

Northeast Waste Management Officials' Association (NEWMOA)

Vapor Intrusion Updates Workshop

Gerard Martin, Chief

Compliance, Enforcement and Brownfields Redevelopment Section
MassDEP, Bureau of Waste Site Cleanup
Southeast Regional Office

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Proposed MCP Amendments

- **Process Improvements:**

- Eliminate Tier I Permits
- Simplify Tier Classification
- Streamline AULs, Notices of AULs on NPL Sites



- **More Ways to Achieve Closure**

- **More Transparent Closure Terms**

- **Updated Standards**



Proposed VI-Related Amendments

More specific SRM notification triggers that reflect VI guidance

SRM Conditions that indicate a likely discharge of vapors into a School, Daycare or Child Care Center or occupied Residential Dwelling include, but are not limited to:

- soil or soil gas with VOCs within six feet, measured horizontally from the wall of the structure, and within ten feet measured vertically from the basement floor or foundation at concentrations that are likely to discharge into the structure



Proposed VI-Related Amendments

- VOCs in groundwater above the GW-2 Standard within 30 feet of the structure, and the average annual depth to groundwater in that area is 15 feet or less
- VOCs in the groundwater within 30 feet (horizontally and vertically) of the structure with a groundwater sump, earthen floor, fieldstone or concrete-block foundation, or any foundation with significant cracks or openings
- LNAPL within 30 feet of the structure at a measured thickness equal to or greater than 1/8 inch
- evidence of vapor migration along preferential pathways at a location that is likely to result in the discharge of vapors into the structure



Proposed VI-Related Amendments

CEP amendments

- New definitions of Residential Dwelling & Living or Working Space
- Reduced IRA Status Report frequency for non-IH CEPs
- Clearer provisions for completing IRAs to address CEPs



Proposed VI-Related Amendments

Tier Classification

- Phase I still the basis for Classification; still occurs one year from notification
- NRS scoresheet replaced by “**Tier I Criteria**”
 - OHM above RCGW-1 in current drinking water source area
 - **Presence of an Imminent Hazard**
 - **IRA ongoing to address CEP**
 - **IRA where *remedial* action to address a CEP is required**



Proposed VI-Related Amendments

Phase II – Comprehensive Site Assessment

- Incorporate VI considerations more clearly in Phases I & II
- Add CSM definition and documentation
- Phase II Scope of Work becomes *Conceptual* Ph II SOW
- Changes to Phase deadlines



Proposed VI-Related Amendments

Clarification on the role of modeling in VI evaluations

- Exposure Point Concentrations shall be developed using analytical data gathered during the site investigation at the Exposure Point
- For indoor air, in the event that it is not possible to distinguish disposal site-related contamination at the Exposure Point from interior sources at ongoing commercial and/or industrial operations, fate and transport models may be used to develop Exposure Point Concentrations provided such models are technically justified and the modeling assumptions are clearly documented



Proposed VI-Related Amendments

Application of remedial additives

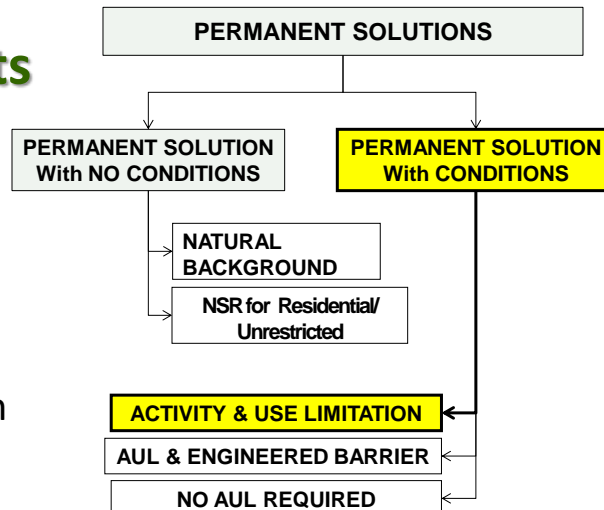
Applications near sensitive receptors require prior approval by the Department in writing when used

- within 100 feet of any private water supply well
- within 800 feet of any public water supply well or well field
- within 800 feet of any surface water supply used in a public water system
- within 50 feet of any other surface water body
- **within 100 feet of a School, Daycare or Child Care Center or occupied Residential Dwelling**



VI-Related Amendments

- Permanent Solution with Conditions for Active SSD Systems (operated with AUL)



Proposed VI-Related Amendments

Permanent Solution with Conditions

- For Active Exposure Pathway Elimination Measures
 - e.g., active sub-slab depressurization systems
- AUL to provide notice of obligations
- Remote telemetry required; affected parties in buildings must be notified if shutdown extends beyond 30 days
- Would apply to both SSD systems (vapor intrusion) and point of entry/point of use systems on private drinking water supplies



Proposed VI-Related Amendments

Method 1 Standards - Proposed VI Revisions

- Update toxicity values
 - In September, 2011, the USEPA released its Final Assessment for TCE on its Integrated Risk Information System (“IRIS”) which resulted in changes to the Target Risk Levels
 - ORS updated Risk Assessment Short Forms to reflect new EPA Toxicity Values



Comparison of Changes in Target Risk Levels Using TCE Toxicity Values

Method 3 Assessment Short Forms	Old Value	September 2011 IRIS Value
Imminent Hazard Residential Scenario	85 µg/m ³ (5-yr Cancer Risk 1x10 ⁻⁵)	2 µg/m ³ (Subchronic Exposure Non-Cancer Risk HQ=1.0)
Imminent Hazard – Commercial Scenario		8 µg/m ³ (Subchronic Exposure Non-Cancer Risk HQ=1.0)
No Significant Risk	14 µg/m ³ (30-yr Cancer Risk 1x10 ⁻⁵)	2 µg/m ³ (Chronic Exposure Non-Cancer Risk HQ=1.0)



Method 1 Standards Proposed VI TCE Revisions

Standard	Old Value	Proposed Value
S-1/GW-1	0.3 mg/kg	0.3 mg/kg
S-1/GW-2	2 mg/kg	0.3 mg/kg
S-1/GW-3	90 mg/kg	30 mg/kg
GW-1	5 µg/L	5 µg/L
GW-2	30 µg/L	5 µg/L
GW-3	5,000 µg/L	5,000 µg/L



Changes to TCE Threshold Values

Screening Values	Old Value	Revised Value
Residential Sub-Slab Soil Gas Screening Value	56 $\mu\text{g}/\text{m}^3$	28 $\mu\text{g}/\text{m}^3$
Residential Threshold Values (TV_r)	0.8 $\mu\text{g}/\text{m}^3$	0.40 $\mu\text{g}/\text{m}^3$
Commercial/Industrial Sub-Slab Soil Gas Screening Values	140 $\mu\text{g}/\text{m}^3$	130 $\mu\text{g}/\text{m}^3$
Commercial/Industrial Threshold Values (TV_c)	1.8 $\mu\text{g}/\text{m}^3$	1.8 $\mu\text{g}/\text{m}^3$



Proposed VI-Related Amendments

Source Control

- Clarified definition of **Source of OHM**
 - refers to the original OHM release location and/or contaminated media from which OHM can migrate as a bulk material
 - Addressed concern that dissolved phase was being viewed as a source
- Reworked Performance Standards
- Source Elimination or Control
- Migration Control
- NAPL



Status and Schedule

- Status – in process of finalizing amendments
- Schedule
 - send to Commissioner’s Office in early October
 - aiming for promulgation in November
 - effective date 2 months from promulgation

