



01-0461

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1  
1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

March 5, 2002

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

Via Electronic and U.S. Mail

Re: **Conditional Approval of General Electric's October 2001 submittal titled *Pre-Design Investigation Work Plan for the East Street Area 2-South Removal Action*, General Electric (GE) Housatonic River Project Site, Pittsfield, Massachusetts.**

Dear Mr. Silfer:

This letter contains the Environmental Protection Agency's (EPA) conditional approval of the above-referenced *Pre-Design Investigation Work Plan for the East Street Area 2-South Removal Action*.

This *Pre-Design Investigation Work Plan for the East Street Area 2-South Removal Action* (Work Plan) is subject to the terms and conditions specified in the Consent Decree (CD) that was entered in U.S. District Court on October 27, 2000.

Pursuant to Paragraph 73 of the CD, EPA, after consultation with the Massachusetts Department of Environmental Protection (MDEP), approves the above referenced submittal subject to the following conditions:

**Conditions**

1. GE shall collect 100-foot grid soil boring samples (to 15 feet) or utilize existing soil sample data that meet the 100-foot grid requirements for the entire 200-foot riparian zone including those areas where GE proposes to install a 1-foot vegetative engineered barrier, but GE need not conduct surface soil sampling (0-1 foot depth) at the 50-foot grid locations within the extent of the proposed engineered barrier.
2. Although the Housatonic riverbank adjacent to East Street Area 2-South is part of the Upper ½-Mile Reach, the data from the riverbank may affect the response actions for the East Street Area 2-South Removal Action Area (RAA-4) and thus should be addressed as part of the response action evaluations and design for RAA-4. Accordingly, to augment the existing data for the area along the Housatonic riverbank in RAA-4, GE shall utilize the top-of-riverbank soil sampling data from the Upper ½-Mile Reach Removal Action. These samples were collected along the boundary separating the Upper ½-Mile Reach Removal Action Area from RAA-4. To the extent that GE has conducted riverbank soil removal actions as part of the Upper ½-Mile Reach Removal Action, any affected spatial averaging data points at the top of the riverbank shall be handled using the original (pre-remediation) soil sampling results in the RAA-4 spatial averaging calculations.

The potential exists that some of the Upper ½-Mile Reach Removal Actions extended into RAA-4. Where this is the case, the remediated soils in these portions of RAA-4 will be represented in spatial averaging calculations by the PCB concentration associated with the backfill materials as specified in Section 4.0 of Technical Attachment E to the Statement of Work for Removal

Actions Outside the River (SOW).

3. Several previously identified or potential contaminant source areas are located within the paved portions of the East Street Area 2-South RAA. GE's proposed soil sampling locations will provide characterization data for most of these source areas; however, GE's paved area sampling locations will require some revisions to cover the other potential source areas. EPA's recommended modifications to address the following areas are presented on EPA's Table 1 (attached) and GE's revised Figure 3:
  - Oxbow H – northwest section
  - Former Solid Waste Management Units (SWMUs).
  - Areas around the edges of identified NAPL plumes.
  - Potential preferential pathways leading to the river.
4. GE's evaluation of existing historical soil data has led to the rejection of several soil samples where PCBs were detected at high concentrations (greater than 500 ppm). Although EPA agrees that these samples should be rejected, GE shall shift the locations of certain proposed boring locations to resample at locations and depths where PCBs were previously detected at concentrations exceeding 500 ppm, but such data were rejected for use and where there are no usable existing data or proposed borings nearby. Specifically, GE shall shift proposed boring G-27 to prior boring location B-17, proposed boring K-25 to prior boring location B-5, and proposed boring E-27 to prior boring location B-23.

As EPA has discussed with GE, the locations of prior borings B-5, B-10, and B-17 presented in the Work Plan were incorrect. GE has confirmed this error and provided corrected locations for these borings to EPA, as presented on GE's revised Figure 3.

5. In accordance with the SOW (Attachment E, page 11), the soil data collected within the section(s) of the 200-foot riparian removal zone (RRZ) where the 1-foot vegetative engineered barrier will be installed will not be utilized for calculating spatial averaging within such section(s). However, to the extent that polygons associated with existing or future PCB soil data points within such section(s) extend outside the limits of the 1-foot vegetative engineered barrier, they affect the calculation of the spatial averaging for such areas. Therefore EPA will require that, in calculating the spatial averaging at RAA-4, GE shall utilize all RAA-4 soil PCB data (including data from the area to be covered by the engineered barrier) that meet GE's data quality standards and the applicable soil sampling depth requirements, in so far as such data represent areas (through their associated polygons) outside the proposed engineered barrier.
6. GE has proposed an iterative approach for sampling under the buildings within the 200-foot RRZ that are not scheduled for demolition in the near future. However, as stated in condition #1, EPA is requiring that, in areas where the 1-foot vegetative engineered barrier will be installed, GE must still conduct soil sampling at the 100-foot grid soil boring locations (to 15 feet), but need not conduct surface soil sampling (0-1 foot depth) at the 50-foot grid locations within the extent of the proposed engineered barrier.

Consistent with this approach, GE shall install soil borings and conduct soil sampling (to 15 feet) at all 100-foot grid locations within the footprint of the existing buildings within the 200-foot RRZ. These include locations M-9, M-11, M-13, O-7, O-11, and Q-5. If the data indicate that an engineered barrier is needed in such area(s), then no additional grid sampling will be necessary. However, if the data indicate that such a barrier may not be needed, then GE will complete the required surface soil sampling (0-1 foot depth) in such area(s) on a 50-foot grid pattern.

If indications of soil contamination, such as soil staining, are observed under the building

foundations during demolition and excavation activities within the 200-foot RRZ, EPA reserves its right to perform additional sampling at these locations.

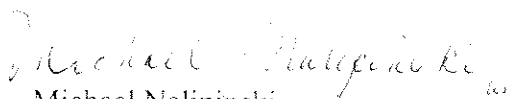
7. GE shall characterize grid locations that appear to be located less than 15 feet beyond the boundary of the RAA; the borings should be placed at the nearest location that is within East Street Area 2-South. This recommended approach is consistent with the procedure used at the 20s/30s/40s Area and at Newell Street Area 1. Such grid locations include: A33, A37, and I35.
8. GE has proposed to sample paved areas (outside of the 200-Foot RRZ) at a sampling frequency of two locations per acre, in accordance with the SOW. EPA has reviewed the extent of paved areas within East Street Area 2-South and does not concur with GE's presentation of paved areas on Figure 3. Specifically, EPA has observed certain areas in the central to northern portion of grid columns 19 through 29 where the pavement is so deteriorated that the areas should not be considered paved for the purposes of these requirements. These areas are identified on GE's revised Figure 3. GE shall sample these areas of deteriorated pavement and gravel cover at the frequency required for "unpaved industrial areas." The additional sampling locations required by this modification in the extent of pavement are included in EPA's Table 1.
9. GE shall address the conditions in this letter by providing an addendum to the Pre-Design Investigation Work Plan for the East Street Area 2-South Removal Action, for EPA's review and approval. The addendum shall include:
  - A revised schedule for the Work Plan activities,
  - Revisions to existing tables (e.g., Table 3) and figures (e.g., Figure 3) affected by the proposed changes,
  - Additional tables and figures specifying the samples and locations to be used to satisfy the Appendix IX+3 characterization requirements.

GE's revised Figure 3 and EPA's Table 1 (attached) summarize the proposed RAA-4 pre-design investigation program as amended by EPA. Additional EPA comments are included with this letter as Attachment 1.

EPA reserves its right to perform additional sampling in the area subject to Pre-Design Investigation Work Plan for the East Street Area 2-South Removal Action and/or require additional sampling or Response Actions, if necessary, to meet the requirements of the Consent Decree.

If you have any questions, please contact me at (617) 918-1268.

Sincerely,

  
Michael Nalipinski  
GE Facility Project Manager

Attachments

cc: John Novotny, GE  
James Bieke, Shea & Gardner  
Jim Nuss, BBL  
J. Lyn Cutler, MDEP  
Sue Keydel, MDEP  
Bryan Olson, US EPA  
Holly Inglis, US EPA  
John Kilborn, US EPA  
K.C. Mitkevicius, USACE  
Dawn Jamros, Roy F. Weston ✓  
Pittsfield MA Office, US EPA  
Mayor Sara Hathaway, City of Pittsfield  
Tom Hickey, PEDDA  
Teresa Bowers, Gradient  
Public Information Repositories (4)  
Site File

## Attachment 1 Additional Comments

EPA also provides the following technical comments relevant to its review of the East Street Area 2-South RAA Work Plan.

1. **Table 1 and Figure 2.** EPA has noted that several locations related to the Building 68 investigations have been omitted from the existing RAA-4 sample data set. GE shall review the available data for East Street Area 2-South and include all existing RAA-4 sampling locations, including 3-6C-EB-13, 3-6C-EB-30, 3-6C-EB-31 and the Housatonic riverbank locations, in the existing data set for RAA-4 if the data from such locations could impact the spatial averaging for RAA-4 areas outside the 1-foot vegetative engineered barrier proposed for the 200-foot RRZ.
2. **Table 1.** EPA has the following comments to GE's proposed data usage for the existing data in RAA-4:

Grid Location	Sample Name	Comment
C-37	RAA4-4	Table 1 identified RAA4-4 for "Supplemental" use; however, Figure 3 identifies it for "Grid Characterization" use.
F-38	95-28	Use ECSC-02 entirely for this location as the shallow sample intervals better match the required intervals for this scope of work. Sample 95-28 should be designated for "Supplemental" use.

3. **Figure 3.** Figure 3 does not illustrate all available useable data for RAA-4, and illustrates some locations that are not proposed for use (e.g., sample E-3). GE shall present all available data on one figure (as in Figure 2), and only those sample points to be used for grid or paved area characterization on a second figure in the anticipated Pre-Design Investigation Report for East Street Area 2-South.

**TABLE 1**  
**GE/Housatonic River Project**  
**East Street Area 2-South RAA**  
**Proposed Sampling Revisions**

<b>Proposed Location</b>	<b>Change</b>	<b>Proposed Change and Rationale</b>
RAA4-A33	New Boring	New soil boring - grid node less than 15 feet outside original RAA boundary
RAA4-A37	New Boring	New soil boring - grid node less than 15 feet outside original RAA boundary
RAA4-C23	New Boring	New unpaved area soil boring identified following verification of additional unpaved areas
RAA4-C25	Modify	Unpaved area soil boring formerly proposed for paved area characterization
RAA4-D19	New Boring	New unpaved area soil boring identified following verification of additional unpaved areas
RAA4-D21	Modify	Unpaved area soil boring formerly proposed for paved area characterization
RAA4-D23	Modify	Unpaved area soil boring formerly proposed for paved area characterization
RAA4-D25	New Boring	New unpaved area soil boring identified following verification of additional unpaved areas
RAA4-D27	New Boring	New unpaved area soil boring identified following verification of additional unpaved areas
RAA4-E19	New Boring	New unpaved area soil boring identified following verification of additional unpaved areas
RAA4-E21	New Boring	New unpaved area soil boring identified following verification of additional unpaved areas
RAA4-E23	New Boring	New unpaved area soil boring identified following verification of additional unpaved areas
RAA4-E25	Drop	Formerly proposed for paved area Appendix IX sampling. Existing data found to meet PCB grid and Appendix IX requirements elsewhere so proposed location has been dropped.
RAA4-E27	New Boring	New unpaved area soil boring identified following verification of additional unpaved areas
RAA4-F13	Replace	Move boring location to southeastern edge of Building 66 to characterize extent of Building 64/66 LNAPL plume and rename RAA4-G14
RAA4-F21	New Boring	New unpaved area soil boring identified following verification of additional unpaved areas
RAA4-F23	New Boring	New unpaved area soil boring identified following verification of additional unpaved areas
RAA4-F25	New Boring	New unpaved area soil boring identified following verification of additional unpaved areas
RAA4-F27	New Boring	New unpaved area soil boring identified following verification of additional unpaved areas
RAA4-G14	Replacement Boring	Paved area soil boring that replaces proposed boring RAA4-F13

**TABLE 1**  
**GE/Housatonic River Project**  
**East Street Area 2-South RAA**  
**Proposed Sampling Revisions**

<b>Proposed Location</b>	<b>Change</b>	<b>Proposed Change and Rationale</b>
RAA4-G27	Move Node	Move soil boring to location of existing (rejected) B-17 boring
RAA4-H7	Move	Move boring south approximately 30 feet to sample within former SWMU (T-GGG/KKK)
RAA4-H24	Replacement Boring	Paved area boring within former Oxbow H. Replaces RAA4-25.
RAA4-H25	Replace	Move boring west approximately 50 feet to sample within former Oxbow H channel. Rename as RAA4-H24.
RAA4-H27	New Boring	New unpaved area soil boring identified following verification of additional unpaved areas
RAA4-H29	Move Node	Move boring east approximately 20 feet to intersect bedding of buried stormwater sewer pipeline potential preferential pathway
RAA4-I11/I11S	Split Sample	Collect surface soil sample (0-1 foot depth) in unpaved area on 100-foot grid line between grid nodes H-11 and I-11. Drop the surface soil sample at grid node I11.
RAA4-I21	New Surface Sample	Collect surface sample at unpaved grid node rather than use data from existing Y-14 boring (paved location)
RAA4-I35	New Boring	New soil boring - grid node less than 15 feet outside original RAA boundary
RAA4-K25	Move Node	Move soil boring to location of existing (rejected) B-5 boring
RAA4-K8	Replace	Move boring south approximately 65 feet to intersect bedding of buried pipeline along the western edge of the Building 63 complex. Rename as RAA4-L8.
RAA4-L8	Replacement Boring	Paved area boring along bedding of buried pipeline along the western edge of the Building 63 complex. Replaces RAA4-K8.
RAA4-M5	Move Node	Move boring east 30 feet to align with buried pipeline along west side of Building 61.
RAA4-M7	Move	Move boring east 10 feet to be downgradient of buried pipeline beneath Building 61.
RAA4-M9	New	New 200-foot RRZ soil boring for subsurface characterization.
RAA4-M11	New	New 200-foot RRZ soil boring for subsurface characterization.
RAA4-M13	New	New 200-foot RRZ soil boring for subsurface characterization.
RAA4-M19	New	New 200-foot RRZ soil boring for subsurface characterization.
RAA4-M21	New	New 200-foot RRZ soil boring for subsurface characterization.
RAA4-M23	New	New 200-foot RRZ soil boring for subsurface characterization.

**TABLE 1**  
**GE/Housatonic River Project**  
**East Street Area 2-South RAA**  
**Proposed Sampling Revisions**

Proposed Location	Change	Proposed Change and Rationale
RAA4-M27	New	New 200-foot RRZ soil boring for subsurface characterization.
RAA4-O7	Move	Move boring east 10 feet to be align with buried pipeline beneath Building 61.
RAA4-O9	Move	Move boring east 10 feet to intersect bedding of buried pipeline east of the Building 63 complex.
RAA4-O11	New	New 200-foot RRZ soil boring for subsurface characterization.
RAA4-O13	Move	Move boring west 20 feet to intersect bedding of buried pipeline exiting the southern end of Building 63.
RAA4-O17	New	New 200-foot RRZ soil boring for subsurface characterization.
RAA4-O19	New	New 200-foot RRZ soil boring for subsurface characterization.
RAA4-O25	New	New 200-foot RRZ soil boring for subsurface characterization.
RAA4-Q6	Convert to Soil Boring	Sample as 15 foot soil boring rather than surface soil sample to characterize former product tank SWMU(T-LLL/OOO)