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MEMORANDUM

To: William Lovely, Remedial Project Manager
U. S. Environmental Protection Agency

From: Susan J. Steenstrup, Project Coordinator, Special Projects
DEP, Bureau of Waste Site Cleanup, Springfield

Cc: Anna Symington, Deputy Regional Director, BWSC, Springfield (*electronic copy*)
Joe Schmidl, Weston Solutions, Inc. (*electronic copy*)
Rose Howell, EPA Region I (*electronic copy)*
Holly Inglis, EPA Region I

Date: March 1, 2005

Subject: Site No. GECD410; Former Oxbow Areas A & C; Pittsfield, Massachusetts; Comments on *Conceptual Removal Design/Removal Action Work Plan for Former Oxbow Areas A and C*, prepared by Blasland, Bouck & Lee, dated January 2005.

The Massachusetts Department of Environmental Protection (the Department) has reviewed the January 2005 document titled: *Conceptual Removal Design/Removal Action Work Plan for Former Oxbow Areas A and C* (Conceptual RD/RA), prepared by Blasland, Bouck & Lee, under the requirements of the Consent Decree (CD) executed between the General Electric Company (GE), the U.S. Environmental Protection Agency (EPA), the Department, and other agencies. The Department offers the following comments for EPA's consideration.

1) The Department concurs with EPA's recommendation that additional removals to address poly-chlorinated biphenyl (PCB) contamination be performed in the storm drainage channel that extends from the outfall at the end of Day Street approximately 180 feet northwest to the portion of the channel that was previously remediated by EPA during its work on the 1.5-Mile Reach of the Housatonic River. The Department concurs that, although these additional removals are not required to meet the Performance Standards for soils under the Statement of Work (SOW) (Appendix E to the CD), soils with elevated PCB concentrations could serve as potential source areas for recontamination of the 1.5-Mile Reach, where sediment cleanup standards are much lower than soil cleanup standards. For example, a PCB concentration of 40.3 parts per million (ppm) is

found in surficial soils at location FL001661, just below the storm drainage outfall at Day Street in an area of known high discharge and flow. Ideally, removal of surficial soils should also be accompanied by backfilling with a geotextile filter layer overlain by riprap, to prevent further down-cutting and erosion of underlying soils into the Housatonic River.

EPA should also consider requiring GE to perform additional soil removals and swale stabilization in the drainage ditch that extends from location RAA11-R17 parallel to the Mystic Street Right-of-Way to the Day Street outfall, located approximately 660 feet to the northeast. The Department has the understanding that the velocity and quantity of discharge in this ditch is considerably less than that conveyed by the Day Street channel, so there may be less tendency for underlying soils within the ditch to erode and make their way into the Housatonic River. However, the potential for this area to serve as a potential source of Housatonic River recontamination still exists, so requiring additional removals within this ditch seems justified. Additional removals and riprapping in this ditch would also eliminate the potential public safety problem posed by the demolition debris that currently sticks up out of the ditch.

During a site visit in 1996, Departmental personnel observed an additional small drainage swale located near the western edge of Parcel I9-5-14 on Hathaway Street. There did not appear to have been a point source discharge associated with this swale. Under the Conceptual RD/RA, this area is proposed to have a 1-foot removal of contaminated soils. The Department recommends that GE evaluate this area and determine whether the swale serves an important drainage purpose and whether this area should also be stabilized with some smaller diameter riprap.

2) Several tables and figures in the report do not appear to be accurate in their depiction of existing and post-remediation conditions for the northeastern corner of the recreational portion of Parcel I8-23-6. In the area of past remediation during a 1997 Short Term Measure (STM) under the Massachusetts Contingency Plan (MCP), PCB-contaminated soils were removed to depths ranging from 0.5 to 1.2 feet below the surface. The legend of Figure B-1 acknowledges this past removal. However, Table B-5, which depicts existing conditions, does not acknowledge the removals to depths of 6 inches and the placement of clean backfill materials. Instead, pre-existing PCB (i.e., pre-1997) concentrations are factored into the averages for the 0- to 0.5-foot depth interval and for other deeper cumulative depth intervals. Although post-remediation conditions for this depth interval appear to be accurately portrayed in Table B-8 (and in tables for subsequent cumulative depth intervals), the portrayal of existing conditions and existing spatial averages is confusing and seemingly not accurate. In earlier stages of the investigation process (i.e., in Pre-Design Investigation Work Plans), it is useful to have GE portray pre-existing concentrations for previously-remediated areas, so that additional investigations can be targeted to depths and locations not previously investigated, in order to define the vertical and horizontal extent of PCB contamination. However, portrayal of such pre-existing data at this stage in the remedial process only adds confusion. In subsequent submissions for this site and in future Conceptual RD/RA Work Plans for other sites, only currently existing conditions and concentrations should be shown.

In addition, on Figure B-1 within the 0- to 0.5-foot depth interval, several polygons have been constructed using a single sampling location/concentration, based on data that was collected for the previously-completed STM. These individual polygons appear to have been constructed to separate areas that were previously remediated from those which were not. However, since spatial averaging calculations for existing conditions do not factor in the concentrations of the 1997 clean backfill, there seems to be no reason to subdivide the polygons in the manner shown on Figure B-1, and this

only leads to potential confusion in interpreting the Conceptual RD/RA. Therefore, the Department recommends that future polygon maps be constructed in the simplest form possible.

3) On Figure B-1, only portions of the polygons associated with particular sampling points, such as OX-C-24, OX-C-25, OX-C-26, OX-C-45, OX-C-64, OX-C-65, OX-C-70, OX-C-73, etc., are slated for removal. GE should clarify why this approach is being taken, rather than proposing to remove entire polygons.

4) Table A-3 shows that EPA sampling location GTB-3, identified as BH000580 in Figure 4-1, has 103 ppm PCBs in the 0.5- to 1-foot depth increment, yet it does not appear that this data point was used in the spatial averaging calculations for PCBs in Volume III. It appears that grid location RAA11-O8 was used, instead, to construct the Theissen polygon, although it would have been more appropriate to use all valid existing data points when constructing spatial averaging polygons, as was done in most other portions of the site. Figure 4-1 indicates that a 1-foot removal to address a 150 ppm PCB concentration at location BS000160 will be performed in the vicinity of GTB-3, but it does not indicate that any soil removal will occur at location GTB-3, although the surficial soil PCB concentration there exceeds the not-to-exceed (NTE) level of 50 ppm for recreational parcels under the CD. Therefore, the Department recommends that GE be required to expand the proposed removal polygon somewhat to the south to a line drawn midway between points GTB-3 and RAA11-O8 and RAA11-O9.

5) Sampling data depicted in Table A-4 indicate that elevated concentrations of polynuclear aromatic hydrocarbons (PAHs) are present in the 2- to 2.5-foot depth increment for EPA sampling location OT000042, yet this data was not used in the spatial averaging calculations for the recreational portion of Parcel I8-23-6, as depicted in Volume IV of the Conceptual RD/RA. GE should explain why all available and valid data was not used in the spatial averaging calculations for 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 constituents).

6) Table A-2 shows that a considerable amount of the lab data for semi-volatiles was rejected for the following locations: RAA11-J12-LP (8- to 10-foot depth interval), RAA11-K15 (10- to 15-foot depth interval), RAA11-K17 (6- to 10-foot depth interval), and RAA11-S11 (1- to 3-foot depth interval). The Department is concerned that the loss of usable data at several locations could compromise GE's ability to meet the sampling requirements specified in the SOW. In the future, if similar situations are encountered at other sites, the Department recommends that GE be required to collect replacement samples for analysis during the Pre-Design Investigation process and prior to submittal of the Conceptual RD/RA.

7) Footnotes #1 and #2 for Tables C-13 through C15 (which depict post-remediation conditions) are not accurate, since remediation will occur in polygons drawn around locations RAA11-C17 and RAA11-G15 and these locations will be replaced with clean backfill. Hence, references to collection dates and are no longer accurate or relevant and make interpretation of the tables confusing. In future submissions, these and similar footnotes should be changed to correct this error and clarify what is being represented in the tables.

8) On Figure 4-1 and in Tables C-13 through C-15, GE indicates that a removal will take place to address elevated concentrations of PAHs at grid sampling location RAA11-G15 in the 0- to 1-foot depth increment. In order to delineate the extent of the removal, GE collected additional samples at

sampling locations RAA11-G15W, RAA11-G15E, RAA11-G15N, and RAA11-G15S. Table C-13 indicates that PAH concentrations at RAA11-G15W are still considerably elevated above screening levels and, in the case of RAA11-G15E, levels at this location are very similar to those found at the original location (RAA11-G15) that necessitate the removal. The PAH levels at RAA11-G15E range up to 91 times the MCP Method 1 S-1 Soil Standard for residential properties. In addition, this table shows that the average levels of PAHs within the location covered by the removal polygon (i.e., COMP-G15) are still considerably elevated, ranging up to 21 times the MCP standard for residential proper-ties. Although the risk assessment indicates that the remediation proposed by GE will meet the Performance Standards for recreational areas under the SOW, the Department finds that the recreational area on Parcel I8-23-6 is located adjacent to a densely-populated residential neighbor-hood and has been known to be used frequently by children in the past. Therefore, the Department recommends that, at a minimum, the limits of the removal area be extended 5 feet beyond sampling location RAA11-G15E, and preferably also 5 feet beyond sampling location RAA11-G15W, in a manner similar to the "carve-outs" that have been used for removals of Appendix IX+3 constituents under the residential fill program under the Department's 2000 Administrative Consent Order with GE.