

United States Environmental Protection Agency
EPA New England
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August 7, 2003

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Public Information Repositories

RE: July 2003 Monthly Report
1.5 Mile Reach Removal Action
GE-Pittsfield/Housatonic River Site

Enclosed please find the July 2003 Monthly Report for the 1.5 Mile Reach Removal Action. In accordance with the Consent Decree for the GE-Pittsfield/Housatonic River Site, the United States Environmental Protection Agency (EPA) is performing the 1.5 Mile Reach Removal Action, with General Electric funding a portion of the project through a cost sharing formula.

The EPA has entered into an agreement with the United States Army Corps of Engineers (USACE) to assist in the design and construction of the Removal Action. The USACE subsequently awarded a design-construct contract to Weston Solutions, Inc. (Weston). Weston, with several subcontractors, will be performing the design and construction activities for the 1.5 Mile Reach Removal Action.

If you have any questions, please contact me at (413) 236-0969.

Sincerely,

Dean Tagliaferro
1.5 Mile Reach Removal Action Project Manager

1. Overview

During July 2003, the Environmental Protection Agency (EPA), the United States Army Corps of Engineers (USACE), the USACE's contractor, Weston Solutions, Inc., and Weston's subcontractors continued remediation activities on the 1.5 Mile Reach Removal Action. The primary work included soil and sediment excavation and backfilling activities in Cell 12A and construction activities associated with the temporary dam on the west side of the river channel. In addition, a transfer of TSCA and non-TSCA materials from the stockpile management areas to the GE On Plant Consolidation Areas (OPCAs) was performed.

2. Chronological description of tasks performed

Refer to Figure 1 for an orientation of the sheetpile cells and their respective locations.

By the end of June 2003, Cell 12A excavation activities were initiated. During the first week of July, excavation activities in Cell 12A continued. All designated TSCA and non-TSCA materials were removed from the cell. TSCA material excavated from Cell 12A was transported to Building 63 and non-TSCA material was transported to Building 65. NAPL impacted material was encountered during the excavation activities in Cell 12A and was transported to the Building 68 stockpile management area (see Table 1 for a daily summary of material transported to the stockpile management areas in the month of July).

The NAPL impacted material encountered in Cell 12A was found to extend into the riverbank and, therefore, excavation activities were extended into the bank. The NAPL impacted material was saturated and difficult to load into trucks. This material was stockpiled on the river bottom and riverbanks of Cell 12A to allow the material to decant. Upon removal of the material in the bank it became apparent that the NAPL impacted material extended even further into the riverbank. However, the exact extent could not be determined from existing data, and it was concluded that a more thorough investigation would be necessary. Therefore, a series of riverbed and riverbank sediment and soil borings were proposed to establish the extent of NAPL contamination.

Also, during the final week of June the construction of the temporary dam was initiated. During the first week of July the construction of the temporary dam continued. This involved the installation of the dam sheeting on the east side of the river. In addition, the installation of the downstream cutoff wall of the isolation cell for the construction of the dam on the west side of the river was initiated.

During the second week of July the NAPL investigation was completed. Twelve sediment borings were advanced in the riverbed and ten soil borings were advanced on the top of the riverbank of Cell 12A. The results of the investigation indicated the NAPL impacted material was present in a localized area in the riverbed and riverbank. Based on this new information the NAPL excavation activities were continued. Free phase NAPL was encountered during the

excavation efforts. The saturated NAPL material was continued to be stockpiled within Cell 12A or in roll off boxes until it was suitable to be transferred to the appropriate stockpile management area. In some cases, portland cement was mixed in with the NAPL impacted material to solidify it for transport.

NAPL excavation activities were extended further into the bank of Cell 12A beyond the limit of remediation. The NAPL impacted material was encountered at an elevation well below the elevation of the top of the riverbank. The riverbank material above the NAPL impacted material was first removed and stockpiled adjacent to the excavation as overburden to be used for future restoration of the extended NAPL excavation area.

Also, during the second week of July, the construction activities associated with the temporary dam continued. The upstream sheetpile cutoff wall of the isolation cell for the construction of the west side of the temporary dam was installed. Since this area was previously remediated, water within the cell was pumped over the sheetpile isolation cell wall and not sent to the water treatment system. Construction of the west side of the temporary dam was initiated with the installation of the dam sheeting. A survey was completed to locate several dam components. Also, one support column for the temporary dam was installed as well as three anchors for the pipe restraint system just downstream of the dam within the isolation cell.

Miscellaneous activities during the second week of July included the survey layout of the limit of remediation of the east riverbank from the end of Cell 11A down to the Elm Street Bridge. In addition, the post excavation verification survey was completed for Cell 12A except for the extended NAPL excavation area. Lastly, 12-inch riprap was placed on the northern face of the drainage swale crossing structure on the east side of the river.

During the third week of July the NAPL excavation activities in Cell 12A were completed. All the NAPL impacted materials were transported to the appropriate stockpile management areas (see Table 2 for final excavation quantities). No residual NAPL-impacted material was observed following the completion of the NAPL excavation.

Upon approval of the post-excavation verification survey backfill activities were initiated in Cell 12A. Backfill activities were initiated within the extended riverbank NAPL excavation area. Thirty inches of 12-inch riprap was placed at the base of the excavation to facilitate drainage. This was covered with a six-inch layer of Filter Stone. Next, the stockpiled overburden material was placed and compacted in one to two foot lifts up to the design excavation elevation or to within three feet of the finished grade. The riverbed was backfilled with two-inch stone to facilitate drainage of groundwater within the cell and allow for the proper installation of a six-inch layer of Common Fill Filter Grade material over top of the two-inch stone. Next, a six-inch layer of Filter Stone was installed over the Common Fill Filter Grade material in the riverbed and compacted as necessary. Nine-inch riprap was then placed on top of the filter stone.

Also during the third week of July the temporary dam construction activities were continued. The reinforcement bars and concrete formwork for the west side of the temporary dam were installed in preparation for the installation of the concrete pile cap. During the placement of formwork for the concrete pile cap, two 54-inch pipe pieces were placed within the headwall of the dam for future connection to the 54-inch HDPE pipes. The pouring of the concrete pile cap

on the west side of the dam was initiated. Also, two support columns for the temporary dam were installed on the east side of the temporary dam.

Other activities during the third week of July included herbicide spraying of the invasive species in the recently restored riverbanks. Stockpiled overburden material which was generated during the NAPL impacted material excavation in Cell 12A that was not utilized as backfill was moved from the area adjacent to the NAPL excavation to the Lyman Street Parking Lot Staging Area and to the Building 65 stockpile management area.

During the fourth week of July, backfill activities were completed in Cell 12A up to elevation 975. The riverbank portion of the cell below elevation 975 was backfilled with a six-inch layer of Common Fill Filter Grade, a six-inch layer of Filter Stone, and a twenty-four inch layer of 18-inch riprap. Upon completion of backfill activities in Cell 12A up to elevation 975, water being pumped to the water treatment system was directed to the river. The Survey Subcontractor completed the backfill verification survey of materials placed in Cell 12A up to elevation 975.

Also during the fourth week of July the temporary dam construction activities were continued. Reinforcement bars, concrete formwork, and concrete were installed as part of the construction activities associated with the west side of the temporary dam. Stop log channels to be installed in the west side of the temporary dam were coated with a bitumastic paint to minimize corrosion. In addition, support columns were installed downstream of the temporary dam. Cross bracing was also installed between the columns of the dam and the support columns on the west side. Formwork was installed for the pouring of concrete between the dam columns and the stop log channels.

Miscellaneous activities during the fourth week of July included the clearing of trees and shrubs along the west bank of Cell 13. Trees and shrubs were chipped and transported to the OPCAs for future use as temporary daily cover.

During the last week of July backfilling activities were completed on the riverbanks of Cell 12A above elevation 975. A minimum thirty-inch layer of Common Fill Filter Grade (compacted in six inch lifts) and a six-inch layer of topsoil were placed on the riverbank. To finalize the restoration of the riverbank in Cell 12A, herbaceous seed mix and erosion control blankets were installed. Silt fence was then placed at the top of the riverbank. Once all the backfill was placed, a backfill verification survey was completed above elevation 975 feet. Upon approval of the final verification survey of Cell 12A, the removal of the sheetpile cutoff walls was completed and the cell was flooded.

Also during the final week of July the temporary dam construction activities continued. The installation of the walkway on the west side of the temporary dam was initiated. Formwork continued to be installed along the dam columns and the stop log channels and concrete was poured in these areas. The last section of the concrete pile cap was poured around the pipe pieces in the headwall on the west side of the temporary dam. In addition, the slide gates to cover the opening to the 54" HDPE pipes were installed on the front of the west side of the dam. Grout was placed between the slide gates and the headwall of the dam to seal the gates to the headwall. Cross bracing continued to be installed between the columns of the dam and the support columns on the west side of the dam.

Also during the final week of July, activities were initiated to install the pipe restraint system downstream of Elm Street Bridge. This entailed the installation of helical anchors at specified points along the riverbank with the use of an auger attachment on the end of an excavator bucket. All anchors were then load tested using an excavator and a crane scale.

Other activities that took place during the final week of July included the completion of the cross sectional topographic survey of Cell 13. Also, tree-clearing activities continued on the west bank up to the Elm Street Bridge. In addition, all the NAPL impacted materials excavated from Cell 12A were moved from the Building 65 stockpile management area to Building 68 but kept separate from the NAPL impacted materials excavated from Cell 11A. The overburden material stockpiled on the Lyman Street Parking Lot that was excavated from Cell 12A was transported to the Building 65 stockpile management area.

During the month of July, the water treatment system treated water from Cell 12A. Sampling of the water treatment system for parameters included in the NPDES exclusion permit was performed on July 16, 2003. Due to the presence of NAPL in Cell 12A, the analytical parameters for the water treatment system sampling continued to include volatiles, semi-volatiles and Total Petroleum Hydrocarbons. Also, the analytical parameters included the quarterly sampling for metals. Air monitoring for particulate matter (PM10 sampling) and surface water turbidity monitoring was performed on a daily basis. The monthly PCB air-monitoring event was performed on July 3, 2003. Surface water sampling for total suspended solids (TSS) and PCBs was performed on July 2 and July 17, 2003. Sampling of Topsoil for chemical parameters was performed on July 2, 2003. Additional eight-point composite disposal characterization samples were collected from the Cell 11A NAPL-impacted sediment stockpile in Building 68 on July 16, 2003. Also, eight-point composite disposal characterization samples were collected from the Cell 12A NAPL-impacted sediment stockpile in Building 65 and 68 on July 17, 2003.

Geotechnical samples were collected for Topsoil. The results of the geotechnical testing are not included in the monthly reports but are contained in other submittals and are available upon request.

Stockpile management area activities continued throughout the month of July. Daily inspections, operation and maintenance activities were performed within Buildings 63, 65 and 68. This included the collection of accumulated water that drained from the stockpiles and transportation of that water to the on-site water treatment system. Decontamination of equipment was conducted prior to moving it between NAPL impacted, TSCA and non-TSCA staging areas.

The transfer of non-TSCA materials from the Building 65 stockpile management area to the Hill 78 OPCA was performed from July 7, 2003 to July 9, 2003. The transfer of TSCA materials from the Building 63 stockpile management area to the Building 71 OPCA was performed on July 10 and July 11, 2003. Paint filter tests were collected at a frequency of 1 per 100 cubic yards (cy) of material loaded (see Table 3 for a summary of material transported to the OPCAs in July 2003 and Table 4 for a summary of material transported to the OPCAs for the project through July 2003).

Traffic control was conducted on Lyman Street throughout the month of July.

The vibration monitoring activities continued on Parcel I8-23-6. Since, Cell 11A construction activities ended by the end of June and the temporary dam (which is adjacent to the Laundromat structure) construction activities were in progress in July, one of the monitoring devices was moved and set up to monitor the Laundromat structure and the other unit was set up to monitor the manual car wash structure. (See Figure 1 for the locations of the Vibration Monitors).

Dust control procedures continued for access roads, parking areas, and material storage areas. In addition, staged backfill materials were covered to prevent the generation of dust.

3. Sampling/test results received

PCB sample results for the water treatment system sampling program were received for samples collected on July 16, 2003 (Table 5). Non-PCB sample results were received for samples collected on June 25, 2003 (Table 5a); non-PCB analytical results for the WTS samples collected on July 16, 2003 are not available yet. Analytical results for backfill materials are summarized in Table 6. This includes the sampling results for Topsoil samples collected on June 18, 2003 and July 02, 2003 as well as Common Fill samples collected on June 30, 2003. The results of the daily particulate air monitoring program are summarized in Table 7. Table 8 is a summary of daily turbidity monitoring results. Results for PCB and TSS samples and water column monitoring data collected on June 23, 2003 and July 2, 2003 are presented in Table 9. PCB and TSS results for water monitoring samples collected on July 17, 2003 are not yet available. A summary of samples collected for the air sampling conducted on June 26, 2003 and July 03, 2003 are provided in Table 10. Table 11 contains PCB data associated with equipment confirmatory wipe samples. Table 12 presents the analytical data associated with Cell 11A NAPL-impacted sediment stockpile samples collected on June 18, 2003 and NAPL-impacted sediment sample collected in Cell 12A on July 1, 2003. Results for additional Cell 11A NAPL-impacted sediment stockpile samples collected on July 16, 2003 and Cell 12A NAPL-impacted sediment stockpile collected on July 17, 2003 are not available yet.

4. Diagrams associated with the tasks performed

Figure 1 is a map of Phase I and the beginning of Phase II and includes layout of all excavation cells, temporary dam, lot parcel identification numbers, water monitoring locations, PCB air sampling locations, vibration monitoring locations, access road locations, fence line location, the water treatment system pad location, the effluent discharge location, and the utility trench location.

5. Reports received and prepared

Weston received a vibration monitoring summary report for the period of July 2, 2003 to July 31, 2003 from Vibra-Tech, Inc. During this period, two seismographs were set up on Parcel I8-23-6. Since, Cell 11A construction activities ended by the end of June and the temporary dam (which is adjacent to the Laundromat structure) construction activities were in progress in July one of the monitoring devices was moved and set up to monitor the Laundromat structure and the other unit was set up to monitor the manual car wash structure. Both of the units were set up to collect data on continuous seismic mode. Activities occurring near the two monitoring locations during this period included normal background activities, sheet pile driving, and general construction activities. The maximum ground vibration level measured was 1.27 inches per second (ips), this was a single time occurrence. The next highest reading for the month reached 0.07 ips. The maximum vibration level encountered during the month represents 63.5% of the state's recommended limit of 2.0 ips. All readings during this period comply with State Regulations.

6. Photo documentation of activities performed

See attached photos.

7. Brief description of work to be performed in August 2003

- Complete the construction of the temporary dam on the west side of the river.
- Remove the temporary dam isolation cell on the west side of the river and install it on the east side.
- Connect the 54-inch HDPE pipes to the temporary dam.
- Install an energy dissipater at the outfall of the 54-inch HDPE pipe.
- Complete the construction of the temporary dam on the east side of the river.
- Remove the temporary dam isolation cell on the east side of the river.
- Complete the installation of the temporary dam stop logs.
- Complete the construction of the lower earthen dam downstream of the Elm Street Bridge.
- Dewater the west side of the river (Cell 13).
- Initiate the construction of the access ramp into Cell 13.
- Complete the transport of NAPL-impacted materials to an approved off-site disposal facility.
- Initiate sheetpile decontamination activities.
- Continue stockpile management activities at Buildings 63, 65 and 68.
- Continue operation of water treatment system.
- Continue daily air and turbidity monitoring.
- Continue PCB air sampling (once a month), water column sampling (twice a month), water treatment system sampling (monthly) and backfill material sampling (as needed).
- Continue vibration monitoring of two structures located on Parcel I8-23-6.

8. Attachments to this report

Table 1. Quantity of Bank and Sediment Material Generated During the Month of July

Table 2. Quantity of Bank and Sediment Material Excavated to Date

Table 3. Quantity of Material Transferred to OPCAs During the Month of July

Table 4. Quantity of Material Transferred to OPCAs to Date

Table 5. NPDES PCB Sampling Results for Water Treatment System

Table 6. Backfill Material Testing Results

Table 7. Daily Air Monitoring Results

Table 8. Daily Water Column Turbidity Monitoring Results

Table 9. Summary of Turbidity, PCB, and TSS Water Column Monitoring Results

Table 10. PCB Air Sampling Results

Table 11. Equipment Confirmatory Wipe Sample Results

Table 12. NAPL-Impacted Sediment from Cells 11A and 12A Testing Results

Figure 1- Phase I Site Plan

Photodocumentation