01-0892
SDMS 237402

GE
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Pittsfield, MA 01201
USA

Transmitted via Overnight Courier

October 7, 2005

Ms. Sharon Hayes
U.S. Environmental Protection Agency
EPA New England
One Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

Re: GE-Pittsfield/Housatonic River Site
East Street Area 2-North (GECD140)
Supplement to Conceptual RD/RA Work Plan and Proposal for Additional Investigations

Dear Ms. Hayes:

In a letter dated September 13, 2005, the U.S. Environmental Protection Agency (EPA) provided conditional approval of the General Electric Company's (GE's) *Conceptual Removal Design/Removal Action Work Plan for East Street Area 2-North* (Conceptual Work Plan), dated April 2005. That document presented GE's evaluation of the need for and scope of soil remediation to achieve the applicable Performance Standards for the East Street Area 2-North Removal Action Area (RAA) under the October 2000 Consent Decree (CD), along with a conceptual proposal for such soil remediation. EPA's September 13, 2005 letter specified four conditions for its approval of the Conceptual Work Plan, and required that GE submit supplemental information relating to three of those four conditions. This letter provides that supplemental information.

In addition, this letter includes a proposal by GE to conduct additional soil characterization sampling for polychlorinated biphenyls (PCBs) and other constituents in an area within East Street Area 2-North where several existing buildings will be subject to future demolition and removal of the existing base floor slabs. Since these areas may remain in an "unpaved" condition following demolition, there is a need to conduct additional grid-based soil investigations consistent with the applicable requirements of the CD and *Statement of Work for Removal Actions Outside the River* (SOW), and to revise the existing Removal Design/Removal Action (RD/RA) evaluations once these data are obtained. This letter provides additional information concerning the scope, timing, and follow-up activities related to the proposed supplemental soil investigations.

I. Supplemental Information for Conceptual Work Plan

This section summarizes each of the conditions identified by EPA in its approval of the Conceptual Work Plan, and presents GE's response to each condition. For those responses that warrant an additional follow-up submittal to EPA (i.e., Conditions 2, 3, and 4), GE proposes to submit an Addendum to the Conceptual Work Plan.

1. Condition 1 of EPA's September 13, 2005 approval letter stated that GE may be required to re-evaluate the non-PCB constituents detected in soil if the proposed Massachusetts Contingency Plan (MCP) "Wave 2" Method 1 soil standards, which GE has used in its evaluations of these constituents in the Conceptual Work Plan, are not finalized. GE acknowledges this condition; no further response is needed at this time.

2. Condition 2 of EPA's conditional approval letter noted that the Conceptual Work Plan had screened out one constituent, benzidine, from the non-PCB evaluations due to a low frequency of detection (i.e., detection in only one of 121 samples). The letter stated that, although the benzidine results were reported as non-detect in all other sample results, the analytical detection limits for this constituent were consistently above 0.70 ppm, which exceeds the single detected result (0.31 ppm), as well as the EPA Region 9 Preliminary Remediation Goal (PRG) for this constituent in industrial soils (0.013 ppm), which was used for screening. Based on this, and the fact that there is no current or proposed MCP Method 1 soil standard for benzidine, this EPA condition required that GE develop a proposal to further evaluate the presence of benzidine.

   To address this EPA condition, GE has evaluated various potential approaches, including additional sampling for benzidine in an effort to obtain lower detection limits. However, for this particular RAA, GE proposes, as a conservative measure, to calculate average concentrations of benzidine for the relevant depth increments, using a concentration of one-half the detection limit for the non-detect sample results, and then to revise the area-specific risk assessment previously presented in the Conceptual Work Plan to include benzidine at those average concentrations. That revised risk assessment will use the same exposure assumptions and toxicity inputs used previously, with the addition of benzidine at the calculated average concentrations. (At the same time, the risk assessment will be revised to take into account the results of the additional non-PCB sampling proposed in Section II of this letter.) The results of the revised risk assessment will be provided in the Addendum to the Conceptual Work Plan.

3. Condition 3 of EPA's conditional approval letter rejected GE's proposal to pave certain small, non-continuous, currently unpaved areas associated with samples PS-W-94, PS-W-95, PS-W-96, and PS-W-97, which showed PCB concentrations in the top foot of soil above the not-to-exceed (NTE) Performance Standard of 125 ppm for the top foot of soil in unpaved commercial/industrial areas. EPA directed GE, instead, to remove and replace the top foot of soil in those unpaved areas. In addition, EPA instructed GE to evaluate whether, following such removal, any additional remediation actions are necessary to achieve the other Performance Standards.

   Based on this EPA comment, the soil removal limits have been revised, as shown on Figure 1, to include additional one-foot soil removal in the currently unpaved portions of the polygons associated with samples PS-W-94, PS-W-95, PS-W-96, and PS-W-97. These revised removal limits will result in an increase of approximately 150 cubic yards in the soil removal volume at this RAA, resulting in an increase in the total removal volume from the 510 cubic yards proposed in the Conceptual Work Plan to approximately 660 cubic yards of soil.

   GE has also evaluated whether this modification would affect the prior evaluations concerning the attainment of the PCB Performance Standards for the other relevant depth increments. Specifically, GE has re-calculated the anticipated post-remediation spatial average PCB concentrations for the relevant depth increments at East Street Area 2-North based on the revised soil removal limits shown on Figure 1. These calculations indicate that the spatial average PCB concentrations will decrease slightly for the top foot of soil and remain essentially unchanged for the other relevant depth increments, and that hence no further remediation will be necessary to achieve the Performance Standards for those depths increments. The details of these revised post-remediation calculations and the supporting data will be presented in the Addendum to the Conceptual Work Plan, along with the revised RD/RA evaluations necessary to take account of the additional PCB sampling proposed in Section II of this letter.

4. Condition 4 of EPA's conditional approval letter addressed GE's evaluations in the Conceptual Work Plan regarding the need for specific response actions in subsurface utility corridors within East Street Area 2-North. As described in the Conceptual Work Plan, due to the pervasive presence of utility lines throughout this RAA, GE performed the investigation and assessment of utility corridors at this RAA in an iterative manner, with EPA approval. Under this approach, the evaluation in the Conceptual Work Plan focused on those areas in the vicinity of active subsurface utility lines where discrete PCB sample results exceeding 200 ppm were found in the 1- to 6-foot depth interval. The Conceptual Work Plan identified seven such sample locations. For the utility areas around three of these locations, EPA agreed with GE's conclusion that no utility-response actions are warranted because the utilities are no longer active. However, EPA noted that there is an active electrical conduit near four of the identified locations (sample locations RAA5-J10, PS-W-90, PS-W-95, and PS-W-96) and an active water main near one of those locations (RAA5-J10). In these circumstances, the EPA letter directed GE to conduct additional evaluations for these areas – namely: (1) to evaluate whether the active utility lines in these areas are potentially subject to emergency repair activities that could involve exposure to subsurface soil (and specifically to provide further information on whether repairs to the electrical conduits could involve invasive excavations); (2) for those that are, to calculate the spatial average PCB concentration in the 1- to 6-foot depth interval in the utility corridor; and (3) for any such corridor where the spatial average PCB concentration exceeds 200 ppm, to evaluate the need for additional response actions. In response to this condition, each of the identified utility areas is discussed below.

   As noted in EPA's comment, an active electrical utility conduit passes near soil sample locations RAA5-J10, PS-W-90, PS-W-95, and PS-W-96. At each of these locations, PCB concentrations greater than 200 ppm were detected in the 1- to 6-foot depth increment. However, the active electrical lines in these areas are not subject to emergency repair activities that could involve exposure to subsurface soil. These lines are part of the electrical distribution system at the GE Plant, which consists of several concrete conduit and manhole systems that contain numerous electrical cables. These conduit systems run below grade, from transformer substations, through the manholes and concrete conduits, to buildings throughout the Plant. In the event of an emergency (e.g., cable failure), repair activities would consist of replacing/re-splicing a portion of the electrical cable within the existing concrete conduit system between manholes. This would be accomplished by extracting the cables through the manholes, replacing or repairing them, and then reinserting them into the conduits – all without the need for soil excavation. Thus, no intrusive excavation of the soil would be required for an emergency repair. With respect to the potential replacement of an existing electrical distribution system (i.e., concrete conduit), such an activity would be prohibited by the Grant of Environmental Restriction and Easement (ERE) that will apply to this GE-owned property, unless a Conditional Exception is obtained. (The reason for this is that the permitted use for Utility Work under the ERE does not apply to such installation activities.) Accordingly, if such replacement were necessary, it would be a planned major event and would require a Conditional Exception under the ERE, which would involve measures to prevent any unacceptable risk. For these reasons, there is no need for further evaluation of the soil PCB concentrations in the utility corridors associated with these electrical utility lines or the need for utility-specific response actions to address such soils.

   The EPA comment also referred to an active water main located adjacent to the western edge of Building 12 and in the immediate vicinity of soil sample RAA5-J10, at which a PCB concentration of 4,700 ppm was detected in the 1- to 6-foot depth increment. In fact, this water main section, which is present solely for fire protection, is currently shut off so that it is now inactive, although it has not been permanently terminated. Since this water main section has not been rendered permanently inactive, GE has evaluated this area further. For purposes of this evaluation, although the PCB results from the 1- to 6-foot depth increment at the other sample locations along this utility corridor section near RAA5-J10 (e.g., locations RAA5-I10, 95-12, RAA5-K11) are well below 200 ppm, GE has

assumed (without performing specific spatial averaging calculations) that the result from RAA5-J12, by itself, would drive the spatial average PCB concentration in the 1- to 6-foot depth increment in this section of the utility corridor above 200 ppm. Accordingly, GE has evaluated the need for additional response actions in this area. Based on that evaluation, GE proposes to make this section of the fire protection water line permanently inactive by cutting and capping the line in this area, such this section of the line will be terminated and there will be no potential for emergency repair activities that could involve exposure to subsurface soil at or around location RAA5-J10.

II. Proposal for Supplemental Soil Characterization Sampling

As discussed in the Conceptual Work Plan, the buildings in the western portion of East Street Area 2-North will be demolished prior to the transfer of that portion of this RAA to the Pittsfield Economic Development Authority (PEDA). These buildings are shown on Figure 1 and include the buildings within the western portion of the RAA up to the eastern sides of Buildings 17 and 3. The pre-design soil investigations previously completed for East Street Area 2-North were conducted on the assumption that all existing floor slabs of these buildings would remain intact, and thus the areas covered by these buildings were considered to be "paved" areas for sampling purposes. (Under the applicable sampling protocols in the SOW, paved areas are sampled less intensively than unpaved areas.) However, GE has recently decided that, for certain of these existing buildings – namely, Buildings 15, 15A, 15B, and 15-Ext (also known as 15W), as shown on Figure 1 – future building demolition activities will involve the removal of the existing concrete slab-on-grade floors, followed by the placement and compaction of clean soil to restore the current grade. Under this scenario, the resulting post-demolition conditions for these building footprints will be "unpaved." Accordingly, additional grid-based soil sampling for PCBs is needed for these areas.

In this situation, the 100-foot sampling grid previously used for the pre-design investigations has been imposed over the area that contains these four buildings, as shown on Figure 1. Using this grid, GE proposes to collect samples for PCB analysis at six additional locations, shown on Figure 1, to complete the grid-based PCB sampling in this area. At each of the identified locations, samples will be collected from the 0- to 1-, 1- to 6, and 6- to 15-foot depth increments (for a total of 18 samples) and submitted for PCB analysis.

In addition, GE proposes to submit six samples from these locations for analysis of the other constituents listed in Appendix IX+3 of 40 CFR Part 264 (excluding pesticides and herbicides), plus three additional constituents – benzidine, 2-chloroethyl vinyl ether, and 1,2-diphenylhydrazine (Appendix IX+3). Specifically, GE proposes to collect samples for such analysis from the following depth increments and grid locations (shown on Figure 1):

- The 0- to 1- foot and 1- to 6-foot depth increments at grid location C4;
- The 0- to 1- foot and 6- to 15-foot depth increments at grid location D6; and
- The 0- to 1- foot and 1- to 6-foot depth increments at grid location D8.

The Addendum to the Conceptual Work Plan will summarize the results of these additional investigations, include revised calculations of the existing PCB spatial average soil concentrations and a revised evaluation (including a revised risk assessment) of the non-PCB data, and provide an assessment of whether additional remediation is necessary to achieve the applicable Performance Standards.

III. Future Activities and Proposed Schedule

Following EPA approval of this letter, GE will conduct the additional investigations and evaluations described herein and will submit to EPA an Addendum to the Conceptual Work Plan. That Addendum will summarize the results of the supplemental soil characterization sampling, will present revised RD/RA evaluations based on the new sampling data (and other revisions to the proposed PCB removal limits, as discussed above), and will include a revised risk assessment of the non-PCB data that will include benzidine as well as the results of the additional non-PCB sampling.

GE proposes to submit the Addendum to the Conceptual Work Plan within 60 days following EPA approval of this letter.

Under the current schedule, the Final RD/RA Work Plan for East Street Area 2-North is due on January 13, 2006. However, in light of the additional activities required by EPA's September 13, 2005 conditional approval letter and those proposed herein, the Addendum to the Conceptual Work Plan will, if necessary, propose a revised schedule for submission of the Final RD/RA Work Plan.

Please contact me with any questions or comments.

Sincerely,

John F. Novotny /ml

John F. Novotny, P.E.
Manager, Facilities and Brownfields Programs

Attachment
V:\GE_Pittsfield_CD_ESA_2_North\Reports and Presentations\Conceptual Work Plan\60952196.doc

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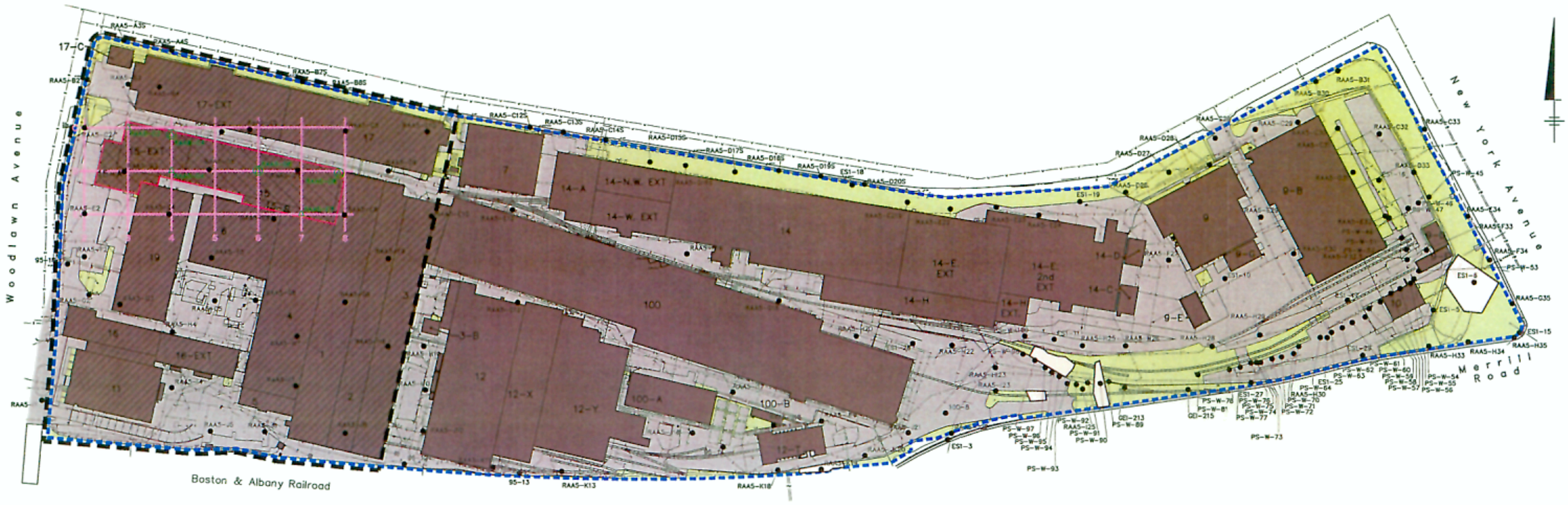
* *cover letter only*



NOTES:

1. BASE MAPPING FROM TOPOGRAPHIC SURVEY (DRAWING S2059W01) BY FORESIGHT LAND SURVEYORS DATED 2/9/05.
2. NOT ALL PHYSICAL FEATURES SHOWN.

LEGEND

- REMOVAL ACTION AREA BOUNDARY
- AREA TO BE TRANSFERRED TO PITTSFIELD ECONOMIC DEVELOPMENT AUTHORITY (PEDA)
- BUILDING
- BUILDING TO BE DEMOLISHED
- FORMER BUILDING LOCATION
- 14 — BUILDING ID
- FLOOR SLAB TO BE REMOVED
- PAVED AREA
- UNPAVED AREA
- 1-FOOT REMOVAL

- ES1-3 — EXISTING SOIL SAMPLING LOCATION
- △ — PROPOSED ADDITIONAL PCB SAMPLE LOCATION (0- TO 1-FOOT, 1- TO 6-FOOT, 6- TO 15-FOOT DEPTH)
- ○ — PROPOSED ADDITIONAL APPENDIX IX+3 SAMPLE LOCATION
- 100-FOOT SAMPLING GRID
- STORM SEWER
- SANITARY SEWER
- WATER MAIN / FIRE PROTECTION MAIN
- STEAM LINE
- NATURAL GAS MAIN
- ELECTRIC/TELEPHONE CONDUIT
- LIGHT POLE
- CATCH BASIN
- DRAIN MANHOLE
- UTILITY POLE
- GAS VALVE
- FIRE HYDRANT
- WATER SHUTOFF

0 120' 240'
GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD MASSACHUSETTS
SUPPLEMENT TO CONCEPTUAL RD/RA WORK PLAN
FOR EAST STREET AREA 2-NORTH

PROPOSED ADDITIONAL SAMPLES AND PRELIMINARY SOIL-RELATED RESPONSE ACTIONS

BBL BLASLAND, BOUCK & LEE, INC. engineers, scientists, economists

FIGURE 1

X: 40469X02, X03.DWG
L: ON= * OFF=*REF*, *CONT*, *IB-*, *UTIL-CORR*,
P: PAGESET/PLT-DL
10/06/05 SYR-BS-NES SDL BGP
C:/40469025/CRDRA/40469B31.DWG