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To: Group Rcra-Docket@EPA
cc: "Thompson, Scott" <Scott.Thompson@deq.state.ok.us>, "Sharp, Catherine" <Catherine.Sharp@deq.state.ok.us>, "Dixon, Kelly" <Kelly.Dixon@deq.state.ok.us>
Subject: Comments on the Vapor Intrusion Draft Guidance

Please see attachment. Thanks.

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February 27, 2003

OSWER Docket
Environmental Protection Agency
Mailcode: 5305-G
1200 Pennsylvania Avenue,NW
Washington, D.C. 20460
Attention Docket ID No. RCRA-2002-0033

Subject: Comments on theDraft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soil

Dear Sir/Madam:

These are comments on the Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soil published in the Federal Register, Volume 67, Number 230, on November 29, 2002.

Although this draft guidance was written in simple, easy to follow and understand format, I have the following comments:

1. Table 1 is the list of volatile and toxic chemicals. If we are concerned about the vapors that are toxic, shouldn't we include, after using the approach on Appendix D, the volatile hazardous air pollutants (HAP) listed in the Sec 112(b) of the Clean Air Act like allyl chloride, aziridine and perylene to name a few?
2. Table 2 is the list of the Generic Screening Levels for 10^{-4}, 10^{-5}, and 10^{-6} risk levels. These were derived based on exposure duration for the healthy adult segment of the population. However, children and elderly residents more often stay inside the dwellings the whole day allowing a longer exposure to the contaminants. These segments of the population are also more sensitive to the effects of contaminants. Are these screening levels protective for this group of population?
3. The Indoor Air Target Concentrations in Table 2 were calculated from extrapolation of oral values if the inhalation data are not available. Half of the chemicals in the list have target concentrations based on this method of calculation. Can the reference or method of extrapolation be included in this guidance document so it can be used in calculating other chemicals in the future?
4. In terms of the indoor air sampling and analysis, the recommendation is to collect at least one 24-hr sample from the basement (if present) and one in the main living area. The guidance further recommends that multiple simultaneous samples

should be taken for every sampling event to ensure reliable measurements, and it is preferred to have two or more sampling events. Who will determine the number of samples needed to achieve a reliable measurement? Will the number of samples be cost effective for the purpose of knowing if the potential risk for this pathway exists?

5. In **Appendix F- Empirical Factors and Reliability Assessment**, the section on **Analysis Approach** identified data as false negative "when a chemical's measured indoor air concentration exceeds the target level, but the measured groundwater (or soil gas) concentration does not". This may be a semantic issue, but if indoor air concentration is considered in this assessment and the indoor air concentration **exceeds** the target level, then it will be less confusing, more descriptive and appropriate if it is called "false positive".

Thank you for the opportunity to comment on this draft guidance. I hope that you will take into consideration these comments and its implications on the protection of public health.

Sincerely,

Scott A. Thompson
Director, Land Protection Division