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November 4, 2010

Project No. C656-003

**Via Electronic and Regular Mail**

Ms. Anna Krasko  
Project Manager  
United States Environmental Protection Agency  
5 Post Office Square, Suite 100  
Mail Code OSRR07-1  
Boston, MA 02109-3912

Subject: **Centredale Manor Restoration Project Superfund Site:  
Administrative Settlement Agreement and Order on Consent,  
CERCLA Docket No. 01-2010-0045, Effective June 30, 2010.**

Dear Ms. Krasko:

We are writing in response to your email dated October 12, 2010 regarding changes that were made to several of the proposed sampling locations in the Oxbow area due to field conditions. We also are writing to seek U.S. EPA's approval of an amended Scope of Work (SOW) for the above-referenced Administrative Settlement Agreement and Order on Consent (Settlement Agreement), and an Amended Sampling and Analysis Plan (SAP). The purpose of these requested amendments is to enable Emhart Industries, Inc. (Emhart) to collect sediment samples from the southern portion of the Oxbow as requested by U.S. EPA, as well as to conduct additional surface soil sampling.

Currently, the SOW requires that Emhart conduct surface soil sampling at agreed-upon locations within the Oxbow area of the Site. As you know, locations SS\_G-16, SS\_G-17, SS\_G-19, SS\_G-20, SS\_G-21, SS\_G-22, SS\_G-24, SS\_G-25, SS\_G-27, and SS\_G-28 were not sampled during the recent sampling event because the media at these locations was identified as sediment and not soil. In addition, locations SS\_G-10, SS\_G-12, and SS\_G-13 were not sampled because they were found to be in



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an area of fill, and thus outside the scope of work to be performed by Emhart under the Settlement Agreement. Finally, based on field observations, it was necessary to move locations SS\_G-26, SS\_G-29, SS\_G-30, and SS\_G-33 to areas that were indicative of floodplain soil and from which vadose zone soil samples could be extracted, consistent with the SOW requirements. You indicate in your email that, while U.S. EPA was aware of these changes, it did not authorize them and recommended that sediment samples be collected in these areas in lieu of soil samples.

As you know, the collection of sediment samples was not the intended purpose of the soil sampling effort as described in both the SOW and the July 21, 2010 SAP approved by U.S. EPA thereunder. Rather, that sampling event was solely for the purpose of collecting vadose zone soil samples. Moreover, because we were sampling vadose zone soil, we did not have the equipment necessary to sample the submerged sediment discovered in the field at the intended soil sampling locations. In light of the foregoing, at that time of field discovery, both you and Cornell Rosiu agreed that the identified sampling locations were not indicative of vadose zone soil and, thus, were outside of the scope of the SAP approved under the Settlement Agreement.

Nonetheless, Emhart now proposes to collect sediment samples from the southern portion of the Oxbow area, and also to collect additional surface soil samples to assist U.S. EPA's further delineation of the Oxbow area. Together, the attached "First Amendment to Administrative Settlement Agreement and Order on Consent," this letter and the map enclosed herewith, constitute Emhart's proposed amendment to the SOW and the SAP approved by U.S. EPA under the Settlement Agreement.

Our proposed amendments to the SAP are discussed below.

#### **PROPOSED SEDIMENT SAMPLING**

Emhart proposes to collect sediment samples at the locations identified as SD\_G-XX (yellow dots) on the enclosed map. With the exception of SD\_G-01, SD\_G-11, and SD\_G-12, these locations initially were identified in the SAP as proposed locations for collecting soil samples SS\_G-16, SS\_G-17, SS\_G-19 through SS\_G-25, and SS\_G-28. However, as discussed, these proposed soil sampling locations were not sampled during the September 2010 field event because they were discovered not to contain vadose zone soil.

Emhart also proposes to sample sediment at SD\_G-01. This sampling location was added to better define the extent of potential contamination in the southeastern-most part of the emergent palustrine wetland. Moreover, samples proposed to be taken at SD\_G-11 and SD\_G-12 are the locations of SS\_G-23 and SS\_G-26 in the SAP. As you may recall, SS\_G-23 and SS\_G-26 were relocated during the September 2010 field event to locations that were indicative of floodplain soils (i.e., vadose zone soil samples). Consequently, these two locations proposed for sediment sampling have not yet been sampled.

At each of the proposed sediment sampling locations shown on the enclosed figure, Emhart proposes to sample the 0-12 inch, 12-24 inch, and 24-36 inch depth intervals. Emhart will use dedicated, pre-cleaned sample core liners to collect the full 36 inch core, to the extent possible. The full core will be retrieved, water decanted or drawn off the surface of the sample with suction, and the sample extruded and segregated to yield samples indicative of the aforementioned sampling intervals. Once segregated into the appropriate sampling intervals, the sediment from each interval will be homogenized in a stainless steel bowl. For the 0-12 inch and 12-24 inch sampling intervals, samples will be collected for the list of analytes identified in the SAP (i.e., dioxins/furans, PCBs/pesticides, SVOCs, metals, grain size, and TOC). Samples will be logged, packaged and shipped to the laboratories identified in the SAP, Vista and CAS. For the 24-36 inch interval, sediment will be collected for dioxins/furans, but this sample will be placed on "hold" in the laboratory. The determination of whether the 24-36 inch sample is analyzed will be made upon receipt and review of the data from the 0-12 and 12-24 inch intervals.

During the September 2010 field sampling event, we noted the presence of a fine-to-medium sand at the surface of sediment in the northern-most portions of the palustrine scrub/shrub wetland, located just south of the Oxbow area forested wetland. However, subsequent reconnaissance has suggested that the presence of a sand layer may be limited. Nevertheless, this area is net depositional, and the fine-to-medium sand, where present, may be indicative of recent deposited material with a lower probability of re-suspension and subsequent transport in the future. Accordingly, Emhart proposes to sample this fine-to-medium sand layer where it is present at the proposed sediment sampling locations. Unless this sand layer is present throughout the top 12 inches, the sand layer sample will be in addition to the other samples identified above (0-12 inch, 12-24 inch and 24-36 inch samples) that will be taken for each proposed sediment sampling location. Therefore, if the sand is

present, but is not present for the entire 0-12 inch interval, four samples will be collected – 0-12 inch, 12-24 inch, 24-36 inch, and the sand layer. However, if the sand layer is present throughout the top 12 inches, only three samples will be collected - 0-12 inch, 12-24 inch, and 24-36 inch. Where possible, this sand layer will be analyzed for the analytes listed in the SAP. However, if the sand layer is thin, we may not be able to sample an adequate volume of material to support analysis of all of the listed analytes. If the sand layer is discovered to be thin, Emhart proposes analyzing this layer for dioxins/furans and grain size only. The determination of the presence and thickness of the sand layer will be made from visual observations of the sediment core discussed above.

### **PROPOSED SURFACE SOIL SAMPLING**

Emhart proposes to sample surface soil (0-12 inches) at four locations surrounding SS\_G-01, as shown on the enclosed Figure 1. These samples will provide data to help further delineate the presence of dioxin surrounding this location. Based on the unvalidated results, sample SS\_G-01 was found to contain 11.5 ppb of 2,3,7,8-TCDD, whereas EPA sample LPX-SD-4405, which is collocated with SS\_G-01, was found to contain 4.4 ppb of 2,3,7,8-TCDD. The locations shown around SS\_G-01 (SS\_G-01-01 through SS\_G-01-04) are 50 feet from the location of SS\_G-01.

Furthermore, Emhart proposes to collect two surface soil samples (0-12 inches) surrounding sample SS\_G-29, located behind the former North Providence Boys and Girls Club. The unvalidated result for 2,3,7,8-TCDD at SS\_G-29 is 5.1 ppb. The two proposed soil sampling locations shown on the enclosed figure (SS\_G-29-01 and SS\_G-29-02) are 50 feet south and east of SS\_G-29. Data from these samples will aid in delineating the concentrations of 2,3,7,8-TCDD in surface soil around SS\_G-29.

Finally, although not sampled in the September 2010 field effort because they are located in an area discovered to contain obvious fill material, Emhart now proposes to collect surface soil samples from SS\_G-10, SS\_G-12, and SS\_G-13. Data from these samples will provide information concerning the western boundary of the Oxbow wetland area, which may be helpful in understanding the extent of contamination in this direction. These samples will be collected from the top 0-12 inches of soil.

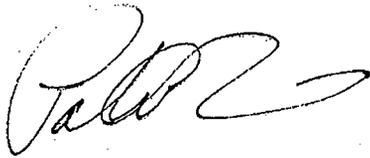
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All of the proposed sampling would be conducted in a manner consistent with the SAP and the proposed amendments thereto, with respect to project management, data generation and acquisition, assessment and oversight, data validation and usability, field documentation, and waste generation and disposal.

As discussed in our recent communications, Emhart would like to commence the additional field sampling during the week of November 8, 2010, weather permitting. Therefore, expedited attention to issuing the attached proposed amendment to the SOW and approving the amended SAP thereunder would be appreciated. Should you have any questions, please call me at (207) 874-9000 ext. 206.

Sincerely,



Patrick O. Gwinn  
Senior Managing Scientist

Enclosures

cc: Eve Vaudo, USEPA  
Lou Maccarone, RIDEM  
Deirdre Dahlen, Battelle  
Laura Ford Brust, Esq.  
David N. Scotti, LEA



**Figure 1.**  
 Proposed Supplemental Oxbow Area Sediment and  
 Surface Soil Sampling Locations November 4, 2010  
 Proposed Amendment to Integral's July 21, 2010  
 Sampling and Analysis Plan

UNITED STATES  
ENVIRONMENTAL PROTECTION AGENCY  
REGION 1 - NEW ENGLAND

IN THE MATTER OF:

Centredale Manor Restoration Project  
Superfund Site

North Providence, Rhode Island

Emhart Industries, Inc.

Respondent

FIRST AMENDMENT TO  
ADMINISTRATIVE SETTLEMENT  
AGREEMENT AND ORDER ON  
CONSENT

U.S. EPA New England  
CERCLA Docket No. 01-2010-0045

Proceeding Under Sections 104, 107, and 122  
of the Comprehensive Environmental  
Response, Compensation, and Liability Act,  
as amended, 42 U.S.C. §§ 9604, 9607 and  
9622.

Pursuant to paragraph 90 of the Administrative Settlement Agreement and Order on Consent, the EPA Project Coordinator hereby amends the Statement of Work as follows:

Paragraph 2 of the Statement of Work, which originally read:

- “2. Emhart will collect soil samples from the vadose zone in the Oxbow area, the emergent wetland east of the Oxbow area, the forested and emergent scrub/shrub wetlands at the confluence of the Assapumpset Brook and the Woonasquatucket River, and at the emergent wetland in the southeastern portion of the Lyman Mill Pond. Samples will be analyzed for dioxins/furans, PCBs and pesticides, semivolatiles organic compounds, and heavy metals.”

shall now read:

- “2. Emhart will collect soil samples from the vadose zone in the Oxbow area, the emergent wetland east of the Oxbow area, the forested and emergent scrub/shrub wetlands at the confluence of the Assapumpset Brook and the Woonasquatucket River, and at the emergent wetland in the southeastern portion of the Lyman Mill Pond. Emhart will also collect sediment samples from the palustrine scrub/shrub and emergent wetlands at the southern extents of the Oxbow area and east of the Oxbow area. Emhart will, to the extent possible, collect a full 36 inch sediment cores from each sediment sampling location. Samples from the 0-12 inch and 12-24 inch intervals will be analyzed for dioxins/furans, PCBs and pesticides, semivolatiles organic compounds, and heavy metals. Samples from the 24-36 inch interval will be collected and placed on “hold” for potential dioxin/furan analysis. Otherwise, the samples will be collected for dioxin/furans and grain size only.”

Paragraph 3 of the Statement of Work, which originally read:

- “3. Once the data are validated, Emhart will prepare and submit a technical report to EPA summarizing field activities, analytical work, data validation results, and final validated analytical results. Emhart will also prepare and submit an electronic data deliverable to EPA, which will contain the soil sampling analytical data.”

shall now read:

- “3. Once the data are validated, Emhart will prepare and submit a technical report to EPA summarizing field activities, analytical work, data validation results, and final validated analytical results. Emhart will also prepare and submit an electronic data deliverable to EPA, which will contain the soil and sediment sampling analytical data.”

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Anna Krasko, Project Coordinator  
Office of Site Remediation and Restoration, Region 1

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Date