not be appropriate in that situation. However, a model based on the convective flow of soil gas or other appropriate model could still be used to develop the de minimis levels.

- Randy will provide some language to Annette and they will collaborate on additional language when contamination that is less than 5 feet from the basement floor and the use of the J&E model.
- Sam Fang will run a convective flow model to develop the de minimis levels for 5-10 compounds when the vapor source is less than 5 feet vertically from basement floor. Once completed, the calculated results will be forwarded to other members of the subcommittee to review.

PQLs

Appendix A of the guidance has been revised with respect to Reporting Limits (RLs). RLs and PQLs are one in the same and will be reflected in the new revised Appendix A with the new language (provided by Jim Shaw) to appear as a footnote.

• Randy will revise and merge the two documents to reflect RLs/PQLs.

The call ended at 10:15 AM

The next conference has been scheduled for Sept. 16, 2004 from 9:00AM-11:00AM

R. Roush 16 August 2004