



## FEEDBACK ON SUBCOMMITTEE 9 AND 10 CONCEPT PAPERS APRIL 6, 2023

The following is the Department of Energy and Environmental Protection’s (“Department” or “DEEP”) feedback on concept papers concerning the development and implementation of a release-based clean-up program pursuant Chapter 445b of the Connecticut General Statutes (“Chapter 445b”).

Concept papers were prepared by two “third phase” topical subcommittees of the larger working group, convened pursuant to General Statutes § 22a-134tt. A “charge,” setting out the scope of each subcommittee may be found on DEEP’s release-based remediation [web page](#). The third phase subcommittee process comprised subcommittees that considered:

- Cumulative Risk and Risk-Based Alternative Approaches (“subcommittee 9”); and
- Role and Qualifications of Non-LEP Environmental Professionals (“subcommittee 10”).

The following feedback is provided to assist the working group as it reviews the concepts presented. The feedback is intended to focus on those topics that have a significant impact on the development of regulations to implement Chapter 445b and is not intended to cover every detail provided in the concept papers.

The Department believes that the work of these subcommittees, in addition to the work done by the first- and second-phase subcommittees, ad hoc teams, and drafting teams, has created a solid foundation upon which the release-based cleanup program will be constructed.

### FEEDBACK ON SUBCOMMITTEE 9

Providing an LEP the flexibility to design a cleanup that is efficient and cost-effective while still protecting human health and the environment is a major theme of the subcommittee’s concept paper. The Department recognizes the subcommittee’s strongly held belief that certain cumulative risk tools – particularly the use “short forms” similar to those used in Massachusetts – are essential to achieving the desired flexibility. The Department is committed to providing flexibility to the extent it can be provided while still protecting human health and the environment. As discussed below, the Department agrees with the subcommittee that, in certain specified circumstances, a short form approach to cumulative risk analysis is appropriate.

The Department also believes that it can improve on the suggested concepts by also using a short form approach to make certain existing tools more usable by adding those tools to short forms and by adding new ideas to the short form approach.



➤ **Use of Short Form Approach to Direct Exposure**

While cleanups must consider, and the cleanup standards will contain, criteria and approaches applicable to direct exposure and pollutant mobility regarding soil impacted by a release and volatilization, surface water protection and protection of groundwater impacted by a release, the subcommittee suggests that the short form approach to cumulative risk be limited only to evaluating the risks posed by direct exposure to soil impacted by a release. The Department appreciates and agrees with the subcommittee's recommendation. The assessment of risk from the mobilization of pollutants into groundwater, or from those pollutants already in groundwater, requires additional considerations – including consistency with the state's Water Quality Standards – that cannot be accommodated in a short form approach. The Department believes that a short form approach to cumulative risk analysis limited to direct exposure to polluted soil can be implemented as part of a release-based cleanup standard.

➤ **Site-Wide Cleanup**

The Department agrees with the subcommittee's recommendations for establishing cleanup standards for soil impacted by a release that are derived from cumulative risk, the Department believes that the use of such risk based cleanup standards requires an investigation and cleanup of all releases on a parcel (and not just the area impacted by a discrete release). To truly consider the cumulative risk of direct exposure to impacted soil, such an analysis must consider all impacted soil likely to be encountered by the occupant or user of a parcel of land. Otherwise, such an analysis is not truly cumulative, leaves open the question of the total exposure risk to occupants and users of a parcel, and is not protective of human health. In its proposed regulations, the Department will specify a process and standards for the site-wide investigation and cleanup necessary to implement the short form approach to cumulative risk analysis.

➤ **Cumulative Risk Derived Cleanup Standard**

On page 4 of its concept paper, the subcommittee recommends “a cumulative [excess lifetime cancer risk] of  $1 \times 10^{-5}$  for exposure to multiple carcinogens, an [excess lifetime cancer risk] of  $1 \times 10^{-6}$  for exposure to an individual carcinogen, and a cumulative [Hazard Index] of 1 (allowing for summation of non-cancer risk by target organ) within the RSRs to support a cumulative risk approach.” The Department agrees that, when considering the cumulative risk from direct exposure to soil impacted by a release that contains multiple carcinogens, a cleanup standard ensuring that cumulative excess lifetime cancer risk does not exceed  $1 \times 10^{-5}$  is appropriate, provided that no individual carcinogen exceeds an excess lifetime cancer risk of  $1 \times 10^{-6}$ . Such an analysis must necessarily include an evaluation of *all* exposure risk pathways.

➤ **Other Existing Tools**

As noted above, the Department believes a short form approach can also be used to increase the availability and usability of certain existing tools found in the Remediation Standards Regulations. The Department will, therefore, propose that a short form approach to the implementation of those tools also be made available to those choosing to perform site-wide cleanups. While final decisions on which tools will use this approach have not been made, such tools will likely include but not be limited to:

- Creation of a spreadsheet, available on DEEP’s webpage, that can be used to calculate Additional Polluting Substance criteria,
- Creation of a spreadsheet, available on DEEP’s webpage, that can be used to generate Alternative Volatilization Criteria (certain parameters open within set ranges and based on LEP knowledge of the site), and
- Other form derived outputs that can guide cleanup approaches.

➤ **Additional Exposure Scenarios**

The subcommittee suggests, and the Department agrees, that the creation of exposure scenarios in addition to “residential” and “industrial/commercial” would create additional flexibility. The subcommittee suggests several additional exposure scenarios for consideration. The Department believes that the following exposure scenarios merit further consideration for inclusion in the cleanup standards under development:

- Property Managed Residential Use (access to soil is highly controlled) [see concept paper p. 2]
- Passive Recreation [see concept paper pp. 2,6]
- Trespasser Scenario [concept paper p. 6]

➤ **Environmental Use Restrictions**

The subcommittee makes several suggestions regarding environmental use restrictions (“EURs”). The Department notes that its authority to make changes in this area is limited by both statute and common law concerning real property.

The subcommittee does suggest that, for certain exposure scenarios, a conservation easement be permitted to take the place of an EUR. The Department appreciates the subcommittee’s creative thinking and supports this idea in principle. However, there are certain issues that must be overcome. The restrictions used in conservation easements are not universal, and such easements are held by a variety of entities – including municipalities and their boards and commissions, private land trusts, and the State. Further, conservation easements are not enforceable by the Department.

The Department believes, however, that for sites with an already recorded conservation easement, the recording of an environmental use restriction enforceable by the Commissioner can be expedited and simplified. For example, significantly less title work may be needed before a restriction is recorded, and subordination agreements may be unnecessary. The Department looks forward to continuing discussion on this idea with the working group.

## FEEDBACK ON SUBCOMMITTEE 10

Subcommittee 10 identified several first principles that must form the basis of regulations authorizing non-LEP environmental professionals to certify the completion of a cleanup. The Department agrees that there must be a level playing field between LEPs and non-LEPs engaged in the work; there must be certainty that leads to market acceptance of cleanups overseen by non-LEPs; and, some minimum training and continuing education requirements are necessary.

The Department believes that certain enforcement authority relative to those undertaking cleanups already exists, and can be further defined to ensure a level playing field. The Department further believes that its existing statutory authority to permit those professionals undertaking the cleanup of releases can be adjusted and expanded to accomplish many of the goals identified by subcommittee 10.

### ➤ **Jurisdiction for Non-LEP Environmental Professionals**

Similar to the opinions expressed by subcommittee 10, DEEP believes there should be a role for non-LEP environmental professionals to certify that a cleanup has satisfied applicable cleanup standards, including provisions created to address more directly new releases. The question that requires more discussion is what types of releases can non-LEP environmental professionals certify or what scenarios should they be prohibited from certifying.

DEEP believes that releases that can be cleaned up to a standard expeditiously, and that don't result in a sustained groundwater impact should be permitted to be certified by non-LEP environmental professionals. Generally, any impact to groundwater would trigger the need for a LEP, unless such impact is directly attributable to the cleanup action and the release mechanism and pollutants are known (e.g., temporary sheen on ground during excavation of petroleum-impacted soil).

Certification of these types of releases may be completed on a form prescribed by the commissioner with documentation of the remediation attached. That documentation could include a written description of the remediation, analytic results, maps showing the locations samples were collected, photographs, etc.

➤ **Oversight versus Certification**

It is important to distinguish between the work of cleaning up a release and the act of certifying that a release has satisfied the required cleanup standard. The Department recognizes that the work of cleaning up new releases is largely not performed by LEPs today. Instead, the task of mobilizing equipment and manpower to remove pollution from the environment falls mostly to emergency responders and permitted spill contractors who respond to, and address, those releases.

The question before subcommittee 10, and now before the working group and the Department, is in what circumstances can certain non-LEP environmental professionals certify that a cleanup has satisfied applicable cleanup standards (keeping in mind that cleanup approaches applicable to new releases may need to be developed). This represents a shift from the old paradigm, where “closure” of a response to a new release was not necessarily intended to serve as a certification that cleanup standards had been satisfied.

When considering the concept paper and this written response, it is important to remain aware of this distinction.

➤ **Accountability and Enforcement**

Those professionals tasked with certifying the completion of cleanups – whether they are LEPs or not – must be accountable for compliance with applicable statutes and regulations. As both the subcommittee and other members of the working group have pointed out, LEPs are already held to a high standard of professionalism by the LEP regulations. The Department acknowledges that to level the playing field, it must have the necessary tools to hold non-LEP environmental professionals to account for issues of compliance with statutory and regulatory standards.

The enforcement provisions of chapter 445b – found specifically at Conn. Gen. Stat. § 22a-134ss – apply to “violations of the provisions of sections 22a-134qq to 22a-134tt, inclusive.” See, e.g., 22a-134ss(f) (allowing the Commissioner to adopt a schedule for administrative civil penalties). To the extent regulations adopted pursuant to Conn. Gen. Stat. § 22a-134tt contain specific provisions regarding those persons authorized to certify cleanup has reached completion, compliance with those regulatory requirements is likely subject to certain enforcement provisions found in § 22a-134ss. The Department intends to provide further structure to this enforcement authority, and further clarity on how it might be used, in regulation, and looks forward to continuing this discussion with the working group.

➤ **Conn. Gen. Stat. § 22a-454 Permits**

Under current law, “[n]o person shall engage in the business of collecting, storing or treating waste oil or petroleum or chemical liquids or hazardous wastes or of acting as a contractor to

contain or remove or otherwise mitigate the effects of discharge, spillage, uncontrolled loss, seepage or filtration of such substance or material or waste . . . without a permit from the commissioner.” Conn. Gen. Stat. § 22a-454. With some adjustment, the Department believes that permits issued pursuant to this section can be used to achieve many of the subcommittee’s goals.

For example, the subcommittee suggested the Department maintain a list of those non-LEP environmental professionals authorized to certify that a cleanup has satisfied applicable cleanup standards. While the creation of a standalone list presents resource and due process questions, maintaining a list of valid permits issued pursuant to § 22a-454 will accomplish the same goal and resolve any due process issues (because of the procedural protections already in place for permits).

The Department agrees with the subcommittee that training and continuing education should be required, although there may be some differences of opinion regarding the type and frequency of training. A permit application provides an enforceable mechanism to require self-certification of the completion of training and continuing education in a submission to the Department.

The requirement to obtain a permit will also assist with market acceptance of cleanups as the credential itself becomes standard in the marketplace.

Many of the adjustments to the current permitting framework necessary to accomplish the goals of the subcommittee will not require extensive statutory or regulatory modifications, but rather modifications of application forms (to collect the appropriate information) and the Department’s public facing website (to provide necessary information).

The Department looks forward to further discussions with the working group on this topic, including the scope of its existing enforcement tools, the type and frequency of training required, and the use of Conn. Gen. Stat. § 22a-454 permits for this purpose.