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United States Environmental Protection Agency
EPA New England
One Congress Street, Suite 1100
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March 31, 2000

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

RE: Conditional Approval of GE's Proposal to Address the Presence of DNAPL
Upper ½-Mile Reach Removal Action
General Electric-Housatonic River Site, Pittsfield, Massachusetts

On March 3, 2000, GE submitted a document entitled *Upper ½-Mile Reach Removal Action: Results of DNAPL Investigation and Proposal to Address the Presence of DNAPL.* On March 9 and March 14, 2000, EPA sent letters to GE requesting additional information and clarifications to the March 3, 2000 submittal. In response, GE provided two additional submittals; one dated March 16, 2000 and the other dated March 24, 2000. EPA reviewed the three documents collectively. These documents are subject to the terms and conditions specified in the Consent Decree that was lodged in District Court on October 7, 1999 (the "Consent Decree"). Pursuant to Paragraph 73(b) of the Consent Decree, EPA, after consulting with the Massachusetts DEP, approves the above-referenced submittals subject to the following conditions:

- GE's submittals appropriately provide the flexibility to make field changes and modifications during the implementation of the proposed actions. EPA concurs that this is the appropriate approach for the given set of circumstances. However, this requires that GE include the OSC's input, and in some cases approval authority, when making these field decisions.

- EPA approves of the overall objective, which is to remove most, if not all, of the DNAPL and DNAPL-impacted sediments. However, EPA believes the results of the DNAPL investigation indicate that there is potential for free-phase DNAPL and DNAPL-impacted sediments to extend beyond both the vertical and lateral boundaries shown in Figure 1 of GE's March 3, 2000 submittal. GE's submittals include a contingency plan in the event that the DNAPL and/or DNAPL impacted sediments are present at depths greater than 960 feet above mean sea level (AMSL). However, GE did not include a contingency in the event the DNAPL and DNAPL-impacted sediments extend beyond the lateral limits of the "safe excavation limits" designated on Attachment 3 of GE's March 16 submittal. Therefore, based on actual conditions encountered during the implementation of the

proposed plan, GE will be required to take additional actions to address the DNAPL and DNAPL impacted sediments should they be found to extend beyond the "safe excavation limits" identified in Attachment 3 to GE's March 16 submittal. This is most likely to occur in the downstream (western) end of the "DNAPL Cell," but could also occur in the eastern and southern directions. In fact, GE's March 3 submittal appears to indicate that lateral extent of "observed DNAPL" extends up to and/or beyond the "safe excavation limits" identified in Attachment 3 to GE's March 16 submittal.

- Any sediments visibly saturated with DNAPL or oil will be prohibited from disposal at the On-Plant Consolidation Areas, regardless of whether or not they pass the paint filter test. EPA recommends that GE separate the stockpiling of this material based on observations made during the loading of the material at the river. If all of the material removed from the "DNAPL cell" is stockpiled together in Building 33X, then it is likely that all of this material will require off-site transport and disposal.

- In the event that DNAPL or DNAPL-impacted materials remain below 960 feet AMSL after excavation activities are completed, EPA may require GE to perform long-term monitoring of the water column for constituents present in the DNAPL in addition to monitoring and removing DNAPL from the recovery pipe. Also, depending on the specific conditions, EPA may require continuous or intermittent pumping and treating of the aqueous phase of the contents of the recovery pipe.

- GE has a contingency plan in place in the event the 500,000 gallon holding tank leaks or fails. At a minimum, this shall include pre-placed sorbent booms and pads near the catch basins in the area.

- Based on actual conditions encountered during the implementation of GE's proposed activities, EPA may require additional source control investigative and response activities on the north side of the Waterloo sheetpile.

While not required, EPA recommends that vacuum trucks and/or other equipment be present to remove free-phase DNAPL, if practical, directly from the excavation. This would minimize the quantity of DNAPL that will go through the 500,000 gallon holding tank, settling chambers, and other components of the water handling/treatment system.

Also, EPA requests GE submit a revised Attachment #3 (from the March 16 submittal) that addresses the following concerns:

Based on a review of Figure 1 of the March 3 submittal and Attachment #3 of the March 16 submittal, it appears that the limits of the "approximate extent of DNAPL observed" delineated on Figure 1 go up to or beyond the boundaries of the maximum safe limits of excavation shown on Attachment #3. Therefore, GE shall provide a figure overlaying the boring locations and the "approximate extent of DNAPL observed" from Figure 1 of the March 3 submittal onto

attachment #3 of the March 16 submittal. The revised attachment #3 shall also accurately locate the three-foot diameter standpipe where the manual DNAPL collection was performed.

It also appears that the intersection of the Cell D centerline sheets and the original Cell C/Cell D cut-off wall is incorrectly located on either Figure 1 of the March 3 submittal or attachment #3 to the March 16 submittal. Attachment #3 of the March 16 submittal indicates that the point of intersection is 12 feet from the Cell C centerline sheetpile and Figure 1 of the March 3 submittal indicates the distance is 18 feet. This is a critical location because the three foot standpipe and the primary location of the DNAPL are adjacent to this point. Please provide the correct location on the revised version of Attachment #3 discussed above.

The purpose of these revisions is to accurately depict the boring locations and the "approximate extent of DNAPL observed" in relation to the maximum safe limits of excavation.

In addition, EPA has the following clarifications to GE's March 16 submittal:

- Clarification to GE's response to comment #1 from EPA's March 6, 2000 letter.

  EPA never specified a maximum excavation depth. EPA recommended that the sheetpile installation layout and bracing procedures be designed to allow for the excavation to be able to be safely performed to a **minimum** elevation of 960 feet AMSL. GE had the option of designing the sheetpile installation layout and bracing procedures to allow for excavation to depths below elevation 960 feet AMSL, but elected not to.

- Clarification to GE's response to comment #2 from EPA's March 6, 2000 letter.

  EPA recommended that the cut-off wall be installed farther downstream, but allowed GE, at their risk, to install the new cut-off wall twenty feet downstream of the existing cut-off wall between Cells C and D. As stated above, GE may be required to relocate this new cut-off wall further downstream or take other actions if the current placement of the cut-off wall limits the safe removal of DNAPL in the downstream end of the newly created "DNAPL Cell."

- Clarification to GE's response to comment #4 from EPA's March 14, 2000 letter.

  EPA did not expect a response from GE on the content of Weston's boring logs. The boring logs were provided as backup to indicate that EPA believes there is evidence that the actual extent of DNAPL exceeds the "approximate extent of DNAPL observed," as delineated on Figure 1 of GE's March 3, 2000 submittal.

If you have any questions, please contact me at (617) 918-1282.

Sincerely,

Dean Tagliaferro

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