LSP Association
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401 Edgewater Place, Suite 600
Wakefield, MA 01880
tel: 781-876-8915 • fax: 781-623-6107
email: info@lspa.org • www.lspa.org

March 1, 2011

Mr. Gerard Martin
Compliance & Enforcement Section Chief
BWSC Southeast Regional Office
Massachusetts Department of Environmental Protection
20 Riverside Drive
Lakeville, MA 02347

RE: Massachusetts LSP Association Comments
Vapor Intrusion Guidance December 2010 Interim Draft

Dear Mr. Martin:

The LSP Association (LSPA), a professional non-profit association of over 900 LSPs and other environmental professionals, respectfully submits the following comments and suggestions related to the Vapor Intrusion Guidance Interim Draft published electronically and open for public comment in December 2010.

Over two years ago, the Massachusetts Department of Environmental Protection (MassDEP) convened an Indoor Air Workgroup, with participation from legal, consulting and regulatory organizations, with the goal of developing a comprehensive and updated guidance document for LSPs and the regulated community to use when considering the vapor intrusion pathway and indoor air issues related to Massachusetts Contingency Plan (MCP) sites. The workgroup, and its subgroups, have worked diligently to produce the guidance now available for public comment. The LSPA commends the Department and the workgroup participants for all their efforts.

The draft Vapor Intrusion Guidance is organized into six sections and includes eight appendices, three of which are reserved at this time. This letter provides a summary of the observations and issues the LSPA has identified that will be of greatest concern to our members and the regulated community they serve. Attached to this letter you will find detailed comments from LSPA members related to the Vapor Intrusion Guidance sections and appendices. In an effort to avoid simply filing complaints and questions about the document, a good deal of time was spent by the LSPA review team in also identifying potential solutions or modifications to the draft Guidance document that would alleviate a majority of the cited concerns while maintaining the integrity and intentions of the Guidance as written.

Guidance Should Support Professional Judgment and Provide Flexibility

The LSPA's overarching concern with the draft Vapor Intrusion Guidance is that it holds out a set of steps labeled "best practices" and states that following them will provide Presumptive Certainty. Although there is qualifying language indicating that regulatory compliance may be achieved in other ways, the Guidance leaves the reader with the concern that the Guidance provides the best approach for any and all sites. In fact, there may be other, more effective, and equally acceptable approaches for achieving a Permanent Solution at any particular site. We believe that an LSP should have the prerogative to use the full range of his/her experience and professional judgment to make appropriate site-specific decisions as required to fully meet MCP requirements. The LSPA agrees that at some sites, the approaches proposed by the Guidance are valid if applied correctly. However, as guidance and not regulation, this document should explicitly state in more detail that other approaches to a Permanent Solution are acceptable if they are technically supportable.

The LSPA suggests that references to "Presumptive Certainty" be removed and that the following language be inserted early in the Guidance:

While MassDEP has set forth herein a series of recommendations for characterizing and addressing vapor intrusion, the reader is reminded that this is a Guidance document. As such, Response Actions at a site need not adhere to the exact protocols and procedures described herein, and non-conformance with this Guidance does not in itself constitute noncompliance with the requirements of the MCP. Other approaches to achieving or demonstrating No Significant Risk and a Permanent Solution at a site are also acceptable, if supported by sound science and logic.

Key Areas of Concern

In an effort to achieve a single clear pathway to a Permanent Solution, the Guidance drastically reduces the flexibility allowed LSPs. The LSPA is concerned that the Guidance thereby comes into conflict with the MCP regulations themselves and with existing policy, makes assumptions that are far too conservative, and is overly prescriptive. Some examples which illustrate the LSPA's key areas of concern are discussed briefly below, as well as in the attached detailed comments section.

- Supremacy of groundwater data: This Guidance essentially obligates sampling of indoor air whenever groundwater VOC concentrations are >GW-2, even when a completed pathway has not been demonstrated. The Guidance effectively gives greater weight to groundwater data than to properly-collected soil vapor data. This creates a number of problems; for example:

  - This contradicts existing Policy (WSC 02-411), which allows both soil vapor screening data and soil vapor analytical results to supplant groundwater results > Method 1 GW-2 and demonstrate No Significant Risk.

  - This effectively eliminates a Method 3 Risk characterization as an alternative to concluding that groundwater concentrations > GW-2 represent a Significant

Risk to indoor air, because the Guidance does not allow the use of soil vapor data in preference to groundwater data.

- This nullifies the option of predicting future conditions based on current soil vapor conditions, and possibly avoiding the need for an AUL, when current deep soil vapor data demonstrate that VOC concentrations in the unsaturated zone represent No Significant Risk, sources have been controlled/mitigated, and a valid Conceptual Site Model has been formulated.

The LSPA recommends that the Guidance allow for the use of appropriate soil vapor data in preference to groundwater data, as provided for in the VPH/EPH Policy, and for the use of these data to support a Method 3 risk characterization despite groundwater data that may exceed the Method 1 GW-2 standard.

The LSPA suggests that GW-2-related AULs simply obligate a "re-evaluation" by an LSP prior to any planned change of use or new building construction. This approach would not necessarily require a modification or termination of an AUL prior to development, and would be adequately protective of future vapor intrusion-related concerns.

The MCP at 40.0317(17) already requires re-notification for changes in activities, uses, and/or exposures at a previously-closed disposal site. This regulatory provision should be specifically referenced in the Guidance.

- Definition of GW-2: The MCP definition of GW-2, and the applicability of the GW-2 standard to the evaluation of future uses of properties, have been expanded significantly by this Guidance. The Guidance also appears to change the definition of GW-2 to include all areas at an MCP site, irrespective of depth to groundwater.

  It is the opinion of the LSPA that fundamental changes of such magnitude must be made through modification of the regulations, taking into account appropriate public comment, not through the dissemination of Guidance.

- Lines of Evidence: Deep soil gas should be an independent Line of Evidence and acceptable for providing a worst-case indication of the concentrations of VOCs in soil gas under current or future conditions.

  Indoor air sampling in the industrial/commercial scenario should be considered a single, but not necessarily the primary, Line of Evidence for assessing potential vapor intrusion. The environmental professional should evaluate whether such sampling is appropriate based on existing or potential indoor or ambient sources. There would be no harm, and possibly real benefit, in removing the "greatest weight" presumption from indoor air sampling in an industrial/commercial scenario.

In addition, this discussion in the Guidance raises the question of what combination of other lines of evidence could overcome this "greatest weight."

- Removing Technical Constraints: The Guidance imposes too narrow an approach to several of the technical and implementation issues. It is the opinion of the LSPA that retaining professional technical judgment and allowing greater flexibility is consistent with the 21E and MCP regulatory framework of a privatized system. For example:

  - Detailed designs for Sub Slab Depressurization Systems and Vapor Barriers should not be dictated by the Guidance or required to be placed into AUL documents. General requirements are appropriate for AULs. The detailed designs should be included in the appropriate MCP documents (as is generally the case for response actions targeting other environmental media), rather than in AULs. Detailed designs will nearly always be modified in the field during actual construction and require an AUL change, whereas a general requirement for the use of appropriate Sub Slab Depressurization Systems, Vapor Barriers, or other techniques might not need to be modified because the LSP has selected the appropriate design and included it in a Release Abatement Measure or other MCP report.

  - The use, installation, and specifications of barriers should be left to the LSP. Many site-specific and product-specific factors are involved, and as these continue to evolve, prescriptions will be difficult to keep current.

  - If passive mitigation systems can be shown to be effective at mitigating risk, they should not be categorically eliminated as a stand-alone or a significant component of a Permanent Solution. In fact, if a passive system, which requires no operation or maintenance, and which is less likely to malfunction or fail, can demonstrably achieve a Permanent Solution, it should be the preferred mitigative alternative.

  - The number of sampling rounds required to support site closure should be left to the judgment of the LSP in all cases, based on the site-specific Conceptual Site Model and other site data. The LSPA suggests replacing the requirement for "several rounds" of indoor air sampling with "at least three rounds over at least one year, with at least one round during the heating season."

- The Guidance in part negates or contradicts established policies and requirements, and should be revised to reference rather than cloud the application of these policies and requirements; it should not serve to reinvent an established practice. For example:

  - There is incompatibility between definitions, procedures and interpretations within the MCP and established policies, including specifically the EPH/VPH

Policy (WSC#02-411) and the Construction of Buildings in Contaminated Areas Policy (WSC#00-425).

- The evaluation procedures in the Guidance appear to make no provision for "Level 1" PID screening as permitted under the EPH/VPH Policy (WSC#02-411). Moreover, the Guidance specifically does not follow the "source -> pathway > receptor" (Level 1, Level 2, Level 3 screening) procedure.

- AUL Language in draft AUL Guidance: The LSPA recommends that specific AUL language and case studies in the final Vapor Intrusion Guidance document also be included in the pending AUL Guidance document.

Conclusion

MassDEP's draft Vapor Intrusion Guidance document provides comparative indoor air criteria that could help streamline the MCP program and the identification of potential vapor intrusion release sites. However, the prescriptive guidelines and procedures presented may ultimately render the Guidance as an "ideal" that will not often be practical in its application, and that will contradict approaches prescribed by current guidance, policy, and regulation.

The LSPA believes that addressing the suggestions presented here will adequately protect public health from the risks of vapor intrusion while maintaining consistency with the long-standing regulations and policies used to date. These suggestions will clarify that the document provides *Guidance* for use by LSPs and other environmental professionals in closing sites, addressing Brownfields, supporting urban re-development, and evaluating future use at sites.

Thank you for the opportunity to comment on the draft Vapor Intrusion Guidance.

Sincerely,

LSP Association

James S. Young
President

Wendy L. Rundle
Executive Director

Cc: Janine Commerford, Assistant Commissioner, BWSC
Attachment: Detailed Comments By Section