



Environmental Professionals' Organization of Connecticut

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February 19, 2015

Robert Bell, Assistant Division Director
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CT Department of Energy and Environmental Protection
79 Elm Street
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SENT VIA EMAIL TO: Robert.E.Bell@ct.gov

Re: EPOC Comments on Groundwater Compliance Monitoring Requirements – Fact Sheet dated November 1, 2014

Dear Rob:

At a recent meeting of the Remediation Roundtable (11/18/14), there was a presentation from Rob Robinson of your staff on a newly revised “Groundwater Compliance Monitoring Fact Sheet” that the department issued on November 1, 2014. EPOC has reviewed this document, and has some important comments on its content for your review, which we have included with this letter as Attachment A. We respectfully request these comments be addressed by the Department to clarify the Fact Sheet, as we believe there are a number of issues that warrant revisions to the document.

EPOC would also like to collaboratively reevaluate with DEEP certain other documents that have been promulgated to help LEPs interpret the RSRs, as we have some differing viewpoints on the guidance provided in those documents from a technical/scientific standpoint. One example is the “Use of Filters for Groundwater Sampling” guidance (5/1/12). Our goal would be to revise the documents to better reflect the practicalities of environmental investigation and remediation, as informed by the depth of experience of our membership, while still observing the DEEP’s and LEP’s mandate to protect human health and the environment. We think both DEEP and the regulated community would benefit from obtaining concurrence with EPOC on RSR guidance, as this will help to minimize future disagreement and enable a more efficient and economical process.”

We appreciate your review of our comments, and consideration of our concerns, and would welcome a meeting with you and appropriate staff to discuss these issues further. Please contact me at your convenience.

Sincerely,

Seth Molofsky
Executive Director

Attachment

Attachment A

EPOC Comments on the Environmental Program Fact Sheet dated November 1, 2014 Groundwater Compliance Monitoring Requirements Remediation Standard Regulations February 19, 2015

- 1) Page 2, Paragraph 3: *“In order for a plume to reach a steady state condition, the source area(s) **will** require remediation so that no mass of contaminants remains to continue to adversely impact the groundwater”.*

Issue: The word “will” should be changed to “may”. Source areas do not always require remediation to reach steady state or diminishing conditions in a plume.

- 2) Footnote 3, Page 3: *“To ensure groundwater is not impacted by a release **typically requires more than one round** of groundwater sampling so that any potential seasonal variation may be detected. This will be expected in most cases unless it can be well established that the release was fresh and surficial in nature, and/or the release was a non-soluble material.”*

Issue: The revised guidance does not specify the number of rounds of groundwater sampling that is necessary to demonstrate that any potential seasonal variation may be detected. Previous guidance from DEEP was more clear on this point, and indicated “Generally, however, a minimum of two monitoring rounds. . .” We suggest the wording be changed to the following “. . . typically requires a minimum of two monitoring rounds, unless the data and/or information from multiple lines of evidence indicate otherwise”.

- 3) Footnote 4, Page 3: *“In the context of determining the effective [sic] of soil remediation, it would be expected that groundwater quality data had been collected **prior to** the remedial action in order to later ascertain, through additional groundwater monitoring, the effectiveness of the remedial measure in mitigating groundwater pollution.”*

Issue: In many cases it is not possible to collect groundwater quality data prior to remediation. Cleanups associated with UST releases identified at the time of UST removal are an example. To address this, we recommend adding the words “in most cases” before the existing words “it would be expected”.

- 4) Page 4, Final Paragraph: *“SWPC: Based on representative sampling of the plume and demonstration that the plume is in a steady or diminishing state, the LEP should be able to determine if the plume attenuates to concentrations meeting applicable criteria prior to discharging to a surface water body (e.g., stream or wetlands). **This determination may be at the area immediately upgradient of the point at which such groundwater discharges to the receiving surface-water body.** DEEP has accepted representative groundwater data from the leading edge of the plume as an alternative to the point at which the groundwater discharges to the surface water body. However, the LEP must present hydrological information, in relation to fate & transport information of each substance and breakdown products in order to support a demonstration of compliance using the information from the leading edge of the plume.”*

Issue: The fact sheet should remind users that the SWPC only apply to plumes that discharge to surface water (22a-133k-3(b)(1) & (2)). Many plumes attenuate (to ND) before reaching surface water. For those that don't, the second sentence (bolded) should be re-written to say that “This

determination may be made at any point upgradient of the surface water body, so long as the plume has been adequately characterized and is in a steady state or diminishing condition”.

- 5) Page 5, Second Paragraph: *“If the plume does discharge to a surface water body, **the applicable aquatic life criteria contained in the Water Quality Standards shall also apply** . . . “*

Issue: It is clear there is a mistake in this section of the guidance, as Section 22a-133k-3(b)(2) of the RSRs limits application of the aquatic life criteria to plumes that discharge to “a wetland or intermittent stream” or to instances where the areal extent of the groundwater plume occupies more than 0.5% of the upstream drainage basin of the stream to which the plume discharges. This item could be corrected by changing the words “surface water body” to “wetland or intermittent stream”.

- 6) Page 5, Third Paragraph, Third Sentence (Volatilization Criteria Discussion): *“. . . If a volatile substance detected in the plume is not listed in Appendix E of the RSRs, **a proposed volatilization criteria should be submitted to the Commissioner for APS** [alternative polluting substance] approval (The alternative to not requesting the Commissioners’ approval for APS is to remediate the substance to background).”*

Issue: The “Additional Polluting Substances” section of the RSRs (Section 22a-133k-3(h)) applies only to the Groundwater Protection Criteria, not to the Surface Water Protection Criteria or the Volatilization Criteria. In requiring that an LEP propose volatilization criteria for those detected substances that do not have a VC, the guidance document appears to be extending the APS requirement beyond what is stated in the RSRs. In addition, the guidance references “background” as an alternative to establishing a VC for an APS. There is no such background requirement stated in the RSRs for the VC.