



Environmental Professionals' Organization of Connecticut

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September 29, 2014

Ms. Cheryl Chase
CT DEEP, Director of Inland Water Resources Division
Sent via Email to: Cheryl.Chase@ct.gov

RE: EPOC Comments on the "Evaluation of Risk-Based Decision Making - Connecticut Department of Energy and Environmental Protection (DEEP)" Report

Dear Ms. Chase:

The Environmental Professionals' Organization of Connecticut (EPOC) respectfully submits the following comments on the "Evaluation of Risk-Based Decision Making - Connecticut Department of Energy and Environmental Protection (DEEP)" report prepared by CDM-Smith and Charter Oak Environmental Services, Inc. dated August 29, 2014. The comments reflect review and discussion of the report by the Board of Directors and the Executive Director of EPOC. We have also encouraged the members of our organization to review the study and provide comments individually.

First of all, we commend the participants, researchers, and authors of the report on providing a comprehensive and well thought out report on the goals, evaluation methods, and results of this important study. It provides a thorough and transparent treatment of the statement of purpose, data and information gathering, and analysis of the complex issue of risk evaluation in environmental matters. It was a significant effort, particularly given the relatively short time frame, which will undoubtedly have a major impact on the continuing Transformation of Connecticut's Cleanup Program. EPOC has been actively involved with DEEP and other stakeholders in this effort, and we continue to offer our resources and support as we go forward.

For consistency with the outline of the report, we will present our comments on the six major items offered for consideration. Additional general or specific comments on other aspects of the study are presented after that discussion.

1. Place Human and Ecological Health Risk Assessment and Risk Management within CT DEEP.

We agree that one of the issues impeding the use of site-specific risk assessment is the need for additional expertise within DEEP in this area. As we understand it, this function is currently performed by the CT Department of Public Health (DPH) on an occasional basis when requested by DEEP to evaluate human and ecological risk and adopt appropriate risk management programs. We agree that performing or evaluating site specific risk assessments by the DPH using standards and regulations originating and implemented at DEEP has the potential for creating communication, consistency and efficiency issues. We recommend authorizing the DEEP to evaluate site specific human and ecological risk assessments, i.e., those done by professionals as self-implementing actions (which is consistent with the overall theme of the Transformation effort), as a critical component of the new program.

2. Involving property owners, local officials, and other stakeholders more in risk management at Brownfields sites and allow for nonstandard solutions for Brownfields to be presented to DEEP

for approval, including improvements to existing habitats and conservation areas elsewhere in the state in lieu of a costly, likely less effective cleanup at the developed site.

EPOC agrees that the existence of many blighted properties and Brownfields in our state is a challenging issue and that having additional innovative and unconventional solutions to environmental problems could benefit both risk reduction and redevelopment. Input from the public, local agencies, and others can be helpful in identifying current and future goals for the site, concerns of the public and local officials, potential risks, and workable solutions for the environmental issues and redevelopment at a Brownfields site.

We support the idea of allowing more flexibility with respect to nonstandard solutions in certain cases. This will be beneficial, particularly in situations where a combination of environmental, building, and socioeconomic and market conditions have stymied redevelopment of Brownfields, creating pockets and in some instances larger areas of urban blight. These conditions are not confined to our major towns and cities, as many rural areas also have vestiges of the state's legacy of manufacturing and industrialization. For this reason, we recommend and encourage the DEEP to consider use of non-standard solutions at any site and not limited to Brownfields sites only.

On the matter of a nonstandard solution including making improvements to existing habitats and conservation areas in other parts of the state, we agree with the concept that remediation of certain wetlands and other ecological environments could do more harm than good if destructive remedial techniques are required as discussed in the Ecological Risk Assessment section of the report. Adopting best management practices, issuing meaningful and workable guidance from DEEP and others, and implementing a clearer, self-implementing methodology for ERA as suggested in the CDM Smith report will greatly improve the way these are handled in CT. In those instances where a low value wetland cannot reasonably be restored or due to site setting, restoration would not provide reasonable environmental benefit, we support allowing wetland re-creation or enhancement in other parts of the community or state.

3. Document the derivation of all default criteria in RSRs. Adopt standards for soil invertebrates and plants (similar to British Columbia). Allow DEEP to change RSR criteria without going through a full legislative approval process.

EPOC strongly supports full, transparent documentation of the derivation of RSR criteria, including all exposure and other assumptions, target health risk goals, and other considerations that went into their adoption and for any future standards or revisions. We agree that making this information readily available in the form of spreadsheets and other documents, similar to Massachusetts and other states, would be a desirable way to accomplish this and we support that concept.

With regard to adopting standards based on invertebrates and plants similar to British Columbia, we are concerned that the broad application of criteria based on risks to invertebrates, plants, and other items up the food chain could be problematic if applied and enforced broadly. If an approach similar to British Columbia is to be considered, we recommend that the scientific basis for the ecological standards in those regulations be identified and evaluated before changes to Connecticut's regulations are proposed.

EPOC supports changing the approval process for the RSR criteria for all future revisions to existing standards and adoption of new ones as the need arises, with the caveat that the process for revising or adopting criteria be fully transparent, involve wide stakeholder input and opportunity for comment, and,

most importantly, be based on the best available science, best management practices, and realistic risk evaluation. As in other states, this will allow risk decision making to be based on the best available information and data at all times. This will avoid making risk management decisions based on outdated information that could result in costly, largely unnecessary cleanups or risk reduction measures.

4. Adopt and Adapt a Successful Ecological Risk Assessment and Risk Management Program, similar to Massachusetts and British Columbia.

This is unquestionably a vital part of a successful cleanup program and EPOC strongly supports this recommendation. We believe that a tiered approach as used by EPA, Massachusetts, British Columbia, and others is reflective of best management practices and should be instituted in CT. The Massachusetts model, in particular, appears to be well thought out and developed, including the screening process that allows exemptions for situations that do not represent significant habitats that require extensive cleanup. While the British Columbia ecological standards may also be useful, we recommend that the scientific basis for these standards be independently researched and evaluated on behalf of DEEP before decisions regarding their use in CT are made. EPOC additionally recommends that the MA system and EPA methodology be used as models to develop a workable system in CT.

5. DEEP should encourage use of site-specific risk assessment where default RSR criteria are inappropriate.

EPOC agrees with this recommendation as it would provide additional risk management options where appropriate and allow for greater flexibility, effectiveness, and "potentially accuracy" (as noted by CDM Smith) of the state's cleanup program. This should result in a program similar to many other states, such as Massachusetts, as well as the federal government. EPOC recommends considering the adoption of a program similar to the Massachusetts Method 3 Risk Characterization, as noted by CDM Smith.

6. Modify Risk Management Goals for Potentially Carcinogenic Contaminants

EPOC agrees with the recommendation to adopt a 10^{-5} cancer risk per chemical and 10^{-4} per site in determining risk management goals. The rationale behind the recommendation appears reasonable and appropriate, i.e., that risk evaluation should consider the size of the affected population, the nature of the risk, and other factors. The fact that EPA and many states and British Columbia use the 10^{-5} and 10^{-4} cancer risk factors lends further credence to its wide use and acceptability.

The comparison of theoretical vs. actual risk is also an important point to consider. A site-specific risk assessment option would essentially be based on the best assessment of actual current and future risk rather than the default remedial criteria or alternatives. That in effect would be an assessment based on actual as opposed to theoretical risk.

Another aspect of the calculation of risk factors and criteria that should be evaluated further is the issue discussed by CDM Smith in Section 3.8 of the report. Differences in the calculation of cumulative risk between Connecticut's methodology and that used and recommended by the EPA and many states should be reviewed. Appropriate changes should be made if necessary to be consistent with current best practices in the field.

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Additional Comments

One additional comment that we have is that the study did not look at how Connecticut and other states and agencies evaluate the subcategory of significant risks or imminent hazards vs. chronic risk. We understand that this task may not have been specifically included in the awarded contract or required by DEEP or others at any time during the study. However, we believe that it is an important issue that deserves further comment and evaluation.

The impetus for this risk study was, at least in part, the regulatory passage of Public Act 13-308, Sections 31 & 32 that proposed to lower the levels of contamination that would be regulated under Connecticut's Significant Environmental Hazard law (22a-6u). That bill proposed to lower the multiplier used to establish the levels of contaminants that under certain scenarios that would be considered an imminent hazard and require reporting and other actions. Divergent stakeholder opinions lead to considerable discussion and modification of that bill prior to its passage last session, attesting to the importance of the issue.

EPOC recommends that a comparison of the significant/imminent hazard determination methods be made within the framework of making risk-based decisions. This does not necessarily have to be a statistics-heavy scoring analysis as were the other issues/questions that were part of the study. It could be done either by DEEP staff in consultation with others or by CDM Smith if possible under the existing contract. EPOC members who are familiar with other programs, such as Massachusetts, could assist in this effort. In addition, EPOC enjoys a close affiliation with the Licensed Site Professional Association (LSPA), which could also provide DEEP with some insight into this matter.

EPOC offers these comments for thoughtful consideration and towards developing a risk assessment process in the state that will lead to a more effective, accurate, and efficient system that should be a model for others. If you wish to discuss our comments or the report in general, we would be happy to meet with you. Thank you.

Respectfully,



Seth Molofsky, Executive Director