GE-Housatonic
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156789

United States Environmental Protection Agency
Region I
One Congress Street, Suite 1100
Boston, MA 02114-2023

March 23, 1999

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

RE: Conditional Approval of GE's February 16, 1999 Submittal Titled *Conceptual Barrier Design for Lyman Street Site*

GE submitted the above-referenced report to EPA on February 16, 1999. On March 22, 1999, representatives of GE and EPA met to discuss the submittal. Based on a review of the submittal and on the discussions held during the March 22, 1999 meeting, EPA conditionally approves the above-referenced submittal subject to the following:

Technical Comments on Proposed Sheetpile Design

1. Based on the current information, EPA concurs with the lateral extent of the proposed sheetpiling and with the upper elevation of the sheetpiling being set at 977 to 978 feet above mean sea level. This determination may change based on the results of the sampling proposed by GE, as modified below, and additional information supplied by GE in the Detailed Barrier Design (e.g., the groundwater modeling).

2. The depth of embedment, the distance from the riverbank, and the lateral extent of the sheetpiling cannot be finalized until the additional investigative activities proposed by GE in Section V. of the submittal have been completed and the maximum depth of sediment excavation required pursuant to the *½-Mile Removal Action Work Plan* have been finalized.

Depth of Embedment

With regard to the depth of embedment of the proposed sheetpiling, EPA concurs that the sheetpile shall be installed into the till. The final depth of embedment shall be sufficient to support the required excavation of adjacent bank soils and sediments.

Distance Between the Proposed Sheetpiling and the Riverbank

Similarly, the distance of the sheetpiling from the riverbank cannot be finalized until the lateral and vertical extent of excavation of riverbank soils has been finalized. GE is required to

excavate bank soils located between the sheetpiling and the river in areas where potentially mobile NAPL is present. If potentially mobile NAPL is present at the western edge of the proposed sheetpiling, GE may be required to excavate bank soils from the river's edge to the sheetpiling. Therefore, GE shall evaluate the appropriateness of installing the sheetpile closer to the Housatonic River.

Lateral Extent of Sheetpiling

The proposed lateral extent of the sheetpiling appears sufficient to prevent the migration of NAPL into the Housatonic River. The information collected as part of the additional investigative activities proposed by GE in Section V. shall be evaluated prior to finalizing the lateral extent of the proposed sheetpiling.

1. GE shall install a monitoring well screened at the water table approximately 15 feet east of the upstream edge of the proposed sheetpiling. This well, and well proposed to be installed near LSSC-8 shall be monitored to ensure that NAPL is not migrating beyond the sheetpile and into the Housatonic River.

2. GE shall provide an equivalent level of detail with regard to supporting calculations, groundwater modeling, and technical specifications as was provided in GE submittals for the final containment barrier design at East Street Area 2.

3. The sheetpile is proposed to extend five feet into the till. To support adjacent bank soil and sediment excavation, the sheetpile may need to be driven deeper into the till. Therefore, GE shall ensure that the final design addresses potential buckling of the sheetpile during installation.

Near Term Activities/Additional Sampling

1. GE shall survey the vertical and horizontal location of the sampling points.
2. GE shall collect soil samples beginning at a depth of two feet below ground surface for the bank soil unless the water table is within the top two feet. If the water table is encountered in the top two feet, GE shall collect samples beginning at the water table.
3. GE shall collect samples as close to the river's edge as possible, with the objective being to collect samples down to elevation 965.
4. GE shall analyze all samples, regardless of the visual observation of the samples (e.g., staining, sheens), for PCBs and TPHs.
5. GE shall perform a shake test for NAPL on all samples.
6. An additional objective of the sampling shall be to determine if DNAPL is present at the top of silt/till at the river/riverbank interface.
8. GE shall add two additional sample locations, one between P-2 and P-4 and one approximately 30 feet east of P-5. Also, GE shall relocate two of the samples as shown on a revised Figure 7 (see attached).

Additional Work

If GE's proposed sampling, as modified in this approval letter, indicate the extent of NAPL is not fully characterized along this bank, then EPA may require additional investigative activities.

Schedule

GE shall install the proposed monitoring well adjacent to LSSC-8, conduct the supplemental bank soil sampling and provide a report summarizing the results of the additional sampling to EPA for approval by April 26, 1999. This report shall include a sample location map, the sample depth, the sample elevation in feet above mean sea level, visual observations of the sample (including soil classifications), results of the shake test, and a summary of the PCB and TPH results. In the April 26, 1999 submittal, GE shall propose a due date for the detailed design of the containment barrier.

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

Sincerely,

Dean Tagliaferro
On-Scene Coordinator

cc: John Ciampa, GE
Lyn Cutler, MA DEP
John Ziegler, MA DEP
John Kilborn, US EPA
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John Kullberg, USACE
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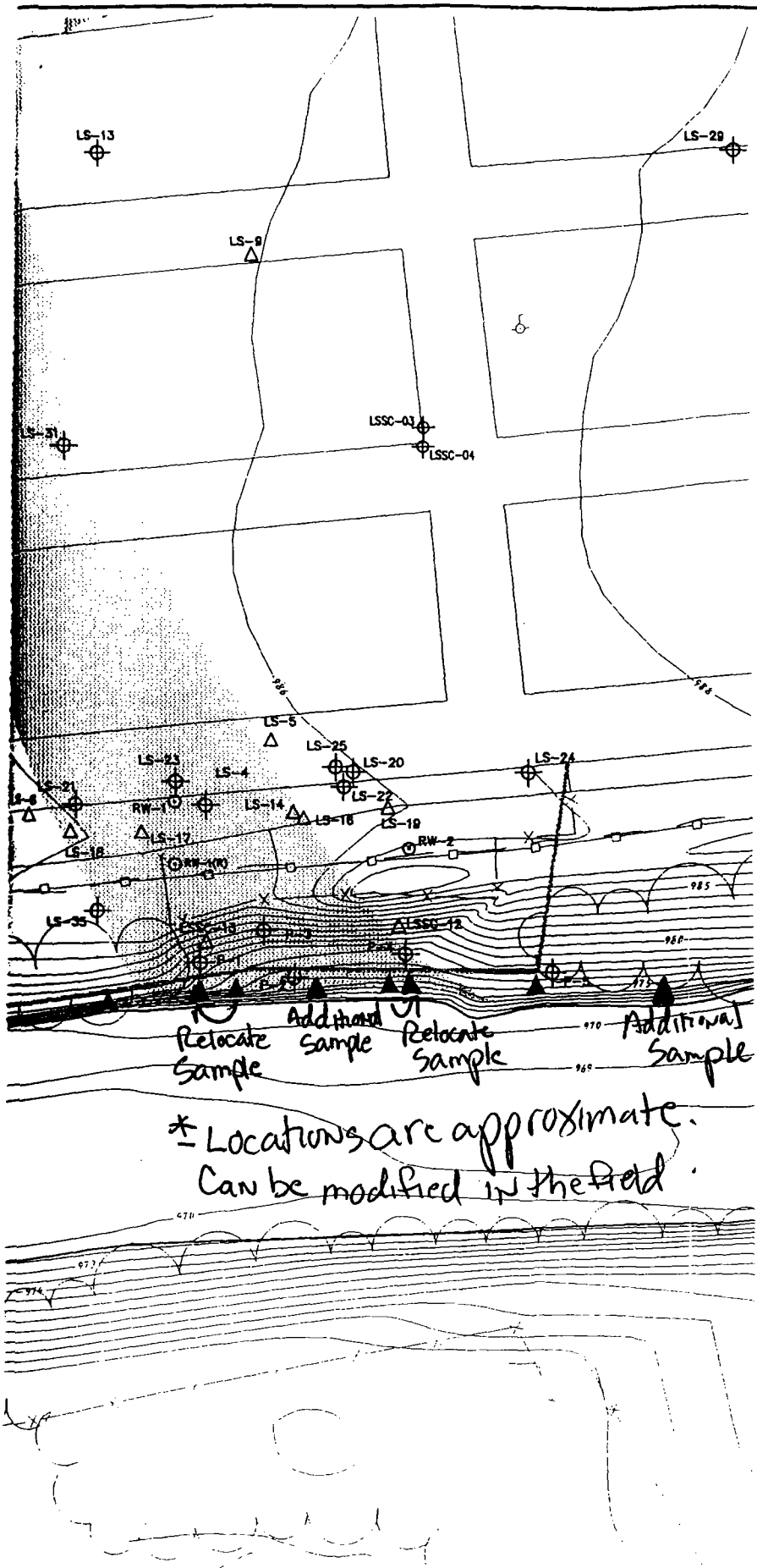
Dale Young, MA EOEA
Tom O'Brien, MA EOEA
Mayor Doyle, City of Pittsfield
Pittsfield Conservation Commission
Pittsfield City Council, c/o Tom Hickey
Site File



LEGEND:

- PROPOSED CONTAINMENT BARRIER
- PROPOSED RIVER BANK SOIL BORING
- PROPOSED MONITORING WELL
- EXISTING INDEX ELEVATION CONTOUR
- EXISTING INTERMEDIATE ELEVATION CONTOUR
- DECIDUOUS TREE
- CONIFEROUS TREE
- MANHOLE
- CHAIN LINK FENCE
- POLE (NON-UTILITY)
- POLE (OVERHEAD UTILITY)
- APPROXIMATE DELINEATION OF FORMER OXBOWS
- ES2-1 EXISTING MONITORING WELL
- RW-3 EXISTING PUMPING WELL
- LS-1 EXISTING SOIL BORING

NOTES:

1. MAPPING IS BEST AVAILABLE INFORMATION AS OF 12/10/98 BASED ON MAPPING PROVIDED BY LOCKWOOD MAPPING, INC. PREPARED FROM 1990 AERIAL PHOTOGRAPHY; DATA PROVIDED BY GENERAL ELECTRIC; AND BLASLAND AND BOUCK ENGINEERS, PC. CONSTRUCTION PLANS. RIVERBANK AND RIVER BED TOPOGRAPHIC INFORMATION PROVIDED BY BBL FROM OCTOBER 12-23, 1998 FIELD SURVEY.
2. COORDINATE GRID BASED ON 1927 STATE PLANE COORDINATES.
3. ELEVATION DATUM REFERENCED TO NGVD 1929.
4. ALL SAMPLING LOCATIONS ARE APPROXIMATE.

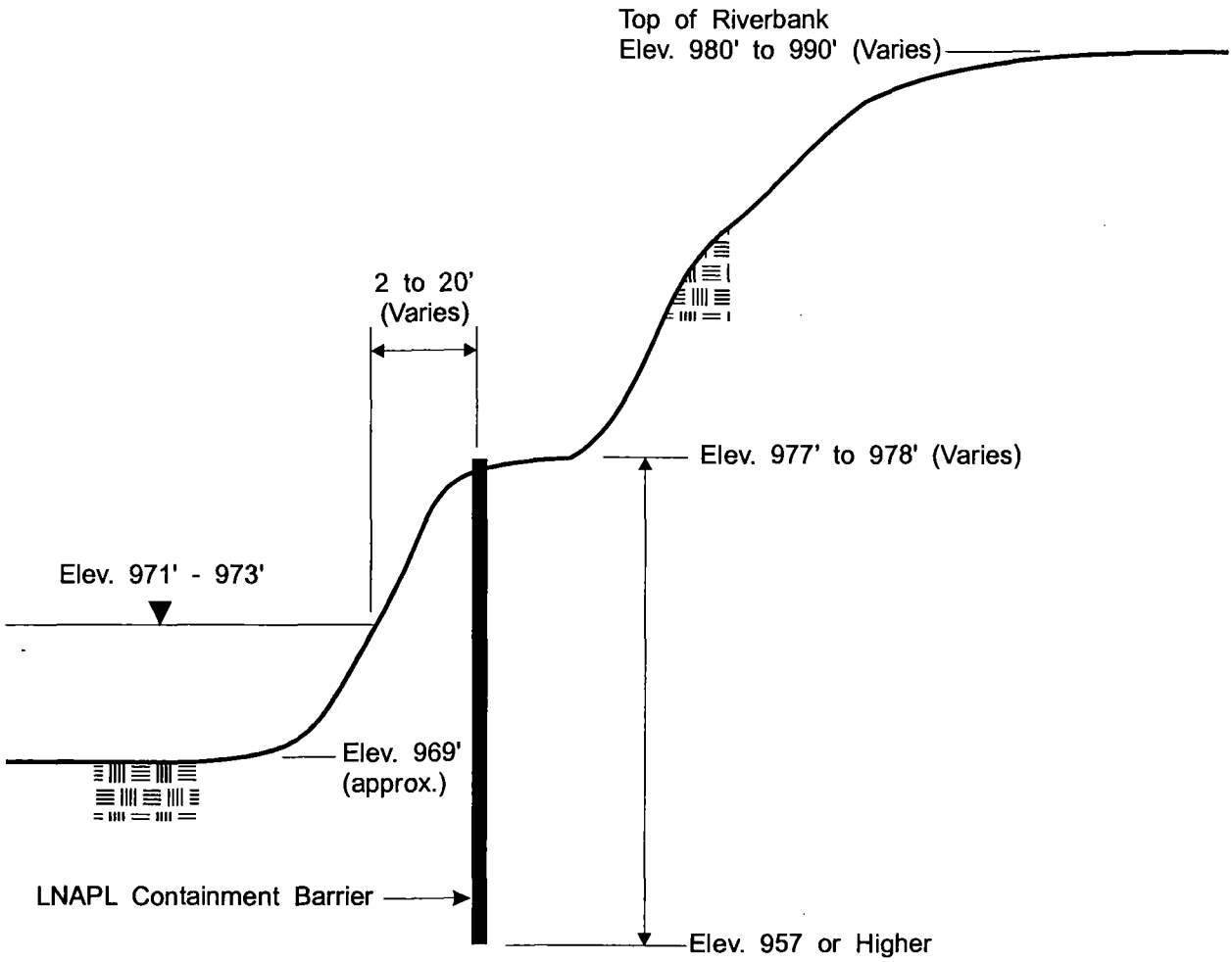
0 20' 40'
GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
LYMAN STREET PARKING LOT
SOURCE CONTROL INVESTIGATION

PROPOSED CONTAINMENT BARRIER AND SUPPLEMENTAL SAMPLING LOCATIONS

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

FIGURE 7



NOT-TO-SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
LYMAN STREET PARKING LOT
SOURCE CONTROL INVESTIGATIONS

CONTAINMENT BARRIER - CONCEPTUAL CROSS-SECTION

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

FIGURE 8

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