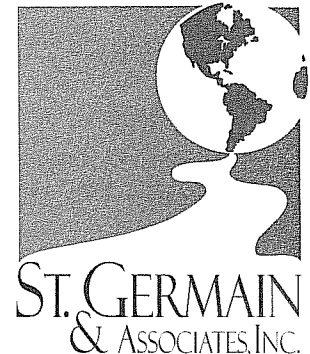


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October 28, 2009

Mr. David Wright
Maine Department of Environmental Protection
State House Station 17
Augusta, Maine 04333

Mr. George Seel
Maine Department of Environmental Protection
State House Station 17
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Re: Comments on MEDEP Draft Remedial Action Guidelines and
Petroleum Remediation Guidelines

Dear David and George:

St. Germain & Associates, Inc. respectfully offers the following comments on the draft Maine Department of Environmental Protection (MEDEP) "Implementation of *Maine Remedial Action Guidelines for Soil (MERAGs)*" dated July 20, 2009 and "*Remediation Guidelines for Petroleum Contaminated Sites in Maine*" dated August 14, 2009. As explained below, we believe that remediation guidelines and policies at petroleum and non-petroleum sites should be as similar as possible; therefore, we have combined our comments into one document.

BASIS FOR CLEANUP GUIDELINES

We compliment the MEDEP on proposing new cleanup guidelines based on rigorous, human health risk-based assessments and hydrogeologic modeling. While St. Germain will leave comments on the assumptions and calculations of the risk assessments to toxicologists, we are pleased to see that the MEDEP has proposed standards that specifically address each exposure pathway and likely exposure scenarios.

APPLICATION OF CLEANUP GUIDELINES

We strongly encourage the MEDEP to apply the new guidelines consistently across the spectrum of contaminants and regulatory programs. Examples of inconsistent application of the MERAGs in the current draft documents follow.

Petroleum vs. Non-Petroleum Cleanups

Ground Water Leaching

The petroleum guidelines require consideration of ground water leaching standards only if certain conditions are met (e.g., wells nearby or on an aquifer), while the MERAGs use ground water leaching standards as a default, with the MEDEP allowing a variance only if certain

conditions can be demonstrated (e.g. thick clay or pre-existing ground water contamination).

Environmental Covenants

The MERAGs essentially require an environmental covenant for any site where the Residential guideline is not met, yet no such requirement exists for petroleum sites.

Field Methods for Cleanup

The petroleum remediation guidelines and discussions at the MERAGs meeting in September indicate that the MEDEP is still considering using soil headspace or other field methods as a basis for petroleum cleanup. As MEDEP is aware, the soil headspace method for petroleum cleanups has not always been effective, mainly because of the difficulty in correlating field instrument measurements with laboratory results. In some cases, too much soil has been removed, and in other cases, not enough soil was removed. The rush to make in-the-field decisions has also resulted in an inaccurate assessment of risks at some sites. Field methods have the obvious advantage of allowing real-time measurement, especially relevant when a UST is going to be replaced, but we believe the disadvantages greatly outweigh the use of field methods. For good reason, this approach has not been considered for non-petroleum volatile contaminants. We believe it is now time for the MEDEP to abandon this approach for petroleum sites. We've outlined some of our reasons below.

The MEDEP has put considerable effort into developing risk based petroleum cleanup guidelines, but until technology advances further, the only reliable method for measuring contaminant concentrations in soil or water is with a laboratory. A corollary to using risk-based guidelines is that all exposure pathways (vapor inhalation, soil ingestion/contact, and ground water ingestion) need to be defined before any meaningful field sampling program is conducted. The draft petroleum cleanup guidelines go into great detail describing how to assess the likely exposure pathways. This task requires research into land use activities (e.g., are there private wells within 1,000 feet, occupied buildings within 30 feet, etc.) to the degree that at times cannot be completed the same day that UST and/or soil removal is scheduled to occur. We believe that this kind of "mini risk assessment" is appropriate, but in turn, is only of use if laboratory samples are collected to compare to the exposure scenarios identified for the site. While the identification of exposure pathways and collection of soil or ground water samples may not enable immediate remediation of impacted soils, it will ensure that the appropriate method and amount of remediation is applied. This approach will provide consistency for both the party responsible for the cleanup and the MEDEP.

MEDEP has expressed concern that the petroleum industry would reject any revisions to the petroleum cleanup guidelines that would eliminate field-based measurements. While not speaking on their behalf, we believe that they would be open to eliminating field-base measurements if: 1) doing so does not increase the total cost of site assessment and remediation, 2) the new methods are more reliable than the existing methods, 3) the new methods would increase the consistency of cleanups throughout Maine, and 4) the methods are more consistent with cleanup guidelines in other states. We are confident that the MEDEP, the petroleum industry, and consultants can work together to develop a new approach to petroleum assessments and remediation based on the new MERAGs and the use of institutional controls and/or environmental covenants.

MEDEP Rationale for Different Petroleum Cleanup Approach

At the September MERAGs meeting, MEDEP stated that the difference between petroleum and

non-petroleum cleanup approaches were due to Ground Water Fund coverage on most petroleum contamination sites, implying that the MEDEP was ultimately responsible for all such sites, and they could always return to them. Assuming this is the basis for separate policies, we have a variety of concerns with this position, including: 1) Many petroleum sites are not Fund eligible, 2) Fund reimbursements remains tenuous and the Fund's long-term future is unknown, and 3) it would be best for the MERAGs to be applied once, upon discovery of the petroleum contamination rather than leaving the potential that different cleanup guidelines may be applied at some future date.

Use of MERAGs at RCRA Cleanups

It is our understanding and experience that at some sites regulated under RCRA, the MEDEP has chosen to use cleanup levels more strict than the 1997 MERAGs. At the September meeting, the MEDEP stated that the MEDEP would continue to use their discretion in deciding whether the new MERAGs would be used. According to the draft MERAGs basis statement under RCRA (p.25), MEDEP policy at RCRA sites is to remove contamination, and if not removed, remediate the site to the appropriate risk-based standard. We are not aware of any further MEDEP guidance on this matter.

If there is a regulatory basis for not applying the MERAGs to some RCRA sites, or MEDEP uses other policies to determine cleanup guidelines at RCRA sites, the new MERAGs document seems to be an excellent forum for elaborating on when the MERAGs may or not be applied under RCRA. This information would improve consistency between sites, would reduce confusion over what cleanup requirements may apply, and would be much appreciated by the regulated community. For example, when deciding if the MERAGs are to be used, does the MEDEP consider: The age or source of the release? The regulatory or enforcement status? The type or extent of contamination? The potential risks? Proposed institutional controls or environmental covenants? It would be helpful if the MEDEP could provide specificity in how and why MEDEP would consider the MERAGs not to be appropriate for some RCRA sites.

SITE CHARACTERIZATION

Site characterization was not addressed in the draft MERAGs document except briefly on p.7 (Site Characterization and Exposure Point Concentration). This omission is understandable since their primary purpose was to introduce the new guidelines and their application. However, the value of the data collected for comparison with the MERAGs will greatly depend on the collection methods, number of samples, location of samples, and other similar variables.

MEDEP has made progress in guiding the regulated community in their site characterization requirements by requesting Sampling and Analysis Plans (SAPs) or Quality Assurance Project Plans (QAPPs) for some sites with non-petroleum contamination. The MEDEP has also developed many valuable Standard Operating Procedures (SOPs) for specific field activities. However, substantial variability still exists in how both petroleum and non-petroleum sites are characterized, and also between regulatory programs (e.g., VRAP vs. RCRA vs. UST release). Ideally, some general standards would apply to all site characterizations, regardless of the contaminant or regulatory program. The regulated and consulting community would be happy to provide input on this issue in the future.

SUMMARY

The MEDEP has made excellent progress in revising the remediation guidelines for both petroleum and non-petroleum sites, but the revisions have raised some new questions about MEDEP remediation policies between regulatory programs and how petroleum compared to non-petroleum contamination is addressed. We see the MERAGs revision process as a great opportunity for these questions to get answered and in turn allow future remediation projects to go smoothly, cost effectively, and be consistently protective of human health and the environment.

If you have any questions or comments, please feel free to contact us at (207) 591-7000.

Sincerely,
ST.GERMAIN & ASSOCIATES, INC.



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