

United States Environmental Protection Agency
EPA New England
One Congress Street, Suite 1100
Boston, MA 02114-2023

December 31, 2002

Mr. Andrew T. Silfer, P.E.
Corporate Environmental Programs
General Electric Company
100 Woodlawn Avenue
Pittsfield, Massachusetts 01201

**RE: Conditional Approval of GE's submittal entitled *Isolation Layer TOC Sampling*
Upper 1/2-Mile Reach Removal Action
General Electric-Pittsfield/Housatonic River Site**

Dear Mr. Silfer:

On September 9, 2002, GE submitted the above-referenced document to EPA for approval. On September 25, 2002, EPA issued a letter conditionally approving the proposed sampling of the isolation layer in 21 locations for percent total organic carbon (TOC) while EPA continued to review the remainder of the submittal. EPA has completed its review of the submittal and pursuant to the Upper 1/2-Mile Reach Removal Action Work Plan and Paragraph 73.b of the Consent Decree, EPA, after consulting with the Massachusetts DEP, is hereby conditionally approving the remainder of the above-referenced submittal subject to following comments and conditions:

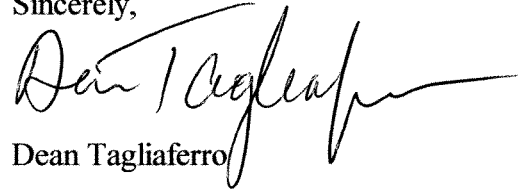
1. GE shall install the seepage meters where, to the extent practical, the existing non-removal area sediment properties (e.g., grain size) match the isolation layer material properties. The actual location of the seepage meters, bounded by the general non-excavation areas shown on Figure 1 of GE's submittal shall be determined in the field in consultation with EPA.
2. GE shall use a traditional 55-gallon drum "Lee meter" as opposed to the proposed 8-inch diameter pipe. The increased cross-sectional area provided by a 55-gallon drum as opposed to the smaller cross-sectional area provided by the 8-inch diameter pipe should increase the accuracy of the seepage meter.
3. The seepage meters shall be allowed to equilibrate at least 48 hours (preferably 72 hours) prior to installing the sample bags.

4. If upon collection, the collection bag is determined to be more than 75% full, then GE shall repeat the test using either a larger bag or a shorter duration. The collection bag should also have sufficient water in to accurately measure the flux (e.g., a minimum of 25% full).
5. GE shall not collect activate the seepage meters during storms or when the river level is rising. This condition may result in a reverse gradient where the elevation of the river is greater than the water table and there is flow into the riverbank.
6. GE shall resubmit a seepage meter protocol to EPA for approval that addresses above-referenced items 2 through 5.
7. GE shall record the physical characteristics of the sediment substrate in the locations of the seepage meters.
8. GE did not propose to analyze the water collected in the seepage meter for analytical parameters. Therefore, EPA reserves the right to provide additional comments should GE propose to use the same seepage meter protocol for chemical analysis of the collected pore water.
9. GE has indicated a desire to re-run the sediment cap model referenced in Appendix G of the Upper ½-Mile Reach Removal Action Work Plan using the seepage velocities measured by EPA during the EE/CA for the 1.5 Mile Reach. EPA believes that due to the varying characteristics of the 1.5 Mile Reach (e.g., substrate type, elevation gradients, etc.) that only seepage meter velocities collected in the 1.5 Mile Reach from the Lyman Street bridge to the Elm Street bridge are likely to be representative of the seepage velocities in the Upper ½-Mile Reach. Clearly, using the seepage velocities calculated between Elm Street and Dawes Avenue (steep elevation gradient, gravel and rock substrate) in determining the seepage velocity in the Upper ½-Mile Reach would be inappropriate. Note that the average seepage velocity for the seepage meters installed by EPA in the stretch of the river from Lyman Street to Elm Street was 4.1 cm/day. This calculated velocity *exceeds* the estimated value of 3.3 cm/day used in Appendix G of the Upper ½ Mile Reach Removal Action Work Plan.
10. Along with the submittal of the revised seepage meter protocol, GE shall propose a revised schedule for the deployment of the seepage meters and the subsequent report submission. GE should factor in seasonal weather and river flow conditions into the proposed schedule.

EPA's approval of this submittal does not preclude EPA from requiring additional investigations and response activities pursuant to the Consent Decree, the Upper 1/2-Mile Reach Removal Action Work Plan and/or the *Statement of Work for Removal Actions Outside the River* (Appendix E to the Consent Decree).

If you have any questions, please contact me at (413) 236-0969.

Sincerely,

A handwritten signature in black ink, appearing to read "Dean Tagliaferro". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Dean Tagliaferro

cc: Tim Conway, EPA
Bryan Olson, EPA
Mike Nalipinski, EPA
Holly Inglis, EPA
Sue Steenstrup, DEP (2 copies)
Mark Graveling, BBL
J. Bieke, Shea and Gardner
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