

May 15, 2013

Department of Environmental Protection  
Bureau of Waste Site Cleanup  
One Winter Street, 6th Floor  
Boston, MA 02108  
Attn: Elizabeth Callahan

Re: Proposed Massachusetts Contingency Plan Amendments

Dear Ms. Callahan:

The purpose of this letter is to provide written comments to the proposed Massachusetts Contingency Plan (MCP) Amendments. While, overall, the proposed amendments are clear in their intent, they demonstrate a significant shift.

In our opinion, many of the technical changes related to Vapor Intrusion (VI) and New Site Closure Provisions and Nonaqueous Phase Liquid (NAPL) and Source Control demonstrate a shift to attempting to regulate all possible conditions including the exceptions. We feel that this is contrary to the original intent of the MCP to provide streamlined regulations that allow for disposal sites to proceed through the regulations at the direction of LSPs (privatized system) with minimal oversight from the Massachusetts Department of Environmental Protection (MassDEP). It was understood that the resources of the MassDEP could then be focused on audits and the more complex issues and disposal sites.

We are not persuaded that more regulation and oversight are required for the regulations to address the majority (the 99%) of the disposal sites and issues. Many of the proposed changes appear intended to address all sites including the exceptional disposal site or issue (the 1%). This point is illustrated by the proposed amendment to 40.0046 which, according to the notes to reviewers states, "This amendment is prompted by an actual case..."

The remainder of this letter will reference specific amendments.

40.0006: Terminology, Definitions and Acronyms

- The definition of Historic Fill is too narrow and does not adequately consider coal ash and/or other beneficial use determination (BUD) materials that have been approved by MassDEP to be used historically as fill materials. We recommend that a paragraph (f) be added to include language to the effect of "other materials

historically approved for use as fill by the Massachusetts Department of Environmental Protection or other governmental body.”

- Why has the term “debris” been added for the remedial system definitions?
- The definition of an Active Remediation System should be re-written (second sentence) to state “Any remediation system that does or could produce management and disposal or recycling is an Active Remediation System”.
- In order to provide a site re-opener when AULs have been used as an institutional control at Superfund Sites, the definition of a Permanent Solution should be expanded to include EPA Record of Decision Completion.
- As written, the definition of “Source of OHM Contamination” subparagraph 3. would include all contaminated fill, soil and sediment independent of contaminant concentration. This is too broad. Furthermore, because of intermedia migration, source control is then difficult to achieve in the context of a Permanent Solution which requires that plumes are not expanding (see comments to 40.1003 below).

#### 40.0046: Application of Remedial Additives

The proposed change is not required. LSPs should be knowledgeable about the proper use of remedial additives. If improper use of remedial additives is a prevalent problem then this change is needed. If this change is proposed due to limited (the 1) misapplications then it is incumbent on MassDEP to take action against the offending LSP under MassDEP’s existing authority and responsibility, not propose new regulation.

Remedial additives have been successfully used adjacent to and directly beneath buildings, including residences and schools, to rapidly mitigate risks to occupants of those buildings. As with any technology, there is the potential for misuse of remedial additives in the hands of people lacking adequate expertise and experience. However, the level of expertise and experience in the proper use of remedial additives is not greater among MassDEP staff than in the LSP and remediation engineering community and, therefore, requiring prior written approval for these applications will slow remedial actions needlessly.

Finally, remedial additives and remedial additive byproducts are, out of necessity, introduced into the environment at high concentrations. Most of these additives and their byproducts do not have drinking water standards. (Sodium permanganate, for instance, does not have a drinking water standard. Nor do its breakdown products permanganate (ion) and manganese oxide.) The addition of 40.0046(1)(c) will, therefore, require a Site specific evaluation in many cases. MassDEP should, therefore, add a definition to the MCP that describes what “exacerbate existing conditions” means. This term is also used in the proposed 40.0045(3)(a)(2).

40.0049: Remedial Air Emissions

This section uses the terms “control devices”, “treatment devices”, “air-emissions control treatment devices”, and “off-gas control system” refer to the same thing. One term should be used and should be defined.

The proposed language in Paragraph (6)(a) has been taken from the guidance document “Off-Gas Treatment of Point-Source Remedial Air Emissions”, which dates back to 1994. Since the publication of the original guidance document, the use of Field Gas Chromatographs and Flame Ionization Detectors has generally been discontinued and these instruments are not generally available. We recommend the following language be substituted:

*(a) collect influent and effluent vapor samples from the off-gas control system 1, 7, 14 and 28 days after system start-up, and monthly thereafter. Vapor samples should be obtained from "in-line" sampling ports in the vapor treatment system piping and analyzed in accordance with the CAM or screened in the field using a photoionization detector (PID) or other suitable field instrument. If samples are screened in the field, documentation should be maintained detailing the instrument accuracy, precision, and instrument calibration procedure;*

40.0313: Releases Which Require Notification Within 72 Hours

For SRM:

Paragraph (5)(a) suggests that SRM would exist if a release occurs to a containment vault that is serving its intended purpose. This should be revised to reflect releases to the environment or “structures” that result in releases to the environment.

In (5)(b) and throughout the proposed amendments, MassDEP must remove the words “significant” and “significantly” unless MassDEP has defined what these terms mean (for example, “No Significant Risk” is defined).

Paragraph (5)(f) 1. is too broad as it could be interpreted to mean any detectable concentration. Can this be changed to RC-S2 or other published concentration? This comment applies to 40.0942 as well.<sup>1</sup>

Paragraph (5)(f) 4. is too broad. What other types of foundations exist? Why is a concrete foundation universally a problem? Also please note the undefined use of the word “significant”.

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<sup>1</sup> It is recognized that this is currently in the regulations. However, it is important for the amendments to clarify issues that were previously unclear.

Paragraph (5)(f) 6. is too broad. Paragraphs (f) 1 through 5 are very specific; (f) 6 appears to reflect “all other cases”. An alternative is to remove the word “potential”.

For LNAPL detection:

Technology is currently unavailable to accurately measure 1/8 of an inch of separate phase products such as weathered fuels and petroleum products heavier than No. 2 fuel oil.

#### 40.0483: Content of Phase I Report

In Paragraph (f) and in other places throughout the amendments, the term “soil gas” has been added. Is it the intent of MassDEP to suggest that soil gas needs to be evaluated at all sites with volatile organic compounds (VOCs)? If so, why is this needed? Soil gas does not represent an exposure point and testing for soil gas should not be required where actual exposure is measured (for example, indoor air).

#### 40.0711: Installation and Initial Testing of Active Exposure Pathway Elimination Measures

The requirement to have remote monitoring technology cannot be reasonably supported by MassDEP and is excessive. MassDEP does not have adequate personnel to respond to hundreds of notifications that would occur should there be a power outage as a result of a storm or utility blackout. Furthermore, it is unlikely that MassDEP could even handle “routine” situations just as local fire departments cannot respond each time a smoke alarm goes off in a home. Finally, this requirement is excessive given the operation requirements proposed in 40.0712 (2). These comments also apply to 40.0761 (2).

#### 40.0752: Requirements for Active Exposure Pathway Elimination Measure Permit Applications

The financial requirements of Paragraphs (1)(c) and (5) are overly burdensome and should be removed.

Paragraph (8) is unenforceable and impossible for a PRP or LSP to track, particularly (b) 2, 3, and 4. This may also prevent the use of reasonably priced systems.

#### 40.0942: Selection of Method to Characterize the Risk of Harm to Health, Public Welfare and the Environment

The proposed amendment to Paragraph (d) includes changing “and” to “or”. This is too broad and is likely to include many conditions where this is unnecessary. For example, VOCs could be in the vadose zone soil at depths greater than 10 feet vertically but less than six feet horizontally. The language should be unchanged and require both conditions be met.

40.1003: General Provisions for Permanent or Temporary Solutions

For Paragraph (5), given the proposed definition of Source of OHM Contamination, we question how an LSP is to demonstrate that soil gas is not migrating and/or expanding. Similarly, if any detectable contaminant concentration in sediment is considered a Source of OHM Contamination, how does an LSP demonstrate control of sediments in a dynamic environment such as tidal areas or areas of potential storm-related erosion.

In addition, the proposed regulations would allow any quantity of LNAPL to be present at a site (provided it is stable), but would prohibit a permanent solution if there is evidence that DNAPL may be present (dissolved concentrations greater than 1% of solubility). Because LNAPL is generally located at or near the water table, and DNAPL is generally located below the water table, LNAPL represents a more likely risk of a complete exposure pathway than DNAPL. It is, therefore, not justifiable to allow LNAPL to remain under a Permanent Solution, but not allow even the possible existence of DNAPL regardless of stability. In our opinion the requirements for remediation and/or stability of contaminant plumes should be the same for LNAPL and DNAPL.

Proposed LNAPL Changes throughout

We believe that requirements for investigation, remediation, and standard of care for a Permanent Solution should be consistent for both LNAPL and DNAPL. Generally, references in the proposed regulations that refer to LNAPL should be changed to NAPL.

Furthermore, we believe that the definition of CSM does (and should) include LNAPL and DNAPL and that the proposed addition of an LNAPL CSM is unnecessary and should be eliminated. The definition of a CSM may be amended to state explicitly that NAPL must be considered. Requiring an LNAPL CSM to be developed separately from the site CSM is simply duplicative. Additionally, there is no justification for requiring an LNAPL CSM but not a DNAPL CSM.

Respectfully submitted by,

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Ian Phillips, LSP