
*Pre-Design Investigation
Work Plan for the
Newell Street Area I
Removal Action*

General Electric Company
Pittsfield, Massachusetts

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- A GE's October 20, 1999 Proposed Soil Investigation at Parcel J9-23-17 and the Agencies' December 22, 1999 Conditional Approval Letter
- B Applicable Performance Standards

1. Introduction

1.1 General

On October 7, 1999, a Consent Decree (CD) executed by the General Electric Company (GE), the United States Environmental Protection Agency (EPA), the Massachusetts Department of Environmental Protection (MDEP), and several other government agencies was lodged in the United States District Court for the District of Massachusetts (U.S. District Court). The CD requires (among other things) the performance of response actions to address polychlorinated biphenyls (PCBs) and other hazardous constituents in soils, sediment, and groundwater in several areas at and near Pittsfield, Massachusetts, that collectively comprise the GE-Pittsfield/Housatonic River Site (the Site). The CD is required to undergo a period of public comment (with responses by the United States to such comments) before it is entered by the U.S. District Court as a binding court judgment. The public comment period on the CD ended on February 23, 2000, and the United States is currently preparing its responses to the comments. However, as provided in the CD, GE agreed to conduct certain activities at the Site prior to CD entry. These activities include the development and submission (but not implementation) of a Pre-Design Investigation Work Plan for the Removal Action to be carried out under the CD at Newell Street Area I, which is one of the Former Oxbow Areas under the CD.

This *Pre-Design Investigation Work Plan for the Newell Street Area I Removal Action* (Work Plan) describes the investigations proposed by GE for Newell Street Area I to support the subsequent evaluation and design of the Removal Action for this Removal Action Area (RAA). The results of these investigations, in combination with the usable information from prior investigations of Newell Street Area I, will be used to develop a conceptual and then a final Removal Design/Removal Action (RD/RA) Work Plan for this Removal Action.

This Work Plan includes a summary of available information related to soils within this area and an assessment regarding the need for additional soil information to support future RD/RA activities. Based on this assessment, this Work Plan includes a proposal for additional soil investigations for Newell Street Area I. Although the CD and accompanying *Statement of Work for Removal Actions Outside the River* (SOW) (Volume I of Appendix E to the CD) establish Performance Standards for response actions relating to soil and groundwater, this Work Plan focuses only on pre-design activities related to soils. Response actions related to the groundwater within Newell Street Area I will be addressed separately as part of activities for the Plant Site 1 Groundwater Management Area (GMA) pursuant to the CD and the SOW.

Separate from the activities proposed herein, on October 20, 1999, GE submitted to the EPA and MDEP (the Agencies) a proposal to conduct soil sampling at one property within this RAA -- i.e., Parcel J9-23-17 (203 Newell Street). That proposal was submitted on an expedited basis to obtain data on soil conditions at this property prior to the potential installation of new bocce courts at the property, but was designed to be consistent with the requirements for pre-design investigations at Newell Street Area I under the CD and the SOW. Following the Agencies' conditional approval of that proposal by letter of December 22, 1999, GE conducted the proposed soil sampling activities at this parcel in January 2000. That proposed sampling effort is described further in Section 2.3 of this Work Plan, and the results have been included and taken into account in this Work Plan.

1.2 Format of Document

The remainder of this Work Plan is presented in five sections. Section 2 provides a summary of pertinent background information concerning Newell Street Area I, including a brief description of the area and a summary of the available soil analytical data. Section 3 discusses the applicable Performance Standards contained in the CD and SOW for soils within Newell Street Area I (with reference to an appendix for a more detailed presentation of those Performance Standards) and the applicable pre-design soil investigation requirements. Section 4 identifies the data needs to support RD/RA activities for the Newell Street Area I Removal Action, presents an assessment of the usability of existing data to satisfy those data needs, and describes the proposed additional investigations to complete the obtaining of the necessary data to fill those data needs. Section 5 presents the proposed schedule for completing the proposed pre-design investigations. Finally, Section 6 provides a summary of anticipated Post-Removal Site Control activities for this RAA following completion of the Removal Action.

2. Background Information

2.1 General

This section of the Work Plan provides a general summary of information concerning Newell Street Area I, with an emphasis on the available soil analytical data. Specifically, Section 2.2 describes the Newell Street Area I RAA, while Section 2.3 summarizes the available soil analytical data. Several tables and figures are included in this Work Plan to supplement the information presented in this section. Figure 1 presents a general location plan, while Figure 2 presents a more detailed site plan.

2.2 Site Description

Newell Street Area I is generally bounded to the north by the Housatonic River, to the south by Newell Street, to the west by Ontario Street Extension and Newell Street Area II (an adjacent RAA), and to the east by the Hibbard School playground. This area originally consisted of land adjoining several oxbows or low-lying areas of the Housatonic River. Rechannelization and straightening of the Housatonic River in the early 1940s by the City of Pittsfield and United States Army Corps of Engineers separated these oxbows and low-lying areas from the active course of the river. The oxbows and low-lying areas were subsequently filled with various materials from a variety of sources, resulting in the surface elevations and topography evident today. Newell Street Area I is considered one of the Former Oxbow Areas under the CD and the SOW. As shown on Figure 1, Newell Street Area I is composed of the following 10 commercial/industrial (C/I) properties and three recreational (Rec) properties located along Newell Street in Pittsfield, Massachusetts:

- C Parcel J9-23-13 (187 Newell St.) (C/I);
- C Parcel J9-23-16 (191 Newell St.) (C/I);
- C Parcel J9-23-17 (203 Newell St.) (Rec);
- C Parcel J9-23-18 (217 Newell St.) (C/I);
- C Parcel J9-23-19 (221 Newell St.) (C/I);
- C Parcel J9-23-20 (229 Newell St.) (C/I);
- C Parcel J9-23-21 (247 Newell St.) (C/I);
- C Parcel J9-23-22 (249 Newell St.) (C/I);
- C Parcel J9-23-23 (261 Newell St.) (C/I);
- C Parcel J9-23-24 (269 Newell St.) (C/I);

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- C Parcel J9-23-25 (273 Newell St.) (C/I);
 - C Parcel J9-23-26 (northwest portion of Hibbard Playground only) (Rec); and
 - C Parcel J9-23-12 (Rec). (Note that only the non-riverbank portions of this parcel are included in the Newell Street Area I RAA. The riverbank portions of this parcel will be subject to a separate Removal Action under the CD -- the Upper ½-Mile Reach Removal Action.)

2.3 Summary of Available Soil Analytical Data

Information concerning Newell Street Area I has been previously summarized in numerous reports prepared under the Massachusetts Contingency Plan (MCP) and the Resource Conservation and Recovery (RCRA) Corrective Action programs that have been ongoing at the GE facility (and related areas) since the 1980s. Those documents, listed below, provide discussions concerning past and current site uses, site utilities, and results of soil, groundwater, and ambient air investigations:

- C *Interim Report - Investigation of Soil Conditions in the Vicinity of Newell Street* (Draft), Geraghty & Miller, July 1987;
- C *Investigation of Soil and Ground-Water Conditions at the Newell Street Site*, Geraghty & Miller, July, 1988;
- C *Newell Street "Site" Analysis of Potential Remedial Measures*, Blasland and Bouck Engineers, P.C., September 1988;
- C *Supplemental Investigation of Soil and Groundwater Conditions at the Newell Street Site*, Geraghty & Miller, April 1989;
- C *Risk Assessment for the Newell Street Site*, Geraghty & Miller, May 1989;
- C *Newell Street MCP Phase II Supplemental Data Summary*, Blasland and Bouck Engineers, P.C., June 1990;
- C *MCP Interim Phase II Report for the Newell Street Site*, Blasland and Bouck Engineers, P.C., February 1992;
- C *MCP Supplemental Phase II Report for the Newell Street I Site*, Blasland, Bouck & Lee, Inc., September 1997; and
- C Several reports prepared by Zorex Environmental Engineers (Zorex) and/or Berkshire Environmental Consultants (BEC) presenting ambient air monitoring results from locations at and near the GE Pittsfield Plant, including Newell Street Area I: *Ambient Air Monitoring for PCBs, August 20, 1991 – August 14,*

1992 (Zorex, November 13, 1992); Ambient Air Monitoring for PCBs, May 4, 1993 to August 17, 1993 (Zorex, November 8, 1993); Ambient Air Monitoring for PCBs, May 10, 1995 to August 24, 1995 (Zorex and BEC, January 1996); and Ambient Air Monitoring for PCBs, July 7, 1996 through September 27, 1996 – 191 Newell Street (BEC, September 1997).

The prior investigations described in the above reports have produced a substantial amount of soil analytical data for Newell Street Area I. These prior soil sampling locations are illustrated on Figure 2. The PCB soil sampling results from these investigations are summarized in Table 1. In addition, a number of the soil samples collected from these investigations were analyzed for one or more groups of the non-PCB constituents listed in Appendix IX of 40 CFR Part 264, plus three additional constituents (benzidine, 2-chloroethyl vinyl ether, and 1,2-diphenylhydrazine) (Appendix IX+3). The groups of Appendix IX+3 constituents for which these samples were analyzed are listed in Table 2, while the soil analytical data for non-PCB Appendix IX+3 constituents are presented in Tables 3 through 6. An assessment of the usability of these data to support RD/RA activities for the Newell Street Area I Removal Action is presented in Section 4.2.

In addition, as noted above, GE submitted to the Agencies on October 20, 1999, a proposal to conduct soil sampling at Parcel J9-23-17, consistent with the requirements of the CD and the SOW for pre-design investigations at Newell Street Area I, so as to obtain soil data on an expedited basis prior to the potential installation of new bocce courts at that property. In that proposal, GE proposed to collect a total of 49 soil samples for PCB analysis from various depths at 19 grid locations, with a subset of these samples also analyzed for other Appendix IX+3 constituents. The Agencies conditionally approved GE's proposal via letter dated December 22, 1999. Copies of GE's October 20, 1999 proposal and the Agencies' December 22, 1999 conditional approval letter are included in Appendix A to this Work Plan. The Agencies thereafter verbally approved a modification to this proposal under which the samples to be collected from the top foot of soil at three locations at which a soil cover had previously been installed (Locations IA-91, IA-93, and IA-100) would exclude the cap material and would thus extend from the bottom of the cap to a depth of one foot below grade. GE conducted these sampling activities during the week of January 17, 2000. The soil sampling locations are included on Figure 2, the PCB sampling results are summarized in Table 7, and the results for other Appendix IX+3 constituents are summarized in Table 8. As discussed in Section 4.2, these data are all considered usable to support RD/RA activities for the Newell Street Area I Removal Action.

3. Applicable Performance Standards for Soils and Pre-Design Investigation Requirements

3.1 General

This section of the Work Plan discusses the Performance Standards contained in the CD and SOW that are applicable to the Newell Street Area I Removal Action, and summarizes the pertinent requirements for pre-design soil investigations for this Removal Action.

The Data Quality Objectives (DQOs) for the proposed investigations consist of obtaining the necessary soil analytical data on PCBs and other Appendix IX+3 constituents to meet those soil sampling requirements and thus to achieve the applicable Performance Standards. The application of the data resulting from the required soil investigations, together with the usable existing data, to achieve the Performance Standards will be initially presented in the Conceptual RD/RA Work Plan for this Removal Action, and later presented in final form in the final RD/RA Work Plan.

3.2 Performance Standards for Removal Actions at Newell Street Area I

Response actions for soils at Newell Street Area I must achieve the relevant Performance Standards included in the CD and the SOW for the Former Oxbow Areas. The Performance Standards for soils at the Former Oxbow Areas are set forth in Paragraph 26 of the CD and Section 2.3.2 of the SOW. Those that are relevant to the Newell Street Area I Removal Action are presented in Appendix B to this Work Plan.

For purposes of this Work Plan, several key points regarding these Performance Standards should be noted:

- C GE must execute and record Grants of Environmental Restrictions and Easements (EREs) for properties owned by GE at Newell Street Area I, and must make “best efforts” (as defined in the CD) to obtain EREs at properties not owned by GE at this RAA. If an ERE cannot be obtained at a non-GE-owned property, GE must implement a Conditional Solution. The scope of soil-related response actions at a property is dependent upon whether an ERE is obtained or a Conditional Solution will be implemented, as discussed below.

- C For the GE-owned riparian strip (Parcel J9-23-12) (excluding the riverbank), GE has the option of either:
 - (a) removing and replacing soils as necessary to achieve spatial average PCB concentrations at or below 10

ppm in the top foot and 15 ppm in the 1- to 3-foot depth increment; or (b) removing the top foot of soil and installing a vegetative engineered barrier over portions of the strip until the spatial average PCB concentrations in the remainder of the strip do not exceed the above concentrations. In either case, if the remaining spatial average PCB concentration in the 0- to 15-foot depth increment exceeds 100 ppm, GE must install a vegetative engineered barrier.

C For commercial/industrial properties, GE must achieve the following standards:

- For properties where an ERE is obtained, if the spatial average PCB concentration in the top foot of soil exceeds 25 ppm, GE must remove and replace soils to achieve that average concentration in unpaved areas and either remove/replace soils or enhance the pavement in paved areas. In addition, GE must remove/replace soils as necessary to achieve a spatial average PCB concentration of 200 ppm in the 1- to 6-foot depth increment and must install an engineered barrier if the remaining spatial average PCB concentration in the 0- to 15-foot depth increment exceeds 100 ppm.
- For properties where an ERE cannot be obtained, GE must implement a Conditional Solution, including soil removal/replacement to achieve spatial average PCB concentrations of 25 ppm in the top foot and top 3 feet and 200 ppm in the 1- to 6-foot depth increment, and installation of an engineered barrier if the remaining spatial average PCB concentration in the 0- to 15-foot depth increment exceeds 100 ppm.

C For recreational properties (other than Parcel J9-23-12), GE must achieve the following standards:

- For properties where an ERE is obtained, GE must remove/replace soils as necessary to achieve spatial average PCB concentrations of 10 ppm in the top foot and 15 ppm in the 1- to 3-foot depth increment, and must install an engineered barrier if the remaining spatial average PCB concentration in the 0- to 15-foot depth increment exceeds 100 ppm.
- For properties where an ERE cannot be obtained, GE must implement a Conditional Solution, including soil removal/replacement to achieve spatial average PCB concentrations of 10 ppm in the top foot and top 3 feet, and installation of an engineered barrier if the remaining spatial average PCB concentration in the 0- to 15-foot depth increment exceeds 100 ppm.

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- C In addition, at all properties where utilities are present, if the spatial average PCB concentration in the utility corridor exceeds 200 ppm, GE must evaluate whether any additional response actions are necessary. Further, if utilities are installed, repaired, or replaced, GE must ensure that the spatial average PCB concentration in the backfill material is less than 25 ppm at commercial/industrial properties or 10 ppm in the top 3 feet and 25 ppm at greater depths for recreational properties.
- C To address the presence of Appendix IX+3 constituents other than PCBs, GE must conduct an evaluation of such constituents (after taking into account the response actions to address PCBs) as described in Appendix B, and must achieve the Performance Standards for such constituents that are also described in Appendix B, using response actions that are similar to those established for PCBs at the same property and depth increment, as discussed in Appendix B.

As noted above, some of the Performance Standards for properties at Newell Street Area I depend on whether an ERE is obtained for the property. The CD provides, in Paragraph 56.b, that GE must notify EPA and MDEP, at the time of submittal of the Pre-Design Investigation Work Plan for a given Removal Action or within such other time as is proposed by GE and approved by EPA, whether each person who owns or controls a non-GE-owned property within that RAA agrees to execute and record an ERE on the property. GE has proposed to provide this notification to EPA at a later time -- specifically, at the time of submission of the Pre-Design Investigation Report for Newell Street Area I or at such subsequent time as GE may propose in the future, provided that it does not interfere with the development and submission of the Conceptual RD/RA Work Plan for this Removal Action. For the property owned by the City of Pittsfield at this RAA (Parcel J9-23-26), the City has agreed in the Definitive Economic Development Agreement with GE to provide EREs at such City-owned properties within the CD Site. For the other non-GE-owned properties at Newell Street Area I (as shown on Figure 1), GE has had preliminary discussions with some of these property owners, and will contact all the owners (assuming that the CD is entered by the U.S. District Court) to satisfy its obligations under the CD to seek EREs. At the present time, given that these efforts have not been completed, it is assumed, for purposes of this Work Plan, that Conditional Solutions may be implemented for at least some of the Newell Street Area I properties not owned by GE or the City.

3.3 Soil Sampling Requirements

To achieve the Performance Standards discussed in Section 3.2 above and set forth in Appendix B hereto, Section 2.3.3 and Attachment D of the SOW establish specific requirements for soil sampling at the Former Oxbow Areas.

The applicable requirements for Newell Street Area I include the following:

1. For both commercial/industrial properties and recreational properties (other than the Hibbard Playground), surface soil samples (i.e., 0- to 1-foot depth) must be collected within an approximate 50-foot grid sampling pattern, while subsurface soil samples (greater than 1-foot depth) must be collected within an approximate 100-foot grid. At subsurface sampling locations, samples must be collected from the 1- to 3-, 3- to 6-, 6- to 10-, and 10- to 15-foot depth intervals, except where usable data already exist for the pertinent depth intervals at or near the grid nodes in question. The SOW also provides that, for properties where an ERE cannot be obtained, more dense grid sampling may be necessary to design and implement a Conditional Solution in accordance with the applicable Performance Standards for Conditional Solutions. As discussed in Section 4.3 below, however, the proposed soil sampling described in this Work Plan, together with the existing usable data, are sufficient to design and implement a Conditional Solution at any properties where a Conditional Solution may be necessary.
2. For the Hibbard Playground, soil sampling must be initially conducted within the area shaded on Figure 1, with the need for subsequent sampling to be determined based on the results of the initial investigations. Within this area, surface soil samples (i.e., 0- to 1-foot depth) must be collected within an approximate 50-foot sampling grid, while subsurface soils must be collected within an approximate 100-foot sampling grid at depths of 1- to 3-, 3- to 6-, 6- to 10-, and 10- to 15-foot depth intervals.
3. All soil samples collected from the five depth intervals identified above must be analyzed for PCBs (except at locations and depths where usable PCB data already exist). In addition, certain soil samples must be analyzed for other Appendix IX+3 constituents (with any exclusions proposed to and approved by EPA) in accordance with the following general criteria:
 - C The number of Appendix IX+3 analyses will be approximately one-third the number of PCB analyses;
 - C To the extent practicable, the Appendix IX+3 sample analyses will be approximately evenly distributed between surface soil samples (from the top foot of soil) and subsurface soil samples (from the 1- to 3-, 3- to 6-, and 6- to 15-foot depth intervals); and
 - C The selection of sample locations and depths for Appendix IX+3 analyses will be based on the spatial

distribution of the available data and will also take into account field observations at the time of sampling (e.g., photoionization detector readings, evidence of staining, and prior knowledge of data gaps at and surrounding a particular grid note).

4. Sample collection and analysis procedures must comply with GE's Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), as approved by EPA.

4. Identification of Data Needs and Proposed Pre-Design Investigations

4.1 General

To support future RD/RA activities for the Newell Street Area I Removal Action, it is necessary to have the requisite soils data to meet the soil sampling requirements described in Section 3.3 and to apply the Performance Standards discussed in Section 3.2 and Appendix B. Hence, this section of the Work Plan first assesses the existing available soils data from this area to determine their usability for these purposes. It then identifies the additional data needs to support RD/RA activities for this Removal Action and proposes the field investigations necessary to satisfy those data needs. This Work Plan focuses on investigations related to soils; further investigations related to groundwater in this area will be proposed in connection with the Plant Site 1 GMA (which includes this area).

4.2 Assessment of Existing Soil Analytical Data for Usability

The existing soil analytical data for Newell Street Area I were discussed in Section 2.3 and are summarized in Tables 1 through 8. These data have been reviewed to assess their usability to support RD/RA activities for this Removal Action. As provided in Attachment D to the SOW, the criteria for determining the usability of existing data to support RD/RA activities include: (1) an evaluation of whether such data reflect the appropriate locations and depth increments necessary to apply the Performance Standards for the Removal Action in question and to meet the required soil sampling requirements specified in the SOW; and (2) an assessment of the quality of such data in terms of quality assurance/quality control.

As described in Section 3 above, the Performance Standards and soil sampling requirements for the Newell Street Area I Removal Action generally require grid-based characterization of five depth increments -- 0- to 1-foot, 1- to 3-foot, 3- to 6-foot, 6- to 10-foot, and 10- to 15-foot depths. Hence, the existing soil analytical data were first reviewed to determine whether and to what extent they would meet these requirements. The data that do so were then assessed for overall analytical quality by reviewing the available documentation.

For the pre-1999 soils data from Newell Street Area I (i.e., excluding the data recently collected from Parcel J9-23-17), the assessment of the usability of those data involved, at the outset, review of the depth increments from which the samples were taken, as well as review of the sample locations in relation to the requisite grid sampling pattern. For the latter review, a 50-foot grid was established for Newell Street Area I, and a 100-foot grid was then

superimposed on that grid -- generally following sampling grids that had previously been established for Parcel J9-23-17, as shown in GE's October 20, 1999 proposal for this property, included in Appendix A). These grids are depicted on Figure 3. An existing sample location was considered to satisfy the grid characterization requirement if it was close to a node on the applicable grid.

These reviews of the pre-1999 soils data indicated that some of these data would not be consistent with the locational criteria described above. For example, several surface and subsurface samples (i.e., QP-9, QP-27, S2-23) do not fall close enough to a grid node to be used to satisfy grid requirements. However, most of the existing PCB and Appendix IX+3 data (for one or more groups of constituents) were found to meet the depth interval criteria. Specifically, PCB data (and/or in some cases Appendix IX+3 data) from 35 surface soil sampling locations (0- to 1-foot depth) were found to meet this depth requirement, and 24 of these were also found to correspond approximately to a grid node, as shown on Figure 3. For the subsurface soil sampling data, existing PCB (and/or in some cases Appendix IX+3) data from 31 previous soil borings were found to satisfy at least some of the depth interval criteria necessary for future RD/RA activities, and 18 of these were also found to correspond approximately to a grid node, as also shown on Figure 3. Thus, in total, existing analytical data from 42 previous sampling locations were found to satisfy both the grid location criteria and at least some of the depth interval criteria for use in RD/RA activities, and existing data from 24 additional previous sampling locations were found to satisfy at least some of the depth interval criteria but not the grid location criteria (either because they are not close to any grid node or because they duplicate other nearby locations). While the latter data will not be used to meet the grid characterization requirements, they will be used in the evaluations to support RD/RA activities.

The data from these 66 previous sampling locations were then assessed for overall analytical quality. With certain exceptions (discussed below), the available documentation for these data was sufficient to identify any data quality discrepancies that would limit the usability of the data, and review of that documentation showed no such discrepancies or other significant data quality issues noted by the analytical laboratory, thus indicating that the data are of acceptable quality for use in satisfying RD/RA requirements for this Removal Action. The exceptions relate to a number of samples collected in the late 1980s and early 1990s, as follows:

C For the PCB data from samples collected in the late 1980s, only limited documentation is available for the analyses. However, a review of the available documentation indicated that acceptable and standard analytical methods were utilized for these analyses, and that the associated detection limits are comparable to those which are currently utilized for soil PCB analyses. As a result of this review, as well as review of other data packages

generated by the same laboratory during prior investigations, there is no indication that these PCB data are not of acceptable quality. Hence, these data are proposed for use in satisfying RD/RA requirements.

- C For several samples analyzed for metals in 1989 and 1991, certain Appendix IX+3 metals were not analyzed for (i.e., barium, cobalt, thallium, tin, and/or vanadium), and in a few other cases, the results for certain metals (i.e., selenium and thallium) were rejected due to poor matrix spike recoveries. However, the other existing analytical data for these metals at Newell Street Area I show them to be either non-detectable or present only at low concentrations in soils at this RAA. Hence, the above discrepancies do not warrant rejection of these otherwise usable metals data sets, and hence such data are proposed for use in satisfying RD/RA requirements.

The 66 previous sampling locations where the foregoing assessment has indicated that pre-1999 soil sampling data may be used to satisfy at least some of the soil characterization requirements for RD/RA activities are shown on Figure 3. For the 30 subsurface soil borings, soil PCB data are generally available in 2-foot sampling increments to varying depths, sometimes up to 15 feet or more below grade. GE proposes to use the PCB data from the 0- to 0.5-foot, 2- to 4-foot, 4- to 6-foot, and 10- to 14-foot or 10- to 16-foot depth increments at these locations (where available) to satisfy the soil characterization requirements for (respectively) the 0- to 1-foot, 1- to 3-foot, 3- to 6-foot, and 10- to 15-foot depth intervals specified in the CD and the SOW, as indicated on Figure 3. In addition, at some of these locations, Appendix IX+3 data are also available. Where Appendix IX+3 data from these locations are available from within one of the specified RD/RA depth increments, GE will utilize such data to characterize that depth increment in accordance with Attachment D to the SOW and as indicated on Figure 3.

For the recent soils data collected from Parcel J9-23-17, that sampling effort was performed by GE, as approved by the Agencies, to be consistent with the soil characterization requirements specified in the CD and the SOW for Newell Street Area I. Hence, these data meet the appropriate grid location and depth criteria to support RD/RA activities for this property. Although laboratory documentation reports were not available for these data at the time of preparation and submission of this Work Plan, it appears, based on discussions with the laboratory which performed these analyses, that these data are of acceptable quality for use in RD/RA activities. (After receipt of the laboratory documentation reports, GE will review those reports to verify this conclusion, and will advise EPA and MDEP if this review reveals any issues regarding the quality of these data.) For these reasons, the available data for Parcel J9-23-17 are, for the most part, sufficient to characterize the soils at that parcel for purposes of meeting RD/RA requirements for this Removal Action. However, based on further review of the sampling grid

selected for use at Parcel J9-23-17 and the recent sampling locations, it has been determined that surface soil sampling is necessary at two additional grid nodes. These locations are designated D-9 and H-9 on Figure 3.

4.3 Identification of Additional Data Needs

Based on review of the applicable Performance Standards and soil sampling requirements for the Newell Street Area I Removal Action, together with the assessment of existing available data presented in Section 4.2, it has been determined that the only additional data needs for this Removal Action relate to the collection of the necessary additional data to meet the soil characterization requirements specified in the CD and the SOW. The soil sampling activities proposed to address these additional data needs are described in Sections 4.4 and 4.5.

As discussed above, it is assumed, for purposes of this Work Plan, that EREs may not be obtained for at least some properties within this RAA that are not owned by GE or the City. Hence, the proposed soil investigations described below have been developed to ensure that sufficient data are available to characterize the soils at the private non-GE-owned properties at this RAA regardless of whether an ERE is obtained or a Conditional Solution will be implemented at these properties. The results from the proposed investigations, together with the existing usable data, will be sufficient to apply and assess achievement of the Performance Standards for Conditional Solutions at these properties, if necessary.

4.4 Proposed Soil Sampling Activities

To address the additional soil sampling data needs for the Newell Street Area I Removal Action, the 50-foot sampling grid established for Newell Street Area I (excluding Parcel J9-23-17), as depicted on Figure 3, was used to identify the appropriate sampling locations for surface soils (at a 50-foot grid density, excluding soils under existing buildings). In addition, the 100-foot grid pattern overlain on the 50-foot grid (again excluding Parcel J9-23-17) was used to identify potential subsurface soil sampling locations within a minimum density of 100-foot grid spacing, as also shown on Figure 3. However, as discussed above, prior soils data from 43 sampling locations can be used to satisfy certain of the grid characterization requirements for RD/RA activities, and these existing data and their sampling locations were taken into account, in conjunction with the sampling grids, in selecting locations for additional sampling.

To complete the required soil characterization at this area, additional soil sampling will be conducted. This sampling effort will involve the collection of surface soil samples from 123 new sampling locations (including 100 surface-only sampling locations and 23 soil boring locations where surface soil samples will be collected) and 20 existing sample locations (including 14 surface-only sampling locations and 6 existing boring locations). These include the additional surface soil sampling at two locations on Parcel J9-23-17, as described above. In addition, subsurface soil samples will be collected (from one or more subsurface depth increments) at 24 new soil boring locations and 7 existing boring locations. The proposed sampling locations and associated analysis depths (e.g., 0 to 1 foot, 1 to 3 feet, 3 to 6 feet, 6 to 10 feet, and 10 to 15 feet) are shown on Figure 3. This additional sampling, in combination with the existing usable soil sampling data, will satisfy the required sampling densities specified in the SOW -- i.e., an approximate 50-foot sampling grid density for surface samples and an approximate 100-foot sampling grid density for subsurface samples.

The overall soil sampling effort proposed for Newell Street Area I will involve the collection of 294 new soil samples from 155 new and existing locations. At locations within paved areas, collection of the 0- to 1-foot sample will begin immediately below the pavement and will extend to a depth of one foot below the top of the pavement. Thus, for example, if the pavement is 4 inches thick, the 0- to 1-foot sample will actually consist of an 8-inch soil sample.

A total of 237 new soil samples will be analyzed for PCBs. In addition, 78 of these samples, plus 10 additional soil samples, will be submitted for analysis of one or more groups of Appendix IX+3 constituents, considering the existing usable data on such groups of constituents. For any new samples collected for full or partial Appendix IX+3 analysis, GE proposes to exclude analyses for pesticides, herbicides, and volatile organic compounds (VOCs, except for those samples located on the "D" line of the grid. Any sample designated with a sample ID beginning with "D-" will be analyzed for all Appendix IX+3 constituent groups, including pesticides and herbicides), primarily due to the fact that the existing analytical data available for these constituents (16 samples, excluding duplicates) show them to be either non-detectable or present at very low concentrations in soils at this RAA (see Tables 3 through 6 and 8). Of the 88 proposed Appendix IX+3 samples, 15 fall on the "D" line of the grid system and will include pesticide and herbicide analyses.

Of the samples proposed for full or partial Appendix IX+3 analysis, approximately half will be collected from the top foot and the rest from deeper increments. The locations and depth intervals for which it is currently anticipated that samples will be submitted for such Appendix IX+3 analysis are shown on Figure 3. (For samples that will only be analyzed for a particular group or groups of such constituents due to the existence of usable existing data on

other groups, those groups are also identified on Figure 3.) However, the specific locations/depths of these Appendix IX+3 samples may be modified in the field considering photoionization detector (PID) readings or visual observations (e.g., evidence of staining). It should also be noted that, for the Appendix IX+3 analyses, GE proposes to combine the 6- to 10-foot and 10- to 15-foot depth samples from a given boring into a single composite 6- to 15-foot depth sample. This compositing approach will provide representative analytical results for the 6- to 15-foot depth increment (which is the deepest increment for evaluation under the CD and SOW) and was previously approved by the Agencies in reviewing GE's sampling proposal for Parcel J9-23-17 (see Appendix A).

The following table summarizes the proposed soil sampling and analysis effort:

Parcel	Number of Sample Locations ¹	Proposed Soil Investigations										
		PCB Samples by Depth Increment ²						Appendix IX+3 Samples by Depth Increment ^{2,3}				
		Top 1 ft	1 to 3 ft	3 to 6 ft	6 to 10 ft	10 to 15 ft	Total	Top 1 ft	1 to 3 ft	3 to 6 ft	6 to 15 ft	Total
J9-23-13	24	22	3	3	3	4	35	11	2	2	1	16
J9-23-16	11	10	1	1	1	1	14	4	1	1	0	6
J9-23-17	2	2	0	0	0	0	2	2	0	0	0	2
J9-23-18	7	7	0	0	0	0	7	3	0	0	0	3
J9-23-19, J9-23-20, J9-23-21	33	32	4	4	4	5	49	8	3	3	3	17
J9-23-22	15	14	3	3	3	3	26	5	2	1	1	9
J9-23-23	19	17	4	4	4	5	34	5	2	2	2	11
J9-23-24	8	8	2	2	2	2	16	2	1	1	2	6
J9-23-25	13	13	3	3	3	4	26	4	2	2	1	9
J9-23-26	13	12	3	3	3	3	24	5	1	2	1	9
Totals:	145	137	23	23	23	27	233	49	14	14	11	88

Notes:

1. Number of sample locations includes those where all depth increments will be sampled and those where existing data for some depth increments are proposed for use.
2. Number of samples includes only proposed new samples (i.e., excludes existing data).
3. Appendix IX+3 samples include samples to be analyzed for one or more groups of Appendix IX+3 constituents.

Following the proposed sample collection and analysis effort and taking into account the existing usable data, a total of 290 PCB sample results will be available to satisfy the grid node and depth increment requirements described in Section 3.3 above. In addition, 96 samples will have been analyzed for Appendix IX+3 constituents, with the samples approximately evenly divided between surface and subsurface samples. The following table summarizes the resulting data sets:

	Depth Increment					Total
	0 to 1 ft	1 to 3 ft	3 to 6 ft	6 to 10 ft	10 to 15 ft	
PCB Samples	0	39	39	39	39	156
Appendix IX+3 Samples	51	15	17	16		99

4.5 Soil Sampling and Analytical Procedures

The collection and analysis of the soil samples at Newell Street Area I will be conducted following the procedures set forth in GE's FSP/QAPP, as such plan is approved by EPA. (This plan was submitted by GE in January 2000, and is currently being reviewed by EPA.) Specifically, the analytical procedures for the analysis of soil samples will be consistent with the EPA-approved procedures presented in Table 1 of the FSP/QAPP. The field procedures will follow the Standard Operating Procedures (SOPs) presented in Appendices B through X of the FSP/QAPP.

Soil samples collected for Newell Street Area I investigation will utilize EPA Method 8082 for the analysis of Aroclor-specific PCBs. Results for PCBs will be reported on a dry-weight basis with a detection limit of 0.05 ppm for all Aroclors.

Select soil samples will also be analyzed for additional Appendix IX+3 constituents, excluding VOCs, pesticides, and herbicides, following the methods presented in Table 1 of the FSP/QAPP. Sample results will be presented on a dry-weight basis with detection limits consistent with those presented in Table 3 of the FSP/QAPP. Analysis of samples for dioxins/furans will be performed using EPA Method 8290 for samples collected from the 0- to 1-foot depth increments at all areas and the 1- to 3-foot depth increment at recreational areas and Method 8280A for all other samples. Dioxin/furan results will be reported on a dry-weight basis for both total homologues and 2,3,7,8-substituted congeners. Sample detection limits will be consistent with those presented in Table 3 of the FSP/QAPP.

The rationale for the methods selected for dioxin/furan analyses is based on review of their corresponding method detection limits (MDLs) and the applicable Performance Standards for dioxin/furan TEQs specified in the SOW and described in Appendix B (i.e., 1 ppb for the top foot in recreational areas, 1.5 ppb for the 1- to 3-foot depth interval for soil in recreational areas, 5 ppb for the top foot of soil in commercial/industrial areas, and 20 ppb for subsurface soil depth intervals greater than 1 foot at commercial/industrial areas). As shown in Table 3 of the FSP/QAPP, the MDLs for Method 8280A are higher than those for Method 8290. Due to these higher MDLs, it is possible that dioxin/furan analyses by Method 8280A could potentially fail to detect a TEQ concentration that in fact exceeds the Performance Standards for the top foot of all areas at Newell Street Area I and the 1- to 3-foot depth increment for recreational properties. However, use of this method would not fail to detect TEQ exceedances of the 20 ppb Performance Standard for subsurface soil at commercial/industrial areas. Hence, use of Method 8280A is wholly adequate to ensure achievement of that Performance Standard.

Quality control samples (i.e., matrix spike/matrix spike duplicates, field duplicates, and field blanks) will be collected at the frequency specified in Table 4 of the FSP/QAPP for each sample matrix collected. Tables 4 and 5 of the FSP/QAPP present the quality control criteria and corrective action procedures to be followed for each of the analytical procedures listed in Table 1 and for field-generated quality control samples. Overall project quality assurance will be provided by following the procedures for sample collection and analysis, corrective action, and data reporting and validation specified in the FSP/QAPP.

5. Schedule

GE proposes to complete the additional investigations described in this Work Plan and to submit a Pre-Design Investigation Report for Newell Street Area I within the later of (a) 150 days after EPA's approval of this Work Plan or (b) 180 days after entry of the CD by the U.S. District Court (to avoid overlap with the 150-day deadline for submission of the Pre-Design Investigation Report for the 20s, 30s, and 40s Complexes Removal Action), subject to timely obtaining the necessary Access Agreements with the property owners. If GE is unable to obtain Access Agreements from particular property owners after using "best efforts" (as defined in the CD) to do so, it will so advise EPA and MDEP and seek their assistance in obtaining such agreements pursuant to Paragraph 60.f(i) of the CD. If delays in obtaining Access Agreements will cause a delay in the schedule proposed above, GE will notify the Agencies and propose for EPA approval a revised schedule for completing the investigations and submitting a Pre-Design Investigation Report.

The Pre-Design Investigation Report will present the results of all investigations conducted pursuant to this Work Plan. It will also consider the sufficiency of the available data to support RD/RA activities for this Removal Action; and if it is determined that further data are needed to support RD/RA activities to achieve the soil-related Performance Standards, it will propose supplemental investigations to fill those data needs and a schedule for performing those supplemental investigations and submitting a Supplemental Pre-Design Investigation Report. If GE concludes in the Pre-Design Investigation Report that the available data are sufficient to support RD/RA activities for the Removal Action at this RAA, then that report will include a proposed schedule for submission of a Conceptual RD/RA Work Plan for the Newell Street Area I Removal Action.

Following EPA approval of the Pre-Design Investigation Report (and any supplemental report), GE will submit a Conceptual RD/RA Work Plan for the Newell Street Area I Removal Action on the schedule approved by EPA. That Conceptual RD/RA Work Plan will include, at a minimum, the evaluations, plans, and other pertinent items described in Section 3.3 of the SOW. It will also include a proposed schedule for submission of a more detailed RD/RA Work Plan for the Newell Street Area I Removal Action in accordance with Section 3.4 of the SOW.

6. Summary of Anticipated Post-Removal Site Control Activities

Following the completion of construction activities to implement any necessary response actions, GE will continue to inspect, maintain, and monitor the completed actions and to perform repairs and replacement as needed, so as to ensure that the completed response actions are performing as designed. The specific scope and methodologies for such inspection and maintenance activities (I/M activities) will be detailed in a Post-Removal Site Control Plan for the Newell Street Area I Removal Action. Such activities will include the periodic inspection and maintenance of any surface covers installed (e.g., engineered barriers, enhanced pavement, and soil covers), inspection and maintenance of certain ancillary components of the response actions (e.g., fencing and warning signs), and repair or replacement of response actions at areas exhibiting deficiencies or potential problems. These activities will be conducted in accordance with the pertinent requirements specified in Attachment J (Inspection and Maintenance Activities) to the SOW, except as otherwise proposed in the specific Post-Removal Site Control Plan and approved by EPA. In addition, inspection reports on these activities will be prepared and submitted periodically in accordance with the requirements of Section 4 of Attachment J to the SOW.

Tables

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

TABLE 1

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF PRE-1999 SOIL PCB DATA
(Results presented in dry-weight parts per million, ppm)

Sample Name	Date	Depth Interval (ft)	Total PCBs
187 Newell St. (Parcel J9-23-13)			
MM-1	05/04/88	0-8	25
		8-16	0.10
MM-2	05/04/88	0-12	7.0
		12-14	0.92
MM-3	05/04/88	0-2	0.24
		2-4	0.36
		4-6	ND(0.05)
		8-10	0.11
		10-12	ND(0.05)
MM-4	05/04/88	0-0.5	4.0
MM-5	05/04/88	0-0.5	1.2
MM-6	05/04/88	0-0.5	0.10
MM-7	05/04/88	0-0.5	1.7
MM-8	03/16/88	0-0.5	0.66
MM-10	05/08/91	0-0.5	1.1
MM-11	05/08/91	0-0.5	1.7
MM-12	06/21/95	0-0.5	0.50
MM-13	06/21/95	0-0.5	1.5
MM-14	06/21/95	0-0.5	1.5
MM-4(BBL)	02/25/97	0-2	1.2
		2-4	ND(0.034)
		4-6	ND(0.035) [ND(0.035)]
		6-8	0.037
		8-10	0.036
		10-12	ND(0.039)
		12-14	ND(0.040)
		14-16	ND(0.038)
MM-5A	02/25/97	0-0.5	ND(0.038)
		0.5-2	ND(0.035)
		2-4	ND(0.034)
		4-6	ND(0.035)
		6-8	ND(0.040)
		8-10	ND(0.039)
MM-5B	02/25/97	0-0.5	1.5
		0.5-2	1.2
		2-4	ND(0.036)
		4-6	ND(0.037)
		6-8	0.064
		8-10	0.052
		10-12	ND(0.036)
		12-14	ND(0.039)
		14-16	ND(0.039)
MM-5C	02/25/97	0-0.5	3.8
		0.5-2	2.2
		2-4	9.6
		4-6	1.8
		6-8	2.6
		8-10	0.21 [0.44]
		10-12	1.0
		12-14	0.40
		14-16	0.18

(See Notes on Page 11)

TABLE 1

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF PRE-1999 SOIL PCB DATA
(Results presented in dry-weight parts per million, ppm)

Sample Name	Date	Depth Interval (ft)	Total PCBs
187 Newell St. (Parcel J9-23-13) (continued)			
MM-6(BBL)	02/25/97	0-0.5	2.1
		0.5-2	77
		2-4	1.9
		4-6	2.1
		6-8	0.54
		8-10	0.36
		10-12	0.17
		12-14	0.2
		14-16	ND(0.039)
MM-SS-1	02/26/97	0-0.5	1.0
GE-12	12/11/91	0-2	ND(0.05)
		2-4	ND(0.05)
		4-6	0.06
		6-8	ND(0.05)
		8-10	ND(0.05)
B-1	08/27/93	5-7	224
B-2	09/14/93	10-12	2,300
B-3	09/14/93	10-12	2,100
B-4	09/14/93	10-12	1,300
B-5	09/14/93	6-8	730
B-6	09/14/93	0-2	240
B-7	09/15/93	8-10	1,100
B-8	09/15/93	10-12	2,400
B-9	09/15/93	10-12	830
B-10	09/15/93	0-2	250
B-11	09/16/93	0-2	9.3
B-12	09/16/93	6-8	150
B-13	09/16/93	0-2	1,110
B-2	06/21/95	0-0.5	8.5
B-4	06/21/95	0-0.5	1.9
B-5	06/21/95	0-0.5	0.90
B-6	06/21/95	0-0.5	3.6
B-7	06/21/95	0-0.5	2.5
B-8	06/21/95	0-0.5	9.6[9.9]
B-9	06/21/95	0-0.5	0.60
B-10	06/21/95	0-0.5	22
B-12	06/21/95	0-0.5	1.1
B-13	06/21/95	0-0.5	2.2
191 Newell St. (Parcel J9-23-16)			
QP-1	05/07/87	0-10	36
		10-14	ND(0.05)
QP-2	05/07/87	0-12	16
		12-20	0.60
QP-3	05/07/87	0-2	380
		2-4	110
		4-6	170
		6-8	84
		8-10	130
		10-12	6.5
		12-14	0.05
		14-16	0.29

(See Notes on Page 11)

TABLE 1

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF PRE-1999 SOIL PCB DATA
(Results presented in dry-weight parts per million, ppm)

Sample Name	Date	Depth Interval (ft)	Total PCBs
191 Newell St. (Parcel J9-23-16) (continued)			
QP-4	05/07/87	0-14	0.20
		14-18	ND(0.05)
QP-5	05/07/87	0-2	ND(0.05)
		2-4	0.06
		4-6	410
		6-8	240
		8-10	55
		10-12	0.07
QP-6	05/07/87	12-14	ND(0.05)
		0-10	17,000
QP-7	05/07/87	10-14	0.66
		0-8	62
QP-8	05/08/87	8-14	0.28
		0-4	0.65
QP-9	05/08/87	4-8	0.13
		0-2	850
		2-4	120,000
		4-6	290,000
		6-8	61
		8-10	33
QP-12	05/04/87	10-12	60
		12-14	0.34
		0-2	350
		2-4	100
		4-6	95
		6-8	350
QP-13	05/04/87	8-10	140
		10-12	170
		12-14	0.28
		0-2	2.9
		2-4	2.4
		4-6	21
QP-14	05/04/87	6-8	210
		8-10	520
		10-12	280
		12-14	12
		0-2	36
		2-4	330
QP-15	05/04/87	4-6	260
		6-8	380
		8-10	110
		10-12	0.88
		0-2	80
		2-4	290

(See Notes on Page 11)

TABLE 1

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF PRE-1999 SOIL PCB DATA
(Results presented in dry-weight parts per million, ppm)

Sample Name	Date	Depth Interval (ft)	Total PCBs
191 Newell St. (Parcel J9-23-16) (continued)			
QP-16	05/04/88	0-0.5	2.0
QP-17	05/04/88	0-0.5	4.6
QP-18	05/04/88	0-0.5	290
QP-19	05/04/88	0-0.5	110
QP-20	05/04/88	0-0.5	280
QP-21	05/04/88	0-0.5	94
QP-27	02/26/97	0-0.5	29,900
		4-6	98,000
QP-28	02/26/97	0-0.5	44
		4-6	6.8
QP-29		0-0.5	10
QP-30	02/26/97	0-0.5	16
QP-31	02/26/97	0-0.5	400 [310]
QP-32	02/26/97	0-0.5	790
QP-SWALE-1	02/26/97	0-0.5	198
QP-SWALE-2	02/26/97	0-0.5	1,130
QP-SWALE-3	02/26/97	0-0.5	650
203 Newell St. (Parcel J9-23-17)			
IA-1	07/01/87	0-10	202
IA-1	07/01/87	10-14	0.47
IA-2	07/01/87	0-2	150
IA-2	07/01/87	2-4	84
IA-2	07/01/87	4-6	57
IA-2	07/01/87	6-8	28
IA-2	07/01/87	8-10	39
IA-2	07/01/87	10-12	70
IA-2	07/01/87	12-14	2.23
IA-3	07/01/87	0-2	0.63
IA-3	07/01/87	2-8	ND (0.05)
IA-4	07/01/87	0-4	19.1
IA-4	07/01/87	4-8	0.32
IA-5	07/02/87	0-10	1,278
IA-5	07/02/87	10-16	0.66
IA-6	07/02/87	0-10	330
IA-6	07/02/87	10-14	0.14
IA-7	05/06/88	0-2	110
IA-7	05/06/88	2-4	0.66
IA-7	05/06/88	4-6	4.6
IA-7	05/06/88	6-8	300
IA-7	05/06/88	12-14	8.9
IA-8	05/06/88	0-2	550
IA-8	05/06/88	2-4	280
IA-8	05/06/88	4-6	1,400
IA-8	05/06/88	6-8	23,000
IA-8	05/06/88	8-10	670
IA-8	05/06/88	10-12	589
IA-8	05/06/88	12-14	1.6

(See Notes on Page 11)

TABLE 1

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF PRE-1999 SOIL PCB DATA
(Results presented in dry-weight parts per million, ppm)

Sample Name	Date	Depth Interval (ft)	Total PCBs
203 Newell St. (Parcel J9-23-17) (continued)			
IA-9	05/06/88	0-2	42
IA-9	05/06/88	2-4	63
IA-9	05/06/88	4-6	7.9
IA-9	05/06/88	6-8	323
IA-9	05/06/88	8-10	0.28
IA-9	05/06/88	10-12	0.28
IA-9	05/06/88	12-14	0.65
IA-9	05/06/88	14-16	0.17
IA-10	05/06/88	0-0.5	25
IA-11	05/06/88	0-0.5	5.0
IA-12	05/06/88	0-0.5	0.28
IA-13	03/17/89	0-0.5	7.9
IA-14	03/17/89	0-0.5	11
IA-15	03/17/89	0-0.5	2.9
IA-16	03/17/89	0-0.5	6.2
IA-17	03/17/89	0-0.5	2.4
IA-18	03/17/89	0-0.5	2.6
IA-19	03/17/89	0-0.5	3.0
IA-20	03/17/89	0-0.5	1,500
IA-21	03/17/89	0-0.5	0.46
IA-22	05/08/91	0-0.5	5.7
IA-23	05/08/91	0-0.5	0.71
ITAM-1	06/26/95	0-0.5	606
ITAM-2	06/26/95	0-0.5	14
ITAM-3	06/26/95	0-0.5	2.2
IA-26	07/17/95	0-0.5	107
IA-27	07/17/95	0-0.5	239
IA-28	07/17/95	0-0.5	341
IA-28	02/27/97	0-0.5	58
IA-28	02/27/97	0.5-2	430
IA-28	02/27/97	2-4	860
IA-28	02/27/97	4-6	2.7
IA-28	02/27/97	6-8	9.2
IA-28	02/27/97	8-10	5.6
IA-28	02/27/97	10-12	0.69
IA-28	02/27/97	12-14	0.077
IA-29	07/17/95	0-0.5	5.9
IA-30	07/17/95	0-0.5	3.6
IA-31	07/17/95	0-0.5	22
IA-32	07/17/95	0-0.5	1,440
IA-33	07/17/95	0-0.5	4.0
IA-36	11/08/95	0-0.5	18
IA-37	11/08/95	0-0.5	55
IA-38	08/05/96	0-0.5	29 [30]
IA-39	08/05/96	0-0.5	110
IA-40	08/05/96	0-0.5	13
IA-41	09/20/96	0-0.5	1.9
IA-42	09/20/96	0-0.5	5,400 [5,700]
IA-43	10/09/96	0-0.5	3.4
IA-44	10/09/96	0-0.5	0.74 [0.6]
IA-45	10/09/96	0-0.5	3.0

(See Notes on Page 11)

TABLE 1

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF PRE-1999 SOIL PCB DATA
(Results presented in dry-weight parts per million, ppm)

Sample Name	Date	Depth Interval (ft)	Total PCBs
203 Newell St. (Parcel J9-23-17) (continued)			
IA-46	10/09/96	0-0.5	8.4
IA-47	10/09/96	0-0.5	2.5
IA-48	10/09/96	0-0.5	28
IA-49	10/09/96	0-0.5	50,000
IA-50	10/09/96	0-0.5	18
IA-51	11/12/96	0-0.5	3.8
IA-52	11/12/96	0-0.5	12
IA-53	11/12/96	0-0.5	3.0
IA-54	11/12/96	0-0.5	2.0
IA-55	11/12/96	0-0.5	2.1
IA-56	11/12/96	0-0.5	130
IA-57	11/12/96	0-0.5	1.1
IA-58	11/12/96	0-0.5	38
IA-59	11/12/96	0-0.5	9.3
IA-60	11/12/96	0-0.5	2.1
IA-61	12/17/96	0-0.5	0.38
IA-62	12/17/96	0-0.5	2.2 [2.3]
IA-63	12/17/96	0-0.5	0.99
IA-64	12/17/96	0-0.5	2.1
IA-65	02/26/97	0-0.5	8.6
IA-66	07/07/97	0-0.5	29
IA-67	07/07/97	0-0.5	30
IA-68	07/07/97	0-0.5	2.3
IA-69	07/07/97	0-0.5	0.82
IA-70	07/07/97	0-0.5	2.0
IA-71	07/07/97	0-0.5	1.1
IA-72	07/07/97	0-0.5	5.0
IA-73	07/07/97	0-0.5	8.1
IA-74	07/07/97	0-0.5	7.8
IA-75	07/07/97	0-0.5	4.6
IA-76	07/07/97	0-0.5	1.6
IA-77	03/24/98	0-0.5	15
IA-78	03/24/98	0-0.5	2.9
IA-79	03/24/98	0-0.25	0.59
IA-79	03/24/98	0-0.5	0.59
IA-79	03/24/98	0.5-1	0.70 [0.088]
IA-80	03/24/98	0-0.25	0.29
IA-80	03/24/98	0-0.5	0.48
IA-80	03/24/98	0.5-1	ND (0.036)
IA-81	03/24/98	0-0.25	0.14
IA-81	03/24/98	0-0.5	ND (0.038)
IA-81	03/24/98	0.5-1	0.40 RE
IA-82	03/24/98	0-0.25	3.5
IA-82	03/24/98	0-0.5	1.4
IA-82	03/24/98	0.5-1	0.056
IA-83	03/24/98	0-0.25	0.34
IA-83	03/24/98	0-0.5	ND (0.040) RE
IA-83	03/24/98	0.5-1	ND (0.036) RE
IA-84	03/24/98	0-0.25	0.53
IA-84	03/24/98	0-0.5	0.72
IA-84	03/24/98	0.5-1	ND (0.036)

(See Notes on Page 11)

TABLE 1

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF PRE-1999 SOIL PCB DATA
(Results presented in dry-weight parts per million, ppm)

Sample Name	Date	Depth Interval (ft)	Total PCBs
203 Newell St. (Parcel J9-23-17) (continued)			
IA-85	03/24/98	0-0.25	0.19
IA-85	03/24/98	0-0.5	0.87
IA-85	03/24/98	0.5-1	0.10
IA-86	03/24/98	0-0.25	0.30
IA-86	03/24/98	0-0.5	1.8
IA-86	03/24/98	0.5-1	ND (0.037)
IA-87	03/24/98	0-0.25	0.71
IA-87	03/24/98	0-0.5	0.67
IA-87	03/24/98	0.5-1	0.086 [0.13]
IA-88	03/24/98	0-0.5	25
IA-89	03/24/98	0-0.5	5.0
IA-90	03/24/98	0-0.5	4.9
217 Newell St. (Parcel J9-23-18)			
RV-1	02/16/89	0-2	3.6
		2-4	120
		4-6	100
		6-8	350
		8-10	61
		10-12	53
		12-14	0.34
		14-16	8.9
RV-2	02/16/89	0-2	ND(0.05)
		2-4	2.6
		4-6	2.0
		6-8	1,100
		8-10	2.6
		10-12	0.28
		12-14	ND(0.05)
14-16	0.15		
RV-3	02/16/89	0-2	0.50
		2-4	0.16
		4-6	16
		6-8	ND(0.05)
		8-10	0.09
10-12	0.10		
RV-4	03/16/89	0-0.5	3.8
RV-5	03/16/89	0-0.5	1.7
RV-6	03/16/89	0-0.5	1.8
RV-7	05/08/91	0-0.5	1.7 [1.4]
RV-9	02/24/97	0-0.5	3.0
		4-6	770
		10-12	0.62
RV-10	02/24/97	0-0.5	45
		4-6	1,460
		14-16	1
221-229 Newell St. (Parcels J9-23-19, 20, 21)			
SZ-1	07/08/87	0-4	0.08
		4-10	ND(0.05)
SZ-2	07/08/87	0-6	160
		6-12	6.0

(See Notes on Page 11)

TABLE 1

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF PRE-1999 SOIL PCB DATA
(Results presented in dry-weight parts per million, ppm)

Sample Name	Date	Depth Interval (ft)	Total PCBs
221-229 Newell St. (Parcels J9-23-19, 20, 21) (continued)			
SZ-3	07/10/87	0-8	350
		8-12	0.33
SZ-4	07/10/87	0-2	1.1
		2-4	6.5
		4-6	320
		6-8	21
		10-12	430
SZ-5	07/10/87	12-14	20
		6-8	10
SZ-6	07/14/87	0-6	ND(0.05)
		12-14	11
SZ-7	07/14/87	0-12	ND(0.05)
		12-16	24
SZ-8	05/09/88	0-12	ND(0.05)
SZ-8	05/09/88	0-0.5	0.87
SZ-9	05/09/88	0-0.5	14
SZ-10	05/09/88	0-0.5	2.4
SZ-11	05/09/88	0-0.5	0.10
SZ-12	05/09/88	0-0.5	0.16
SZ-13	05/09/88	0-0.5	0.44
SZ-14	05/09/88	0-0.5	0.28
SZ-15	05/09/88	0-0.5	4.3
SZ-16	05/09/88	0-0.5	0.66
SZ-17	05/09/88	0-0.5	1.1
SZ-18	05/09/88	0-0.5	0.44
SZ-19	03/16/89	0-0.5	0.55
SZ-20	03/16/89	0-0.5	0.49
SZ-21	05/08/91	0-0.5	1.4
SZ-22	05/08/91	0-0.5	0.21
SZ-25	05/08/91	0-0.5	0.68
SZ-26	05/08/91	0-0.5	0.18
SZ-27	02/26/97	0-0.5	1.6
SZ-28	02/26/97	0-0.5	0.46
SZ-29	02/25/97	0-0.5	11
		0.5-2	2.38
		2-4	41 [120]
		4-6	1.1
		6-8	0.13
		8-10	0.13
		10-12	ND(0.037)
12-14	0.041		
SZ-30	02/24/97	0-0.5	16
		0.5-2	2.6
		2-4	ND(0.035)
		4-6	42
		6-8	22
		8-10	17
		10-12	54
12-14	26 [9.7]		
		14-16	20

(See Notes on Page 11)

TABLE 1

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF PRE-1999 SOIL PCB DATA
(Results presented in dry-weight parts per million, ppm)

Sample Name	Date	Depth Interval (ft)	Total PCBs
247-249 Newell St. (Parcel J9-23-22)			
MO-1	07/09/87	0-2	140
		2-4	37
		4-6	380
		6-8	0.48
		8-10	23
MO-2	07/09/87	10-12	3.3
		0-6	8.9
		6-12	0.29
MO-3	05/10/88	0-0.5	91
MO-4	05/10/88	0-0.5	23
MO-5	05/10/88	0-0.5	65
MO-6	03/16/89	0-0.5	44
MO-7	03/16/89	0-0.5	27
MO-8	03/16/89	0-0.5	3.6
MO-9	03/16/89	0-0.5	14
MO-10	03/16/89	0-0.5	7.4
MO-11	03/16/89	0-0.5	12
MO-3N1	10/05/90	0-0.5	42
MO-3N2	10/05/90	0-0.5	23
MO-3N3	10/05/90	0-0.5	19
MO-3N4	11/15/90	0-0.5	0.93
MO-3S1	10/05/90	0-0.5	7.3
MO-3E1	10/05/90	0-0.5	12
MO-3W1	10/23/90	0-0.5	17
MO-3W2	10/23/90	0-0.5	0.11
MO-4N1	10/05/90	0-0.5	14
MO-4S1	10/05/90	0-0.5	5.2
MO-4E1	10/05/90	0-0.5	39
MO-4E2	10/05/90	0-0.5	81
MO-4E3	10/05/90	0-0.5	145
MO-4E4	11/15/90	0-0.5	52
MO-4W1	10/05/90	0-0.5	3.7
MO-5N1	10/05/90	0-0.5	7.4
MO-5N2	10/05/90	0-0.5	43
MO-5S1	10/05/90	0-0.5	3.1
MO-5E1	10/23/90	0-0.5	3.4
MO-5W1	10/05/90	0-0.5	13
DP-2	10/05/90	0-0.5	20
MO-6N1	10/05/90	0-0.5	44
MO-6N2	10/05/90	0-0.5	56
MO-6N3	10/23/90	0-0.5	208
MO-6S1	10/05/90	0-0.5	27
MO-6E1	10/05/90	0-0.5	32
MO-6E2	10/05/90	0-0.5	47
MO-6E3	10/05/90	0-0.5	19
MO-6W1	10/05/90	0-0.5	66
MO-6W2	10/05/90	0-0.5	19
MO-7N1	10/05/90	0-0.5	96
MO-7N2	10/05/90	0-0.5	28
MO-7N3	10/05/90	0-0.5	15
MO-7S1	10/05/90	0-0.5	11
MO-7E1	10/05/90	0-0.5	16

(See Notes on Page 11)

TABLE 1

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF PRE-1999 SOIL PCB DATA
(Results presented in dry-weight parts per million, ppm)

Sample Name	Date	Depth Interval (ft)	Total PCBs
247-249 Newell St. (Parcel J9-23-22) (continued)			
MO-7W1	10/05/90	0-0.5	19
DD-N	11/15/90	0-0.5	91
DD-S	11/15/90	0-0.5	83
SP-1 (N&W)	11/15/90	0-0.5	3.3
SP-2 (E&S)	11/15/90	0-0.5	5.7
SP-3 (N&W)	11/15/90	0-0.5	0.40
SP-4 (E&S)	11/15/90	0-0.5	0.56
MO-P1	05/09/91	0-0.5	170
MO-P2	05/09/91	0-0.5	220
SLO 093	08/12/98	0-0.5	104
261 Newell St. (Parcel J9-23-23)			
FW-P1	05/09/91	0-0.5	6.8
FW-P2	05/09/91	0-0.5	2.7
FW-P3	05/09/91	0-0.5	20
FW-1	07/07/87	0-2	17
		2-4	210
		4-6	49
		6-8	61
		8-10	66
		10-12	3.2
		12-14	0.85
		14-16	ND(0.05)
FW-2	07/07/87	0-6	22
		6-12	0.05
FW-3	07/07/87	0-6	0.06
		6-10	ND(0.05)
FW-4	07/07/87	0-4	5.5
		6-12	0.64
FW-5	07/07/87	0-4	0.39
		4-10	ND(0.05)
FW-7	04/27/88	0-4	400
FW-8	04/27/88	0-4	6.8
FW-9	04/27/88	0-4	2.3
FW-10	04/27/88	0-4	1.7
FW-11	04/27/88	0-4	21
FW-12	04/27/88	0-4	14
FW-13	04/27/88	0-4	0.63
FW-14	04/27/88	0-4	25
FW-15	04/27/88	0-0.5	5.4
FW-15R	04/27/88	0-0.5	6.5
FW-16	04/29/88	0-2	130
		2-4	62
		4-6	920
		6-8	2,300
		8-10	0.39
		10-12	1.0
FW-16	04/29/88	12-14	0.27
FW-17	05/08/88	0-0.5	0.47
FW-18	03/16/89	0-0.5	2.4
FW-24	02/25/97	0-0.5	76
		12-14	23

(See Notes on Page 11)

TABLE 1

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF PRE-1999 SOIL PCB DATA
(Results presented in dry-weight parts per million, ppm)

Sample Name	Date	Depth Interval (ft)	Total PCBs		
261 Newell St. (Parcel J9-23-23) (continued)					
FW-25	02/26/97	0-0.5	7.3		
		0.5-2	6,700		
		2-4	288 [130]		
		4-6	460		
		6-8	2.7		
		8-10	2.1		
FW-26	02/26/97	10-12	0.69		
		0-0.5	6.8		
		0.5-2	6.6		
		2-4	9		
		4-6	0.65		
		6-8	29		
FW-19	03/16/89	8-10	1,200		
		10-12	45		
		269 Newell St. (Parcel J9-23-24)			
		FW-6	07/07/87	0-10	5.2
				10-16	1.1
		FW-19	03/16/89	0-0.5	1.6
273 Newell St. (Parcel J9-23-25)					
LA-1	07/08/87	0-2	0.42		
		2-4	ND(0.05)		
		4-6	ND(0.05)		
		6-8	0.13		
		8-10	ND(0.05)		
		10-12	ND(0.05)		
LA-2	07/08/87	2-6	1.3		
		6-12	ND(0.05)		
LA-3	07/09/87	0-10	ND(0.05)		
LA-4	05/05/88	0-0.5	2.8		
LA-5	03/16/89	0-0.5	0.49		
Hibbard Playground (Parcel J9-23-26)					
PK-1	04/28/88	0-0.5	0.28		
PK-2	04/28/88	0-0.5	0.87		
PK-3	04/28/88	0-0.5	0.06		
PK-4	04/28/88	0-0.5	0.35		
Housatonic River Bank (Parcel J9-23-12)					
RB-1	05/16/88	3	130		
		6	160		
		9	110		
RB-2	05/16/88	3	4.3		
		6	4.9		
		9	12.6		
RB-3	05/16/88	3	14		
		6	18		
		9	39		
RB-4	05/16/88	3	4.1		
		6	29		
		9	76		
RB-5	12/10/91	0-0.5	1		

Notes:

1. ND(0.05) - Not detected. The value in parentheses represents the associated quantitation limit.
2. RE - Samples re-extracted and re-analyzed due to low surrogate recoveries.
3. Duplicate results presented in brackets.

TABLE 2

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF EXISTING SOIL APPENDIX IX+3 DATA COLLECTION

Sample ID	Depth Interval (ft)	Date Collected	Analyses Performed					
			PCBs	VOCs	SVOCs	PCDDs/ PCDFs	Metals	Pesticides/ Herbicides
GE-12	10-12	12/11/91	x	x	x	x	x	x
MM-SS-1	0-0.5	02/26/97	x		x	x		
MM-5B	12-14	02/26/97	x	x	x	x	x	
MM-5C	12-14	02/27/97	x	x	x	x	x	
MM-6	10-12	02/25/97	x	x	x	x	x	
QP-22	0-4	10/09/89					x	
QP-22	4-8	10/09/89					x	
QP-22	8-12	10/09/89					x	
QP-23	0-4	10/09/89					x	
QP-23	4-8	10/09/89					x	
QP-23	8-12	10/09/89					x	
QP-24	0-0.5	05/09/91					x	
QP-25	0-0.5	05/09/91					x	
QP-25 (dup)	0-0.5	05/09/91					x	
QP-26	0-0.5	05/09/91					x	
QP-27	4-6	02/26/97	x	x	x	x	x	
QP-28	4-6	02/27/97	x	x	x	x	x	
QP-29	0-0.5	02/26/97	x		x	x		
QP-30	0-0.5	02/26/97	x		x	x		
QP-31	0-0.5	02/26/97	x		x	x		
QP-31 (dup)	0-0.5	02/26/97	x		x	x		
QP-32	0-0.5	02/26/97	x	x	x	x	x	
QP-32 (dup)	0-0.5	02/26/97		x				
IA-24	0-0.5	05/08/91					x	
IA-25	0-0.5	05/08/91					x	
IA-65	0-0.5	02/26/97	x		x	x		
IA-91	1-3	01/24/00	x	x	x	x	x	x
IA-92	1-3	01/24/00	x	x	x	x	x	x
IA-93	0-1	01/26/00	x	x	x	x	x	x
IA-95	0-1	01/26/00	x	x	x	x	x	x
IA-96	0-1	01/24/00	x	x	x	x	x	x
IA-98	3-6	01/25/00	x	x	x	x	x	x
IA-98	6-15	01/25/00	x	x	x	x	x	x
IA-98 (dup)	6-15	01/25/00	x	x	x	x	x	x
IA-99	0-1	01/26/00	x	x	x	x	x	x
IA-100	0-1	01/26/00	x	x	x	x	x	x
IA-102	1-3	01/24/00	x	x	x	x	x	x
IA-103	0-1	01/25/00	x	x	x	x	x	x
IA-107	3-6	01/25/00	x	x	x	x	x	x
IA-107	6-15	01/25/00	x	x	x	x	x	x
IA-108	0-1	01/26/00	x	x	x	x	x	x
IA-109	1-3	01/25/00	x	x	x	x	x	x

TABLE 2

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF EXISTING SOIL APPENDIX IX+3 DATA COLLECTION

Sample ID	Depth Interval (ft)	Date Collected	Analyses Performed					
			PCBs	VOCs	SVOCs	PCDDs/ PCDFs	Metals	Pesticides/ Herbicides
RV-7	0-8	09/20/91		x				
RV-8	0-8	09/20/91		x				
RV-9	0-8	09/20/91		x				
RV-9A(dup)	0-8	09/20/91		x				
RV-10	0-8	09/20/91		x				
RV-8	0-0.5	05/08/91					x	
RV-9	10-12	02/24/97	x	x	x	x	x	
RV-10	14-16	02/24/97	x	x	x	x	x	
SZ-23	0-0.5	05/08/91					x	
SZ-24	0-0.5	05/08/91					x	
SZ-27	0-0.5	02/26/97	x		x	x		
SZ-28	0-0.5	02/26/97	x		x	x		
MO-12	0-0.5	05/08/91					x	
MO-13	0-0.5	05/08/91					x	
MO-13 (dup)	0-0.5	05/08/91					x	
MO-4N1	0-0.5	10/23/90	x	x				
MO-6W1	0-0.5	10/23/90	x	x				
MO-7N3	0-0.5	10/23/90	x	x				
FW-20	0-4	10/09/89					x	
FW-20	4-8	10/09/89					x	
FW-20	8-10	10/09/89					x	
FW-21	0-4	10/09/89					x	
FW-21	4-8	10/09/89					x	
FW-21	8-10	10/09/89					x	
FW-22	0-0.5	05/08/91					x	
FW-23	0-0.5	05/08/91					x	
FW-24	12-14	02/25/97	x	x	x	x	x	
PK-15	0-0.5	05/09/91					x	

TABLE 3

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF PRE-1999 SOIL APPENDIX IX+3 VOLATILE ORGANICS DATA

(Results are presented in dry-weight parts per million, ppm)

Parameter	Sample ID.: Sample Depth (feet): Date Collected:	MO-4N1* 0-0.5 10/23/90	MO-6W1* 0-0.5 10/23/90	MO-7N3* 0-0.5 10/23/90	RV-7 0-8 09/20/91	RV-8 0-8 09/20/91	RV-9 0-8 09/20/91	RV-10 0-8 09/20/91	GE-12 10-12 12/11/91	RV-9 10-12 02/24/97
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND [ND]	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	ND	ND	0.002 J	0.003 J	ND [ND]	ND	ND	ND
1,1,2,2-Tetrachloroethane		ND	ND	ND	ND	ND	ND [ND]	ND	ND	ND
2-Butanone		ND	ND	ND	ND	ND	ND [ND]	0.005 J	ND	ND
Acetone		ND	ND	ND	0.033 B	0.023 B	0.017 B [0.015 B]	0.043 B	0.020	ND
Acetonitrile		ND	ND	ND	ND	ND	ND [ND]	ND	ND	0.22 J
Benzene		ND	ND	ND	ND	0.002 J	ND [ND]	0.008 J	ND	ND
Bromoform		ND	ND	ND	ND	ND	ND [ND]	ND	ND	ND
Chlorobenzene		ND	ND	ND	ND	ND	ND [ND]	ND	ND	ND
Methylene Chloride		0.032**	ND(0.005)	0.033**	0.030 B	0.042 B	0.026 B [0.021 B]	0.026 B	0.061	ND
Toluene		0.080	ND(0.005)	0.039	ND	ND	ND [ND]	0.003 J	ND	ND
Trichloroethene		ND	ND	ND	ND	ND	ND [ND]	ND	ND	ND
Xylenes (total)		ND	ND	ND	ND	ND	ND [ND]	0.004 J	ND	ND

Parameter	Sample ID.: Sample Depth (feet): Date Collected:	RV-10 14-16 02/24/97	FW-24 12-14 02/25/97	QP-27 4-6 02/26/97	QP-28 4-6 02/27/97	QP-32 0-0.5 02/26/97	MM-5B 12-14 02/26/97	MM-5C 12-14 02/27/97	MM-6 10-12 02/25/97
1,1,2-Trichloroethane		ND	ND	ND	ND	ND [ND]	ND	ND	0.002 J
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	ND	ND	ND	ND [ND]	ND	ND	ND
1,1,2,2-Tetrachloroethane		ND	ND	ND	ND	ND [ND]	ND	ND	0.004 J
2-Butanone		ND	ND	ND	ND	ND [ND]	ND	ND	ND
Acetone		ND	ND	ND	ND	ND [ND]	ND	ND	ND
Acetonitrile		ND	0.38	ND	ND	ND [ND]	ND	ND	1.6
Benzene		ND	ND	ND	ND	ND [ND]	ND	ND	ND
Bromoform		ND	ND	ND	ND	ND [ND]	ND	ND	0.002 J
Chlorobenzene		0.023	ND	ND	ND	ND [ND]	ND	ND	ND
Methylene Chloride		ND	ND	ND	ND	ND [ND]	ND	ND	ND
Toluene		0.006 J	0.008	0.012	ND	ND [ND]	ND	ND	ND
Trichloroethene		ND	ND	0.004 J	ND	ND [ND]	ND	ND	ND
Xylenes (total)		ND	ND	ND	ND	ND [ND]	ND	ND	ND

Notes:

TABLE 4

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF PRE-1999 SOIL APPENDIX IX+3 SEMIVOLATILE ORGANICS AND PESTICIDE/HERBICIDE DATA

(Results are presented in dry-weight parts per million, ppm)

Parameter	Sample ID: Sample Depth (feet): Date Collected:	GE-12 10-12 12/11/91	MM-SS-1 0-0.5 02/26/97	QP-29 0-0.5 02/26/97	QP-30 0-0.5 02/26/97	QP-31 0-0.5 02/26/97	QP-32 0-0.5 02/26/97	SZ-27 0-0.5 02/26/97	SZ-28 0-0.5 02/26/97	IA-65 0-0.5 02/26/97
Semivolatile Organics										
1,2,4,5-Tetrachlorobenzene		ND	ND	ND	ND	0.37 J [0.43]	0.068 J	ND	ND	ND
1,2,4-Trichlorobenzene		ND	ND	ND	ND	0.11 J [0.12 J]	0.18 J	ND	ND	ND
2-Methylphenol		ND	ND	ND	0.095 J	ND [ND]	ND	0.045 J	ND	ND
Acenaphthene		ND	ND	ND	0.086 J	0.10 J [0.11 J]	0.048 J	0.048 J	ND	ND
Acenaphthylene		ND	ND	ND	0.21 J	0.13 J [0.15 J]	0.40 J	0.12 J	ND	ND
Acetophenone		ND	ND	0.080 J	0.13 J	ND [ND]	0.073 J	0.069 J	ND	ND
Aniline		ND	ND	2.1	1.4	0.41 [0.25 J]	ND	0.67	ND	0.077 J
Anthracene		ND	ND	0.059 J	0.30 J	0.21 J [0.22 J]	0.20 J	0.17 J	0.054 J	ND
Benzo(a)anthracene		ND	0.046 J	0.33 J	1.4	1.2 [1.4]	1.2	0.90	0.25 J	0.082 J
Benzo(a)pyrene		ND	0.057 J	0.45 J	1.4	1.5 [1.3]	1.4	0.76	0.27 J	0.11 J
Benzo(b)fluoranthene		ND	ND	0.55	1.6	2.1 [2.2]	2.2	0.95	0.32 J	0.096 J
Benzo(g,h,i)perylene		ND	ND	0.18 J	0.35 J	0.41 [0.38 J]	0.19 J	0.17 J	0.098 J	0.053 J
Benzo(k)fluoranthene		ND	ND	0.49	1.5	1.4 [0.94]	1.3	0.64	0.25 J	0.10 J
Benzyl alcohol		ND	ND	0.075 J	ND	ND [ND]	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate		0.25 J	ND	0.20 BJ	0.25 BJ	0.33 BJ [0.36 BJ]	0.34 J	0.15 BJ	0.057 J	0.11 BJ
Butylbenzylphthalate		ND	ND	0.068 J	0.11 J	ND [ND]	ND	0.070 J	0.14 J	ND
Chrysene		ND	0.053 J	0.44 J	1.7	1.6 [1.8]	1.3	1.0	0.25 J	0.11 J
Di-n-butylphthalate		ND	ND	0.36 J	1.9	0.21 J [0.24 J]	ND	1.2	ND	0.050 J
Dibenz(a,h)anthracene		ND	ND	0.065 J	0.16 J	0.17 J [0.19 J]	0.29 J	0.076 J	0.042 J	ND
Dibenzofuran		ND	ND	ND	ND	0.059 J [0.065 J]	ND	ND	ND	ND
Diethyl phthalate		ND	ND	ND	0.17 BJ	0.080 BJ [0.083 BJ]	ND	0.088 BJ	ND	ND
Fluoranthene		ND	0.091 J	0.83	3.3	2.5 [2.5]	1.5	2.1	0.48	0.15 J
Fluorene		ND	ND	ND	0.14 J	0.11 J [0.12 J]	ND	0.076 J	ND	ND
Indeno(1,2,3-cd)pyrene		ND	ND	0.18 J	0.40 J	0.43 [0.40 J]	0.67	0.18 J	0.097 J	0.050 J
Naphthalene		ND	ND	ND	ND	ND [ND]	ND	ND	ND	ND
Pentachlorobenzene		ND	ND	ND	ND	ND [0.043 J]	ND	ND	ND	ND
Phenanthrene		ND	0.039 J	0.36 J	1.7	1.5 [1.6]	0.68	1.1	0.22 J	0.057 J
Phenol		ND	ND	0.56	1.1	0.17 J [0.17 J]	0.52	0.51	ND	0.073 J
Pyrene		ND	0.087 J	0.57	2.9	2.0 [2.0]	1.3	1.5	0.35 J	0.16 J
Total 3 & 4 Methylphenol		ND	ND	ND	ND	ND [ND]	ND	ND	ND	0.053 J
Pesticides/Herbicides		ND	NA	NA	NA	NA [NA]	NA	NA	NA	NA

(See Notes on Page 2)

TABLE 4

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF PRE-1999 SOIL APPENDIX IX+3 SEMIVOLATILE ORGANICS AND PESTICIDE/HERBICIDE DATA

(Results are presented in dry-weight parts per million, ppm)

Parameter	Sample ID.: Sample Depth (feet): Date Collected:	RV-9 10-12 02/24/97	RV-10 14-16 02/24/97	FW-24 12-14 02/25/97	MM-6 10-12 02/25/97	MM-5B 12-14 02/26/97	MM-5C 12-14 02/27/97	QP-27 4-6 02/26/97	QP-28 4-6 02/27/97
1,2,4,5-Tetrachlorobenzene		ND	ND	ND	ND	ND	ND	ND	0.11 J
1,2,4-Trichlorobenzene		ND	ND	ND	ND	ND	ND	ND	0.081 J
2-Methylphenol		ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene		ND	ND	ND	0.12 J	ND	ND	ND	ND
Acenaphthylene		ND	ND	ND	0.59 J	ND	ND	ND	ND
Acetophenone		0.049 J	ND	ND	ND	ND	ND	ND	ND
Aniline		ND	ND	ND	ND	ND	ND	ND	ND
Anthracene		ND	ND	ND	1.2	ND	ND	ND	ND
Benzo(a)anthracene		ND	ND	ND	2.9	ND	ND	ND	0.13 J
Benzo(a)pyrene		ND	ND	0.047 J	2.4	ND	ND	ND	0.098 J
Benzo(b)fluoranthene		ND	ND	ND	2.3	ND	ND	ND	0.14 J
Benzo(g,h,i)perylene		ND	ND	0.042 J	0.35 J	ND	ND	ND	ND
Benzo(k)fluoranthene		ND	ND	ND	1.9	ND	ND	ND	0.13 J
Benzyl alcohol		ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate		0.044 J	0.096 BJ	0.12 J	ND	0.054 J	0.052 J	ND	0.043 J
Butylbenzylphthalate		ND	ND	ND	ND	ND	ND	ND	ND
Chrysene		ND	ND	ND	2.5	ND	ND	ND	0.14 J
Di-n-butylphthalate		ND	ND	ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene		ND	ND	ND	0.16 J	ND	ND	ND	ND
Dibenzofuran		ND	ND	ND	0.25 J	ND	ND	ND	ND
Diethyl phthalate		ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene		ND	0.064 J	ND	7.0	ND	ND	ND	0.19 J
Fluorene		ND	ND	ND	0.47 J	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene		ND	ND	ND	1.1 J	ND	ND	ND	0.072 J
Naphthalene		ND	ND	ND	0.12 J	ND	ND	ND	ND
Pentachlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene		ND	0.052 J	ND	4.3	ND	ND	ND	0.12 J
Phenol		ND	ND	ND	ND	ND	ND	ND	ND
Pyrene		ND	0.056 J	0.062 J	5.2	ND	ND	ND	0.18 J
Total 3 & 4 Methylphenol		ND	ND	ND	ND	ND	ND	ND	ND
Pesticides/Herbicides		NA	NA	NA	NA	NA	NA	NA	NA

Notes:

1. Samples were collected and analyzed for Appendix IX+3 semivolatile organics and pesticides/herbicides; only those constituents detected in at least one sample are shown.
2. ND - Compound was not detected.
3. J - Indicates an estimated value less than the CLP-required quantitation limit.
4. B - Compound was also detected in the associated method blank.
5. Duplicate Results are presented in brackets.
6. The initial analysis of RV-10 exceeded surrogate recovery control limits. The sample was reanalyzed with acceptable surrogate recoveries, but was analyzed outside of holding time criteria. Due to the holding time deviation all data for sample RV-10 should be considered estimated.
7. NA - Not analyzed.

TABLE 5

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF PRE-1999 SOIL APPENDIX IX + 3 POLYCHLORINATED DIBENZO-p-DIOXINS AND POLYCHLORINATED DIBENZOFURANS DATA

(Results are presented in dry-weight parts per million, ppm)

Parameter	Sample ID: Sample Depth (feet): Date Collected:	GE-12 10-12 12/11/91	MM-SS-1 0-0.5 02/26/97	MM-5B 12-14 02/26/97	MM-5C 12-14 02/27/97	MM-6 10-12 02/25/97	QP-27 4-6 02/26/97
TCDFs (total)		ND	0.00029	0.000092	0.000015	0.0014	0.091
2,3,7,8-TCDF		ND	0.000044 g	0.0000018 g	0.0000043 g	0.00019 g	0.014 gE
PeCDFs (total)		ND	0.00041	0.0000038	0.0000042	0.0013	0.13
1,2,3,7,8-PeCDF		NA	0.000069	ND(0.000012)	ND(0.0000085)	0.00014	0.013
2,3,4,7,8-PeCDF		NA	0.000029	ND(0.000014)	ND(0.000011)	0.00014	0.015
HxCDFs (total)		M	0.00024	ND(0.000017)	ND(0.000024)	0.00080	0.19
1,2,3,4,7,8-HxCDF		NA	0.000073	ND(0.000017)	ND(0.000024)	0.00031	0.068 E
1,2,3,6,7,8-HxCDF		NA	0.000035	ND(0.0000071)	ND(0.0000091)	0.00012	0.024
2,3,4,6,7,8-HxCDF		NA	0.000085	ND(0.0000059)	ND(0.0000073)	0.00047	0.016
1,2,3,7,8,9-HxCDF		NA	0.000048 J**	ND(0.0000027)	ND(0.0000024)	0.000082	0.0026
HpCDFs (total)		ND	0.000080	ND(0.000010)	ND(0.000020)	0.00037	0.094
1,2,3,4,6,7,8-HpCDF		NA	0.000044	ND(0.000010)	ND(0.000020)	0.00024	0.047 E
1,2,3,4,7,8,9-HpCDF		NA	0.000011	ND(0.0000022)	ND(0.0000038)	0.000054	0.023
OCDF		ND	0.000022	ND(0.0000098)	ND(0.0000093)	0.00020	0.052
TCDDs (total)		ND	0.0000031	ND(0.0000039)	ND(0.0000024)	0.000034	0.0010
2,3,7,8-TCDD		NA	ND(0.0000040)	ND(0.0000039)	ND(0.0000094)	0.000011 J**	0.000031
PeCDDs (total)		ND	ND(0.0000021)	ND(0.0000076)	ND(0.0000047)	0.000024	0.00076
1,2,3,7,8-PeCDD		NA	ND(0.0000056)	ND(0.0000076)	ND(0.0000047)	0.000029 J**	0.00012
HxCDDs (total)		ND	0.000077	ND(0.0000039)	ND(0.0000032)	0.00062	0.0031
1,2,3,4,7,8-HxCDD		NA	ND(0.0000043)	ND(0.0000039)	ND(0.0000032)	ND(0.0000027)	0.00014
1,2,3,6,7,8-HxCDD		NA	ND(0.0000094)	ND(0.0000035)	ND(0.0000029)	0.000048 J**	0.00022
1,2,3,7,8,9-HxCDD		NA	ND(0.000011)	ND(0.0000035)	ND(0.0000029)	0.000070	0.00035
HpCDDs (total)		ND	0.000013	ND(0.0000041)	ND(0.0000045)	0.000046	0.0025
1,2,3,4,6,7,8-HpCDD		NA	0.000062	ND(0.0000041)	ND(0.0000045)	0.000023	0.0012
OCDD		ND	0.000020	ND(0.000012)	ND(0.000015)	0.000039	0.0020
MDEP TEQ		--	0.000091	0.0000044	0.0000075	0.00031	0.041
USEPA TEQ		--	0.000035	0.0000018	0.0000043	0.00015	0.022
WHO TEQ		--	0.000035	0.0000018	0.0000043	0.00015	0.022

(See Notes on Page 4)

TABLE 5

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF PRE-1999 SOIL APPENDIX IX + 3 POLYCHLORINATED DIBENZO-p-DIOXINS AND POLYCHLORINATED DIBENZOFURANS DATA

(Results are presented in dry-weight parts per million, ppm)

Parameter	Sample ID: Sample Depth (feet): Date Collected:	QP-28 4-6 02/27/97	QP-29 0-0.5 02/26/97	QP-30 0-0.5 02/26/97	QP-31 0-0.5 02/26/97	QP-32 0-0.5 02/26/97	IA-65 0-0.5 02/26/97
TCDFs (total)		0.010	0.00085	0.0030	0.032 [0.029]	0.0063	0.00020 g
2,3,7,8-TCDF		0.0012 gE	0.00017 g	0.00048 g	0.0056 E [0.0053 E]	0.0011 E	0.0015
PeCDFs (total)		0.013	0.0056	0.0036	0.024 [0.025]	0.0048	0.000092
1,2,3,7,8-PeCDF		0.0021	0.0035 E	0.00043	0.0036 E [0.0042 E]	0.00058	0.00013
2,3,4,7,8-PeCDF		0.0011	0.00019	0.00030	0.0032 E [0.0033 E]	0.00056	0.0017
HxCDFs (total)		0.0077	0.0057	0.0023	0.018 [0.020]	0.0042	0.00026
1,2,3,4,7,8-HxCDF		0.0029 E	0.0024	0.00068	0.0061 E [0.0047 E]	0.0015	0.00011
1,2,3,6,7,8-HxCDF		0.0013	0.0012	0.00030	0.0027 E [0.0027 E]	0.00050	0.000046
2,3,4,6,7,8-HxCDF		0.00024	0.000043	0.000084	0.00087 [0.00085]	0.00017	ND(0.0000014)
1,2,3,7,8,9-HxCDF		0.00018	0.00053	0.000025	0.00024 [0.00027]	0.000031	0.0011
HpCDFs (total)		0.0028	0.0016	0.0010	0.0078 [0.0086]	0.0035	0.00028
1,2,3,4,6,7,8-HpCDF		0.0016	0.00046	0.00052	0.0046 E [0.0052 E]	0.0015	0.000044
1,2,3,4,7,8,9-HpCDF		0.00062	0.00080	0.00015	0.0014 [0.0014]	0.00085	0.000019
OCDF		0.0014	0.00025	0.00046	0.0044 [0.0045]	0.0037	0.00018
TCDDs (total)		0.00011	0.0000097	0.000044	0.00040 [0.00032]	0.00011	0.0000021
2,3,7,8-TCDD		0.0000051	ND(0.00000047)	0.0000016 J**	0.000013 [0.000012]	0.0000053	0.000046
PeCDDs (total)		0.00012	0.0000040	0.000017	0.00047 [0.00045]	0.00016	0.0000056 J**
1,2,3,7,8-PeCDD		0.000011	ND(0.0000025)	ND(0.0000058)	0.000043 [0.000037]	0.000017	0.000032
HxCDDs (total)		0.00028	0.00011	0.00015	0.0011 [0.0010]	0.00052	0.0000056 J**
1,2,3,4,7,8-HxCDD		0.000014	0.0000043 J**	0.0000076 J**	0.000054 [0.000051]	0.000032	0.0000078
1,2,3,6,7,8-HxCDD		0.000022	0.000013	0.000012 J**	0.000082 [0.000080]	0.000035	0.000012
1,2,3,7,8,9-HxCDD		0.000035	0.000011	0.000013 J**	0.00012 [0.000064]	0.000059	0.00014
HpCDDs (total)		0.00026	0.00049	0.00034	0.0011 [0.0012]	0.00096	0.00012
1,2,3,4,6,7,8-HpCDD		0.00013	0.00024	0.00015	0.00055 [0.00059]	0.00044	0.00012
OCDD		0.00022	0.0021	0.0016	0.0017 [0.0018]	0.0027	0.00050
MDEP TEQ		0.0031	0.0026	0.00080	0.0069 [0.0072]	0.0015	0.00032
USEPA TEQ		0.0013	0.00072	0.00034	0.0035 [0.0034]	0.00070	0.00014
WHO TEQ		0.0013	0.00072	0.00034	0.0035 [0.0034]	0.00070	0.00015

(See Notes on Page 4)

TABLE 5

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF PRE-1999 SOIL APPENDIX IX + 3 POLYCHLORINATED DIBENZO-p-DIOXINS AND POLYCHLORINATED DIBENZOFURANS DATA

(Results are presented in dry-weight parts per million, ppm)

Parameter	Sample ID.:	RV-9	RV-10	SZ-27	SZ-28	FW-24
	Sample Depth (feet): Date Collected:	10-12 02/24/97	14-16 02/24/97	0-0.5 02/26/97	0-0.5 02/26/97	12-14 02/25/97
TCDFs (total)		0.00010	0.0000083	0.00014	0.000042	0.00011
2,3,7,8-TCDF		0.000012 g	0.0000059 gJ**	0.000018 g	0.0000054 g	0.000012 g
PeCDFs (total)		0.00013	ND(0.000016)	0.00021	0.000078	0.000039
1,2,3,7,8-PeCDF		0.000011	ND(0.0000077)	0.000058	ND(0.0000027)	0.000036 J**
2,3,4,7,8-PeCDF		0.000013	ND(0.0000031)	0.000093	0.000038 J**	0.000050 J**
HxCDFs (total)		0.000083	ND(0.0000015)	0.00013	0.000066	0.000026
1,2,3,4,7,8-HxCDF		0.000034	ND(0.000015)	0.000013	0.000046 J**	0.000012
1,2,3,6,7,8-HxCDF		0.000014	ND(0.0000058)	0.000065 J**	0.000029 J**	0.000041 J**
2,3,4,6,7,8-HxCDF		0.000042 J**	ND(0.0000045)	0.000048 J**	0.000030 J**	ND(0.0000020)
1,2,3,7,8,9-HxCDF		ND(0.0000063)	ND(0.0000013)	ND(0.0000034)	ND(0.0000021)	ND(0.0000022)
HpCDFs (total)		0.000044	ND(0.0000097)	0.00070	0.00034	0.00011
1,2,3,4,6,7,8-HpCDF		0.000027	ND(0.0000097)	0.000025	0.000013	0.000011
1,2,3,4,7,8,9-HpCDF		0.000059 J**	ND(0.0000042)	0.000057 J**	ND(0.000015)	ND(0.0000026)
OCDF		0.000024	ND(0.0000069)	0.000054	0.000023	0.000095 J**
TCDDs (total)		ND(0.0000052)	ND(0.0000019)	0.0000063	ND(0.0000035)	0.000013
2,3,7,8-TCDD		ND(0.0000018)	ND(0.0000010)	ND(0.0000031)	ND(0.0000035)	ND(0.0000012)
PeCDDs (total)		ND(0.0000013)	ND(0.0000028)	ND(0.0000010)	ND(0.0000095)	ND(0.0000054)
1,2,3,7,8-PeCDD		ND(0.0000031)	ND(0.0000028)	ND(0.0000079)	ND(0.0000066)	ND(0.0000054)
HxCDDs (total)		ND(0.0000023)	ND(0.0000028)	0.000050	0.000012	ND(0.0000081)
1,2,3,4,7,8-HxCDD		ND(0.0000026)	ND(0.0000028)	ND(0.0000076)	ND(0.0000063)	ND(0.0000013)
1,2,3,6,7,8-HxCDD		ND(0.0000048)	ND(0.0000024)	ND(0.000016)	ND(0.0000021)	ND(0.0000023)
1,2,3,7,8,9-HxCDD		ND(0.0000070)	ND(0.0000024)	ND(0.000014)	ND(0.000017)	ND(0.0000032)
HpCDDs (total)		0.000065	ND(0.0000030)	0.00069	0.00017	ND(0.000014)
1,2,3,4,6,7,8-HpCDD		0.000032 J**	ND(0.0000026)	0.000036	0.000093	ND(0.000013)
OCDD		0.000014	ND(0.000013)	0.00037	0.0011	ND(0.000038)
MDEP TEQ		0.000029	0.00000061	0.000032	0.000021	0.000011
USEPA TEQ		0.000014	0.00000059	0.000010	0.0000057	0.0000056
WHO TEQ		0.000014	0.00000059	0.0000099	0.0000047	0.0000056

(See Notes on Page 4)

TABLE 5

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF PRE-1999 SOIL APPENDIX IX + 3 POLYCHLORINATED DIBENZO-p-DIOXINS AND POLYCHLORINATED DIBENZOFURANS DATA

(Results are presented in dry-weight parts per million, ppm)

Notes:

1. Samples were collected and analyzed for 2,3,7,8-substituted polychlorinated dibenzo-p-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs).
2. Only parameters detected in at least one sample are shown.
3. Duplicate results are shown in brackets.
4. ND - Compound was not detected, associated detection limit presented in parentheses.
5. g - 2,3,7,8-TCDF results have been confirmed on a DB-225 column.
6. J** - Indicates an estimated value below the lower calibration limit, but above the target detection limit.
7. E - Indicates the reported value is estimated because of the presence of interference.
8. WHO TEQ values were calculated using Toxic Equivalence Factors (TEFs) derived by the World Health Organization in "Toxic Equivalence Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife", and published by Van Den Berg, et. al., in Environmental Health Perspectives 106(2), December 1998.
9. NA - Not analyzed.
10. M - Indicates presence was noted, but not at a level which the laboratory could quantify.

TABLE 6

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF PRE-1999 SOIL APPENDIX IX+3 INORGANICS DATA

(Results are presented in dry-weight parts per million, ppm)

Parameter	Sample ID: Sample Depth (feet): Date Collected:	GE-12 10-12 12/11/91	MM-5B 12 - 14 02/26/97	MM-5C 12 - 14 02/27/97	MM-6 10 - 12 02/25/97	QP-22 0-4 10/09/89	QP-22 4-8 10/09/89	QP-22 8-12 10/09/89	QP-23 0-4 10/09/89	QP-23 4-8 10/09/89
Antimony		9.6 J*N	2.90 J*N	ND N	4.50 J*N	ND	14.0	16.0	48.0	14.0
Arsenic		5.60 A	11.9	6.40	6.50	15.0	34.0	42.0	46.0	49.0
Barium		15.1 J*	8.70 J*	88.9	73.3	--	--	--	--	--
Beryllium		ND	0.11 J*	0.19 J*	0.22 J*	0.30	0.20	0.10	0.40	0.20
Cadmium		ND	0.48 J*	0.40 J*	1.60	1.00	14.5	11.1	12.0	16.7
Chromium		14.2	12.3 N	10.2 N	24.4 N	26.0	142	111	372	165
Cobalt		15.3	16.6	13.7	15.1	--	--	--	--	--
Copper		33.5 N	24.9	21.6	1,650	326	3,130	3,220	4,480	3,980
Lead		14.9 **	10.0	9.50	826	210	5,870	5,630	6,950	6,630
Mercury		ND	ND	ND	1.10	0.10	4.90	1.80	10.3	4.00
Nickel		26.8	22.8	20.8	32.2	33.0	161	204	195	205
Selenium		ND	0.55 J*	ND	0.53 J*	ND	ND	ND	ND	ND
Silver		ND	ND	0.11 J*	0.51 J*	ND	ND	ND	ND	ND
Thallium		--	0.45 J*	ND	0.77 J*	ND	ND	ND	ND	ND
Tin		--	ND	ND	95.5	--	--	--	--	--
Vanadium		12.0 J*	9.90	8.50	11.7	--	--	--	--	--
Zinc		80.2	71.9	56.4	809	44.3	7,440	7,070	6,260	8,430

Parameter	Sample ID: Sample Depth (feet): Date Collected:	QP-23 8-12 10/09/89	QP-24 0-0.5 05/09/91	QP-25 0-0.5 05/09/91	QP-26 0-0.5 05/09/91	QP-27 4 - 6 02/26/97	QP-28 4 - 6 02/27/97	1A-24 0-0.5 05/08/91	1A-25 0-0.5 05/08/91	RV-8 0-0.5 05/08/91
Antimony		10.0	ND	72.7 N [129 N]	6.70 J*N	24.3 N	2.40 J*N	ND	ND	ND
Arsenic		40.0	5.00	16.0 [20.4 N**]	4.00	24.9	8.20	5.80 N**	4.70 N**	7.00 N**
Barium		--	32.4 **	561 [382]	136 **	439	92.3	37.0	27.0	81.9
Beryllium		0.20	0.19 J*	0.47 J* [0.47 J*]	0.20 J*	0.14 J*	0.24 J*	0.18 J*	0.12 J*	0.22 J*
Cadmium		13.7	ND	11.8 [13.4]	1.70	11.0	1.00	ND	0.70	0.60
Chromium		99.0	14.7	525 [506]	114	130 N	15.8 N	12.3	11.1	11.3
Cobalt		--	10.7	20.5 [23.5]	9.00	16.3	10.4	6.60	12.6	30.1
Copper		3,880	43.9	3,760 [4,180]	984	4,850	66.1	44.4	42.7	51.5
Lead		5,440	51.5 **	7,070** [8,150]	1,830 **	5,550	113	97.0	64.0	61.2
Mercury		2.40	ND	7.00 [ND]	1.00	4.80	0.16	ND	ND	0.17
Nickel		147	24.7	108 [113]	30.5	115	16.8	14.7	18.7	21.5
Selenium		ND	ND	ND [ND]	ND	2.30	0.68	ND	ND	ND R
Silver		ND	ND	9.5 N [11.6 N]	ND	7.80	0.19 J*	ND	ND	ND
Thallium		ND	--	--	--	2.60	0.66 J*	--	--	--
Tin		--	ND	ND [ND]	ND	448	67.6	--	--	--
Vanadium		--	15.2	13.8 [15.7]	18.3	11.9	15.6	16.8	15.7	9.80
Zinc		6,960	87.3 E	4,870 E [5,780 E]	789 E	5,620	158	149 E	98.4 E	104 E

(See Notes on Page 3)

TABLE 6

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF PRE-1999 SOIL APPENDIX IX+3 INORGANICS DATA

(Results are presented in dry-weight parts per million, ppm)

Parameter	Sample ID.: Sample Depth (feet): Date Collected:	RV-9 10 - 12 02/24/97	RV-10 14 - 16 02/24/97	SZ-23 0-0.5 05/08/91	SZ-24 0-0.5 05/08/91	MO-12 0-0.5 05/08/91	MO-13 0-0.5 05/08/91	FW-20 0-4 10/09/89	FW-20 4-8 10/09/89	FW-20 8-10 10/09/89
Antimony		ND N	ND N	ND	ND	ND	ND [ND]	ND	4.00	ND
Arsenic		4.00	1.60	7.90 AN**	5.10 J*N**	2.50 N**	7.00 N** [5.90 AN**]	ND	3.00	8.00
Barium		18.1 J*	18.2 J*	44.8	34.9	28.2	98.3 [69.3]	--	--	--
Beryllium		0.14 J*	0.12 J*	0.29 J*	0.24 J*	0.84	0.39 J* [0.91]	0.60	0.30	ND
Cadmium		0.54 J*	0.16 J*	ND	ND	ND	1.00 [0.68]	2.00	2.00	ND
Chromium		8.80 N	5.80 N	12.6	11.3	12.9	21.3 [35.6]	15.0	30.0	10.0
Cobalt		6.40	5.80 J*	9.50	8.50	8.10	8.40 [13.4]	--	--	--
Copper		8.60	13.6	21.6	21.6	74.2	302 [264]	341	706	27.0
Lead		9.80	17.4	53.3 AN**	26.4 N**	80.0	192 [288]	181	479	13.0
Mercury		ND	ND	0.17	ND	ND	0.52 [3.00]	2.00	3.90	ND
Nickel		11.80	8.60	15.9	15.8	38.9	28.0 [70.8]	23.0	42.0	21.0
Selenium		0.54 J*	0.42 J*	ND R	ND R	ND R	ND R [ND R]	ND	ND	ND
Silver		ND	ND	ND	ND	ND	0.90 J*N [ND]	ND	ND	ND
Thallium		ND	ND	ND	ND	ND	ND [ND]	ND	ND	ND
Tin		ND	ND	--	--	--	--	--	--	--
Vanadium		7.20	5.50 J*	15.6	12.1	7.30	12.9 [18.0]	--	--	--
Zinc		46.5	42.0	70.1 E	80.6 E	236 E	360 E [577 E]	721	830	68.1

Parameter	Sample ID.: Sample Depth (feet): Date Collected:	FW-21 0-4 10/09/89	FW-21 4-8 10/09/89	FW-21 8-10 10/09/89	FW-22 0-0.5 05/08/91	FW-23 0-0.5 05/08/91	FW-24 12 - 14 02/25/97	PK-15 0-0.5 05/09/91	SLO 093 0-0.5 08/12/98	SLO 466 0-0.5 09/09/98
Antimony		ND	ND	ND	ND	ND	ND N	ND	1.2 J	1.9 J
Arsenic		6.00	ND	ND	3.4 N**	2.6 N**	6.30	7.00	8.5	10.2
Barium		--	--	--	29.1	66.2	22.6 J*	37.5 **	109	55.8
Beryllium		0.40	0.30	ND	0.17 J*	0.16 J*	0.16 J*	0.31 J*	ND	0.15
Cadmium		0.80	ND	ND	0.49 J*	0.56	0.28 J*	ND	ND	0.55
Chromium		11.0	12.0	8.00	10.3	9.40	8.20 N	10.2	16.6	10.2
Cobalt		--	--	--	9.00	7.90	11.1	12.9	10.8	10.9
Copper		169	189	36.0	70.4	48.6	23.3	18.8	78.8	86.3
Lead		98.0	163	16.0	71.4	110	6.70	16.0 **	109	70.3
Mercury		1.00	0.30	ND	0.13	ND R	ND R	ND	0.24	0.2
Nickel		24.0	26.0	25.0	20.6	15.7	15.1	20.7	23.1	24.6
Selenium		ND	ND	ND	ND	ND	ND	ND	ND	0.87
Silver		ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium		ND	ND	ND	ND	ND	ND	ND R	1	1
Tin		--	--	--	--	--	ND	--	4.4	3.6 J
Vanadium		--	--	--	11.2	10.4	5.10 J*	17.0	20.4	14.9
Zinc		211	342	61.2	120 E	84.8 E	53.8	76.0 E	265 J	201

(See Notes on Page 3)

TABLE 6

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

PRE-DESIGN INVESTIGATION WORK PLAN FOR THE NEWELL STREET AREA I REMOVAL ACTION

SUMMARY OF PRE-1999 SOIL APPENDIX IX+3 INORGANICS DATA

(Results are presented in dry-weight parts per million, ppm)

Notes:

1. Unless otherwise noted, samples were collected and analyzed for Appendix IX+3 inorganic compounds; only those constituents detected in at least one sample are shown.
2. Duplicate Results are presented in brackets.
3. ND - Compound was not detected.
4. J* - Indicates the reported value is less than the Practical Quantitation Limit (PQL), but greater than the instrument detection limit (IDL).
5. N - Indicates sample matrix spike analysis was outside control limits.
6. ** - Indicates sample matrix duplicate was outside control limits.
7. E - Indicates the reported value is estimated because of the presence of interference.
8. A - Results reported from single-point method-of-standard-addition calculation.
9. -- - Not analyzed for this constituent.
10. R - Results rejected based on matrix spike recovery (0% or less).

TABLE 7

**GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS**

**SUMMARY OF RECENT PCB DATA - PARCEL J9-23-17
(Results in ppm, dry-weight)**

Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221, -1232, -1242, & -1248	Aroclor-1254	Aroclor-1260	Total PCBs
IA-91	0.5-1	1/24/00	ND(0.94)	4.7	4.2	8.9
	1-3	1/24/00	ND(0.44)	1.9	2.1	4.0
	3-6	1/24/00	ND(1.8)	20	14	34
	6-10	1/24/00	ND(20)	250	ND(20)	250
	10-15	1/24/00	ND(4.0)	52	ND(4.0)	52
IA-92	0-1	1/24/00	ND(0.86)	2.8	4.5	7.3
	1-3	1/24/00	ND(1.9)	6.6	5.1	12
	3-6	1/24/00	ND(21)	110	34	140
	6-10	1/24/00	ND(20) [ND(21)]	85 [56]	ND(20) [18 J]	85 [74]
	10-15	1/24/00	ND(23)	210	ND(23)	210
IA-93	0.6-1	1/26/00	ND(93)	2100	ND(93)	2100
IA-94	0-1	1/26/00	ND(42)	250	140	390
IA-95	0.2-1	1/26/00	ND(1.8)	2.7	1.8	4.5
IA-96	0-1	1/24/00	ND(0.86)	2.7	2.8	5.5
	1-3	1/24/00	ND(2.3)	16	ND(2.3)	16
	3-6	1/24/00	ND(0.38)	2.1	1.8	3.9
	6-10	1/24/00	ND(0.75)	4.2	3.9	8.1
	10-15	1/24/00	ND(56)	230	ND(56)	230
IA-97	0-1	1/26/00	ND(0.89) [ND(0.89)]	2.6 [3.2]	2.1 [4.4]	4.7 [7.6]
IA-98	0.2-1	1/25/00	ND(0.037)	0.37	0.19	0.56
	1-3	1/25/00	ND(0.76)	3.3	4.6	7.9
	3-6	1/25/00	ND(93)	1800	ND(93)	1800
	6-10	1/25/00	ND(220)	3600	ND(220)	3600
	10-15	1/25/00	ND(98)	1000	ND(98)	1000
IA-99	0-1	1/26/00	ND(1.9)	9.2	5.5	15
IA-100	0.7-1	1/26/00	ND(1.8)	56	ND(1.8)	56
IA-101	0.2-1	1/26/00	ND(0.36)	1.3	1.8	3.1
IA-102	0-1	1/24/00	ND(0.41)	3.3	2.0	5.3
	1-3	1/24/00	ND(0.39)	3.5	1.6	5.1
	3-6	1/24/00	ND(0.037)	0.48	0.32	0.80
	6-10	1/24/00	ND(0.036)	0.14	0.13	0.27
	10-15	1/24/00	ND(0.042)	0.075	0.088	0.16
IA-103	0.2-1	1/25/00	ND(0.036)	1.2	1.2	2.4
	1-3	1/25/00	ND(0.74)	7.6	6.0	14
	3-6	1/25/00	ND(0.38)	2.2	1.8	4.0
	6-10	1/25/00	ND(0.037)	0.46	0.37	0.83
	10-15	1/25/00	ND(0.040)	0.77	0.40	1.2
IA-104	0-1	1/26/00	ND(0.45)	1.2	2.3	3.5
IA-105	0-1	1/26/00	ND(0.039)	0.22	0.31	0.53
IA-106	0.2-1	1/26/00	ND(0.036)	0.22	0.52	0.74
IA-107	0-1	1/25/00	ND(0.40)	1.7	2.2	3.9
	1-3	1/25/00	ND(0.18)	0.78	0.90	1.7
	3-6	1/25/00	ND(0.18)	0.52	0.70	1.2
	6-10	1/25/00	ND(0.036)	ND(0.036)	0.37	0.37
	10-15	1/25/00	ND(0.039)	0.068	0.074	0.14
IA-108	0-1	1/26/00	ND(0.45)	1.2	3.5	4.7
IA-109	0.2-1	1/25/00	ND(0.036)	1.4	0.35	1.8
	1-3	1/25/00	ND(0.039)	0.39	0.34	0.73
	3-6	1/25/00	ND(0.039)	0.11	0.10	0.21
	6-10	1/25/00	ND(0.038)	0.038	ND(0.038)	0.038
	10-15	1/25/00	ND(0.042) [ND(0.042)]	0.070 [0.052]	0.044 [ND(0.042)]	0.11 [0.052]

TABLE 7

**GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS**

**SUMMARY OF RECENT PCB DATA - PARCEL J9-23-17
(Results in ppm, dry-weight)**

Notes:

- 1) Samples were collected by Blasland, Bouck & Lee, Inc., and were submitted to CT&E Environmental Services, Inc. for analysis of PCBs.
- 2) Surface sample (0-1 feet) collection began at the base of any existing cap or pavement, if present.
- 3) ND - Analyte was not detected. The value in parentheses is the associated detection limit.
- 4) J - Indicates an estimated value less than the CLP-required quantitation limit.
- 5) Duplicate results are presented in brackets.

TABLE 8

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

SUMMARY OF RECENT APPENDIX-IX+3 DATA - PARCEL J9-23-17
(Results in ppm, dry-weight)

Sample ID: Sample Depth(Feet): Date Collected:	IA-91 1-3 01/24/00	IA-92 1-3 01/24/00	IA-93 0.5-1 01/26/00	IA-95 0.2-1 01/26/00
Volatiles Organics				
2-Butanone	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)
Acetone	0.079	0.029	0.057	0.017
Chlorobenzene	ND(0.033)	ND(0.0058)	ND(0.0070)	ND(0.0054)
Methylene Chloride	ND(0.033)	ND(0.0058)	ND(0.0070)	ND(0.0054)
Trichloroethene	ND(0.033)	ND(0.0058)	0.0098	ND(0.0054)
Vinyl Chloride	ND(0.066)	ND(0.012)	ND(0.014)	ND(0.011)
Semivolatile Organics				
1,2,4,5-Tetrachlorobenzene	ND(0.44)	ND(0.38)	ND(0.47)	ND(0.36)
1,2,4-Trichlorobenzene	ND(0.44)	ND(0.38)	2.2	ND(0.36)
1,3-Dichlorobenzene	ND(0.44)	ND(0.38)	ND(0.47)	ND(0.36)
1,4-Dichlorobenzene	ND(0.44)	ND(0.38)	ND(0.47)	ND(0.36)
2,4-Dimethylphenol	ND(0.44)	ND(0.38)	ND(0.47)	ND(0.36)
2-Chloronaphthalene	ND(0.44)	ND(0.38)	ND(0.47)	ND(0.36)
2-Methylphenol	ND(0.44)	ND(0.38)	ND(0.47)	ND(0.36)
3&4-Methylphenol	ND(0.88)	ND(0.77)	ND(0.94)	ND(0.72)
Acenaphthylene	ND(0.44)	ND(0.38)	ND(0.47)	ND(0.36)
Aniline	ND(0.44)	ND(0.38)	6.8	ND(0.36)
Anthracene	ND(0.44)	ND(0.38)	ND(0.47)	ND(0.36)
Benzo(a)anthracene	ND(0.44)	ND(0.38)	ND(0.47)	ND(0.36)
Benzo(a)pyrene	ND(0.44)	ND(0.38)	ND(0.47)	ND(0.36)
Benzo(b)fluoranthene	ND(0.44)	ND(0.38)	0.50	ND(0.36)
Benzo(g,h,i)perylene	ND(0.44)	ND(0.38)	ND(0.47)	ND(0.36)
Benzo(k)fluoranthene	ND(0.44)	ND(0.38)	ND(0.47)	ND(0.36)
Chrysene	ND(0.44)	ND(0.38)	ND(0.47)	ND(0.36)
Di-n-Butylphthalate	ND(0.44)	ND(0.38)	3.4	ND(0.36)
Fluoranthene	0.60	ND(0.38)	ND(0.47)	ND(0.36)
Indeno(1,2,3-cd)pyrene	ND(0.88)	ND(0.77)	ND(0.94)	ND(0.72)
N-Nitrosodiphenylamine	ND(0.44)	ND(0.38)	ND(0.47)	ND(0.36)
Phenanthrene	ND(0.44)	ND(0.38)	ND(0.47)	ND(0.36)
Phenol	ND(0.44)	ND(0.38)	2.4	ND(0.36)
Pyrene	0.61	ND(0.38)	ND(0.47)	ND(0.36)
Pesticides/Herbicides				
None Detected	--	--	--	--
Polychlorinated Dibenzofurans				
2,3,7,8-TCDF	0.00095	0.000037	0.094	0.0048
TCDFs (total)	0.0047 E	0.00019	0.17 E	0.018 E
1,2,3,7,8-PeCDF	0.00030	0.000018	0.0092 E	0.0018
2,3,4,7,8-PeCDF	0.00029	0.000017	0.015 E	0.0019
PeCDFs (total)	0.0036	0.00018	0.028 E	0.0099 E
1,2,3,4,7,8-HxCDF	0.00068	0.000029	0.028 E	0.0026
1,2,3,6,7,8-HxCDF	0.000080	0.000015	0.019 E	0.0011
1,2,3,7,8,9-HxCDF	ND(0.000011)	ND(0.0000049)	0.00054	ND(0.0000013)
2,3,4,6,7,8-HxCDF	ND(0.000012)	ND(0.0000055)	0.011 E	0.00064
HxCDFs (total)	0.00078	0.00010	0.060 E	0.0044 E
1,2,3,4,6,7,8-HpCDF	0.00082	0.000033	0.036 E	0.0038
1,2,3,4,7,8,9-HpCDF	0.000093	ND(0.000012)	0.0090 E	0.00050
HpCDFs (total)	0.0013	0.000046	0.063 E	0.0056 E
OCDF	0.00029	ND(0.0000097)	0.018	0.0014
Total Furans	0.011	0.00052	0.34	0.039

TABLE 8

**GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS**

**SUMMARY OF RECENT APPENDIX-IX+3 DATA - PARCEL J9-23-17
(Results in ppm, dry-weight)**

Sample ID: Sample Depth(Feet): Date Collected:	IA-91 1-3 01/24/00	IA-92 1-3 01/24/00	IA-93 0.5-1 01/26/00	IA-95 0.2-1 01/26/00
Polychlorinated Dibenzo-p-dioxins				
2,3,7,8-TCDD	ND(0.0000021)	ND(0.0000020)	0.0012 E	0.00063
TCDDs (total)	0.00013	ND(0.0000020)	0.032 E	0.0017 E
1,2,3,7,8-PeCDD	0.000014 J	ND(0.0000024)	0.0055	0.00022
PeCDDs (total)	0.00010	ND(0.0000024)	0.037 E	0.0023
1,2,3,4,7,8-HxCDD	ND(0.000031)	ND(0.000012)	0.0045	0.00026
1,2,3,6,7,8-HxCDD	ND(0.000038)	ND(0.000015)	0.0079 E	0.00047
1,2,3,7,8,9-HxCDD	0.000036	ND(0.000013)	0.011 E	0.00081
HxCDDs (total)	0.00022	ND(0.000015)	0.11 E	0.0081 E
1,2,3,4,6,7,8-HpCDD	0.00010	ND(0.000016)	0.094 E	0.0055 E
HpCDDs (total)	0.00024	0.000022	0.21 E	0.015 E
OCDD	0.00034	0.000061	0.14 E	0.025 E
Total Dioxins	0.0010	0.000083	0.53	0.052
Total TEQs (MDEP TEFs)	0.00078	0.000039	0.053	0.0054
Total TEQs (EPA TEFs)	0.00035	0.000018	0.031	0.0030
Total TEQs (WHO TEFs)	0.00036	0.000018	0.034	0.0031
Inorganics				
Antimony	ND(12.0)	ND(10.0)	48.0	ND(9.70)
Arsenic	ND(20.0)	ND(17.0)	82.0	ND(16.0)
Barium	470	ND(34.0)	290	ND(32.0)
Beryllium	ND(0.200)	0.210	0.950	0.190
Cadmium	ND(2.00)	ND(1.70)	20.0	ND(1.60)
Chromium	7.90	13.0	350	8.40
Cobalt	ND(9.90)	12.0	36.0	ND(8.10)
Copper	56.0	77.0	13000	43.0
Cyanide	ND(1.00)	ND(1.00)	0.920	ND(1.00)
Lead	34.0	69.0	9000	48.0
Mercury	ND(0.260)	ND(0.230)	0.600	ND(0.220)
Nickel	ND(7.90)	21.0	340	14.0
Selenium	ND(0.990)	ND(0.860)	1.40	ND(0.810)
Silver	ND(0.990)	ND(0.860)	ND(1.00)	ND(0.810)
Sulfide	ND(6.60)	ND(5.80)	150	ND(5.40)
Tin	ND(59.0)	65.0	1600	ND(48.0)
Vanadium	ND(9.90)	ND(8.60)	48.0	ND(8.10)
Zinc	46.0	110	5300	68.0

TABLE 8

**GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS**

**SUMMARY OF RECENT APPENDIX-IX+3 DATA - PARCEL J9-23-17
(Results in ppm, dry-weight)**

Sample ID: Sample Depth(Feet): Date Collected:	IA-96 0-1 01/24/00	IA-98 3-6 01/25/00	IA-98 6-15 01/25/00
Volatile Organics			
2-Butanone	ND(0.10)	ND(0.10)	0.040 [ND(0.10)]
Acetone	0.015	0.037	0.24 [0.099]
Chlorobenzene	ND(0.0065)	ND(0.0070)	0.045 [ND(0.042)]
Methylene Chloride	ND(0.0065)	ND(0.0070)	0.013 [ND(0.042)]
Trichloroethene	ND(0.0065)	ND(0.0070)	0.021 [ND(0.042)]
Vinyl Chloride	ND(0.013)	ND(0.014)	0.042 [ND(0.085)]
Semivolatile Organics			
1,2,4,5-Tetrachlorobenzene	ND(0.43)	0.80	3.0 [3.6]
1,2,4-Trichlorobenzene	ND(0.43)	14	16 [5.8]
1,3-Dichlorobenzene	ND(0.43)	ND(0.47)	1.5 [1.3]
1,4-Dichlorobenzene	ND(0.43)	ND(0.47)	4.5 [6.2]
2,4-Dimethylphenol	ND(0.43)	ND(0.47)	ND(0.63) [1.0]
2-Chloronaphthalene	ND(0.43)	0.48	ND(0.63) [ND(0.57)]
2-Methylphenol	ND(0.43)	ND(0.47)	ND(0.63) [0.59]
3&4-Methylphenol	ND(0.86)	ND(0.94)	ND(1.3) [1.5]
Acenaphthylene	0.69	ND(0.47)	ND(0.63) [ND(0.57)]
Aniline	ND(0.43)	8.4	1.6 [5.6]
Anthracene	0.47	0.52	ND(0.63) [ND(0.57)]
Benzo(a)anthracene	1.9	1.3	1.1 [2.6]
Benzo(a)pyrene	1.8	1.9	1.6 [3.6]
Benzo(b)fluoranthene	2.4	2.6	2.0 [5.3]
Benzo(g,h,i)perylene	1.1	1.2	1.1 [2.2]
Benzo(k)fluoranthene	0.85	0.95	0.88 [1.7]
Chrysene	1.8	1.4	1.2 [2.7]
Di-n-Butylphthalate	ND(0.43)	1.4	0.73 [1.0]
Fluoranthene	4.2	3.2	1.9 [4.2]
Indeno(1,2,3-cd)pyrene	1.2	1.3	ND(1.3) [2.4]
N-Nitrosodiphenylamine	ND(0.43)	0.94	ND(0.63) [ND(0.57)]
Phenanthrene	0.82	2.1	0.91 [1.9]
Phenol	ND(0.43)	0.70	2.1 [2.2]
Pyrene	3.6	2.5	1.8 [3.9]
Pesticides/Herbicides			
None Detected	--	--	--
Polychlorinated Dibenzofurans			
2,3,7,8-TCDF	0.00081	ND(0.0000056)	ND(0.0000072) [0.030 E]
TCDFs (total)	0.0040 E	0.066 E	0.20 E [0.15 E]
1,2,3,7,8-PeCDF	0.00054	0.021 E	0.043 E [0.0089]
2,3,4,7,8-PeCDF	0.00049	ND(0.0000056)	0.040 E [0.014 E]
PeCDFs (total)	0.0049	0.092 E	0.23 E [0.13 E]
1,2,3,4,7,8-HxCDF	0.0012	0.041 E	0.087 E [0.039 E]
1,2,3,6,7,8-HxCDF	0.00061	0.021 E	0.039 E [0.017 E]
1,2,3,7,8,9-HxCDF	ND(0.0000070)	0.00044	ND(0.0000060) [ND(0.000014)]
2,3,4,6,7,8-HxCDF	0.00029	0.0090 E	0.015 E [0.0047]
HxCDFs (total)	0.0023	0.079 E	0.21 E [0.12 E]
1,2,3,4,6,7,8-HpCDF	0.0011	0.054 E	0.093 E [0.035 E]
1,2,3,4,7,8,9-HpCDF	0.00023	0.0092 E	0.013 [0.0081]
HpCDFs (total)	0.0020	0.083 E	0.13 E [0.060 E]
OCDF	0.00067	0.068	0.060 [0.021]
Total Furans	0.014	0.39	0.83 [0.48]

TABLE 8

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

SUMMARY OF RECENT APPENDIX-IX+3 DATA - PARCEL J9-23-17
(Results in ppm, dry-weight)

Sample ID: Sample Depth(Feet): Date Collected:	IA-96 0-1 01/24/00	IA-98 3-6 01/25/00	IA-98 6-15 01/25/00
Polychlorinated Dibenzo-p-dioxins			
2,3,7,8-TCDD	ND(0.000035)	0.000099	0.00021 [0.00012]
TCDDs (total)	0.000072	0.0032 E	0.0054 E [0.0033 E]
1,2,3,7,8-PeCDD	ND(0.000032)	0.00043	0.00072 [0.00041]
PeCDDs (total)	0.000027	0.0055	0.012 [0.0045]
1,2,3,4,7,8-HxCDD	ND(0.000019)	0.00033	0.00054 [0.00026]
1,2,3,6,7,8-HxCDD	ND(0.000024)	0.00076	0.0011 [0.0012]
1,2,3,7,8,9-HxCDD	0.000025	0.0011	0.0026 [0.0012]
HxCDDs (total)	0.00024	0.0086 E	0.014 [0.0086]
1,2,3,4,6,7,8-HpCDD	0.00011	0.0045	0.0056 [0.0033]
HpCDDs (total)	0.00022	0.010 E	0.012 [0.0070]
OCDD	0.00024	0.011	0.012 [0.0050]
Total Dioxins	0.00080	0.038	0.055 [0.028]
Total TEQs (MDEP TEFs)	0.0012	0.030	0.078 [0.033]
Total TEQs (EPA TEFs)	0.00058	0.0095	0.038 [0.018]
Total TEQs (WHO TEFs)	0.00058	0.0096	0.039 [0.018]
Inorganics			
Antimony	ND(12.0)	23.0	21.0 [16.0]
Arsenic	ND(19.0)	ND(21.0)	ND(28.0) [36.0]
Barium	180	530	530 [1300]
Beryllium	0.250	0.420	0.400 [0.390]
Cadmium	ND(1.90)	9.40	13.0 [21.0]
Chromium	9.50	230	270 [560]
Cobalt	ND(9.70)	15.0	16.0 [17.0]
Copper	34.0	2400	3800
Cyanide	0.650	2.50	5.10 [ND(1.00)]
Lead	94.0	3200	5900
Mercury	ND(0.260)	2.90	3.80
Nickel	15.0	120	140 [220]
Selenium	ND(0.970)	ND(1.00)	ND(1.40) [ND(1.30)]
Silver	ND(0.970)	9.80	8.80 [7.00]
Sulfide	21.0	42.0	700 [490]
Tin	ND(58.0)	250	330 [870]
Vanadium	11.0	14.0	ND(14.0) [18.0]
Zinc	130	3900	7000

TABLE 8

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

SUMMARY OF RECENT APPENDIX-IX+3 DATA - PARCEL J9-23-17
(Results in ppm, dry-weight)

Sample ID: Sample Depth(Feet): Date Collected:	IA-99 0-1 01/26/00	IA-100 0.7-1 01/26/00	IA-102 1-3 01/24/00	IA-103 0.2-1 01/25/00
Volatile Organics				
2-Butanone	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)
Acetone	0.014	0.012	0.018	0.094
Chlorobenzene	ND(0.0058)	ND(0.0054)	ND(0.0059)	ND(0.027)
Methylene Chloride	ND(0.0058)	ND(0.0054)	ND(0.0059)	ND(0.027)
Trichloroethene	ND(0.0058)	0.0059	ND(0.0059)	ND(0.027)
Vinyl Chloride	ND(0.012)	ND(0.011)	ND(0.012)	ND(0.055)
Semivolatile Organics				
1,2,4,5-Tetrachlorobenzene	ND(0.39)	ND(0.36)	ND(0.39)	ND(0.36)
1,2,4-Trichlorobenzene	ND(0.39)	ND(0.36)	ND(0.39)	ND(0.36)
1,3-Dichlorobenzene	ND(0.39)	ND(0.36)	ND(0.39)	ND(0.36)
1,4-Dichlorobenzene	ND(0.39)	ND(0.36)	ND(0.39)	ND(0.36)
2,4-Dimethylphenol	ND(0.39)	ND(0.36)	ND(0.39)	ND(0.36)
2-Chloronaphthalene	ND(0.39)	ND(0.36)	ND(0.39)	ND(0.36)
2-Methylphenol	ND(0.39)	ND(0.36)	ND(0.39)	ND(0.36)
3&4-Methylphenol	ND(0.78)	ND(0.73)	ND(0.79)	ND(0.73)
Acenaphthylene	ND(0.39)	ND(0.36)	2.3	ND(0.36)
Aniline	1.4	ND(0.36)	ND(0.39)	ND(0.36)
Anthracene	ND(0.39)	ND(0.36)	1.9	ND(0.36)
Benzo(a)anthracene	ND(0.39)	ND(0.36)	4.9	ND(0.36)
Benzo(a)pyrene	ND(0.39)	ND(0.36)	5.6	ND(0.36)
Benzo(b)fluoranthene	0.42	0.54	6.3	ND(0.36)
Benzo(g,h,i)perylene	ND(0.39)	ND(0.36)	2.7	ND(0.36)
Benzo(k)fluoranthene	ND(0.39)	ND(0.36)	2.3	ND(0.36)
Chrysene	ND(0.39)	0.38	5.1	ND(0.36)
Di-n-Butylphthalate	ND(0.39)	ND(0.36)	ND(0.39)	ND(0.36)
Fluoranthene	0.50	ND(0.36)	4.8	ND(0.36)
Indeno(1,2,3-cd)pyrene	ND(0.78)	ND(0.73)	3.1	ND(0.73)
N-Nitrosodiphenylamine	ND(0.39)	ND(0.36)	ND(0.39)	ND(0.36)
Phenanthrene	ND(0.39)	ND(0.36)	1.3	ND(0.36)
Phenol	ND(0.39)	ND(0.36)	ND(0.39)	ND(0.36)
Pyrene	0.39	0.44	4.9	ND(0.36)
Pesticides/Herbicides				
None Detected	--	--	--	--
Polychlorinated Dibenzofurans				
2,3,7,8-TCDF	0.00035	ND(0.000015)	0.000060	0.000031
TCDFs (total)	0.0033 E	0.000083	0.00034	0.00020
1,2,3,7,8-PeCDF	0.00022	0.000066 J	0.000022	0.000019
2,3,4,7,8-PeCDF	0.00024	0.000064 J	0.000022	0.000014
PeCDFs (total)	0.0026	0.00016	0.00032	0.00030
1,2,3,4,7,8-HxCDF	0.00032	0.000016	0.000057	0.000043
1,2,3,6,7,8-HxCDF	0.00014	0.000010 J	0.000018	0.000023
1,2,3,7,8,9-HxCDF	ND(0.0000020)	ND(0.0000059)	ND(0.000012)	ND(0.0000012)
2,3,4,6,7,8-HxCDF	0.000074	0.000025	0.000026	0.000028
HxCDFs (total)	0.00056	0.000051	0.00013	0.000094
1,2,3,4,6,7,8-HpCDF	0.00060	0.000053	0.000090	0.000070
1,2,3,4,7,8,9-HpCDF	0.000073	ND(0.000016)	ND(0.000029)	0.000012
HpCDFs (total)	0.0010	0.00012	0.00016	0.00014
OCDF	0.00026	ND(0.000010)	0.000096	0.000037
Total Furans	0.0077	0.00041	0.0010	0.00077

TABLE 8

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

SUMMARY OF RECENT APPENDIX-IX+3 DATA - PARCEL J9-23-17
(Results in ppm, dry-weight)

Sample ID: Sample Depth(Feet): Date Collected:	IA-99 0-1 01/26/00	IA-100 0.7-1 01/26/00	IA-102 1-3 01/24/00	IA-103 0.2-1 01/25/00
Polychlorinated Dibenzo-p-dioxins				
2,3,7,8-TCDD	0.0000090	ND(0.0000027)	ND(0.0000056)	0.00000055 J
TCDDs (total)	0.00015	ND(0.0000027)	ND(0.0000056)	0.0000069
1,2,3,7,8-PeCDD	0.000028	ND(0.0000027)	ND(0.0000051)	ND(0.00000087)
PeCDDs (total)	0.00034	ND(0.0000027)	ND(0.0000051)	0.0000039 J
1,2,3,4,7,8-HxCDD	0.000030	ND(0.000018)	ND(0.000026)	ND(0.0000025)
1,2,3,6,7,8-HxCDD	0.000053	ND(0.000020)	ND(0.000032)	ND(0.0000023)
1,2,3,7,8,9-HxCDD	0.000084	ND(0.000019)	ND(0.000029)	ND(0.0000024)
HxCDDs (total)	0.00096	ND(0.000020)	ND(0.000032)	ND(0.0000025)
1,2,3,4,6,7,8-HpCDD	0.00069	ND(0.000015)	ND(0.000028)	0.000012
HpCDDs (total)	0.0019	ND(0.000015)	0.000070	0.000024
OCDD	0.0034	ND(0.000013)	0.00020	0.000064
Total Dioxins	0.0068	ND(0.000020)	0.00027	0.000099
Total TEQs (MDEP TEFs)	0.00068	0.000026	0.000066	0.000055
Total TEQs (EPA TEFs)	0.00028	0.0000092	0.000029	0.000022
Total TEQs (WHO TEFs)	0.00029	0.0000092	0.000029	0.000022
Inorganics				
Antimony	ND(10.0)	ND(9.80)	ND(10.0)	ND(9.80)
Arsenic	ND(18.0)	ND(16.0)	ND(18.0)	ND(16.0)
Barium	ND(35.0)	ND(33.0)	72.0	ND(33.0)
Beryllium	0.190	0.170	0.200	ND(0.160)
Cadmium	ND(1.80)	ND(1.60)	ND(1.80)	ND(1.60)
Chromium	7.40	18.0	8.40	12.0
Cobalt	ND(8.80)	ND(8.20)	ND(8.80)	9.40
Copper	1200	670	43.0	46.0
Cyanide	ND(1.00)	ND(1.00)	ND(1.00)	ND(1.00)
Lead	110	100	75.0	53.0
Mercury	ND(0.230)	ND(0.220)	ND(0.240)	ND(0.220)
Nickel	12.0	16.0	9.50	22.0
Selenium	ND(0.880)	ND(0.820)	ND(0.880)	ND(0.820)
Silver	ND(0.880)	ND(0.820)	ND(0.880)	ND(0.820)
Sulfide	ND(5.80)	ND(5.40)	ND(5.90)	ND(5.50)
Tin	ND(52.0)	ND(49.0)	ND(53.0)	ND(49.0)
Vanadium	ND(8.80)	ND(8.20)	ND(8.80)	15.0
Zinc	130	130	74.0	82.0

TABLE 8

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

SUMMARY OF RECENT APPENDIX-IX+3 DATA - PARCEL J9-23-17
(Results in ppm, dry-weight)

Sample ID: Sample Depth(Feet): Date Collected:	IA-107 3-6 01/25/00	IA-107 6-15 01/25/00	IA-108 0-1 01/26/00	IA-109 1-3 01/25/00
Volatile Organics				
2-Butanone	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)
Acetone	0.011	0.017	0.022	0.020
Chlorobenzene	ND(0.0054)	ND(0.0057)	ND(0.0068)	ND(0.0059)
Methylene Chloride	ND(0.0054)	ND(0.0057)	ND(0.0068)	ND(0.0059)
Trichloroethene	ND(0.0054)	ND(0.0057)	ND(0.0068)	ND(0.0059)
Vinyl Chloride	ND(0.011)	ND(0.011)	ND(0.014)	ND(0.012)
Semivolatile Organics				
1,2,4,5-Tetrachlorobenzene	ND(0.36)	ND(0.38)	ND(0.45)	ND(0.39)
1,2,4-Trichlorobenzene	ND(0.36)	ND(0.38)	ND(0.45)	ND(0.39)
1,3-Dichlorobenzene	ND(0.36)	ND(0.38)	ND(0.45)	ND(0.39)
1,4-Dichlorobenzene	ND(0.36)	ND(0.38)	ND(0.45)	ND(0.39)
2,4-Dimethylphenol	ND(0.36)	ND(0.38)	ND(0.45)	ND(0.39)
2-Chloronaphthalene	ND(0.36)	ND(0.38)	ND(0.45)	ND(0.39)
2-Methylphenol	ND(0.36)	ND(0.38)	ND(0.45)	ND(0.39)
3&4-Methylphenol	ND(0.73)	ND(0.76)	ND(0.91)	ND(0.79)
Acenaphthylene	ND(0.36)	ND(0.38)	ND(0.45)	ND(0.39)
Aniline	ND(0.36)	ND(0.38)	ND(0.45)	ND(0.39)
Anthracene	ND(0.36)	ND(0.38)	ND(0.45)	ND(0.39)
Benzo(a)anthracene	ND(0.36)	ND(0.38)	ND(0.45)	ND(0.39)
Benzo(a)pyrene	ND(0.36)	ND(0.38)	ND(0.45)	ND(0.39)
Benzo(b)fluoranthene	ND(0.36)	ND(0.38)	ND(0.45)	ND(0.39)
Benzo(g,h,i)perylene	ND(0.36)	ND(0.38)	ND(0.45)	ND(0.39)
Benzo(k)fluoranthene	ND(0.36)	ND(0.38)	ND(0.45)	ND(0.39)
Chrysene	ND(0.36)	ND(0.38)	ND(0.45)	ND(0.39)
Di-n-Butylphthalate	ND(0.36)	ND(0.38)	ND(0.45)	ND(0.39)
Fluoranthene	ND(0.36)	ND(0.38)	0.68	ND(0.39)
Indeno(1,2,3-cd)pyrene	ND(0.73)	ND(0.76)	ND(0.91)	ND(0.79)
N-Nitrosodiphenylamine	ND(0.36)	ND(0.38)	ND(0.45)	ND(0.39)
Phenanthrene	ND(0.36)	ND(0.38)	ND(0.45)	ND(0.39)
Phenol	ND(0.36)	ND(0.38)	ND(0.45)	ND(0.39)
Pyrene	ND(0.36)	ND(0.38)	0.56	ND(0.39)
Pesticides/Herbicides				
None Detected	--	--	--	--
Polychlorinated Dibenzofurans				
2,3,7,8-TCDF	0.00017	0.000015	0.000053	0.000019
TCDFs (total)	0.00087 E	0.000069	0.00027	0.00013
1,2,3,7,8-PeCDF	0.000072	0.0000058 J	0.000023	0.000010
2,3,4,7,8-PeCDF	0.000064	0.0000047 J	0.000020	0.0000098 J
PeCDFs (total)	0.0010	0.000077	0.00035	0.00015
1,2,3,4,7,8-HxCDF	0.00012	0.000012 J	0.000031	0.000018
1,2,3,6,7,8-HxCDF	0.000062	ND(0.0000074)	0.000013	0.0000086 J
1,2,3,7,8,9-HxCDF	ND(0.0000056)	ND(0.0000071)	ND(0.0000076)	ND(0.0000059)
2,3,4,6,7,8-HxCDF	0.000036	ND(0.0000078)	0.000025	0.000012
HxCDFs (total)	0.00022	0.000012 J	0.000096	0.000039
1,2,3,4,6,7,8-HpCDF	0.00020	0.000021	0.000072	0.000016
1,2,3,4,7,8,9-HpCDF	0.000039	ND(0.000012)	ND(0.000018)	ND(0.0000059)
HpCDFs (total)	0.00041	0.000040	0.00015	0.000048
OCDF	0.00015	ND(0.0000078)	0.000045	0.000029
Total Furans	0.0027	0.00020	0.00091	0.00040

TABLE 8

**GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS**

**SUMMARY OF RECENT APPENDIX-IX+3 DATA - PARCEL J9-23-17
(Results in ppm, dry-weight)**

Sample ID: Sample Depth(Feet): Date Collected:	IA-107 3-6 01/25/00	IA-107 6-15 01/25/00	IA-108 0-1 01/26/00	IA-109 1-3 01/25/00
Polychlorinated Dibenzo-p-dioxins				
2,3,7,8-TCDD	ND(0.0000029)	ND(0.0000034)	ND(0.0000032)	ND(0.0000012)
TCDDs (total)	0.000014	0.0000026 J	ND(0.0000032)	0.000057
1,2,3,7,8-PeCDD	ND(0.0000024)	ND(0.0000034)	ND(0.0000034)	ND(0.0000047)
PeCDDs (total)	0.0000091 J	0.0000015 J	ND(0.0000034)	0.000030
1,2,3,4,7,8-HxCDD	ND(0.0000088)	ND(0.000014)	ND(0.000019)	ND(0.0000013)
1,2,3,6,7,8-HxCDD	ND(0.000011)	ND(0.000017)	ND(0.000024)	ND(0.0000012)
1,2,3,7,8,9-HxCDD	0.0000088 J	ND(0.000015)	ND(0.000021)	ND(0.0000012)
HxCDDs (total)	0.000063	0.0000046 J	0.000033	0.000011
1,2,3,4,6,7,8-HpCDD	0.000060	ND(0.000014)	0.000061	ND(0.0000083)
HpCDDs (total)	0.00014	0.000011 J	0.00012	0.000021
OCDD	0.00028	0.000030	0.00047	0.00022
Total Dioxins	0.00051	0.000050	0.00062	0.00034
Total TEQs (MDEP TEFs)	0.00019	0.000014	0.000068	0.000027
Total TEQs (EPA TEFs)	0.000079	0.0000056	0.000025	0.000012
Total TEQs (WHO TEFs)	0.000078	0.0000056	0.000025	0.000011
Inorganics				
Antimony	ND(9.80)	ND(10.0)	ND(12.0)	ND(11.0)
Arsenic	ND(16.0)	ND(17.0)	ND(20.0)	ND(18.0)
Barium	ND(32.0)	ND(34.0)	44.0	39.0
Beryllium	0.210	0.200	0.340	0.290
Cadmium	ND(1.60)	ND(1.70)	ND(2.00)	ND(1.80)
Chromium	5.50	6.90	16.0	9.20
Cobalt	ND(8.10)	ND(8.60)	ND(10.0)	ND(8.80)
Copper	17.0	ND(17.0)	34.0	24.0
Cyanide	ND(1.00)	ND(1.00)	0.260	ND(1.00)
Lead	16.0	12.0	49.0	14.0
Mercury	ND(0.220)	ND(0.230)	ND(0.270)	ND(0.240)
Nickel	12.0	16.0	17.0	16.0
Selenium	ND(0.810)	ND(0.860)	ND(1.00)	ND(0.880)
Silver	ND(0.810)	ND(0.860)	ND(1.00)	ND(0.880)
Sulfide	ND(5.40)	ND(5.70)	ND(6.80)	ND(5.90)
Tin	ND(49.0)	ND(51.0)	ND(61.0)	ND(53.0)
Vanadium	ND(8.10)	ND(8.60)	18.0	ND(8.80)
Zinc	37.0	43.0	80.0	49.0

TABLE 8

**GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS**

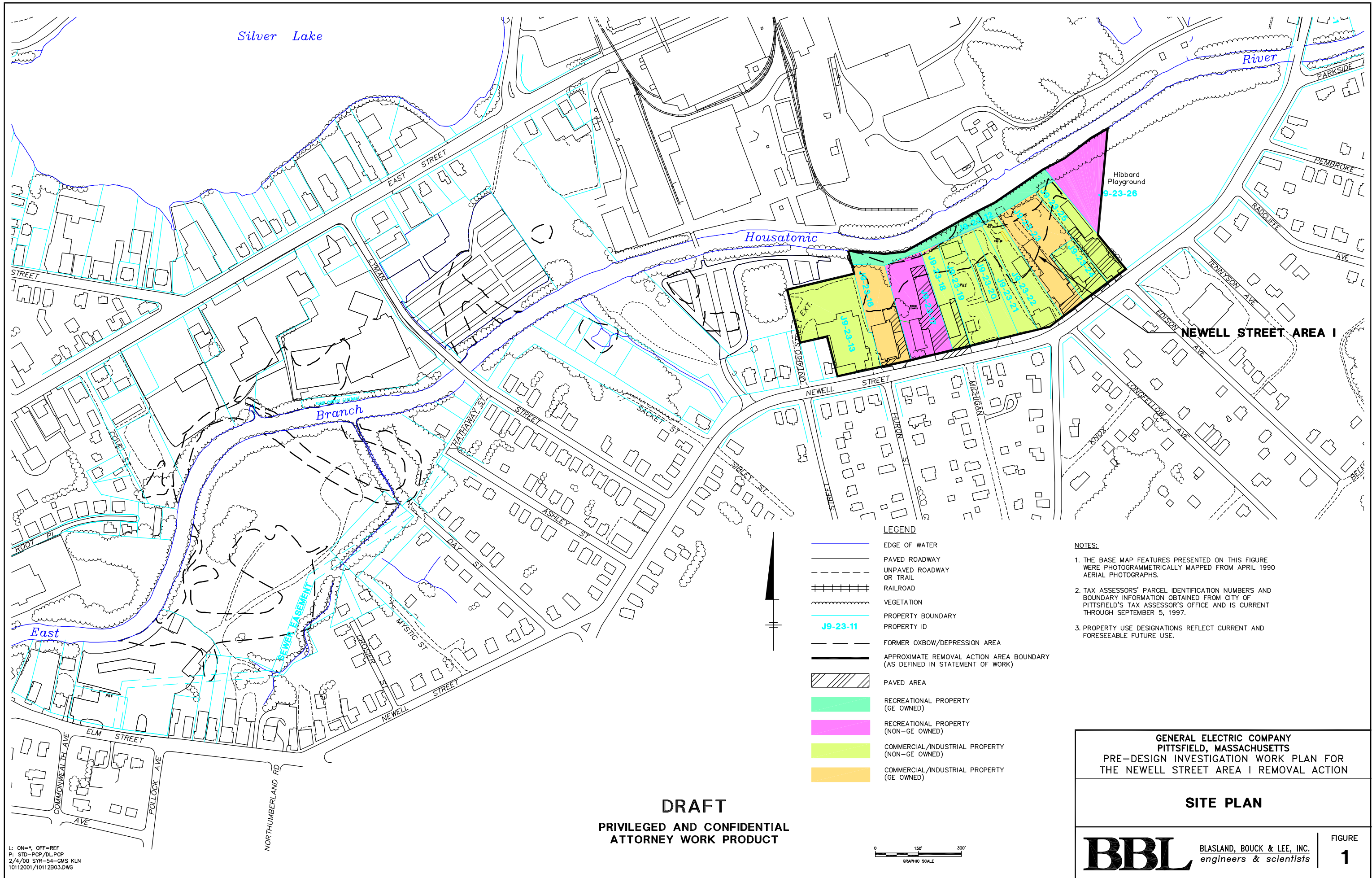
**SUMMARY OF RECENT APPENDIX-IX+3 DATA - PARCEL J9-23-17
(Results in ppm, dry-weight)**

Notes:

- 1) Samples were collected by Blasland, Bouck & Lee, Inc., and were submitted to Quanterra Environmental Services, Inc., for analysis of Appendix IX+3 constituents.
- 2) Surface sample (0-1 foot) collection began at the base of any existing cap or pavement, if present.
- 3) ND - Analyte was not detected. The number in parentheses is the associated quantitation limit for volatiles and semivolatiles and the associated detection limit for other constituents.
detection limit.
- 4) J** - Indicates an estimated value between the lower calibration limit and the target detection limit.
- 5) E - Analyte exceeded calibration range.
- 6) Total dioxins/furans determined as the sum of the total homolog concentrations; non-detect values considered as zero.
- 7) Total 2,3,7,8-TCDD toxicity equivalents (TEQs) were calculated using both MDEP's and EPA's Toxicity Equivalency Factors (TEFs) for all PCDD/PCDF congeners, although GE does not accept the validity of these TEFs.
- 8) WHO TEQ values were calculated using Toxic Equivalence Factors (TEFs) derived by the World Health Organization in "Toxic Equivalence Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife", and published by Van Den Berg, et. al., in Environmental Health Perspectives 106(2), December 1998.
- 9) Duplicate results are presented in brackets.
- 10) With the exception of dioxin/furans, only those constituents detected in at least one sample are summarized.

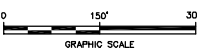
Figures

BLASLAND, BOUCK & LEE, INC.
engineers & scientists



L: ON=*, OFF=REF
 P: STD-PCP/DLPCP
 2/4/00 SYR-54-GMS KLN
 10112001/10112B03.DWG

DRAFT
PRIVILEGED AND CONFIDENTIAL
ATTORNEY WORK PRODUCT



LEGEND

- EDGE OF WATER
- PAVED ROADWAY
- UNPAVED ROADWAY OR TRAIL
- RAILROAD
- VEGETATION
- PROPERTY BOUNDARY
- PROPERTY ID
- FORMER OXBOW/DEPRESSION AREA
- APPROXIMATE REMOVAL ACTION AREA BOUNDARY (AS DEFINED IN STATEMENT OF WORK)
- PAVED AREA
- RECREATIONAL PROPERTY (GE OWNED)
- RECREATIONAL PROPERTY (NON-GE OWNED)
- COMMERCIAL/INDUSTRIAL PROPERTY (NON-GE OWNED)
- COMMERCIAL/INDUSTRIAL PROPERTY (GE OWNED)

NOTES:

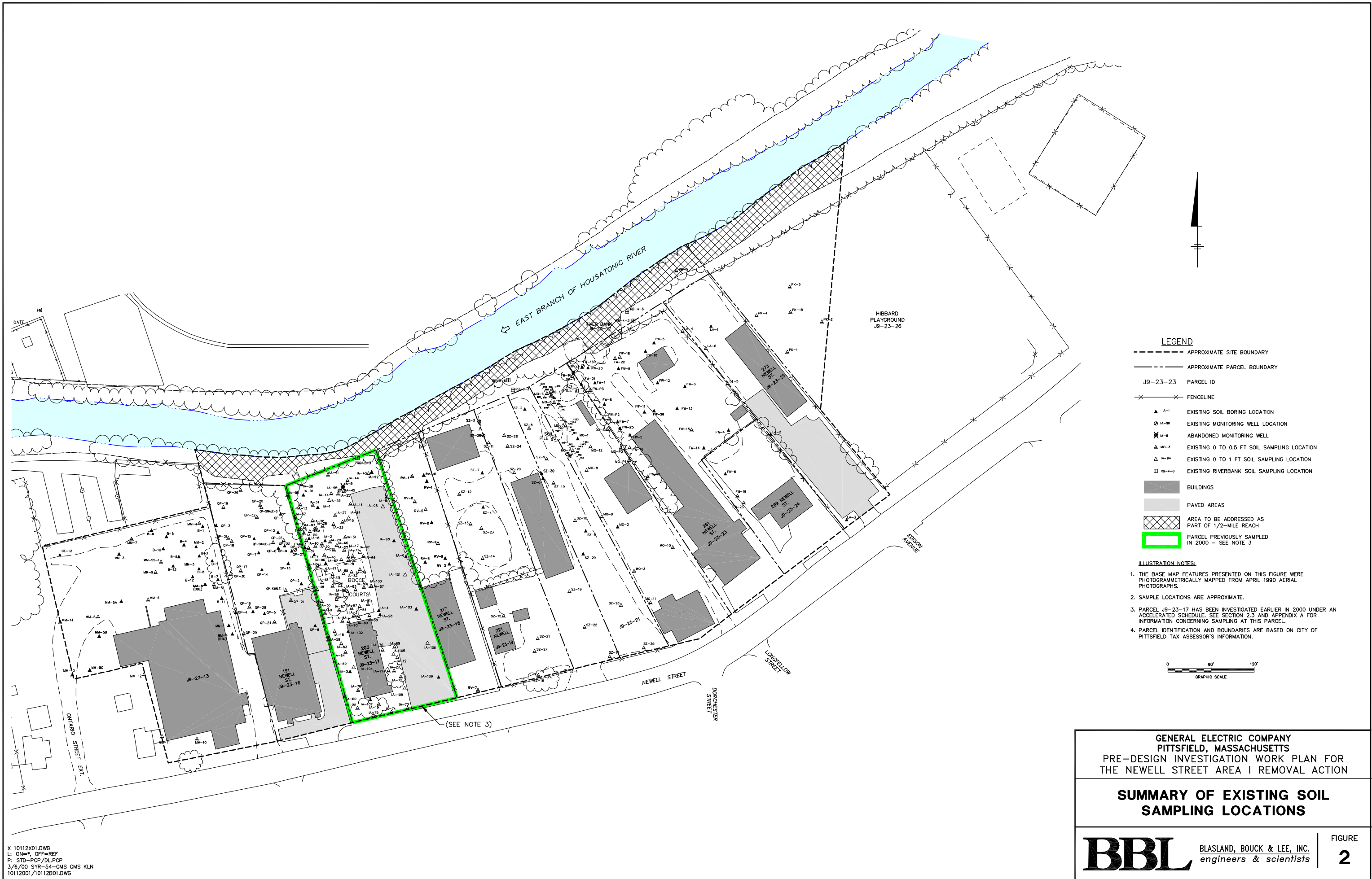
1. THE BASE MAP FEATURES PRESENTED ON THIS FIGURE WERE PHOTOGRAMMETRICALLY MAPPED FROM APRIL 1990 AERIAL PHOTOGRAPHS.
2. TAX ASSESSORS' PARCEL IDENTIFICATION NUMBERS AND BOUNDARY INFORMATION OBTAINED FROM CITY OF PITTSFIELD'S TAX ASSESSOR'S OFFICE AND IS CURRENT THROUGH SEPTEMBER 5, 1997.
3. PROPERTY USE DESIGNATIONS REFLECT CURRENT AND FORESEEABLE FUTURE USE.

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
PRE-DESIGN INVESTIGATION WORK PLAN FOR
THE NEWELL STREET AREA I REMOVAL ACTION

SITE PLAN

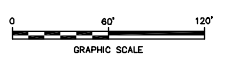
BBL **BLASLAND, BOUCK & LEE, INC.**
engineers & scientists

FIGURE
1



- LEGEND**
- APPROXIMATE SITE BOUNDARY
 - APPROXIMATE PARCEL BOUNDARY
 - J9-23-23 PARCEL ID
 - FENCELINE
 - ▲ IA-1 EXISTING SOIL BORING LOCATION
 - IA-98 EXISTING MONITORING WELL LOCATION
 - ✕ IA-9 ABANDONED MONITORING WELL
 - △ MO-3 EXISTING 0 TO 0.5 FT SOIL SAMPLING LOCATION
 - △ IA-94 EXISTING 0 TO 1 FT SOIL SAMPLING LOCATION
 - RB-4-6 EXISTING RIVERBANK SOIL SAMPLING LOCATION
 - BUILDINGS
 - PAVED AREAS
 - ▨ AREA TO BE ADDRESSED AS PART OF 1/2-MILE REACH
 - PARCEL PREVIOUSLY SAMPLED IN 2000 - SEE NOTE 3

- ILLUSTRATION NOTES:**
1. THE BASE MAP FEATURES PRESENTED ON THIS FIGURE WERE PHOTOGRAMMETRICALLY MAPPED FROM APRIL 1990 AERIAL PHOTOGRAPHS.
 2. SAMPLE LOCATIONS ARE APPROXIMATE.
 3. PARCEL J9-23-17 HAS BEEN INVESTIGATED EARLIER IN 2000 UNDER AN ACCELERATED SCHEDULE. SEE SECTION 2.3 AND APPENDIX A FOR INFORMATION CONCERNING SAMPLING AT THIS PARCEL.
 4. PARCEL IDENTIFICATION AND BOUNDARIES ARE BASED ON CITY OF PITTSFIELD TAX ASSESSOR'S INFORMATION.



**GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
PRE-DESIGN INVESTIGATION WORK PLAN FOR
THE NEWELL STREET AREA I REMOVAL ACTION**

**SUMMARY OF EXISTING SOIL
SAMPLING LOCATIONS**

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

FIGURE
2

X 10112X01.DWG
L: ON=1, OFF=REF
P: STD-PCP/DL.PCP
3/6/00 SYR-54-GMS GMS KLN
10112001/10112B01.DWG

Appendices

BLASLAND, BOUCK & LEE, INC.
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Appendix A

BLASLAND, BOUCK & LEE, INC.
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***GE's October 20, 1999 Proposed Soil Investigation
at Parcel J9-23-17 and the Agencies' December 22,
1999 Conditional Approval Letter***



October 20, 1999

Corporate Environmental Programs
General Electric Company
100 Woodlawn Ave., Pittsfield, MA 01201

Mr. Bryan Olson
Office Site Remediation and Restoration
U.S. Environmental Protection Agency
One Congress Street
Suite 1100
Boston, MA 02114-2023

Ms. J. Lyn Cutler
Bureau of Waste Site Cleanup
Department of Environmental Protection
436 Dwight Street
Springfield, MA 01103

**Re: Proposed Soil Investigation at Parcel J9-23-17
GE - Pittsfield, Newell Street Area I, DEP Site 1-1051**

Dear Mr. Olson and Ms. Cutler:

The General Electric Company (GE) proposes to conduct grid-based soil sampling at Parcel J9-23-17 (203 Newell Street) in Pittsfield, Massachusetts. The purpose of this proposed investigation is to collect additional analytical data on subsurface soil conditions prior to the installation of new bocce courts at the property. This investigation should not be considered precedent for any other property.

The proposed sampling locations and depths are depicted on Figure 1. This effort will involve the collection of 49 soil samples for PCB analysis (not including any required QA/QC samples) from various depth intervals at 19 grid locations, as illustrated on Figure 1. In addition, a total of 15 soil samples will be analyzed for the constituents listed in Appendix IX of 40 CFR 264, plus 2-chloroethyl vinyl ether, benzidine, and 1,2-diphenylhydrazine (Appendix IX+3). These 15 Appendix IX+3 samples will include 11 of the samples collected for PCB analysis (as shown on Figure 1) plus four other samples that will be collected from the composited depth interval of 3 to 15 feet (as also shown on Figure 1). For these four composited samples, the VOC analysis will be performed on the discrete interval (i.e. 3- to 6-feet, 6- to 10-feet, 10- to 15-feet) which exhibits the highest field-headspace reading detected during screening with a photoionization detector.

Sample collection procedures will be consistent with GE's Sampling and Analysis Plan/Data Collection and Analysis Quality Assurance Plan (draft dated October 1998, with any further revisions approved by the Agencies). Following sample collection and data analysis, GE will submit a summary report presenting the results of this investigation.

GE will initiate field activities shortly after Agency approval of the proposed investigations is received. If you have any questions regarding this proposal, feel free to contact me at (413) 494-3952.

Sincerely,

John Ciampa
Remediation Project Manager

U:\PLH99\B3991543.WPD

cc: A. Weinberg, DEP*
R. Child, DEP*
R. Bell, DEP*
A. Kurpaska, DEP*
J. Kilborn, EPA*
Housatonic River Initiative
D. Lucaroni, Italian-American
Club of Pittsfield*

Mayor G. Doyle
State Representative P. Larkin
State Representative C. Hodgkins
State Representative D. Bosley
State Senator A. Nuciforo
State Representative S. Kelly
Public Information Repositories ECL I-P-IV(A)(1) & (A)(2)*
* with enclosure

Commissioner of Health, Pittsfield*
J. Bieke, Esq., Shea & Gardner*
A. Thomas, Esq., GE*
M. Carroll, GE*
A. Silber, GE*
J. Nuss, BBL*

Commonwealth of Massachusetts
Department of Environmental Protection
Western Regional Office
436 Dwight Street
Springfield, Massachusetts 01103
(413) 784-1100

United States
Environmental Protection Agency
New England Region
One Congress Street, Suite 1100
Boston, Massachusetts 02114-2023
(617) 918-1111

December 22, 1999

Mr. Michael T. Carroll
Manager, Pittsfield Remediation Programs
GE Corporate Environmental Programs
100 Woodlawn Avenue
Pittsfield, Massachusetts 01201

Return Receipt Requested
Certified Mail Receipt: Z 260 589 977

Re: Conditional Approval of *Proposed Soil Investigation at Parcel J9-23-17, October 20, 1999*
DEP Site: GECD440 (Formerly DEP Site 1-1051, Newell Street Area I)
USEPA Site: Former Oxbow Areas – Newell Street Area I
Pittsfield, Massachusetts

Dear Mr. Carroll:

On October 21, 1999, the United States Environmental Protection Agency (USEPA) and the Massachusetts Department of Environmental Protection (DEP) (together, the Agencies) received a proposal from the General Electric Company (GE) to conduct grid-based soil sampling at Parcel J9-23-17 (203 Newell Street) in Pittsfield, Massachusetts. GE's stated objective of the proposed sampling is to collect additional analytical data on subsurface soil conditions prior to the installation of new bocce courts at the property.

On October 7, 1999, GE and the Governments reached an agreement that addresses final response actions at the GE facility among other areas. The terms of this agreement are incorporated in a Consent Decree lodged on October 7, 1999, with the United States District Court of Massachusetts, Western Division, located in Springfield, Massachusetts. The Agencies will continue to manage the site in accordance with the existing RCRA permit, State Administrative Consent Orders, and the lodged Consent Decree until such time that the Consent Decree is entered in court. However, GE may at its own risk choose to perform work in accordance with the Consent Decree prior to entry of the Consent Decree. In the event there is no Consent Decree, the Agencies reserve the right to require any additional actions in accordance with law.

Notwithstanding the determinations described below, the Agencies reserve the right to require additional sampling or analysis if new information indicates that such sampling is necessary to comply with the EPA RCRA Corrective Action Permit, the National Contingency Plan, the Massachusetts Contingency Plan, or as otherwise appropriate. Additionally, GE shall continuously assess and evaluate release and site conditions in order to determine if immediate response actions are required.

Summary of Proposed Actions

GE proposes to collect a total of 49 soil samples for PCB analysis from various depth intervals at 19 grid locations. Of the 49 soil samples, 17 samples are proposed for collection within 0 to 1 foot of the ground surface. The proposed surface soil samples are located on an approximate 50-foot grid. The remaining soil samples will be collected at depth intervals of 1 to 3 feet, 3 to 6 feet, 6 to 10 feet, and 10 to 15 feet below ground surface at 8 grid locations. These subsurface samples are located on an approximate 100-foot grid. GE additionally proposes to analyze 15 soil samples for the remaining Appendix IX+3 constituents at depth intervals of 0 to 1 foot, 1 to 3 feet, and 3 to 15 feet.


Agencies' Determinations:


Based upon a review of GE's proposal, the Agencies approve of the proposed investigation subject to the following conditions:

- GE proposes to collect surface soil samples (0-1 foot) on an approximate 50-foot grid across the property, with the exception of two locations, IA-98 and IA-109. There are no historical PCB soil data in the vicinity of locations IA-98 or IA-109. Therefore, GE shall collect surface soil samples (0-1 foot) from locations IA-98 and IA-109 and analyze these samples for PCBs.
- 2.) GE proposes to collect soil samples for analysis of Appendix IX+3 constituents at seven locations from the 0 to 1 foot depth interval, four locations from the 1 to 3 foot depth interval, and four locations from the 3 to 15 foot depth interval. Technical Attachment F of the Consent Decree, agreed to between GE and the Governments, presents the protocols for evaluating non-PCB constituents in soil. That protocol states that average concentrations for subsurface soils will be calculated using depth increments consistent with those evaluated for PCBs. The performance standards for PCBs require evaluation of the following depth increments: 0 to 1 foot, 0 to 3 feet (without an ERE), 1 to 6 feet, and 6 to 15 feet. It is unclear how GE's sampling approach may be applied to evaluation of the 1 to 6 foot and 6 to 15 foot depth intervals for non-PCB constituents if Appendix IX+3 soil data are collected over a depth interval of 3 to 15 feet. Therefore, in lieu of the proposed Appendix IX+3 samples proposed for the 3 to 15 foot depth interval, GE shall collect composite samples representing the 3 to 6 foot and 6 to 15 foot depth intervals at two boring locations.

If you have any questions, please contact J. Lyn Cutler at (413) 755-2116 or Bryan Olson at (617) 918-1365.

Sincerely,


J. Lyn Cutler
Section Chief, Special Projects
Bureau of Waste Site Cleanup
Massachusetts DEP

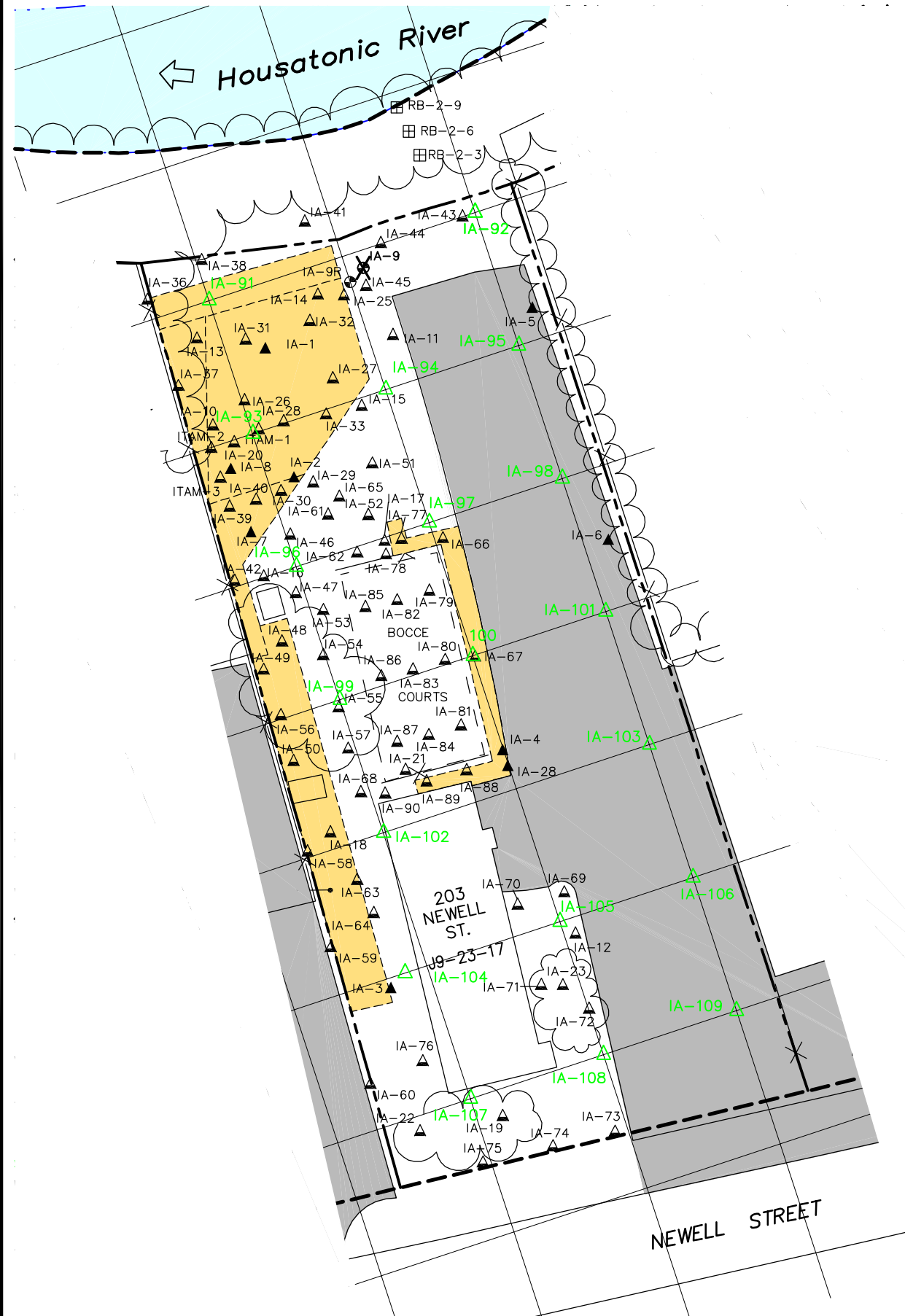

Bryan Olson
Team Leader
GE Pittsfield/Housatonic River Team
U.S. EPA, New England Region

JLC:BO:JZ

cc: D. Lucaroni, Italian-American Club of Pittsfield
John Ciampa, GE Pittsfield, MA
Andrew Silfer, GE Pittsfield, MA
James R. Bieke, Esq., Shea & Gardner
Andrew J. Thomas, Jr., Esq., GE Fairfield, CT
Jim Nuss, Blasland, Bouck & Lee
John Kilborn, EPA New England Region
Mike Nalipinski, EPA New England Region
Alan Weinberg, Acting Regional Director, DEP WERO
Robert Bell, Acting Deputy Regional Director, DEP WERO

cc: Ralph Child, DEP BWSC, Boston
John Ziegler, DEP WERO
Mayor Gerald Doyle, City of Pittsfield
Commissioner of Health, Pittsfield
Pittsfield Conservation Commission
Housatonic River Initiative
State Senator Andrea Nuciforo, Jr.
State Representative Daniel E. Bosley
State Representative Christopher J. Hodgkins
State Representative Shaun P. Kelly
State Representative Peter J. Larkin
Public Information Repositories
Site file GECD440

P:\Ziegler\NewellStreet\J92317SOW



Boring ID.	Depth Interval					
	0-1'	1-3'	3-6'	6-10'	10-15'	3'-15'
IA-91	P	A	P	P	P	Ae
IA-92	P	A	P	P	P	Ae
IA-93	A	--	--	--	--	--
IA-94	P	--	--	--	--	--
IA-95	A	--	--	--	--	--
IA-96	A	P	P	P	P	--
IA-97	P	--	--	--	--	--
IA-98	--	P	P	P	P	Ae
IA-99	A	--	--	--	--	--
IA-100	A	--	--	--	--	--
IA-101	P	--	--	--	--	--
IA-102	P	A	P	P	P	--
IA-103	A	P	P	P	P	--
IA-104	P	--	--	--	--	--
IA-105	P	--	--	--	--	--
IA-106	P	--	--	--	--	--
IA-107	P	P	P	P	P	Ae
IA-108	A	--	--	--	--	--
IA-109	--	A	P	P	P	--

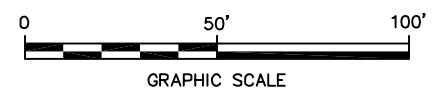
- TABLE NOTES:
1. P: SAMPLE PROPOSED FOR PCB ANALYSIS ONLY.
 2. A: SAMPLE PROPOSED FOR APPENDIX IX+3 (INCLUDING PCBs) ANALYSES.
 3. Ae: SAMPLE PROPOSED FOR APPENDIX IX+3 (EXCLUDING PCBs) ANALYSES.
 4. --: NO SAMPLING PROPOSED.

LEGEND

- APPROXIMATE PARCEL BOUNDARY
- X---X--- FENCELINE
- ▲ SZ-29 EXISTING SOIL BORING LOCATION
- △ MO-3 EXISTING SURFACE SOIL SAMPLING LOCATION
- ▣ RB-2-9 EXISTING RIVER BANK SAMPLING LOCATION
- IA-9R EXISTING MONITORING WELL LOCATION
- ⊗ IA-9 ABANDONED MONITORING WELL LOCATION
- △ IA-95 PROPOSED SOIL SAMPLING LOCATION
- PAVEMENT
- ▨ AREAS SUBJECT TO PRIOR 0-TO 6-INCH SOIL REMOVAL ACTIONS
- SAMPLING GRID

ILLUSTRATION NOTES:

1. THE BASE MAP FEATURES PRESENTED ON THIS FIGURE WERE PHOTOGRAMMETRICALLY MAPPED FROM APRIL 1990 AERIAL PHOTOGRAPHS.
2. SAMPLE LOCATIONS ARE APPROXIMATE.
3. PROPOSED SAMPLING LOCATIONS SHALLOWER THAN 1 FOOT ARE GENERALLY BASED ON A 50' GRID.
4. PROPOSED SAMPLING LOCATIONS DEEPER THAN 1 FOOT ARE GENERALLY BASED ON A 100' GRID DERIVED FROM THE 50' GRID SHOWN.



GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
PARCEL J9-23-17

SUMMARY OF SOIL SAMPLING LOCATIONS

BBL BLASLAND, BOUCK & LEE, INC.
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FIGURE
1

X: 20140X04.DWG
L: ON=*, OFF=*REF*
P: STD-BL.PCP
10/14/99 SYR-54-GMS
20140003/20140B21.DWG

Appendix B

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Applicable Performamnce Standards

Appendix B - Applicable Performance Standards

The Performance Standards for the Removal Actions at the Former Oxbow Areas are set forth in Paragraph 26 of the Consent Decree (CD) and Section 2.3.2 of the *Statement of Work for Removal Actions Outside the River* (SOW) (Appendix E to the CD). The Performance Standards applicable to the Newell Street Area I Removal Action are as follows:

Grants of Environmental Restrictions and Easements

1. For all properties owned by GE within Newell Street Area I, GE shall execute and record Grants of Environmental Restriction and Easements (EREs) in accordance with Section XIII of the CD.
2. For properties not owned by GE within Newell Street Area I, GE shall use best efforts (as defined in the CD) to obtain EREs in accordance with Section XIII of the CD. If an ERE cannot be obtained for a non-GE-owned property, GE shall implement a Conditional Solution at such property, which shall achieve the Performance Standards for Conditional Solutions set forth in the CD.

Response Actions for PCBs in Soil

3. The scope of response actions to address PCBs in soils at Newell Street Area I shall be determined based on the spatial averaging of PCB concentrations in certain averaging areas, using the spatial averaging procedures described in Attachment E to the SOW (Protocols for PCB Spatial Averaging). To determine the averaging areas for the top foot of soil at Newell Street Area I, GE shall use one of the following options at each individual parcel as defined on City tax maps:
 - a. GE may consider the entire property as an averaging area provided that, in addition to achieving the spatial average PCB Performance Standards described below, GE ensures the removal of all soils in the top foot in unpaved portions of the property that contain PCB concentrations in excess of the following not-to-exceed (NTE) levels: 125 ppm for a commercial/industrial property, or 50 ppm for a recreational property; or
 - b. GE may establish averaging areas at the property which do not exceed 0.5 acre in size: or
 - c. GE may propose other specific averaging area(s) for the property to EPA for approval.

The particular option(s) selected by GE for averaging areas in the top foot at such properties shall be presented in the Conceptual RD/RA Work Plan for the Newell Street Area I Removal Action. For averaging that includes soils deeper than one foot, the averaging areas for the properties in Newell Street Area I shall correspond to the boundaries of each separately owned property, and spatial averages shall be calculated for the depth increments identified in Attachment E to the SOW.

4. For the GE-owned riparian strip (Parcel J9-23-12) at Newell Street Area I (excluding the riverbanks), GE shall initially calculate existing spatial average PCB concentrations for the 0- to 1-foot and 1- to 3-foot depth increments. If the spatial average PCB concentration exceeds 10 ppm in the top foot or 15 ppm in the 1- to 3-foot depth increment, GE shall conduct one of the following response actions:
 - a. GE shall remove and replace soils as necessary to achieve spatial average PCB concentrations at or below 10 ppm in the top foot and 15 ppm in the 1- to 3-foot depth increment in this strip. (In addition, if GE selected the option described in Standard #3.a, GE shall remove all soils containing PCB concentrations greater than 50 ppm from the top foot of such strip.) GE shall then calculate the spatial

-
- average PCB concentration for the 0- to 15-foot depth increment (incorporating the anticipated performance of response actions for the 0- to 1-foot and 1- to 3-foot depth increments). If the resulting spatial average PCB concentration for the 0- to 15-foot depth increment exceeds 100 ppm, GE shall install a vegetative engineered barrier in accordance with the specifications for such barriers in Attachment G to the SOW, and shall provide Flood Storage Compensation within the same general area, but not necessarily in the specific location of the engineered barrier.
- b. Alternatively, GE shall remove the top foot of soil and install a vegetative engineered barrier over portions of this strip until the spatial average PCB concentrations in the remaining portions of the strip do not exceed 10 ppm in the top foot and 15 ppm in the 1- to 3-foot depth increment. For the portions of the strip not subject to an engineered barrier as described above, GE shall calculate the spatial average PCB concentration for the 0- to 15-foot depth increment. If the spatial average PCB concentration for the 0- to 15-foot depth increment exceeds 100 ppm, GE shall install an engineered barrier. Any engineered barriers shall be installed in accordance with the specifications for such barriers in Attachment G to the SOW. In addition, GE shall provide Flood Storage Compensation within the same general area of the barriers, but not necessarily in the specific location of the engineered barrier.
5. For commercial/industrial properties in Newell Street Area I, GE shall perform the following response actions:
- a. For such properties owned by GE and for other properties for which EREs are obtained in accordance with Performance Standard #2 above, the response actions shall consist of the following:
- i. GE shall calculate the existing spatial average PCB concentration for the 0- to 1-foot depth increment for (a) the unpaved portion of each averaging area, and (b) the paved portion of each averaging area. If the spatial average PCB concentration in the unpaved portion of such area exceeds 25 ppm, GE shall remove and replace soils as necessary to achieve a spatial average PCB concentration of 25 ppm or below in the top foot. (In addition, if GE selected the option described in Standard #3.a, GE shall remove all soils containing PCB concentrations greater than 125 ppm from the top foot of the unpaved portion of the property.) If the spatial average PCB concentration in the paved portion of such area exceeds 25 ppm, GE shall either remove and replace soils as necessary to achieve that spatial average concentration in the top foot or enhance the existing concrete/asphalt surfaces in such portion in accordance with the specifications for pavement enhancement in Attachment G to the SOW.
- ii. GE shall also calculate the existing spatial average PCB concentration for the 1- to 6-foot depth increment at each such property (considering the paved and unpaved portions together). If that spatial average PCB concentration exceeds 200 ppm, GE shall remove and replace soils as necessary to achieve a spatial average PCB concentration of 200 ppm or below in the 1- to 6-foot depth increment;
- iii. GE shall then calculate the spatial average PCB concentration for the 0- to 15-foot depth increment (or to whatever depth sampling data exist, if less than 15 feet), incorporating the anticipated performance of any response actions for the 0- to 1-foot and 1- to 6-foot depth increments. If that spatial average PCB concentration exceeds 100 ppm, GE shall install an engineered barrier in accordance with the specifications for such barriers in Attachment G to the SOW.

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- iv. For areas subject to pavement enhancement or engineered barriers, GE shall provide Flood Storage Compensation in the same general area but not necessarily in the specific locations of the pavement enhancement or engineered barrier.
- b. For such properties where an ERE cannot be obtained, GE shall initially calculate a spatial average PCB concentration for the 0- to 1-foot depth increment at each averaging area at the property. If the spatial average PCB concentration exceeds 25 ppm in this depth increment, GE shall remove and replace soils as necessary to achieve a spatial average PCB concentration at or below 25 ppm for this increment at each such area. (In addition, if GE selected the option described in Standard #3.a, GE shall remove all soils containing PCB concentrations greater than 125 ppm from the top foot of unpaved portions of such property.) GE shall then calculate the spatial average PCB concentration for the 0- to 3-foot depth increment at each averaging area (incorporating the anticipated performance of any response actions for the 0- to 1-foot depth increment). If that spatial average exceeds 25 ppm, GE shall remove and replace soils as necessary to achieve a spatial average PCB concentration at or below 25 ppm for the 0- to 3-foot depth increment. GE shall then calculate the spatial average PCB concentration for the 1- to 6-foot depth increment at the property (incorporating the anticipated performance of any response actions for the 0- to 3-foot depth increment). If the resulting spatial average concentration exceeds 200 ppm in the 1- to 6-foot depth increment, GE shall remove and replace soils as necessary to achieve that spatial average concentration. Finally, GE shall calculate the spatial average PCB concentration for the 0- to 15-foot depth increment (or to whatever depth sampling data exist, if less than 15 feet), incorporating the anticipated performance of any response actions for the uppermost 6 feet. If that spatial average PCB concentration exceeds 100 ppm, GE shall install an engineered barrier in accordance with the specifications for such barriers in Attachment G to the SOW, and shall provide Flood Storage Compensation in the same general area but not necessarily in the specific location of the engineered barrier. These actions shall be deemed a Conditional Solution under the CD, and GE shall also meet the other requirements set forth in Paragraphs 34-38 of the CD for Conditional Solutions.
- c. For properties where utilities potentially subject to emergency repair requirements (e.g., water, gas, sewer, electricity, communication, and stormwater) are present and the spatial average PCB concentration for those soils present in the utility corridor that may need to be removed during an emergency repair exceeds 200 ppm, GE shall evaluate whether any additional response actions are necessary. GE shall submit that evaluation, together with a proposal for such actions if needed, to EPA for review and approval. In addition, in the event that a new sub-grade utility is installed at such a property, or if an existing subgrade utility is repaired or replaced in the future, GE shall ensure that the spatial average PCB concentration of the backfill materials is at or below 25 ppm.
6. For recreational properties within Newell Street Area I, GE shall perform the following response actions:
- a. For properties for which an ERE is obtained in accordance with Performance Standard #2, GE shall initially calculate existing spatial average PCB concentrations for the 0- to 1-foot and 1- to 3-foot depth increments at each averaging area at the property. If the spatial average PCB concentration exceeds 10 ppm in the top foot or 15 ppm in the 1- to 3-foot depth increment, GE shall remove and replace soils as necessary to achieve spatial average PCB concentrations at or below those levels in the increments specified at such area. (In addition, if GE selects the option described in Standard #3.a, GE shall remove all soils containing PCB concentrations greater than 50 ppm from the top foot of unpaved portions of such property.) GE shall then calculate the spatial average PCB concentration for the 0- to 15-foot depth increment at the property (or to whatever depth sampling data exist, if less than

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- 15 feet) incorporating the anticipated performance of response actions for the 0- to 1-foot and 1- to 3-foot depth increments. If that spatial average PCB concentration exceeds 100 ppm, GE shall install an engineered barrier in accordance with the specifications for such barriers in Attachment G to the SOW, and shall provide Flood Storage Compensation within the same general area, but not necessarily in the specific location of the engineered barrier.
- b. If an ERE cannot be obtained for such a property, GE shall initially calculate a spatial average PCB concentration for the 0- to 1-foot depth increment at each averaging area. If the spatial average PCB concentration exceeds 10 ppm in this depth increment, GE shall remove and replace soils as necessary to achieve a spatial average PCB concentration at or below 10 ppm in such area. (In addition, if GE selected the option described in Standard #3.a, GE shall remove all soils containing PCB concentrations greater than 50 ppm from the top foot at the property.) GE shall then calculate the spatial average PCB concentration for the 0- to 3-foot depth increment at each averaging area (incorporating the anticipated performance of any response actions for the 0- to 1-foot depth increment). If that spatial average exceeds 10 ppm, GE shall remove and replace soils as necessary to achieve a spatial average PCB concentration at or below 10 ppm for the 0- to 3-foot depth increment. GE shall then calculate the spatial average PCB concentration for the 0- to 15-foot depth increment at the property (or to whatever depth sampling data exist, if less than 15 feet) incorporating the anticipated performance of response actions for the uppermost 3 feet. If that spatial average PCB concentration exceeds 100 ppm, GE shall install an engineered barrier in accordance with the specifications for such barriers in Attachment G to the SOW, and shall provide Flood Storage Compensation within the same general area, but not necessarily in the specific location of the engineered barrier. These actions shall be deemed a Conditional Solution under the CD, and GE shall also meet the other requirements set forth in Paragraphs 34-38 of the CD for Conditional Solutions.
- c. For properties where utilities potentially subject to emergency repair requirements (e.g., water, gas, sewer, electricity, communication, and stormwater) are present and the spatial average PCB concentration for those soils present in the utility corridor that may need to be removed during an emergency repair exceeds 200 ppm, GE shall evaluate whether any additional response actions are necessary. GE shall submit that evaluation, together with a proposal for such actions if needed, to EPA for review and approval. In addition, in the event that a new sub-grade utility is installed at such a property, or if an existing subgrade utility is repaired or replaced in the future, GE shall ensure that the spatial average PCB concentration of the backfill materials is at or below 10 ppm in the top 3 feet and 25 ppm for soils at greater depths.

Response Actions for Non-PCB Constituents in Soils

7. To address the presence of Appendix IX+3 constituents other than PCBs in soils at Newell Street Area I, GE shall conduct an evaluation of such constituents for each of the averaging areas at Newell Street Area I identified in Attachment E to the SOW or otherwise specified above. This evaluation shall be conducted in accordance with the protocols described in Attachment F to the SOW (Protocols for the Evaluation of Non-PCB Constituents in Soil) and shall comply with the following process-related Performance Standards:
- a. First, GE shall review the data qualifiers on the Appendix IX+3 data to eliminate analytical laboratory results that indicate constituent occurrence as a result of laboratory interferences or contamination (as indicated by the laboratory blank data).

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- b. Second, GE shall screen the remaining data to take into account the proposed response actions to address PCBs as specified in the Performance Standards. Specifically, sample results from soil that will be removed to address PCBs will be eliminated from consideration, and it will be assumed that such soil will be replaced with an equal volume of clean soil containing concentrations of organic constituents at one-half the detection limit and concentrations of inorganic constituents consistent with those detected in representative samples of the backfill material. Similar concentrations for organic and inorganic constituents will be assumed to be present in any soil cover used. For areas where an engineered barrier or pavement enhancement will be installed to address PCBs, the Appendix IX+3 sample results from soil underlying such barrier or enhanced pavement will be eliminated from consideration, and averages will be recalculated for the portion(s) of the areas not subject to such barrier or pavement enhancement (subject to potential modification, if necessary, based on the nature and concentration of volatile constituents for which such barriers/pavement may not provide effective containment).
- c. Third, GE shall further screen the remaining data by making the following comparisons for the sample results that were not eliminated in Step 2:
- i. For constituents other than dioxins/furans, GE shall compare the maximum concentration of each detected constituent to the EPA Region 9 Preliminary Remediation Goals (PRGs) (set forth in Exhibit F-1 to Attachment F of the SOW) for such constituent in soil, using the industrial PRG for commercial/industrial properties and the residential PRG for recreational properties. For polycyclic aromatic hydrocarbons (PAHs) for which Region 9 PRGs do not exist, GE shall use the Region 9 PRGs for benzo(a)pyrene for carcinogenic PAHs and the Region 9 PRGs for naphthalene for noncarcinogenic PAHs. For other constituents for which Region 9 PRGs do not exist, GE may propose screening concentrations based on either the Region 9 PRGs for chemicals with similar characteristics or on other appropriate risk-based calculations, and upon EPA approval, may use such screening concentrations in this step. (The Region 9 PRGs, together with the PRGs specified above for carcinogenic and noncarcinogenic PAHs for which there are no Region 9 PRGs and any additional screening concentrations proposed by GE and approved by EPA, are hereinafter referred to jointly as "Screening PRGs.") Any constituent whose maximum concentration is at or below the applicable Screening PRGs will be eliminated from further consideration. The remaining constituents will be subject to further evaluation.
 - ii. For dioxins/furans, GE shall calculate for each sample a total Toxicity Equivalent (TEQ) concentration, using the consensus Toxicity Equivalency Factors (TEFs) published by the World Health Organization (WHO) (Van den Berg et al., *Environ. Health Perspectives*, vol. 106, no. 12, Dec. 1998). GE shall then compare, for the relevant averaging area and depth increment, either the maximum TEQ concentration or the 95% UCL on the mean of TEQ concentrations, whichever is lower, to the applicable PRG established by EPA for dioxin TEQs. These PRGs are 5 ppb in the top foot and 20 ppb in subsurface soil for commercial/industrial properties and 1 ppb in the top foot and 1.5 ppb in the 1- to 3-foot depth increment for recreational properties. If the maximum or 95% UCL TEQ concentration is less than the applicable PRG, no further response actions will be necessary to address dioxins/furans. If the maximum or 95% UCL TEQ concentration exceeds the applicable PRG, no further evaluation will be made, and GE shall develop response actions for EPA review and approval to achieve the dioxin PRG.
- d. Fourth, for each constituent (other than dioxins/furans) with a maximum concentration that exceeds the applicable Screening PRGs, GE shall compare the data set for that constituent for the particular

averaging area (after taking into account the PCB-related response actions specified in Performance Standards #1 through #6) with the background data set for that constituent, using either an appropriate statistical method or summary statistics (as described in the MDEP's *Guidance for Disposal Site Risk Characterization*, 1995). For such comparisons, GE shall utilize site-specific background data sets approved by EPA for use as background, which may include, at a minimum, soil data from Housatonic River floodplain samples collected upstream of releases from the GE Plant Area and soil data from GE's off-site residential property program (excluding samples with detectable PCB concentrations and samples containing visible evidence of non-native fill). GE shall propose separate background data sets for surface soil and subsurface soil, and may propose separate background data sets for commercial/industrial areas and residential/recreational areas. Any constituent for which the averaging area data set is consistent with the background data set will be eliminated from further consideration. Any constituent for which the averaging area data set is not consistent with the background data set will be subject to further evaluation. (Note: This step may be omitted if all constituents remaining after the screening described in Standard #7.c.i can be eliminated through the evaluation described in Standard #7.e below.)

- e. Fifth, for each constituent (other than dioxins/furans) that is not eliminated in the prior steps, GE shall calculate an average concentration for the averaging area (taking into account the PCB-related response actions, as specified in Performance Standards #1 through #6), and shall compare that average concentration to the applicable MCP Method 1 soil standard (S-1, S-2, or S-3). If there is no existing Method 1 soil standard for such a constituent, GE may derive a Method 2 standard, using the MCP procedures for doing so, and compare the average concentration to that standard. In making these comparisons, GE shall calculate separate average concentrations for surface soil and subsurface soil (using depth increments consistent with those evaluated for PCBs), and compare those average concentrations separately to applicable Method 1 (or 2) standards. Further, in determining the applicable set of Method 1 (or 2) standards (i.e., S-1, S-2, or S-3), GE shall follow the MCP criteria for categorizing soil, and may take into account the ERE or Conditional Solution proposed for the property in question. If all constituents evaluated in this step have average concentrations at or below the applicable Method 1 (or 2) standards, no further response actions will be necessary to address such constituents. If any such constituent(s) have average concentrations exceeding the applicable Method 1 (or 2) standards, then GE shall either:
 - i. Develop response actions sufficient to reduce the average concentrations of such constituent(s) to the Method 1 (or 2) standards (or to achieve Performance Standards based on the Screening PRGs or background levels, as described in Standard #8 below); or
 - ii. Conduct an area-specific risk evaluation, as described in Standard #7.f below.
- f. Sixth, if an area-specific risk evaluation will be conducted, GE shall perform that evaluation for all constituents that were retained for evaluation prior to the step described in Standard #7.e above. In such an evaluation, GE shall calculate the cumulative Excess Lifetime Cancer Risk (ELCR) and non-cancer risk for all such constituents (excluding PCBs and dioxins/furans), based on the average concentrations of such constituents and the same uses for the area and depth increment in question (e.g., commercial/industrial worker, utility worker, recreational user) that were assumed in developing the applicable PCB Performance Standards for such area and depth increment. In such an evaluation, GE shall apply the same exposure assumptions used in Attachment A to EPA's Action Memorandum for Removal Actions Outside the River (Appendix D to the CD) to support the PCB Performance Standards for such area and depth increment, unless GE proposes and provides an adequate

justification for alternate exposure assumptions for the following parameters for the specific area in question and EPA approves such alternate assumptions: (i) exposure frequency (if based on site-specific land conditions for the area in question); (ii) exposed skin surface area (if based on site-specific land conditions for the area in question); (iii) dermal adherence factor; (iv) soil ingestion rate; (v) oral absorption factor; and (vi) dermal absorption factor.

If the resulting cumulative ELCR for the area (excluding PCBs and dioxins/furans) does not exceed 1×10^{-5} (after rounding) and the non-cancer Hazard Index (excluding PCBs and dioxins/furans) does not exceed 1 (after rounding), no further response actions will be necessary to address these residual Appendix IX+3 constituents. Otherwise, further response actions will be necessary.

8. If the evaluation described in Performance Standard #7 indicates the need for further response actions to address non-PCB constituents, GE shall develop, for EPA review and approval, specific Performance Standards for such response actions. Such Performance Standards shall be based on achieving the following, after taking into account the PCB-related response actions:
 - a. For dioxin/furan TEQs, either maximum or 95% UCL TEQ concentrations that do not exceed the applicable EPA PRGs for dioxin; and
 - b. For other constituents, any combination of the following: (i) maximum concentrations of individual constituents that do not exceed the applicable Screening PRGs; (ii) concentrations of individual constituents that are consistent with background levels (using an appropriate statistical technique or summary statistics); or (iii) for the remaining constituents (if any), either (A) average concentrations that do not exceed the applicable Method 1 (or 2) soil standards, or (B) cumulative risk levels that do not exceed (after rounding) an ELCR of 1×10^{-5} and a non-cancer Hazard Index of 1.

GE shall then propose and, upon EPA approval, undertake additional response actions as necessary to achieve those Performance Standards. The specific types of response activities to be taken to achieve such Performance Standards (e.g., soil removal, capping, pavement enhancement) shall be the same as those established by the Performance Standards for PCBs at the property or area in question, subject to potential modification if necessary based on the nature and concentration of volatile constituents.