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May 17, 2013

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

RE: Comments on MCP Revisions

Dear MassDEP Staff:

LaGoy Risk Analysis, Inc. has reviewed the proposed revision to the Massachusetts Contingency Plan (MCP) and applauds the Department's efforts. The MCP already does a good job of balancing the need to ensure public health protection with the need to allow development. The revisions appear in general to further improve these regulations. In particular, I applaud the streamlining associated with removing the numerical ranking scheme for Tier classification, and the simplification of the site closure requirements. I was also pleased to see attention paid to the site closure regulations, Activity and Use Limitations (AULs) and to addressing Non Aqueous Phase Liquid (NAPL). I did have some comments on these proposed revisions, which are provided below. My comments follow the redline/strikeout notes in the pdf version of the revisions but reference the specific CMR location.

Tier Classification

I agree with the general concept of simplifying the Tier Classification process and in particular, eliminating the numerical ranking system. I feel that the approach outlined by the MassDEP generally addresses this issue well. As an example, I initially questioned the change that did not allow any response action Outcome being filed allowing a site to not be characterized as Tier 1D but on further reflection agree that the site should be "in the system" and as such, Tier classification is important.

AULs

I agree with the general concept of simplifying the Activity and Use Limitation (AUL) process and specifically, with eliminating the LSP Opinion as redundant and requiring

additional site information as part of the AUL. In general, I feel that the approach outlined by the MassDEP addresses this issue well.

40.0923

The clarification that emergency utility work must be considered a current use is useful.

Vapor Intrusion

40.0006 Definition of Conceptual Site Model. While I feel that adequately defining the Nature and Extent of Contamination at a site requires understanding all the components of the CSM, and as such, that this has always been a requirement of the MCP, specifically defining and requiring this information may be useful.

40.0006 SRM. While I agree with the limited change to the definition for SRM, in practical terms, “release...likely to result in the discharge of vapors” is quite subjective. Does this mean “likely to result in detectable levels of the constituent in the building?” Or does it mean “likely to result in any levels of the constituent in the building based on fate and transport modeling?” I would recommend adding the word “detectable levels” prior to the words “of vapors” in 40.0006 Condition of SRM (f).

40.0425(4). It is unclear to me why status reports are required for all Temporary Solutions. I feel that status reports should only be required for Temporary Solutions that rely on an active exposure elimination measure.

40.0427(3). I don't see a value in requiring an IRA Completion Report for a site closed with a Temporary Solution. It would seem that information on the completion of the IRA would be critical to the Temporary Solution report, and as such, requiring a separate IRA report is redundant.

40.0483(1)(h) The language references that a conceptual site model for LNAPL but not all NAPL is required. I think all NAPL should be addressed.

40.0485(4)(i) The language references that a conceptual site model for LNAPL but not all NAPL is required. I think all NAPL should be addressed.

40.926(6) and (7). The requirement that concentrations measured at the exposure point be used as the EPC seems overly burdensome. For example, if all concentrations are below GW-2 (even well below GW-2) in a building, it would seem that this rule would require indoor air sampling as part of a risk characterization. Even if both soil gas data and groundwater showed no effects likely, it seems that indoor air sampling would be required. This seems needlessly burdensome. Conversely, if soil gas and groundwater suggest a future concern but indoor air sampling shows no problem, this would imply that that indoor air data is the right data to use. I would recommend keeping the original language, with an added caveat (reflecting long-standing MassDEP policy) that analytical data at the exposure point are preferred, and that a weight-of-evidence approach that considers available data must be used in defining an appropriate EPC.

40.0701(4) This language would appear to preclude the use of an active exposure pathway elimination measure for the remediation of trichloroethylene.

40.0712(3). This is a useful requirement.

40.1000 I support the change from RAO terminology to permanent and temporary solutions; I feel this is much simpler to explain to the public.

40.0993(5) and 40.0975(6)(a) I generally agree with this hierarchy. However, I would point out that with regards to vanadium, it appears that DEP is not following the general guidance indicated by the preference for USEPA IRIS values over EPA's Provisional values (PPRTVs). I would also note that for vanadium, USEPA Region IX in its table of remedial screening levels used the IRIS values in preference to the PPRTVs, even though it had access to both, suggesting that it is premature to use the PPRTVs. I would recommend the MassDEP fully consider the quality of the data and the implications of the proposed change before changing Method 1 standards to reflect the PPRTV.

Comments on NAPL

A general comment is that revisions seem to reflect a separation between LNAPL, with changes reflecting an emphasis on gasoline and petroleum, and DNAPL, which appear to emphasize chlorinated solvent DNAPL. Other DNAPL (e.g., manufactured gas plant residuals) do not appear to be well represented in the discussion. Also, as noted above, I do not understand why the CSM is solely focused on LNAPL.

As a final general comment, the idea that a permanent solution cannot be achieved unless DNAPL is less than 1% of its solubility limit seems inconsistent with the definition of a NAPL. By definition, a NAPL is a separate phase liquid, and as such, it is present above its solubility limit. The 1% of solubility or 10% of solubility threshold is often used by investigators to determine whether or not a chlorinated solvent might be present as a NAPL. Finding a chlorinated solvent at a level that is 10% of its solubility has been used as evidence that a NAPL is likely present somewhere on the site. However, while having a constituent at less than 1% of its solubility means that it is unlikely that a NAPL is present, this is a different matter entirely from arguing whether or not a NAPL is stable.

If the goal is to specifically not allow permanent closure if a chlorinated solvent NAPL (DNAPL) may exist, the regulations should specifically address that idea. I suggest that the separation between LNAPL and DNAPL should be generally removed, and only mentioned when it specifically applies (e.g., I feel one needs a CSM, no matter the type of NAPL present).

40.0996(6) I agree with eliminating the ½ inch measurement as a UCL and with the revisions that focus on the presence or absence of NAPL, with closure based on the stability of the NAPL, not on an arbitrary thickness.

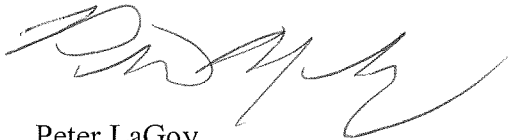
40.1003(5). As noted previously under general comments, I feel that LNAPL and DNAPL should be treated the same. I also feel that the requirement for DNAPL expressed at 40.1003(5)©4 is scientifically implausible; one cannot, by definition, have DNAPL if it is less than 1% of its solubility limit. .

I have worked on sites with both stable LNAPL and stable DNAPL, in both cases involving high molecular weight, non-chlorinated compounds. In both situations, the release had occurred over 50 years ago, groundwater surrounding the NAPL was not impacted to a significant degree and tests on the material indicated that it was not very mobile in the subsurface. In both cases, the stable NAPL was present at a depth of over 15 feet, and there was no conceivable way that this could pose a risk at its current location (although I did assess construction worker exposures in one case just to have some risk numbers, even though it was indicated as implausible). To me, it makes no sense to treat these situations differently.

40.1012(2)(d). I suggest that "LNAPL" be changed to "NAPL." If MassDEP wants to express greater care for chlorinated solvents, a common DNAPL, these constituents should be specifically addressed.

Thanks you for the efforts expended in making these revisions, the obvious thought and attention to detail that went into their preparation, and the opportunity to comment. If there are specific questions about my comments, I can be reached at the e-mail and phone number above.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Peter LaGoy", written in a cursive style.

Peter LaGoy