

# Indoor Air Guidance Update

Liz Callahan, BWSC

Waste Site Cleanup Advisory Committee Meeting  
September 25, 2008



# 1<sup>st</sup> Draft UPV Document (1/23/08)

- Provided “Typical Indoor Air Concentrations” for 43 OHMs developed from measured values from 7 selected studies
- Identified 75<sup>th</sup> and 90<sup>th</sup> percentile values (Upper Percentile Values or UPVs) and provided guidance on use of UPVs in evaluating measured indoor air concentrations in an investigation of a potential vapor intrusion pathway



# 2<sup>nd</sup> Review Drafts

(presented June 26, 2008)

Took January draft and reworked it into two separate stand alone documents

- "Typical Indoor Air Concentrations"
- "Indoor Air Threshold Values for the Evaluation of a Vapor Intrusion Pathway"



# "Typical Indoor Air Concentrations"



# "Typical Indoor Air Concentrations" Draft

- Describes the process used to identify appropriate studies for use in developing concentrations
- Provides the 50<sup>th</sup>, 75<sup>th</sup> and 90<sup>th</sup> percentile values from 8 selected studies for 42 chemicals
- Typical Indoor Air Concentrations may be used as a line of evidence in evaluating the likelihood of a vapor intrusion pathway



# "Typical Indoor Air Concentrations " Status

- MassDEP intends to finalize this document (October 2008).



# "Indoor Air Threshold Values for the Evaluation of a Vapor Intrusion Pathway"



## "Indoor Air Threshold Values" Draft

- Intended to expedite evaluation of indoor air data allowing parties to conclude, absent evidence to the contrary, that a vapor intrusion pathway is not present if measured concentrations are below the threshold values
- "Threshold values" based on algorithm that uses either 90<sup>th</sup> percentile value, risk-based concentration, 50<sup>th</sup> percentile value or Reporting Limit



# Comments on "Indoor Air Threshold Values" Draft

- Complicates rather than assists in evaluation of indoor air results
- It would be more appropriate to develop threshold screening values for sub slab soil vapor
- Algorithm misapplied in case of 3 chemicals
- *Add* that risk based concentrations based on HI = 1 and ELCR of  $1 \times 10^{-5}$  risk mgmt criteria can be used where there is only 1 chemical present *that adds significantly to total site risk*
- Should be "*Residential* Indoor Air Threshold Values"



# “Indoor Air Threshold Values” Status

- MassDEP intends to revise the document based on comments and needed corrections and make available as an “Interim Draft” document



# Comprehensive Vapor Intrusion Guidance

- MassDEP is developing a Comprehensive Vapor Intrusion Guidance Document with the assistance of a workgroup
- Guidance will incorporate, as appropriate, existing guidance pieces, as well sources other sources



# Comprehensive Guidance to Cover -

- CSM and factors affecting VI, Risk Consideration
- Investigative Approach, Lines of Evidence, Sampling and Analysis Methods
- Data Evaluation and Tools
- Mitigation Methods and related issues



# Comprehensive Guidance

- Schedule
  - Scoping meeting in November (date TBD)
  - Goal for final document December 2009
- Interested in participating in the workgroup?  
Contact Gerard Martin, MassDEP/SERO at [gerard.martin@state.ma.us](mailto:gerard.martin@state.ma.us)

