



November 3, 2014

Liz Callahan, Acting Division Director for Policy and Program Development  
MassDEP, Bureau of Waste Site Cleanup  
One Winter Street  
Boston, MA 02108

**Subject:** LSPA Comments on Public Review Draft, July 1, 2014, Light Nonaqueous Phase Liquids (LNAPL) and the MCP: Guidance for Site Assessment and Closure, Policy #WSC-14-450

Dear Ms. Callahan:

The LSPA Association (LSPA), a professional non-profit association of nearly 900 LSPs and other environmental professionals, appreciates the opportunity to provide comments on the above-referenced draft guidance document. As is typical, the LSPA formed a workgroup to consider the draft guidance, and solicited and vetted comments and suggestions from LSPA members. As is also typical, there was consensus that areas of the guidance need clarification and further consideration. What was more of a challenge for the workgroup and LSPA leadership was reaching agreement on fundamental assumptions in the draft guidance, such as LNAPL thickness as a metric, and the use of transmissivity in estimating LNAPL.

This cover letter summarizes the overall LSPA concerns and comments on the draft guidance. The attached matrix of comments is a compilation of specific LSPA comments on the draft guidance; the matrix identifies areas needing additional clarification, notes areas of inconsistency, and suggests specific language changes where appropriate.

Provided below are the LSPA's general comments on the draft guidance.

- While simplified guidance is welcomed and the intent of Figure 7 is appreciated, there is concern that the flowchart will become a de facto performance standard. LNAPL sites will have differing levels of complexity and risk, and therefore each site may have a different but acceptable approach to assessing LNAPL mobility and the risks posed. The LSPA is concerned that the draft guidance is too prescriptive and doesn't allow an LSP sufficient flexibility to make practical decisions.
- There is concern that while some of the provisions in the guidance are designed to help LSPs "rule out" the presence of "Non-Stable NAPL" at their sites, there is concern that some may misinterpret these provisions and/or apply them incorrectly. For example, the LSPA interprets the reference to the soil TPH<100 mg/kg criterion as allowing LSPs to conclude that if their soil

has <100 mg/kg TPH, they can “rule out” “Non-Stable NAPL” at their site. However, there is concern that MassDEP may say, if your soil concentration exceeds 100 mg/kg TPH, then you must assume that “Non-Stable NAPL” is present unless you can prove it is not, thereby suggesting that one must prove a negative.

The LSPA thinks it was the intent of the LNAPL guidance to present a series of “tests” (hypotheses) and criteria that would demonstrate that “Non-Stable NAPL” was present, to determine whether these hypotheses were true. If the tests fail (the hypothesis is not proven) one could then conclude that the alternative is true and that “Non-Stable NAPL” does not exist. However this is not clearly explained in the Draft LNAPL guidance, leaving the “tests” and procedures contained in the guidance subject to misinterpretation, and misuse.

- The guidance document needs a set of internally consistent terms and definitions for: mobile LNAPL, LNAPL with macroscale mobility, LNAPL with microscale mobility, Non-stable LNAPL, and Stable LNAPL. To assist with clarity, the LSPA recommends that any time the term “mobile” is used, it should be modified with the term “micro” or “macro.”
- There are also a number of interchangeable terms in the document such as: oil/waste oil, petroleum, LNAPL, NAPL, separate phase OHM, oil or waste oil NAPL (See MCP), “certain chemical products”, and the listed fuels. These should be defined at the outset of the guidance and used consistently.
- The guidance is lacking a summary of the different “triggers” that result in reporting, assessing macroscale mobility, microscale mobility, feasibility of remediation, when remediation needs to be conducted, when remediation can be stopped, and when an AUL is necessary. This includes clarification when remediation/recovery does not need to be initiated. The LSPA LNAPL workgroup is attempting to draft a summary table that includes the above; we hope to have it ready in advance of the yet-unscheduled BWSC meeting on this topic in December. The guidance needs this type of summary.
- It would be helpful if the document were reorganized to better segregate assessment for the presence of LNAPL, macroscale mobility, and microscale mobility. Currently, it is difficult to identify what type of assessment and techniques are being discussed. In addition the guidance appears to blend together characterization/assessment and feasibility of recovery.
- The guidance is heavily weighted to well data; it should encourage equal support for use of soil data. Both well and soil data have strengths and limitations and LSPs should understand the applicability and be able to rely on both.

- While the LSPA acknowledges that the guidance states that consideration of DNAPL is beyond its scope, we do think that LNAPL in bedrock should be included and discussed. There are sites with minor and periodic LNAPL in bedrock that are assessed over long periods of time illustrating both stability of LNAPL and dissolved phase contamination, as well as assessment of the risk associated for current and future uses of the property.
- The draft guidance needs to be completed in conjunction with the AUL Guidance document so that a read can better understand when an AUL is required. In addition, it is overly conservative to require the filing of an AUL in all cases when LNAPL has been present in a monitoring well in the preceding 12-month period regardless of frequency, thickness, and depth. The LSPA appreciates and understands that a change to this requirement would require a regulatory change in the MCP.
- The performance standard of 2-years of monthly gauging as evidence of Stable LNAPL and specification of well spacing is overly conservative. The guidance should recognize:
  - Site conditions are different and more or less gauging may be warranted.
  - Generally 1 year of quarterly monitoring may be sufficient.
  - Very mature LNAPL sites with years or decades of monitoring, may not require any additional gauging to illustrate LNAPL stability.
  - Figure 8 illustrating feasibility of LNAPL recovery is incorrect and should be removed or corrected.

We look forward to continuing to work with MassDEP on further clarifying and refining this draft guidance. Thank you again for the opportunity to provide comments.

Sincerely,

**LSP Association, Inc.**



Paul McKinlay, LSP  
President



Wendy Rundle  
Executive Director

**Attachment:** November 3, 2014 Compilation of Comments from the LSPA