



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1 – NEW ENGLAND  
5 POST OFFICE SQUARE, SUITE 100  
BOSTON, MASSACHUSETTS 02109-3912

**Superfund Records Center**  
**SITE:** Centredale  
**BREAK:** 10.7  
**OTHER:** 552939

June 10, 2014

Leo Hellested, Chief  
Office of Waste Management  
Rhode Island Department of Environmental Management  
235 Promenade Street  
Providence, RI 02908

Re: Notification of Issuance of an Administrative Order by EPA for Performance of the Selected Remedy at the Centredale Manor Restoration Project Superfund Site in Providence County, Rhode Island

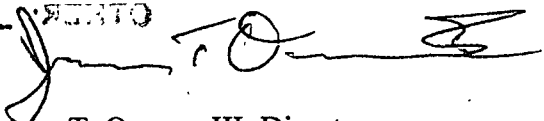
Dear Mr. Hellested:

EPA is issuing today an Administrative Order (“AO”) pursuant to Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (“CERCLA”). The AO will direct Emhart Industries, Inc. (“Emhart”) and Black & Decker, Inc. (“B&D”) to perform the Remedial Design and Remedial Action and Operation and Maintenance for the selected remedy for the Centredale Manor Restoration Project Superfund Site (the “Site”), as described in the Record of Decision, issued on September 28, 2012. The AO includes a Statement of Work (“SOW”) defining the response activities and deliverable obligations that Emhart and B&D will be obligated to perform at the Site. The AO will become effective twenty (20) days after my signature, giving Emhart and B&D an opportunity to meet with EPA prior to initiation of performance under the AO. EPA, through Remedial Project Manager (RPM) Anna Krasko, will coordinate Rhode Island’s review of relevant deliverables consistent with CERCLA § 121(f).

Enclosed with this letter is a copy of the AO for your records. Please contact RPM Anna Krasko at 617-918-1232 or Attorney Gretchen Muench at 617-918-1896 if you want to further discuss EPA’s actions described herein. As always, we look forward to working with you and RIDEM on the Centredale Manor Restoration Project Superfund Site. Thank you for your attention to this matter.



SDMS DocID 552939

A handwritten signature in black ink, appearing to read 'James T. Owens, III', is written over a horizontal line. The signature is stylized and includes a large initial 'J'.

James T. Owens, III, Director  
Office of Site Remediation and Restoration

cc (via email only):

Anna Krasko, EPA Remedial Project Manager

Gretchen Muench, Esq., EPA Senior Enforcement Counsel

Eve Vaudo, Esq., EPA Senior Enforcement Counsel

Matthew Destefano, RIDEM Office of Waste Management

Louis Maccarone, RIDEM Office of Waste Management

Susan Wilson, Esq., RIDEM Office of Legal Services

Ken Finkelstein, National Oceanic and Atmospheric Administration, Office of Response  
and Restoration

Ken Munney, U.S. Fish and Wildlife Service, New England Field Office



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1 – NEW ENGLAND  
5 POST OFFICE SQUARE, SUITE 100  
BOSTON, MASSACHUSETTS 02109-3912

June 10, 2014

**By Overnight Mail**

Emhart Industries, Inc.  
701 E. Joppa Road  
Towson, MD 21286

The Corporation Trust Incorporated  
351 West Camden Street  
Baltimore, MD 21201

Re: Centredale Manor Superfund Site – Administrative Order for Remedial Design, Remedial Action, and Operation and Maintenance (U.S. EPA Docket No. CERCLA-01-2014-0024)

Dear Sir or Madam:

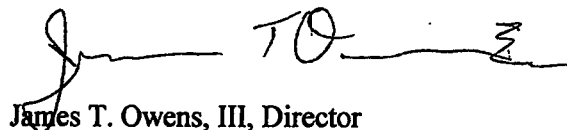
Enclosed please find a copy of an executed Administrative Order (“AO”) for Remedial Design, Remedial Action, and Operation and Maintenance (U.S. EPA Docket No. CERCLA-01-2014-0024) for the Centredale Manor Superfund Site in Providence County, Rhode Island. EPA has issued this AO pursuant to Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended. The AO directs Emhart Industries, Inc. and Black & Decker, Inc. (hereinafter collectively referred to as “Respondents”) to perform the Remedial Design, Remedial Action, and Operation and Maintenance for the selected remedy for the Centredale Manor Superfund Site, as described in the Record of Decision, issued on September 28, 2012. The AO includes a Statement of Work defining the response activities and deliverable obligations that Respondents will be obligated to perform.

Please note that the AO becomes effective twenty (20) days after my signature. The deadline for requesting a conference to meet with EPA to discuss the Order is five (5) days after today, pursuant to Section XXXI, and such conference must be held within fifteen (15) days of today. In addition, pursuant to Section VII, each Respondent must, not later than ten (10) days after the effective date of this order, provide written notice to EPA’s Remedial Project Manager, Anna Krasko, of its intent to comply with the terms of the Order.

If Respondents wish to confer pursuant to Section XXXI of the Order, please contact Gretchen Muench, Senior Enforcement Counsel, at 617-918-1896, [muench.gretchen@epa.gov](mailto:muench.gretchen@epa.gov), to schedule such a conference with EPA.

Thank you for your prompt attention to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "James T. Owens, III". The signature is written in a cursive style with a large initial "J" and a distinct "TO" in the middle.

James T. Owens, III, Director  
Office of Site Remediation and Restoration

enclosure

cc: Jerome C. Muys, Jr., Esq., Sullivan & Worcester



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1 – NEW ENGLAND  
5 POST OFFICE SQUARE, SUITE 100  
BOSTON, MASSACHUSETTS 02109-3912

June 10, 2014

**By Overnight Mail**

Black & Decker, Inc.  
c/o James M. Loree  
President  
Stanley Black & Decker  
1000 Stanley Drive  
New Britain, CT 06053

Re: Centredale Manor Superfund Site – Administrative Order for Remedial Design, Remedial Action, and Operation and Maintenance (U.S. EPA Docket No. CERCLA-01-2014-0024)

Dear Mr. Loree:

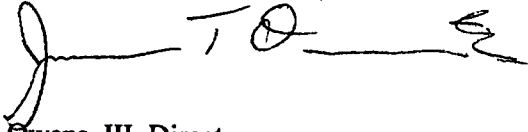
Enclosed please find a copy of an executed Administrative Order (“AO”) for Remedial Design, Remedial Action, and Operation and Maintenance (U.S. EPA Docket No. CERCLA-01-2014-0024) for the Centredale Manor Superfund Site in Providence County, Rhode Island. EPA has issued this AO pursuant to Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended. The AO directs Emhart Industries, Inc. and Black & Decker, Inc. (hereinafter collectively referred to as “Respondents”) to perform the Remedial Design, Remedial Action, and Operation and Maintenance for the selected remedy for the Centredale Manor Superfund Site, as described in the Record of Decision, issued on September 28, 2012. The AO includes a Statement of Work defining the response activities and deliverable obligations that Respondents will be obligated to perform.

Please note that the AO becomes effective twenty (20) days after my signature. The deadline for requesting a conference to meet with EPA to discuss the Order is five (5) days after today, pursuant to Section XXXI, and such conference must be held within fifteen (15) days of today. In addition, pursuant to Section VII, each Respondent must, not later than ten (10) days after the effective date of this order, provide written notice to EPA’s Remedial Project Manager, Anna Krasko, of its intent to comply with the terms of the Order.

If Respondents wish to confer pursuant to Section XXXI of the Order, please contact Gretchen Muench, Senior Enforcement Counsel, at 617-918-1896, [muench.gretchen@epa.gov](mailto:muench.gretchen@epa.gov), to schedule such a conference with EPA.

Thank you for your prompt attention to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "J. T. Owens". The signature is written in a cursive style with a large initial "J" and a stylized "O".

James T. Owens, III, Director  
Office of Site Remediation and Restoration

enclosure

cc: Jerome C. Muys, Jr., Esq., Sullivan & Worcester

**ADMINISTRATIVE ORDER  
FOR REMEDIAL DESIGN, REMEDIAL ACTION, AND OPERATION AND MAINTENANCE**

**U.S. EPA DOCKET NO. CERCLA 01-2014-0024**

**CENTREDALE MANOR RESTORATION PROJECT SUPERFUND SITE**





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APPENDIX 1 – Statement of Work

APPENDIX 2 -- Record of Decision, September 28, 2012.

APPENDIX 3 – Grant of Environmental Restriction and Easement

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region 1 – EPA New England  
5 Post Office Square, Suite 100  
Boston, MA 02109

In the Matter of: )  
)  
)

Centredale Manor Restoration Project Superfund Site )  
)  
)

Emhart Industries, Inc. and Black & Decker, Inc., )  
)  
)

U.S. EPA Docket No.  
CERCLA 01-2014-0024

Respondents )  
)  
)

Proceeding Under Section 106(a) of the Comprehensive )  
Environmental Response, Compensation, and Liability Act )  
of 1980, as amended (42 U.S.C. § 9606(a)) )  
)

ADMINISTRATIVE ORDER  
FOR REMEDIAL DESIGN, REMEDIAL ACTION, AND OPERATION AND MAINTENANCE

I. INTRODUCTION AND JURISDICTION

1. This Order directs Respondents to perform a Remedial Design and to implement the Remedial Design by performing a Remedial Action and performing Operation and Maintenance of such Remedial Action for the remedy described in the Record of Decision (“ROD”) for the Centredale Manor Restoration Project Superfund Site (the “Site”), dated September 28, 2012. This Order is issued to Respondents by the United States Environmental Protection Agency (“EPA”) under the authority to issue “such orders as may be necessary to protect public health and welfare and the environment” vested in the President of the United States by Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (“CERCLA”), 42 U.S.C. § 9606(a). This authority was delegated to the Administrator of EPA on January 23, 1987, by Executive Order 12580 (52 Fed. Reg. 2926, January 29, 1987), further delegated to EPA Regional Administrators on May 11, 1994 by EPA Delegation No. 14-14-B, and redelegated to the Director, Office of Site Remediation and Restoration, by EPA Region 1 Delegation No. 14-14-B (Class No. 1200), dated September 3, 1996.

II. DEFINITIONS

2. Unless otherwise expressly provided herein, terms used in this Order which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in the statute or its implementing regulations. Whenever terms listed below are used in this Order or in the

documents attached to this Order or incorporated by reference into this Order, the following definitions shall apply:

- a. "Administrative Record" shall mean the administrative record that contains the documents that form the basis for EPA's issuance of this Order. The Administrative Record includes, but is not limited to, the documents and information upon which EPA based the selection of the response actions for the Site (*i.e.*, the administrative records for the ROD and previous removal actions.)
- b. "ARARs" shall mean applicable or relevant and appropriate requirements under Section 121(d) of CERCLA, 42 U.S.C. § 9621(d).
- c. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. § 9601 *et seq.*, commonly known as "Superfund."
- d. "Contractor" shall mean the company or companies retained by Respondents to undertake and complete the Work required by this Order. Each Contractor and Subcontractor shall be qualified to do those portions of the Work for which it is retained.
- e. "Day" shall mean a calendar day unless expressly stated to be a working day. "Working day" shall mean a day other than a Saturday, Sunday, or Federal holiday. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the end of the next working day.
- f. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.
- g. "EPA Hazardous Substance Superfund" or "Fund" shall mean the Hazardous Substance Superfund established by the Internal Revenue Code, 26 U.S.C. § 9507.
- h. "Institutional Controls" or "ICs" shall mean proprietary controls and state or local laws, regulations, ordinances, zoning restrictions, or other governmental controls or notices that: (i) limit land, water, or other resource use to minimize the potential for human exposure to Waste Material at or in connection with the Site; (ii) limit land, water, or other resource use to implement, ensure non-interference with, or ensure the protectiveness of the Remedial Action pursuant to this Order; and/or (iii) provide information intended to modify or guide human behavior at or in connection with the Site.
- i. "National Contingency Plan" or "NCP" shall mean the National Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, including any amendments thereto.
- j. "Operation and Maintenance" or "O&M" shall mean all activities required to maintain the effectiveness of the Remedial Action, including long-term monitoring, in accordance with the SOW and the final plans and specifications developed in accordance with the SOW, including any additional activities required under Sections X, XI, XII, and XIII of this Order.
- k. "Order" shall mean this Order (Docket No. CERCLA 01-2014-0024) and all Appendices attached hereto.
- l. "Paragraph" of this Order shall mean a portion of this Order identified by an Arabic numeral.
- m. "Performance Standards" shall mean those cleanup standards, standards of control, targets and other substantive requirements, criteria or limitations (including ARARs), identified

in the Record of Decision and Statement of Work, that the Remedial Action and Work required by this Order must attain and maintain.

n. "RCRA" shall mean the Solid Waste Disposal Act, as amended, 42 U.S.C. § 6901 *et seq.* (also known as the Resource Conservation and Recovery Act).

o. "Remedial Action" or "RA" shall mean those activities, except for Operation and Maintenance and Remedial Design, to be undertaken by Respondents to implement the Record of Decision in accordance with the Statement of Work and the final plans and specifications developed in accordance with the Statement of Work, including any additional activities required under Sections X, XI, XII, and XIII of this Order.

p. "Remedial Design" or "RD" shall mean those activities to be undertaken by Respondents to develop the final plans and specifications for the Remedial Action and Operation and Maintenance pursuant to the Record of Decision and in accordance with the Statement of Work.

q. "Respondents" shall mean Emhart Industries, Inc. and Black & Decker, Inc.

r. "Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs in monitoring and supervising Respondents' performance of the Work to determine whether such performance is consistent with the requirements of this Order, including costs incurred in reviewing plans, reports, and other deliverables submitted pursuant to this Order, as well as costs incurred in overseeing implementation of this Order, including, but not limited to, payroll costs, contractor costs, travel costs, and laboratory costs.

s. "RIDEM" shall mean the Rhode Island Department of Environmental Management and any successor departments or agencies of the State.

t. "Section" of this Order shall mean a portion of this Order identified by a Roman numeral and includes one or more Paragraphs.

u. "Site" shall mean the Centredale Manor Restoration Project Superfund Site, as described in the ROD.

v. "State" shall mean the State of Rhode Island.

w. "Statement of Work" or "SOW" shall mean the Statement of Work for implementation of the Remedial Design, Remedial Action, and Operation and Maintenance at the Site as set forth in Appendix 1 to this Order. The Statement of Work is incorporated into this Order and is an enforceable part of this Order.

x. "Subcontractor" shall mean the company or companies retained by Respondents' Contractor to undertake and complete the Work required by this Order. Each Contractor and Subcontractor shall be qualified to do those portions of the Work for which it is retained.

y. "United States" shall mean the United States of America.

z. "Waste Material" shall mean 1) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); 2) any "pollutant or contaminant" under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); and 3) any "solid waste" under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27).

aa. "Work" shall mean all activities Respondents are required to perform under this Order, including Remedial Design, Remedial Action, Operation and Maintenance, and any activities required to be undertaken pursuant to Sections VII through XXV of this Order, except those required by Section XIX (Retention of Records).

### III. FINDINGS OF FACT

#### A. Description of the Site and Sources of Contamination

3. The Centredale Manor Restoration Project Superfund Site is located in North Providence, Rhode Island. It consists of two parcels, 2072 and 2074 Smith Street (Plat 14, Lots 200 and 250, encompassing approximately 9 acres) (“Source Area”), as well as surface water, sediment and floodplain areas of the Woonasquatucket River (the “River”) from Route 44 southerly to the Allendale Dam and further below to the Lyman Mill Dam, including all contaminated areas within this area as well as any other locations to which contamination has come to be located.

4. Between about 1943 and the late 1960s or early 1970s, Atlantic Chemical Company, which changed its name in 1953 to Metro-Atlantic, Inc., operated a chemical manufacturing operation at the Source Area of the Site. In 1968, Metro-Atlantic changed its name to Crown-Metro, Inc. Emhart Industries, Inc. (“Emhart”) and Black & Decker, Inc. (“Black & Decker”) are the corporate successors to Atlantic Chemical Company, Metro-Atlantic, Inc. and Crown-Metro, Inc. (All of these companies are hereinafter collectively referred to as “Emhart/Black & Decker”).

5. As part of its operations, Emhart/Black & Decker used and/or generated hazardous substances, including: dioxin (including 2,3,7,8-tetrachlorodibenzo-p-dioxin (“2,3,7,8-TCDD”)), polychlorinated biphenyls (“PCBs”), pesticides, volatile organic compounds (“VOCs”), semi-volatile organic compounds (“SVOCs”) (including polycyclic aromatic hydrocarbons (“PAHs”)), pesticides, and/or metals at the Site. Among other activities, Emhart/Black & Decker manufactured hexachlorophene from trichlorophenol shipped to the Site. 2,3,7,8-TCDD is a contaminant present in trichlorophenol.

6. As part of its operations, Emhart/Black & Decker engaged in activities that led to releases or threats of releases of hazardous substances including dioxin, PCBs, VOCs, SVOCs, pesticides and/or metals at the Site.

7. Documents from legal proceedings related to the Site contain information to support that Emhart/Black & Decker engaged in activities that led to releases or threats of releases of hazardous substances including dioxin, PCBs, VOCs, SVOCs, pesticides and/or metals at the Site.

8. Emhart stated in a March 22, 2004 Reply Memorandum (“Emhart’s Reply”), quoting Emhart expert Michael Bonchonsky, that during the period of Emhart/Black & Decker’s operations at the Site “environmental concerns and issues were at a very undeveloped stage’ and were focused on ‘sewage, oxygen demanding materials, solids, odors and other nuisances.’” “Prior to 1970, ‘attention ... was directed to surface waters and mostly concerned visible acute impacts from discharges, such as fish kill and color.’”

9. Emhart’s expert stated in an expert report that “[i]ndustrial operations, like [Emhart/Black & Decker’s], involving the handling of chemicals, or petroleum products and similar raw materials commonly incurred everyday accidental releases of the materials that were used or generated in the manufacturing process. These occurred through spills, leaks, drips at many points in ordinary functions at the facility where such materials were conveyed by pipes, drums, tanks, pumps, etc. Such industrial materials flowed and were often pumped to meet various production needs through, for example, valves, manifolds, connections, and spigots. Everyday spills and leaks associated with such transport of materials on-site that went onto the ground were common and ordinary.”

10. Emhart's expert stated in an expert report "[n]ormal spills and leaks regarded then as minor and hardly apparent to workers of that day later proved to be the cause of significant contamination that led to the programs of remediation at former manufacturing sites in the 1980s."

11. Emhart's Reply stated that "there is evidence of leaks or spills of trichlorophenol and other chemicals" at the Site by Emhart/Black & Decker. As noted earlier, 2,3,7,8-TCDD is a contaminant present in trichlorophenol.

12. Emhart's expert stated in an expert report "[t]he discharge of waste to surface waters . . . was also a common and acceptable practice for industrial manufacturing plants" and that "waterways were used in many cases to dilute industrial waste waters so that concentrations of substances would be reduced."

13. Emhart's expert stated in an expert report that the Emhart/Black & Decker facility was "located adjacent to the Woonasquatucket River on the west side and the tail race, another waterway, on the east side. Like many manufacturing plants, the facility utilized the river waters at the plant for a variety of purposes including the dilution of its wastewaters resulting in some part from the washdown of its equipment."

14. Emhart's Reply stated that, "[s]imilarly, throughout industry, the disposal of materials on the ground was quite common through the 1960's and even the 1970's and 1980's. . . . '[U]se of land for disposal of industrial waste was common and it was regarded as an accepted practice that was generally not harmful to the environment' during the period of operations at Metro-Atlantic. . . . In short, Metro-Atlantic's waste handling and disposal practices were in line with those followed by American industry in the pre-EPA era." (internal citations omitted). Emhart's expert further noted that "[e]ven the recycling of certain wastes for re-use and recovery resulted in thick viscous sludge, 'still bottoms,' that could not be reused. These sludges were mostly disposed of on the land."

15. United States Magistrate Judge Robert W. Lovegreen stated in his February 15, 2005 *Report and Recommendation* in connection with *Emhart Indus., Inc. v. Home Ins. Co.* that "there is also testimony that [Emhart/Black & Decker] buried drums on its portion of the Site, which drums apparently exploded or burned on occasion."

16. Emhart's Reply states several fires and explosions resulted in "releases of contaminants at the Site. In the mid-1960s, a fire was started when a truck driver opened a 3000 gallon tank of methanol in an attempt to obtain methanol for his space heater. An explosion occurred when a chemical was mistakenly pumped into a large storage tank containing a different chemical. In January 1968, a formaldehyde tank at [Emhart/Black & Decker] exploded, blew out several windows at the plant and released a 'giant mushroom of formaldehyde' off-Site. That explosion occurred when 'a delivery man mistook a full tank of formaldehyde for an empty one.' In August 1972, '[a]n explosion-punctuated fire destroyed two storage buildings and heavily damaged a third' at [Emhart/Black & Decker] in which 50 gallon drums were blown a distance of 150 feet and fire fighters from several communities fought the fire, using large amounts of water. . . . There was also a fire in July 1972. Such events at the Site created conditions conducive for spreading dioxin."

17. Counsel for Emhart/Black & Decker stated in court that the "contamination in – the greatest part, the dominant part, comes from a hexachlor[o]phene manufacturing operation . . . and that operation used substances that had dioxin as part of their constituents, and the dioxin that has been found on and off the site and is the subject of the cleanup . . . pretty clearly came from that operation."

18. Magistrate Judge Lovegreen stated in his February 15, 2005 *Report and Recommendation* that “the testimony, when taken in its entirety, appears to reveal mainly a pattern of systematic discharges and releases of chemical wastes and chemical substances in the course of manufacturing by [Emhart/Black & Decker] (and drum recycling by NEC). Specifically, testimony was offered that items such as presses were routinely washed at [Emhart/Black & Decker] and the flush materials were led into a trough which emptied ‘out back,’ a recollection that was repeated in a similar description by a second witness. The record supports that rinse water from intermittently washing vats was permitted to enter into the environment and, although not all washing waste entered the river, some portion of it was dumped into the tail race, entering the river eventually. The discharge of such wastes into the river reportedly ‘made the canal unsightly and caused an odor.’ A witness recollected repeated disposal of acid by [Emhart/Black & Decker] into the river by recalling that the black iron pipe used in the process had to be changed frequently because of erosion from the acid.”

19. Minutes from meetings of the North Providence Town Council and a 1956 newspaper article in the Providence Journal indicate that Emhart/Black & Decker discharged liquid wastes to land and surface waters at the Site – including the Woonasquatucket River and the tailrace – and used the southern portion of the Site as a dump, burning some of the materials it had disposed of thereon.

20. Other waste disposal activities, including the dumping of black sludge, were conducted by Emhart/Black & Decker at the southern dump.

21. Historical aerial photographs indicate waste disposal activities, dumping and associated earthmoving, occurred at the dump for much of the period of Emhart/Black & Decker’s operations at the Site. The photographs reveal that derelict equipment, derelict storage tanks, drums, and other debris were discarded in the dump. The photographs also indicate that an access road provided ready opportunity for Emhart/Black & Decker to use the dump area. Drainage features from waste disposal areas leading into the Woonasquatucket River and the eastern tailrace are also evident.

22. The testimony of numerous former area residents, volunteer fire fighters, and former employees of Emhart/Black & Decker and New England Container Company, Inc. (“NECC”) indicate that Emhart/Black & Decker disposed of wastes on the ground at the Site and directly and indirectly to surface waters adjacent to the Site, that it buried drums at the Site, and that numerous fires occurred at the Site – including at the on-site dump – during the period of Emhart/Black & Decker’s operations at the Site.

23. Records of the Centredale Fire Department also indicate that explosions, dump fires, building fires, and spills occurred at the Emhart/Black & Decker facility and in the southern dump area during the period of Emhart/Black & Decker’s operations.

24. Between 1952 and 1971, NECC operated an incinerator-based drum reconditioning facility, also located in the Source Area. When NECC began its operations, Emhart/Black & Decker was its sole customer. At some time during its operations at the Site, NECC began receiving barrels (also referred to as “drums,” or “containers”) from other companies for reconditioning, but Emhart/Black & Decker remained a significant NECC customer throughout the 1960s. Drum reconditioning operations occurred in the central portion of the Source Area and waste disposal activities occurred in the area surrounding the reconditioning facility as well as in the southern dump area.

25. Chemical residues and wastes containing hazardous substances from NECC’s customers, including from Emhart/Black & Decker, were dumped on the ground and/or burned prior to or as part of drum reconditioning or were otherwise released at the Site. Containers that arrived at NECC’s facility for reconditioning from NECC’s customers often contained residues of varying amounts. During the



reconditioning process, residues were decanted and the containers were, *inter alia*, burned or rinsed. Waste resulting from the container reconditioning process was discarded at the Source Area or in the adjacent Woonasquatucket River. In addition, during the course of NECC's operations, materials from drums that were handled and/or stored at the NECC facility before reconditioning leaked onto the ground. NECC generated ash at its facility (as a result of heating the containers in a furnace) and generated other wastes (including barrels, sludge, shot dust, cleaning solutions and plastic liners) resulting from NECC's drum reconditioning process, which were disposed of on the Site, including in the southern dump area. Waste waters containing chemical residues generated from waste received from NECC's customers as well as from NECC's operations were released to the ground or discharged through pipes and drains that lead to the Woonasquatucket River. Furthermore, emissions during the processing of barrels, explosions and blowing dust spread contamination to other portions of the Source Area.

26. The reconditioning of Emhart/Black & Decker's drums and related waste disposal practices resulted in releases or threats of releases of hazardous substances at the Site, including dioxin, PCBs, pesticides, VOCs, SVOCs, and/or metals at the Site.

27. Numerous complaints and fires were reported to local and state authorities during the time chemical manufacturing operations were conducted on the Source Area. As discussed above, a major fire in 1972 destroyed most of the structures at the Source Area and remaining buildings were then demolished.

28. As discussed above, hazardous substances from Emhart/Black & Decker's operations (including associated drum reconditioning) were released directly to the ground, discharged directly or indirectly into the River, emitted into the air, or were otherwise released. Direct infiltration of contaminants and leaching led to contamination of surface and subsurface soil as well as to groundwater contamination which discharged to the River. Transport of contaminated Source Area soil by surface runoff and during flooding resulted in contaminant migration into surface water and sediment in the adjacent Woonasquatucket River and its floodplain downstream from the Source Area of the Site.

29. At this time, the Site is used for elderly housing. The Brook Village apartments were constructed in 1977 and the Centredale Manor apartments were constructed in 1982 on the Source Area, where chemical manufacturing and drum reconditioning activities previously took place. These two buildings, parking lots, and driveways occupy a large portion of the Source Area.

30. In 1996, EPA first detected dioxin in fish collected from the River.

31. In 2009, samples taken by EPA and/or Emhart/Black & Decker underneath, and in the immediate vicinity of the former building in which Emhart/Black & Decker manufactured hexachlorophene showed dioxins in soil at a depth of several feet in concentrations as high as 140,000 parts per trillion (ppt), which is over 2,800 times the background level of 50 ppt. Samples taken in the dump area also showed dioxins in soil at concentrations as high as 140,000 ppt.

32. The highest levels of tetrachloroethene (PCE) were found in soil in the vicinity of the former hexachlorophene manufacturing building, with concentrations as high as 1,700 parts per million (ppm), which is 17,000 times greater than the RIDEM regulatory GA leachability criteria of 0.1 ppm.

33. Elevated levels of dioxin and other hazardous substances have been found in surface soils on residential properties and in areas subject to recreational use along the floodplain of the Woonasquatucket River.

34. Portions of the Site are subject to erosion as well as periodic flooding, which have caused, and will continue to cause, the migration of contaminated soil at the Site into the Woonasquatucket River and the migration of contaminated sediments further downstream.

#### B. History of EPA Response and Remedy Selection

35. Since 1996, EPA has conducted numerous investigations and cleanup actions at the Site, or has overseen the performance of these activities by potentially responsible parties (“PRPs”) including Emhart/Black & Decker, as described in the Paragraphs below.

36. Pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, EPA placed the Site on the National Priorities List (“NPL”), set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register on March 6, 2000.

37. On February 28, 2000 and October 20, 2011, EPA sent letters to Emhart and Black & Decker, respectively, notifying them of their potential liability at the Site under Section 107 of CERCLA.

38. From 1999 until the present, EPA has performed various response actions at the Site, or overseen the performance of these actions by certain PRPs pursuant to various unilateral administrative orders and consent orders, including:

- a. in 1999-2000, a time-critical removal action for sampling, temporary fencing, and installation of interim soil caps;
- b. in 2000-2003, a non-time critical removal action for reconstruction of the breached Allendale Dam (the first dam located downstream from the Source Area), restoration of Allendale Pond, and removal of floodplain soils from eleven residential properties located along Allendale and Lyman Mill Ponds;
- c. in 2003-2004, a time-critical removal action to address the tailrace along the eastern side of the Source Area, re-grading and capping of the drainage swale with a permeable one-foot cap, and installation of storm drainage equipment to prevent contaminant migration; and
- d. in 2009-2010, a time-critical removal action to address contaminated groundwater, including excavation and disposal of contaminated soils from the area near the eastern bank of the River and the southern end of the Brook Village parking lot and installation of an impermeable cap over the impacted area.

In addition, other investigatory actions have been undertaken under EPA oversight.

39. In response to the release or substantial threat of release of hazardous substances at or from the Site, EPA commenced a Remedial Investigation and Feasibility Study (“RI/FS”) for the Site in 2000, pursuant to 40 C.F.R. § 300.430. EPA completed a Remedial Investigation (“RI”) Report in June 2005. EPA also supplemented this report with additional data and analysis.

40. On April 30, 2010, EPA issued an Interim Final Feasibility Study for the Site. The Interim Final Feasibility Study was later updated by a Feasibility Study Addendum in September 2011 and a Technical Memorandum in May 2012. These documents are referred to collectively as the “FS.” The FS presented

the remedial alternatives evaluated to address Site conditions and potential risks. EPA also supplemented these reports with additional data and analysis.

41. Pursuant to Section 117 of CERCLA, 42 U.S.C. § 9617, EPA published notice of the completion of the Interim Final Feasibility Study, the Feasibility Study Addendum, and the proposed plan for remedial action (the "Proposed Plan") in October 2011, in a major local newspaper of general circulation. EPA provided an opportunity for comments from the public on the Proposed Plan.

42. On July 19, 2012, EPA issued an amendment to the Proposed Plan (the "Proposed Plan Amendment") and provided an opportunity for comments from the public on the Proposed Plan Amendment.

43. The decision by EPA on the remedial action to be implemented at a portion of the Site is embodied in a Record of Decision ("ROD"), executed on September 28, 2012, on which the State has given its concurrence. The ROD includes a responsiveness summary that addresses public comments, including comments received from Emhart/Black & Decker. The ROD is incorporated herein by reference and a citation is provided in Appendix 2. Notice of the ROD was published in accordance with Section 117(b) of CERCLA, 42 U.S.C. § 9617(b).

44. Between August and December 2013, EPA and RIDEM put in place interim protective measures required under the ROD on residential properties that border the Woonasquatucket River. Pursuant to the ROD, portions of residential properties that are vulnerable to flooding and recontamination from the River were fenced off and/or covered to reduce the potential for exposure to contamination in floodplain soil in the short term.

45. On August 8, 2013, EPA entered into an Administrative Order on Consent with a group of PRPs which required these parties to conduct a pre-design investigation on a portion of the Source Area pursuant to the requirements of the ROD. This investigation focused on better defining the nature of the material that may need to be excavated and/or treated prior to installation of a RCRA C cap in the Source Area. The on-site component of the investigation was completed in the fall of 2013 and sampling results are expected in the spring of 2014. Once this data is received and reviewed by EPA, design, including design evaluations specified in the ROD, and construction of the remedial action in the Source Area can begin.

### C. Characteristics of the Contaminants

46. As documented in the RI/FS and ROD, analysis of soil, sediment, floodplain soil, surface water, biota and groundwater samples at the Site shows high levels of hazardous substances, pollutants or contaminants, including dioxin, PCBs, metals, pesticides, VOCs, and SVOCs (including PAHs).

47. Dioxins are a group of many chemical compounds that share chemical structure and similar biological mechanisms of action. The most studied and one of the most toxic dioxins is 2,3,7,8-TCDD. Dioxins are potent animal toxicants with a potential to produce a broad spectrum of adverse effects in humans. Dioxins can alter the fundamental growth and development of cells in ways that have the potential to lead to many kinds of impacts, including adverse effects upon reproduction and development; suppression of the immune system; chloracne (a severe acne-like condition that sometimes persists for many years); and cancer. EPA characterizes 2,3,7,8-TCDD as a "human carcinogen" based on evidence of animal and human studies, and characterizes other dioxins as "likely human carcinogens." Dioxins are highly persistent in the environment and can accumulate in the tissues of animals. 2,3,7,8-TCDD exposures may also result in adverse non-cancer health effects on the reproductive and endocrine systems,

such as decreased sperm count and motility in men exposed to 2,3,7,8-TCDD as boys or increased levels of thyroid stimulating hormone in newborns exposed to 2,3,7,8-TCDD in utero.

48. Exposure to dioxins (and dioxin-like compounds) can result in five categories of toxicological effects to ecological receptors. These effects, which have been studied mainly in mammals but may also occur in most other vertebrate groups, are as follows:

- a. Cytochrome P450 induction: dioxins bind to the aryl hydrocarbon (Ah) receptor present in cells. The dioxin/Ah receptor complex binds to nuclear DNA, where promotion of gene activity occurs. This binding increases the production of cytochrome P450 1A1, which in turn increases production of P450-dependent enzymes which oxidize both foreign and endogenous compounds. Although this response protects cells, it can affect the metabolism of useful substances like steroid hormones, which can disturb critical functions.
- b. Immune system suppression: dioxins affect the immune systems of animals. The mechanism for immune system effects is not well understood but these compounds can cause hypertrophy of the thymus, an important part of the immune system.
- c. Porphyria: dioxins can disrupt the process by which the liver produces a compound of the blood pigment hemoglobin, thereby leading to sensory disorders and paralysis.
- d. Disruption of vitamin A metabolism: dioxins can inhibit the process by which Vitamin A is stored in the liver, thereby resulting in fetal damage, growth disorders and sterility.
- e. Sex hormone effects: dioxins affect estrogen receptors in certain organs in female rats, possibly resulting in lower fertility and higher incidence of tumors in these organs. In male rats, dioxin reduces testosterone levels by preventing production of enzymes responsible for increasing testosterone synthesis when levels of the hormone get low.

49. PCBs are mixtures of up to 209 individual synthetic chlorinated compounds. PCBs are classified as a CERCLA hazardous substance in the comprehensive list promulgated by EPA under CERCLA § 102(a), codified at 40 C.F.R. § 302.4, Table 302.4. PCBs are chemically stable, readily adsorb onto sediment particles, and resist biodegradation. PCBs are characterized as probable carcinogens in humans based on limited evidence in human studies and sufficient evidence in animal studies. EPA has found evidence that PCBs have toxic effects on animals, including cancer, liver toxicity, reproductive toxicity, developmental effects, neurotoxicity, dermal toxicity, and thyroid and endocrine effects. Workers exposed to PCBs have been found to have increases in cancer of the liver, gastrointestinal tract, skin, and gall bladder. PCBs can bind to sediment in water and bioaccumulate in fish and other aquatic species exposed to PCBs, increasing the risk of adverse health effects for humans who consume these contaminated species.

50. Planar and *mono-ortho* PCB congeners interact with the Ah receptor in a manner similar to dioxin. However, some PCB-induced toxicity (including neurological and immunological effects, or tissue damage) is not Ah-receptor mediated. A joint role of Ah-receptor dependent and independent mechanisms may be associated with liver hypertrophy, reproductive effects attributable to steroid hormone imbalance, thyroid hormone imbalance, and immunological effects.

51. PCBs affect mortality, growth, and reproduction in community-level aquatic organisms. Effects of PCBs on fish include mortality, growth-related effects, behavior responses, biochemical alterations, and adverse reproductive effects. Piscivorous birds exposed to PCBs and dioxins show strong reproductive impairment. Symptoms include altered biochemical homeostasis, physical deformities,

fetotoxicity, and teratogenesis. In addition to embryo mortality, PCB exposure in birds causes edema and beak malformations.

52. Mammals are strongly affected by exposure to specific PCB congeners, including the non-ortho and mono-ortho substituted PCBs, because the mechanism of action of these compounds is similar to dioxin. PCBs can cause mortality or affect reproduction in mammals. Other clinical signs of PCB toxicity include anorexia, liver and kidney degeneration, and gastric ulcers, which have been observed in mink fed PCB-contaminated fish.

53. PAHs are a large class of ubiquitous, natural and anthropogenic SVOC chemicals, all with similar chemical structures. Benzo(a)anthracene, benzo(a)pyrene, dibenzo(a,h)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene are classified in Group B2 (probable human carcinogens with sufficient evidence from animal studies). Benzo(a)pyrene is the most extensively-studied member of the class, inducing tumors in multiple tissues of virtually all laboratory species tested by all routes of exposure. It is difficult to ascribe observed health effects in epidemiological studies to specific PAHs because most exposures are to PAH mixtures. Increased incidences of lung, skin, and bladder cancers are associated with occupational exposure to PAHs. Adverse effects resulting from human exposures to non-carcinogenic PAHs, including fluoranthene and naphthalene, include hemolytic anemia with associated jaundice and occasionally renal disease, pulmonary system, gastrointestinal system, renal system, and dermatologic system after chronic exposure. In animal studies, high doses of naphthalene resulted in reduced growth rates. Animal studies also indicate that kidney disease can develop when animals are exposed to high doses of pyrene.

54. Metals are naturally-occurring inorganic substances used in industry. Certain metals are classified as CERCLA hazardous substances in the comprehensive list promulgated by EPA under CERCLA § 102(a), codified at 40 C.F.R. § 302.4. Metals found at the Site include, but are not limited to, lead, arsenic, and manganese. Lead can be harmful to humans when ingested or inhaled, particularly to the neurological development of children under the age of six. Inorganic arsenic is a human poison. Organic arsenic is less harmful. High levels of inorganic arsenic in food or water can be fatal. Arsenic damages many tissues including nerves, stomach and intestines, and skin. Manganese can elicit a variety of serious toxic responses to the central nervous system upon prolonged exposure to elevated concentrations. Symptoms progress with continued exposure and eventually include irreversible motor disturbances, tremors, and difficulty in walking, symptoms similar to those seen with Parkinsonism.

55. Most metals affect multiple organ systems in ecological receptors. The targets for toxicity are specific biochemical processes, such as enzymes and/or membranes of cells and organelles. Metal toxicity depends on the concentration of each inorganic and where it is located within the organism. Metal exposure may result in additive, synergistic, or antagonistic effects, with the overall response depending on the toxicity of the metals in question, the specific physical and chemical conditions, and internal synergistic or antagonistic effects within organisms.

56. Metal toxicity to invertebrates ranges from growth reduction to acute mortality. Mollusks are generally less sensitive than other aquatic phyla. Embryos and larvae of benthic organisms are the life stages most sensitive to metals. Metals reduce survival and affect reproduction in benthic invertebrates. Reduced growth is often observed in invertebrates at sublethal exposures. Exposures can also result in abnormal development, including molt inhibition. Freshwater fish are generally more sensitive to metals than marine species, and the larval stages are generally more sensitive than older stages. Commonly observed effects include reduced growth and fecundity, and increased mortality. Avian dietary studies with metals show that toxicity often depends on the organism's level of metallothioneins, which bind up and sequester metals. Sublethal effects can include reproductive and behavioral modifications.

57. VOCs are a class of organic compounds that evaporate readily into the air and that contain carbon atoms. Outdoors, VOCs are volatilized or released into the air mostly during manufacture or use of everyday products and materials, while indoors, VOCs are mostly released into the air from the use of products and materials containing VOCs. The VOCs found at the Site include, but are not limited to, benzene, chlorobenzene, tetrachloroethene, trichloroethene, and vinyl chloride. VOCs are emitted as gases from certain solids or liquids and include a variety of chemicals, some of which may have short- and long-term adverse health effects. Eye, nose, and throat irritation; headaches, loss of coordination, nausea; damage to liver, kidney, and central nervous system are some adverse health effects from exposures to VOCs. Some organics can cause cancer in animals; some are suspected or known to cause cancer in humans. Key signs or symptoms associated with exposure to VOCs include conjunctival irritation, nose and throat discomfort, headache, allergic skin reaction, dyspnea, declines in serum cholinesterase levels, nausea, emesis, epistaxis, fatigue, and dizziness.

58. The SVOCs found at the Site at levels causing human health risks are benzo(a)pyrene [B(a)P], dibenzo(a,h)anthracene, and N-nitroso-di-n-propylamine. B(a)P exposure during pregnancy can result in increased incidence of tumors in lung, liver, ovaries, and other organs in adult offspring. In adults, B(a)P exposure is associated with altered sperm morphology and decreased sperm numbers, and decreased egg numbers. At high levels of acute exposure in adults, B(a)P has been reported to be associated with immune system suppression and red blood cell damage, which can lead to anemia. There are no human data that specifically link exposure to dibenzo(a,h)anthracene with human cancers although animal studies showed that dibenzo(a,h)anthracene is carcinogenic to experimental animals exposed to it. N-nitroso-di-n-propylamine is a probable human carcinogen based on sufficient evidence of carcinogenicity in animals, with increased tumor incidence at multiple sites in two rodent species and in monkeys experimentally exposed to it.

59. Pesticides are a group of chemicals used to prevent, destroy, or repel pests, including insects, mice and other animals, weeds, fungi, or microorganisms, such as bacteria and viruses. The pesticides found at the Site include 4,4'-DDD, 4,4'-DDE, dieldrin, and technical chlordane. Organochlorine pesticides include the chlorinated ethane derivatives, such as DDD and DDE; cyclodiene compounds, such as chlordane, aldrin, dieldrin, heptachlor, endrin, and toxaphene; and the hexachlorocyclohexanes, such as lindane. These compounds readily bioaccumulate in aquatic and terrestrial ecological receptors and exhibit a wide range of toxicities. They have been banned from commerce in the US for over 30 years but are still present at detectable concentrations because they resist microbial degradation and therefore persist in the environment. For human health effects, pesticides act as neurotoxins. The target locus of primary toxic action of at least some organochlorine pesticides appears to be sensory and motor nerve fibers and the motor cortex in vertebrates. The observed toxicological effect of exposure to these pesticides is the inhibition of the ion transport system in the nervous system. DDD and DDE are probable human carcinogens.

60. The organochlorine pesticides are highly toxic to all aquatic invertebrates and fish. Birds are generally less sensitive than aquatic organisms.

#### D. Routes of Exposure and Exposure Pathways

61. The primary routes of human exposure to the hazardous substances, identified in Paragraphs 46 through 60, above, at the areas of the Site as identified in the ROD are as follows:

##### a. Source Area

- i. Future residents exposed to soil above the water table, assuming the existing caps are not present or not effective in preventing direct contact exposure to soils (via ingestion and dermal contact); and
  - ii. Future construction workers exposed to soil above the water table, assuming the existing caps are not present or not effective in preventing direct contact exposure to soils (via ingestion and dermal contact).
- b. Allendale
- i. Current and future residents living along the River (child and adult) exposed to biota – combined fish diet of American eel and white sucker (via ingestion) and sediment (via ingestion and dermal contact);
  - ii. Current and future visiting recreational anglers (child and adult) exposed to biota – combined fish diet of American eel and white sucker (via ingestion);
  - iii. Current and future residents living in the area exposed to residential-use floodplain soil on the eastern shore of Allendale Pond (via ingestion and dermal contact); and
  - iv. Current and future passive recreational visitors (child and adult) to the area exposed to recreational-use floodplain soil on the western shore of Allendale Pond (via ingestion and dermal contact).
- c. Lyman Mill
- i. Current and future residents living along the River (child and adult) exposed to biota – combined fish diet of American eel, largemouth bass, and white sucker (via ingestion) and sediment (via ingestion and dermal contact);
  - ii. Current and future visiting recreational anglers (child and adult) exposed to biota – combined fish diet of American eel, largemouth bass, and white sucker (via ingestion);
  - iii. Current and future residents living in the area exposed to residential-use floodplain soil on the eastern shore of Lyman Mill Pond (via ingestion and dermal contact); and
  - iv. Current and future passive recreational visitors (child and adult) exposed to floodplain soil at the Oxbow General Area (via ingestion and dermal contact).
- d. Source Area Groundwater
- i. Future adults and children exposed to groundwater that exceeds Federal drinking water regulatory criteria (Maximum Contaminant Levels/Maximum Contaminant Level Goals).

62. The primary routes of ecological exposure to the hazardous substances, identified in Paragraphs 46 through 60, are as follows:

- a. Allendale Pond, Lyman Mill Pond, Manton Pond, and Dyerville Pond aquatic habitats
  - i. The current and future aquatic invertebrate community in the ponds exposed directly to sediment and surface water and by ingesting aquatic food items.
  - ii. Current and future fish populations in the ponds exposed directly to surface water and by ingesting aquatic food items.

- iii. Current and future mammal and bird piscivores, insectivores, and omnivores foraging in the ponds and exposed by ingesting surface water, sediment, and aquatic food items.
- b. The Oxbow floodplain aquatic habitat
  - i. The current and future aquatic invertebrate community in the Oxbow floodplain exposed directly to sediment.
- c. Allendale Pond, Lyman Mill Pond, and the Oxbow floodplain terrestrial habitats
  - i. The current and future terrestrial invertebrate community in the floodplain areas exposed directly to soil and by ingesting soil-related food items.
  - ii. Current and future mammal and bird vermivores (worm-eaters) in the floodplain areas exposed by ingesting soil and worms.
  - iii. Current and future mammal terrestrial omnivores in the floodplain areas exposed by ingesting soil, terrestrial plants, and other terrestrial food items.

#### E. Populations at Risk

63. As described in Section G of Part 2 of the ROD, EPA's generally acceptable cancer risk range for site-related exposure is  $10^{-4}$  to  $10^{-6}$  or  $10E-4$  to  $10E-6$ . Current EPA practice considers carcinogenic risks to be additive when assessing exposure to a mixture of hazardous substances. RIDEM considers cumulative exposures greater than  $1 \times 10^{-5}$  (or 1 in 100,000) to be unacceptable for cancer risk. In assessing the potential for adverse effects other than cancer, a hazard quotient (HQ) is calculated. An HQ of less than or equal to 1 indicates that toxic non-carcinogenic effects from a given chemical are unlikely. The Hazard Index (HI) is generated by adding the HQs for all chemicals that affect the same target organ (e.g., liver) within or across those media to which the same individual may reasonably be exposed.

64. The unacceptable levels of cancer risk and non-cancer hazard identified in the preceding Paragraph 63, caused by the actual or threatened release from the Site of the hazardous substances identified in Paragraphs 46 through 60, via the exposure pathways identified in Paragraphs 61, result in the following increased risks to populations within each of the following areas of the Site as identified in the ROD.

#### a. Source Area

- i. For the child and adult resident, future carcinogenic risks from exposures to surface soil and subsurface soil both exceed the EPA acceptable risk range of  $10^{-4}$  to  $10^{-6}$  and RIDEM cancer risk level of  $1 \times 10^{-5}$ . The cumulative carcinogenic risks were  $4 \times 10^{-3}$  (4E-03) from surface soil and  $2 \times 10^{-3}$  (2E-03) from subsurface soil via ingestion and dermal contact. The future non-carcinogenic hazard indices for a child resident from exposures to surface and subsurface soil exceed the EPA threshold level of 1. For a child resident exposed to contaminated surface soil via ingestion and dermal contact, the HI is 305 based on adverse effects on the immune system and the HI is 150 based on adverse effects on the reproductive/endocrine systems. For a child resident exposed to contaminated subsurface soil via ingestion and dermal contact, the HI is 109 based on adverse effects on the immune system and the HI is 50 based on adverse effects on the reproductive/endocrine systems.



- ii. For the construction worker, future carcinogenic risks from exposure to surface soil exceed the RIDEM cancer risk level of  $1 \times 10^{-5}$ . The cumulative carcinogenic risks were  $5 \times 10^{-5}$  (5E-05) via ingestion and dermal contact. The future non-carcinogenic hazard index for the construction worker from exposure to surface soil exceeds the EPA threshold level of 1. For a construction worker exposed to contaminated surface soil via ingestion and dermal contact, the HI is 13 based on adverse effects on the immune system.

b. Allendale Area

- i. For the child and adult resident, current and future carcinogenic risks from consumption of contaminated biota and ingestion/dermal contact of contaminated sediment exceed the EPA acceptable risk range of  $10^{-4}$  to  $10^{-6}$  and RIDEM cancer risk level of  $1 \times 10^{-5}$ . The cumulative carcinogenic risks were  $5 \times 10^{-3}$  (5E-03) from biota consumption and  $2 \times 10^{-4}$  (2E-04) from sediment exposures via ingestion and dermal contact. The current and future non-carcinogenic hazard indices for a child resident from consumption of contaminated biota and ingestion/dermal contact of contaminated sediment exceed the EPA threshold level of 1. For children living along the River, the HI is 28 based on adverse effects on the immune system, the HI is 129 based on the reproductive/endocrine systems from contaminated fish via biota consumption, and the HI is 16 based on adverse effects on the reproductive/endocrine systems from ingestion of contaminated sediment.
- ii. For the visiting recreational angler, current and future cumulative carcinogenic risks from consumption of biota exceed the EPA acceptable risk range of  $10^{-4}$  to  $10^{-6}$  and RIDEM cancer risk level of  $1 \times 10^{-5}$ . The cumulative carcinogenic risk is  $5 \times 10^{-3}$  (5E-03) for biota consumption. The current and future non-carcinogenic hazard indices for the child visiting the recreational angler who shared the catch exceed EPA threshold level of 1. The HI is 28 based on adverse effects on the immune system and the HI is 129 based on adverse effects on the reproductive/endocrine systems from contaminated fish via biota consumption.
- iii. For the residents along the eastern shore of Allendale Pond, current and future carcinogenic risks from exposure to residential-use floodplain soil exceed the EPA acceptable risk range of  $10^{-4}$  to  $10^{-6}$  and RIDEM cancer risk level of  $1 \times 10^{-5}$  due to potential current and future exposures for resident exposed to residential-use floodplain soil. The highest cumulative carcinogenic risk was  $2 \times 10^{-4}$  (2E-04) from floodplain soil exposures mainly via ingestion of contaminated floodplain soil. The current and future non-carcinogenic hazard index for the child resident along the eastern shore of Allendale Pond from ingestion of contaminated floodplain soil exceeds the EPA threshold level of 1. The highest HI is 17 based on adverse effects on the reproductive/endocrine systems mainly from ingestion of contaminated floodplain soil.
- iv. For the recreational visitor along the western shore of Allendale Pond, current and future cumulative carcinogenic risks from ingestion and dermal contact with floodplain soil are within the EPA acceptable risk range of  $10^{-4}$  to  $10^{-6}$  but exceed the RIDEM cancer risk level of  $1 \times 10^{-5}$ . For the recreational visitor, the cumulative carcinogenic risk is  $2 \times 10^{-5}$  (2E-05) via mainly ingestion and dermal contact with floodplain soil.

c. Lyman Mill Area

- i. For the child and adult resident living along the River, current and future carcinogenic risks from ingestion of contaminated biota and ingestion/dermal contact with contaminated sediment exceed the EPA acceptable risk range of  $10^{-4}$  to  $10^{-6}$  and RIDEM cancer risk level of  $1 \times 10^{-5}$ . The cumulative carcinogenic risks were  $6 \times 10^{-3}$  (6E-03) from biota consumption and  $3 \times 10^{-4}$  (3E-04) from sediment exposures via ingestion and dermal contact. The current and future non-carcinogenic hazard indices for a child resident living along the River from ingestion of contaminated biota and ingestion/dermal contact with contaminated sediment exceed the EPA threshold level of 1. The HI is 32 based on adverse effects on the immune system and 159 based on adverse effects on reproductive/endocrine systems from contaminated fish via biota consumption. The HI is 24 for a child resident living along the River based on adverse effects on the reproductive/endocrine systems via ingestion of and dermal contact with contaminated sediment.
  - ii. For the visiting recreational angler, current and future cumulative carcinogenic risks from biota consumption exceed the EPA acceptable risk range of  $10^{-4}$  to  $10^{-6}$  and RIDEM cancer risk level of  $1 \times 10^{-5}$ . The cumulative carcinogenic risk is  $6 \times 10^{-3}$  (6E-03) for biota consumption. The current and future non-carcinogenic hazard index for the child visiting recreational angler who shared the catch exceeds the EPA threshold level of 1. The HI is 32 based on adverse effects on the immune system and is 159 based on adverse effects on the reproductive/endocrine systems from contaminated fish via biota consumption.
  - iii. For the child and adult resident living along the eastern shore of Lyman Mill Pond, current and future carcinogenic risks from exposure to residential-use floodplain soil exceed the EPA acceptable risk range of  $10^{-4}$  to  $10^{-6}$  and RIDEM cancer risk level of  $1 \times 10^{-5}$ . The highest cumulative carcinogenic risk was  $9 \times 10^{-3}$  (9E-03) mainly via ingestion of and dermal contact with contaminated floodplain soil. The current and future non-carcinogenic hazard index for the child and adult resident living along the eastern shore of Lyman Mill Pond exceed the EPA threshold level of 1. The highest HI is 20 based on adverse effects on the reproductive/endocrine systems mainly from ingestion of contaminated floodplain soil.
- d. Lyman Mill Oxbow Area (General Area)
- i. For the passive recreational visitor, current and future cumulative carcinogenic risks from exposure to contaminants in floodplain soil exceed the RIDEM cancer risk level of  $1 \times 10^{-5}$ . The cumulative carcinogenic risk is  $6 \times 10^{-5}$  (6E-05). The current and future non-carcinogenic hazard index for the child passive recreational visitor from ingestion of contaminated floodplain soil exceeds the EPA threshold of 1. The HI is 4 based on adverse effects on reproductive/endocrine systems mainly from ingestion of contaminated floodplain soil.

65. As described in Section G of the ROD, EPA determined that an unacceptable ecological risk exists for fish and wildlife that are exposed through direct contact to site contaminants in sediment or floodplain soil and from feeding on contaminated prey.

- a. Allendale Area
  - i. Piscivorous birds: feeding on fish containing total Aroclors, dioxin TEQ (primarily 2,3,7,8-TCDD), and Aroclor 1254;
  - ii. Piscivorous mammals: feeding on fish containing dioxin TEQ (primarily 2,3,7,8-TCDD);

- iii. Insectivorous birds and mammals: feeding on aquatic insects containing dioxin TEQ (primarily 2,3,7,8-TCDD);
  - iv. Vermivorous birds and mammals: feeding on earthworms containing dioxin TEQ (primarily 2,3,7,8-TCDD) and Aroclor 1254; and
  - v. Fish: exposed through multiple exposure pathways that result in high body burdens of Aroclor 1254, technical chlordane, dioxin TEQ (primarily 2,3,7,8-TCDD), selenium, and zinc.
- b. Lyman Mill Area
- i. Piscivorous birds: feeding on fish containing total Aroclors, dioxin TEQ (primarily 2,3,7,8-TCDD), 4,4'-DDE, Coplanar PCB TEQ, Aroclor 1254, 4,4'-DDD and technical chlordane;
  - ii. Piscivorous mammals: feeding on fish containing dioxin TEQ (primarily 2,3,7,8-TCDD), Aroclor 1254 and Coplanar PCB TEQ;
  - iii. Insectivorous birds and mammals: feeding on aquatic insects containing dioxin TEQ (primarily 2,3,7,8-TCDD) and Coplanar PCB TEQ;
  - iv. Vermivorous birds and mammals: feeding on earthworms containing 2,3,7,8-TCDD (dioxin TEQ), selenium and zinc; and
  - v. Fish: exposed through multiple exposure pathways that result in high body burdens of Aroclor 1254, technical chlordane, 4,4'-DDD, 4,4'-DDE, dioxin TEQ (primarily 2,3,7,8-TCDD), Coplanar PCB TEQ, aluminum, barium, selenium, vanadium and zinc.

#### F. Selected Remedy

66. The ROD sets forth the selected remedy for the Site and generally includes the following activities:

- a. Removal of potential buried waste in the Source Area and off-site disposal and/or treatment; relocation of underground utilities into clean corridors; and conversion of existing surfaces (soil caps, parking lots, paved areas, and landscape areas) into a RCRA C cap.
- b. Excavation of sediment and floodplain soil in the Allendale and Lyman Mill reaches of the Woonasquatucket River; containment of excavated material in an upland CDF with contamination that exceeds the Land Disposal Restrictions' alternative treatment standards shipped off-site for disposal and/or treatment; placement of a thin-layer cover over remaining contaminated sediment in the River, if needed; and placement of a thin-layer cover over remaining contamination in the Oxbow wetland.
- c. Placement, monitoring and enforcement of ICs to permanently prohibit future excavation, restrict access to buried utilities, prevent the construction of buildings with pilings or basements or any other disturbance of the cap or other remedial components in the Source Area; permanently restrict the use of groundwater at the Source Area; permanently prevent excavation/construction or other activities that could damage the upland CDF; temporarily prevent excavation or other activities that could damage the thin-layer soil cover and Allendale

Dam; temporarily restrict recreational access in the Oxbow wetland; and temporarily restrict fish consumption.

d. Long-term inspections, maintenance and monitoring of the RCRA C cap in the Source Area; installation of additional groundwater monitoring wells and groundwater monitoring at the edge of the Source Area cap; inspections, maintenance and monitoring of the upland CDF and dams; monitoring of sediment, surface water, floodplain soil and biota, and monitoring and maintenance to control invasive species.

e. Wetlands and floodplain mitigation.

67. The Site remedy is intended to address the principal human health and ecological threats identified in Paragraphs 64 to 65. The selected remedy addresses all current and potential future risks caused by soil, sediment, groundwater, biota, and surface water contamination within the area of the Site addressed by the ROD.

68. The individual remedial components of the ROD and the risks that they are intended to address are identified below. The following descriptions are organized in accordance with the five areas of the Site identified in the remedy selected in the ROD.

a. Source Area

The ROD requires excavation and off-site treatment and disposal of potential buried Waste Material, and the upgrade of existing interim caps, landscape areas, and paved surfaces to meet RCRA C standards for caps over unlined hazardous waste landfills. Underground utilities will be relocated into trenches with only clean soil. These remedial measures will mitigate the risk to future residents and construction workers by preventing incidental ingestion and dermal contact with contaminated soil, will prevent leaching or migration of contaminants from vadose zone soil into groundwater that could exceed regulatory standards and prevent migration of contaminants from the Source Area that could contribute to risks from sediment, surface water, floodplain soil and/or biota. Long term inspections, maintenance and monitoring of the RCRA C cap and institutional controls will help ensure that these cleanup actions remain protective of human health in the long term.

b. Source Area Groundwater

The ROD requires implementation of long-term measures to confirm that the groundwater response action, which was completed as a removal action in 2010, is effective in the long term and protective. Long-term measures include the installation of three additional deep monitoring wells, and implementation of long-term monitoring on an annual basis. These measures, in combination with the impermeable cap required in the Source Area and institutional controls, will help ensure that the groundwater remedy remains effective in the long term and protective of human health by preventing direct human exposure to contaminated groundwater and reducing contaminant concentrations in groundwater at the edge of the cap to levels that are protective of human health. These measures also prevent the migration of contaminants from Source Area groundwater.

c. Allendale Pond and Lyman Mill Pond Sediment

The ROD requires the excavation of contaminated sediment, placement of approximately 90 percent of the excavated materials in an upland CDF located above the 100-year flood elevation, and shipment of the remaining approximately 10 percent of excavated material for off-site disposal and/or treatment. Should any residual contamination remain, a thin six-inch sand cover will be placed over any remaining contamination after excavation and sampling.

This component of the cleanup includes restoration and mitigation for the temporary elimination of fish populations, long-term monitoring to assess river recovery, and the long-term maintenance of the upland CDF. These remedial measures will mitigate the current and future carcinogenic and/or non-carcinogenic risks from consumption of contaminated fish and/or incidental ingestion of/dermal contact with contaminated sediment to current and future residents and visiting recreational anglers by removing sediment from the River that presents an unacceptable risk and reducing the contaminant levels in fish. In addition, excavation of sediment will reduce the risks to fish and wildlife related to bioaccumulation hazards associated with prey consumption and direct contact with contaminated sediments and will prevent further migration of contaminants.

d. Allendale Floodplain Soil

The ROD requires the excavation of contaminated floodplain soil from non-residential use property and contaminated floodplain soil from residential-use properties. The ROD also requires precautionary interim measures, such as fencing or spreading a cover, to prevent exposures to residential-use contaminated floodplain soil. Disposal and/or treatment are similar to those used for Allendale Pond and Lyman Mill Pond Sediment, as described above. These remedial measures will mitigate the current and future carcinogenic and/or non-carcinogenic risks to residential and recreational users from incidental ingestion of/dermal contact with contaminated floodplain soil by removing contaminated soil from the floodplain. In addition, the removal of soil will reduce the risks to wildlife associated with prey consumption and contaminated soil contact and will prevent migration of contaminants from Allendale floodplain soil to river surface water and sediment.

e. Lyman Mill Stream Sediment and Floodplain Soil (including Oxbow)

The ROD requires targeted excavation of contaminated sediment and soil, enhanced natural recovery (placement of a three-inch layer cover over 22.2 acres of contaminated floodplain soil and sediment) for non-residential use property, and installation of flood control structures to divert water flow into the Oxbow to help the natural buildup of clean soil and sediment. The ROD also requires excavation of contaminated floodplain soil from residential-use properties as well as interim precautionary measures similar to those for Allendale Floodplain Soil. Disposal and/or treatment are similar to those used for Allendale Pond and Lyman Mill Pond sediment, as described above. These remedial measures will mitigate the current and future carcinogenic and/or non-carcinogenic risks from consumption of contaminated fish and/or incidental ingestion of/dermal contact with contaminated sediment/floodplain soil to recreational and residential users by removing sediment from Lyman Mill stream and a portion of the floodplain soil. The thin layer cap will reduce exposure and aid in the natural recovery of remaining contaminated soil that presents an unacceptable risk and as well as reduce the contaminant levels in fish. In addition, excavation of sediment/floodplain soil will reduce the risks to fish and wildlife related to bioaccumulation hazards associated with prey consumption and direct contact with contaminated sediments/floodplain soil and will prevent further migration of contaminants.

69. The following remedial components are also required by the ROD:

- a. Mitigation, preservation, restoration of and/or compensation for wetlands and floodplains impacted by remedial activities
- b. The implementation, monitoring and enforcement of institutional controls, including but not limited to land use controls, to permanently prohibit future excavation, restrict access to

buried utilities, prevent the construction of buildings with pilings or basements or any other disturbance of the cap or other remedial components in the Source Area; permanently restrict the use of groundwater at the Source Area; permanently prevent excavation/construction or other activities that could damage the upland CDF; temporarily prevent excavation or other activities that could damage the thin-layer soil cover and Allendale Dam; temporarily restrict recreational access in the Oxbow wetland; and temporarily restrict fish consumption to prevent exposure to contamination.

c. Implementation of operation and maintenance requirements to protect the RCRA C cap and upland CDF, remedial equipment, controls, and other remedial measures

d. Long-term monitoring of groundwater, surface water, sediment, biota, and soil, and periodic Five-Year Reviews of the remedy to ensure the remedy functions as intended and is protective of human health and the environment in the long term.

#### G. Identification of Respondents

70. Respondent Black & Decker, Inc. is a Delaware corporation, with its principal place of business in Maryland. On February 27, 2002, Emhart filed a Certificate of Dissolution with the State of Connecticut, and thereafter in 2002 transferred assets worth approximately \$716 million to its sole shareholder, Black & Decker, Inc.

71. Respondent Emhart Industries, Inc. ("Emhart") is a Connecticut corporation with its principal place of business in Towson, Maryland.

72. Respondents are successors to the liability of several chemical companies which operated at the Site from approximately 1943 to the early 1970s. Hazardous substances, including some or all of those described in this Section, were disposed of at the Site during these chemical companies' years of operation of businesses at the Site. Respondents are jointly and severally liable under CERCLA for response costs incurred and to be incurred at the Site.

73. Respondents or their predecessors sent drums to NECC containing materials that included hazardous substances similar to those found at the Site. Respondents are either directly liable or successors to the liability of other persons for arranging for disposal or treatment, or arranging with a transporter for the transport for disposal or treatment, of hazardous substances at the Site. Respondents are jointly and severally liable under CERCLA for response costs incurred and to be incurred at the Site.

#### IV. CONCLUSIONS OF LAW AND DETERMINATIONS

Based on the Findings of Fact set forth above, and the administrative record, EPA has determined that:

74. The Centredale Manor Restoration Project Superfund Site is a "facility" as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

75. Each Respondent is a "person" as defined in Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

76. Each Respondent is a "liable party" as defined in Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), and is subject to this Order under Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

77. The substances listed in Paragraphs 46 through 60 are found at the Site and are "hazardous substances" as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).
78. These hazardous substances have been and continue to be released from the Site into the soil, groundwater, surface water, and/or sediment.
79. The disposal and migration of hazardous substances from the Site and potential for future migration of hazardous substances from the Site are a "release" as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22), and are "actual releases" as the term "actual...release" is used in Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).
80. The potential for future migration of hazardous substances from the Site into the environment is a "threatened release" as that term is used in Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).
81. The actual and threatened release of one or more hazardous substances from the facility may present an imminent and substantial endangerment to the public health or welfare or the environment. The overall factual basis for this imminent and substantial endangerment is contained in Paragraphs 3 through 34 and 46 through 65, and supported by documents maintained in the Administrative Record.
82. The actions required by this Order are necessary to protect the public health, welfare, or the environment, and if carried out in compliance with the terms of this Order and SOW will be consistent with CERCLA and the NCP.
83. In the ongoing litigation involving Emhart/B&D, *Emhart Indus., Inc. v. U.S. Dep't of the Air Force*, Civ. Act. No. 11-023-S (D.R.I.), the Court in its Seventh Revised Case Management Order specifically permits EPA to issue administrative orders, consistent with EPA's authority under CERCLA which it retains regardless of any litigation involving private parties or the United States.

#### V. NOTICE TO THE STATE

84. Prior to issuing this Order, EPA has consulted with State of Rhode Island and has provided written notice that EPA would be issuing this Order.

#### VI. ORDER

85. Based on the foregoing, Respondents are hereby ORDERED, jointly and severally, to comply with the following provisions, including but not limited to all attachments to this Order, all documents incorporated by reference into this Order, and all schedules and deadlines in this Order, attached to this Order, or incorporated by reference into this Order.

#### VII. NOTICE OF INTENT TO COMPLY

86. Each Respondent shall provide, not later than ten (10) days after the effective date of this Order, written notice to EPA's Remedial Project Manager ("RPM") stating whether it will comply with the terms of this Order. If each Respondent does not unequivocally commit to perform the RD, RA and O&M as provided by this Order, it shall be deemed to have violated this Order and/or to have failed or refused to comply with this Order. Each Respondent's written notice, if it does not unequivocally express its intent

to fully comply with this Order, shall describe the factual and legal basis for any "sufficient cause" defenses asserted by Respondent under Sections 106(b) and 107(c)(3) of CERCLA upon which it intends to rely to justify its failure to comply. The absence of a response by EPA to Respondent's notice required by this Paragraph shall not be deemed to be acceptance of Respondent's assertions.

#### VIII. PARTIES BOUND

87. This Order shall apply to and be binding upon Respondents identified in Paragraphs 70 and 71 and their directors, officers, employees, agents, successors, and assignees. Respondents are jointly and severally responsible for carrying out all activities required by this Order. No change in the ownership, corporate status, or other control of Respondents shall alter any of Respondents' responsibilities under this Order.

88. Each Respondent shall provide a copy of this Order to any prospective owners or successors before a controlling interest in Respondent's assets, property rights, or stock are transferred to the prospective owner or successor. Respondents shall provide a copy of this Order to each Contractor, Subcontractor, laboratory, or consultant retained to perform any Work under this Order, within five (5) days after the effective date of this Order or on the date such services are retained, whichever date occurs later. Respondents shall also provide a copy of this Order to each person representing Respondents with respect to the Site or the Work and shall condition all contracts and subcontracts entered into hereunder upon performance of the Work in conformity with the terms of this Order. With regard to the activities undertaken pursuant to this Order, each Contractor and Subcontractor shall be deemed to be related by contract to the Respondents within the meaning of Section 107(b)(3) of CERCLA, 42 U.S.C. § 9607(b)(3). Notwithstanding the terms of any contract, Respondents are responsible for compliance with this Order and for ensuring that its Contractors, Subcontractors, and agents comply with this Order, and perform any Work in accordance with this Order.

#### IX. INCORPORATION OF DOCUMENTS

89. All appendices and attachments to this Order, and subsequent modifications to such appendices and attachments, are incorporated into this Order and are enforceable under it. Any and all other plans, specifications, schedules, and other documents required by the terms of this Order (including its appendices and attachments), and subsequent modifications to such plans, specifications, schedules, and other documents shall be incorporated herein and enforceable hereunder.

#### X. WORK TO BE PERFORMED

90. Respondents shall finance and perform, at a minimum and as expeditiously as possible, the Work specified in the Order and the SOW (Appendix 1) attached to this Order, consistent with the ROD. All activities required by this Order shall be conducted in accordance with CERCLA, the NCP, EPA policies and procedures as amended, and the SOW. EPA, at its discretion, may elect to perform some of the actions identified in the ROD and the SOW.

91. The Work performed by Respondents pursuant to this Order shall, at a minimum, achieve the Performance Standards.



92. Notwithstanding any action by EPA, Respondents remain fully responsible for achievement of the Performance Standards. Nothing in this Order, or in plans that are to be submitted by Respondents and that may be or have been approved by EPA, shall be deemed to constitute a warranty or representation of any kind by EPA that full performance of the Remedial Design, Remedial Action, or Operation and Maintenance will achieve the Performance Standards. Respondents' compliance with such plans approved by EPA does not foreclose EPA from seeking additional Work to achieve the applicable Performance Standards.

93. EPA may modify the SOW if such modification is determined by EPA to be necessary to attain the Performance Standards set forth therein, or for the protection of public health or welfare or the environment. Upon written consent of the Director of the Office of Site Remediation and Restoration, EPA Region 1, such modification to the SOW shall become enforceable under this Order.

#### XI. FAILURE TO ATTAIN PERFORMANCE STANDARDS

94. In the event that EPA determines that additional response activities are necessary to meet applicable Performance Standards, EPA may so inform Respondents and identify the additional response actions as necessary. Unless otherwise stated by EPA, within thirty (30) days of receipt of notice from EPA that additional response activities are necessary to meet any applicable Performance Standards, Respondents shall submit for approval by EPA a work plan for the additional response activities. The plan shall conform to the applicable requirements of Sections X (Work to be Performed) and XV (Compliance with Applicable Laws) of this Order and SOW. Upon EPA's approval of the plan pursuant to Section 7 (Deliverables) of the SOW, Respondents shall implement the plan for additional response activities in accordance with the provisions and schedule contained therein.

#### XII. EPA PERIODIC REVIEW

95. Under Section 121(c) of CERCLA, 42 U.S.C. § 9621(c), and any applicable regulations, EPA may review the Site to assure that the Work performed pursuant to this Order adequately protects human health and the environment. Until such time as EPA certifies completion of the Work, Respondents shall conduct the requisite studies, investigations, or other response actions as determined necessary by EPA in order to permit EPA to conduct the review under Section 121(c) of CERCLA. As a result of any review performed under this Paragraph, Respondents may be required to perform additional Work or to modify Work previously performed.

#### XIII. ADDITIONAL RESPONSE ACTIONS

96. EPA may determine that in addition to the Work identified in this Order and attachments to this Order, additional response activities may be necessary to protect human health and the environment. If EPA determines that additional response activities are necessary, EPA may require Respondents to submit a work plan for additional response activities. EPA may also require Respondents to modify any plan, design, or other deliverable required by this Order, including any approved modifications.

97. Unless otherwise directed by EPA, within thirty (30) days after receiving EPA's notice that additional response activities are required pursuant to this Section, Respondents shall submit a work plan for the response activities to EPA for review and approval. Upon approval by EPA, the work plan is incorporated into this Order as a requirement of this Order and shall be an enforceable part of this Order.

Upon approval of the work plan by EPA, Respondents shall implement the work plan according to the standards, specifications, and schedule in the approved work plan. Respondents shall notify EPA of its intent to perform such additional response activities within seven (7) days after receipt of EPA's request for additional response activities.

#### XIV. ENDANGERMENT AND EMERGENCY RESPONSE

98. In the event of any action or occurrence during the performance of the Work which causes or threatens to cause a release of a hazardous substance or which may present an immediate threat to public health or welfare or the environment, Respondents shall immediately take all appropriate action to prevent, abate, or minimize the threat, and shall immediately notify EPA's RPM. If EPA's RPM is not available, Respondents shall notify the Emergency Planning and Response Branch, Region 1, United States Environmental Protection Agency, (888) 372-7341; the National Response Center, (800) 424-8802; and the State by contacting Louis R. Maccarone, II, at (401) 222-2797. Respondents shall take such action in consultation with EPA's RPM and in accordance with all applicable provisions of this Order, including but not limited to the Health and Safety Plan developed pursuant to the SOW. To the extent that the site-specific Health and Safety Plan does not cover the particular situation, Respondents shall develop and submit a response plan to EPA within ten (10) days. The provisions of Section 7 (Deliverables) of the SOW apply to the submission of any such response plan, except that the time period for resubmission after EPA disapproval shall be five (5) days unless extended by EPA. In the event that Respondents fail to take appropriate response action as required by this Section, and EPA takes that action instead, EPA reserves the right to pursue cost recovery.

99. Nothing in the immediately preceding Paragraph shall be deemed to limit any authority of the United States: a) to take all appropriate action to protect human health and the environment or to prevent, abate, respond to, or minimize an actual or threatened release of hazardous substances on, at, or from the Site; or b) to direct or order such action, or seek an order from a court, to protect human health and the environment or to prevent, abate, respond to, or minimize an actual or threatened release of hazardous substances on, at, or from the Site.

#### XV. COMPLIANCE WITH APPLICABLE LAWS

100. All activities by Respondents pursuant to this Order shall be performed in accordance with the requirements of all Federal and State laws and regulations. EPA has determined that the activities contemplated by this Order are consistent with the National Contingency Plan ("NCP").

101. Except as provided in Section 121(e) of CERCLA and the NCP, no permit shall be required for any portion of the Work conducted entirely on-site. Where any portion of the Work requires a Federal or State permit or approval, Respondents shall submit timely applications and take all other actions necessary to obtain and to comply with all such permits or approvals.

102. This Order is not, and shall not be construed to be, a permit issued pursuant to any Federal or State statute or regulation.

103. All materials removed from the Site shall be disposed of or treated at a facility approved by EPA's RPM and in accordance with the requirements in the SOW and with all other applicable Federal, state, and local requirements. The Work performed by Respondents pursuant to this Order must, at a

minimum, satisfy all applicable or relevant and appropriate Federal and State standards, requirements, criteria, or limitations as specified in the ROD, and as required under Section 121(d) of CERCLA.

104. All remedial activities must meet or attain all location, chemical, and action specific applicable or relevant and appropriate Federal and State standards, requirements, criteria and limitations (“ARARs”) identified in the ROD, the SOW, and by EPA prior to notification of completion of Work, and must attain all Performance Standards identified in the ROD, the SOW, and by EPA prior to notification of completion of Work.

105. Respondents shall include in all contracts or subcontracts entered into for Work performed under this Order, provisions stating that such Contractors or Subcontractors, including their agents and employees, shall perform all activities required by such contracts or subcontracts in compliance with all applicable laws and regulations.

#### XVI. REMEDIAL PROJECT MANAGER

106. EPA’s Remedial Project Manager (“RPM”) for the Work under this Order is Anna Krasko, who shall have the authority to be on the Site at all times, including when Work is being undertaken pursuant to this Order. Contact information for EPA’s RPM is provided in Section XX of this Order (Notifications and Submittals). EPA may also designate an Alternate RPM, who shall also have the authority to be on the Site at all times, including when Work is being undertaken pursuant to this Order.

107. EPA has the unreviewable right to change its RPM and Alternate RPM. If EPA changes its RPM or Alternate RPM, EPA will inform Respondents in writing of the name, address, email address, telephone number, and fax number of the new RPM or Alternate RPM.

108. EPA’s RPM and Alternate RPM shall have the authority lawfully vested in a Remedial Project Manager and On-Scene Coordinator by the National Contingency Plan, 40 C.F.R. Part 300, or any similar provisions in future amendments or revisions to the NCP. EPA’s RPM and Alternate RPM shall have authority, consistent with the National Contingency Plan, to halt any Work required by this Order, and to take any necessary response action.

109. The absence of the RPM or Alternate RPM from the Site shall not be cause for stoppage of Work.

110. The employees, agents, consultants, contractors, and authorized representatives of EPA shall also have the authority to be on the Site at all times when the Work is being performed and to engage in activities relating to enforcement of this Order.

#### XVII. ACCESS AND INSTITUTIONAL CONTROLS

111. Access, Land/Water Use Restrictions, Fee Simple Grants. If any real property is subject to or affected by the Work, is where access or land/water use restrictions are needed to implement this Order, or is where access or land/water use restrictions are requested by EPA, in accordance with the remedy selected in the ROD and with the SOW, Respondents shall to the extent such properties are known use best efforts to secure from persons other than Respondents, if such property is owned in whole or in part by such persons, or Respondents shall provide, as appropriate, if such property is owned in whole or in part by Respondents, the following:

a. Agreements to provide access thereto for Respondents and Respondents' authorized representatives, Contractors, and Subcontractors, and also for the United States, the State, and their representatives, including EPA, RIDEM, their employees, agents, consultants, contractors (including EPA Contractors and EPA Subcontractors), and authorized representatives (hereinafter in this Section referred to collectively as "the United States and the State"), within sixty (60) days of the effective date of this Order or sixty (60) days after such property has been identified, for the purpose of conducting any activity related to this Order, including the Work. Such agreements, which shall be in a form acceptable to EPA, shall also specify that Respondents are not the United States' or the State's representatives with respect to liability associated with Site activities. Copies of such signed agreements shall be provided to EPA prior to Respondents' initiation of field activities. If access agreements are not obtained within the time referenced above, Respondents shall immediately notify EPA of its failure to obtain access. Access for the United States and the State shall also allow the United States and the State to:

- i. Oversee and monitor the Work;
- ii. Verify any data or information submitted to the United States;
- iii. Conduct investigations relating to contamination;
- iv. Obtain samples;
- v. Use a camera, sound recording device or other documentary type equipment;
- vi. Assess the need for, plan or implement response actions;
- vii. Assess implementation of quality assurance and quality control practices as defined in the QAPPs approved by EPA;
- viii. Inspect and copy records, operating logs, contracts, or other documents maintained or generated by Respondents or its authorized representatives, Contractors or Subcontractors, consistent with Section XVIII (Access to Information) of this Order;
- ix. Assess Respondents' compliance with this Order; and
- x. Determine whether any property is being used in a manner that is prohibited or restricted, or that may need to be prohibited or restricted, by or pursuant to this Order;

b. Agreements, enforceable by Respondents and the United States and the State, to abide by the obligations and restrictions required by the remedy selected in the ROD and by the SOW, or that are otherwise necessary to implement, ensure non-interference with, or ensure the protectiveness of the remedial measures to be performed pursuant to this Order.

c. For property addressed by the remedy selected in the ROD where access and/or land/water use restrictions are requested by EPA, or such other property where access and/or land/water use restrictions are needed to implement this Order, if EPA determines that such access rights and/or restrictions should be in the form of easements running with the land, the execution and recordation in the appropriate land evidence records office, as applicable, of an easement, running with the land, that (i) grants a right of access for the purpose of conducting any activity related to this Order, including but not limited to the activities listed above in this Paragraph 111.a, and/or (ii) grants the right to enforce the land/water use restrictions that EPA determines are necessary to implement, ensure non-interference with, or ensure the protectiveness of the remedial measures to be performed pursuant to this Order. The access rights shall be granted to (i) the United States, on behalf of EPA, and its representatives (for the duration of the

remediation); (ii) the State and its representatives; (iii) Respondents and their representatives; and (iv) other parties as directed by EPA. The rights to enforce land/water use restrictions shall be granted to (i) the State and its representatives; (ii) Respondents and their representatives; and (iii) other parties as directed by EPA, with the United States, on behalf of EPA, and its representatives, as a third-party beneficiary to enforce the restrictions. Such grants shall be fully assignable, in whole or in part. Respondents shall, within forty-five (45) days of the date of the receipt of written notice from EPA, of EPA's determination that such easements, as may be specified in such notice, are required, submit to EPA for review and approval with respect to such property:

- i. A draft easement including legal descriptions of the subject property (and any separately restricted areas therein for land/water use restrictions), based on the survey plans described below, that is enforceable under the laws of the State of Rhode Island;
- ii. A survey plan in recordable form of the subject property (and a survey plan of any separately restricted areas for land/water use restrictions);
- iii. A current title insurance commitment or some other evidence of title acceptable to EPA, which shows title to the land described in the easement to be free and clear of all prior liens and encumbrances (except when EPA waives the release or subordination of such prior liens or encumbrances, or when, despite best efforts, Respondents are unable to obtain release or subordination of such prior liens or encumbrances);
- iv. Evidence of the authority of signatories to the easement and to any required subordination agreement or discharge of interest in the subject property; and
- v. A certificate of inspection and possession, certifying that no parties currently have use or have rights to the property through an unrecorded easement, lease or otherwise that creates an encumbrance on the property.

Within fifteen (15) days of EPA's approval and acceptance of the easement and the title evidence, Respondents shall update the title search, reinspect the property and update the certificate of inspection and possession, conduct a tax lien search, and obtain an up-to-date certificate of good standing from the State, and if it is determined that nothing has occurred since the effective date of the commitment or report to affect the title adversely, record the easement and survey plan in the appropriate land evidence records office. Within thirty (30) days of recording the easement and survey plan, Respondents shall provide EPA with title evidence updated through the time of recording and a final title insurance policy, or other final evidence of title acceptable to EPA, and a certified copy of the original recorded easement and survey plan showing the clerk's recording stamps. Within sixty (60) days of recording the easement and survey plan, or as soon as available thereafter, Respondents shall provide EPA with a copy of the recorded easement and survey plan, evidencing the stamped registry book and page numbers or other, final recording information. If the easement is to be conveyed to the United States, the easement and title evidence (including final title evidence) shall be prepared in accordance with the U.S. Department of Justice Title Standards 2001 (the "Standards"), and approval of the sufficiency of title must be obtained as required by 40 U.S.C. § 3111. The easement and title evidence (including final title evidence) and certificate of title or equivalent shall satisfy any Rhode Island title standards, requirements, and practices.

d. For property addressed by the remedy selected in the ROD where access is requested by EPA, or such other property where access is needed to implement the Work required by this

Order, if EPA determines that such access rights should be in the form of fee simple ownership, a deed properly executed and recorded in the appropriate land evidence records office, as applicable. Respondents shall, within forty-five (45) days of the date of the receipt of written notice from EPA of EPA's determination that such fee simple ownership of property, as may be specified in such notice, is required, submit to EPA for review and approval with respect to such property:

- i. A draft deed to a grantee designated by EPA, which includes legal descriptions of the subject property and any separately restricted areas therein, based on the survey plans described below, that is enforceable under the laws of the State of Rhode Island;
- ii. A survey plan in recordable form of the subject property;
- iii. A current title insurance commitment or some other evidence of title acceptable to EPA, which shows title to the land described in the deed to be free and clear of all prior liens and encumbrances (except when EPA waives the release or subordination of such prior liens or encumbrances, or when, despite best efforts, Respondents are unable to obtain release or subordination of such prior liens or encumbrances);
- iv. Evidence of the authority of signatories to the deed and to any required subordination agreement or discharge of interest in the subject property; and
- v. A certificate of inspection and possession, certifying that no parties currently have use or have rights to the property through an unrecorded easement, lease or otherwise that creates an encumbrance on the property.

Within fifteen (15) days of EPA's approval and acceptance of the deed and the title evidence, Respondents shall update the title search, reinspect the property and update the certificate of inspection and possession, conduct a tax lien search, and obtain an up to date certificate of good standing from the State, and, if it is determined that nothing has occurred since the effective date of the commitment or report to affect the title adversely, record the deed and survey plan with the Registry of Deeds or other appropriate office. Within thirty (30) days of recording the warranty and survey plan, Respondents shall provide EPA with title evidence updated through the time of recording and a final title insurance policy, or other final evidence of title acceptable to EPA, and a certified copy of the original recorded deed and survey plan showing the clerk's recording stamps. Within sixty (60) days of recording the deed and survey plan, or as soon as available thereafter, Respondents shall provide EPA with a copy of the recorded deed and survey plan (and sketch plan, if applicable), evidencing the stamped registry book and page numbers or other, final recording information. The deed and title evidence (including final title evidence) shall be prepared in accordance with the Standards, and approval of the sufficiency of title must be obtained as required by 40 U.S.C. § 3111. The deed and title evidence (including final title evidence) and certificate of title or equivalent shall satisfy Rhode Island title standards, requirements, and practices.

112. Other Institutional Controls. Based on studies and evaluations to be performed pursuant to the SOW, and in accordance with the ROD, EPA may determine that forms of institutional controls other than the agreements and easements described above are required. If EPA requests that land/water use restrictions in the form of state or local laws, regulations, ordinances or other governmental controls be imposed to implement the remedy selected in the ROD, ensure the integrity and protectiveness thereof, or ensure non-interference therewith, Respondents shall take such actions as needed to implement such

governmental controls and/or cooperate with EPA's and the State's efforts to secure such governmental controls, as directed in writing by EPA. If EPA determines, in accordance with the SOW, that other forms of institutional controls (e.g., educational and medical outreach materials, land use controls, and municipal zoning controls) should be adopted to implement the remedy selected in the ROD, ensure the integrity and protectiveness thereof, or ensure non-interference therewith on property owned or controlled by persons other than the Respondents, Respondents shall use best efforts to implement such other types of controls and/or cooperate with EPA's and the State's efforts to secure such controls, as directed in writing by EPA.

113. For purposes of this Section, "best efforts" includes the payment of reasonable sums of money in consideration of access, access easements, land use restrictions, and/or restrictive easements, fee simple ownership, and/or an agreement to release or subordinate a prior lien or encumbrance. If (a) any access agreements required by Paragraph 111.a are not obtained within thirty (30) days of the effective date of this Order, or if any land use restriction agreements required by Paragraph 111.b. of this Order are not obtained within forty-five (45) days of the date of the receipt of written notice from EPA of EPA's determination that such land use restriction agreements, as may be specified in such notice, are required, or (b) any access easements or restrictive easements required by Paragraph 111.c of this Order are not submitted to EPA within forty-five (45) days of the date of the receipt of written notice from EPA of EPA's determination that such easements, as may be specified in such notice, are required, or (c) any warranty deeds required by Paragraph 111.d of this Order are not submitted to EPA within forty-five (45) days of the date of the receipt of written notice from EPA of EPA's determination that such fee ownerships of properties, as may be specified in such notice, are required, or (d) Respondents are unable to obtain an agreement pursuant to Paragraphs 111.c.iii or 111.d.iii of this Order from the holder of a prior lien or encumbrance to release such lien or encumbrance or to subordinate such lien or encumbrance to the easement or warranty deed being created pursuant to this Order within forty-five (45) days of the date of the receipt of written notice from EPA of EPA's determination that such easements or fee ownerships of properties, as may be specified in such notice, are required, or (e) Respondents are unable to implement other types of institutional controls and/or cooperate with EPA's and the State's efforts to secure such controls as required by Paragraph 112 within forty-five (45) days of the date of receipt of written notice from EPA of EPA's determination that such other institutional controls are required, Respondents shall promptly notify the United States in writing, and shall include in that notification a summary of the steps that Respondents have taken to attempt to comply with Paragraphs 111 and 112 of this Order.

114. If Respondents cannot obtain the necessary access, in the form of an access agreement, easement, or fee simple ownership, after exercising best efforts, subject to the United States' non-reviewable discretion, EPA may use its legal authorities to obtain access for the Respondents or may perform those response actions at the property in question. If EPA designates Respondents as EPA's authorized representative under Section 104(e) of CERCLA for access, Respondents shall save and hold harmless the United States for any and all claims or causes of action or other causes of action arising from or on account of acts or omissions of Respondents, their officers, directors, employees, agents, Contractors, Subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Order. If EPA performs those response actions, Respondents shall perform all other activities not requiring access to that property, EPA reserves the right to seek reimbursement from Respondents for the Response Costs incurred in performing the response actions. Respondents shall integrate the results of any such tasks undertaken by EPA into its reports and deliverables. EPA reserves the right to seek payment from Respondents for all Response Costs, including cost of attorneys' time, incurred by the United States in obtaining access for Respondents, as well as in obtaining land use restrictions, restrictive easements, fee simple ownership, and agreements to release or subordinate a prior lien or encumbrance.

115. Lack of access shall not excuse or justify failure to perform any activity or to meet any deadline not requiring or directly dependent upon such access.

116. Notwithstanding any provision of this Order, the United States retains all of its access authorities and rights under CERCLA and any other applicable statutes and regulations.

### XVIII. ACCESS TO INFORMATION

117. Respondents shall provide to EPA and the State, upon request, copies of all records, reports, documents, and other information (including records, reports, documents, and other information in electronic form) (hereinafter referred to as "Records") within Respondents' possession or control or that of their contractors or agents relating to activities at the Site or to the implementation of this Order, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information regarding the Work. Respondents shall also make available to EPA and the State, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

118. Privileged and Protected Claims.

a. Respondents may assert that all or part of a Record requested by EPA and the State is privileged or protected as provided under federal law, in lieu of providing the Record, provided Respondents comply with Paragraph 118.b, and except as provided in Paragraph 118.c.

b. If Respondents assert a claim of privilege or protection, they shall provide EPA and the State with the following information regarding such Record: its title; its date; the name, title, affiliation (e.g., company or firm), and address of the author, of each addressee, and of each recipient; a description of the Record's contents; and the privilege or protection asserted. If a claim of privilege or protection applies only to a portion of a Record, Respondents shall provide the Record to EPA and the State in redacted form to mask the privileged or protected portion only. Respondents shall retain all Records that they claim to be privileged or protected until EPA and the State have had a reasonable opportunity to dispute the privilege or protection claim and any such dispute has been resolved in the Respondents' favor.

c. Respondents may make no claim of privilege or protection regarding: (1) any data regarding the Site, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, radiological, or engineering data, or the portion of any other Record that evidences conditions at or around the Site or related to the Site (e.g. upland CDF); or (2) the portion of any Record that Respondents are required to create or generate pursuant to this Order.

119. Business Confidential Claims. Respondents may assert that all or part of a Record provided to EPA and the State under this Section or Section XIX (Retention of Records) is business confidential to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Respondents shall segregate and clearly identify all Records or parts thereof submitted under this Order for which Respondents assert business confidentiality claims. Records submitted to EPA determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies Records when they are submitted to EPA and the State, or if EPA has notified Respondents that the Records are not confidential under the



standards of CERCLA Section 104(e)(7) or 40 C.F.R. Part 2, Subpart B, the public may be given access to such Records without further notice to Respondents.

120. Notwithstanding any provision of this Order, EPA and the State retain all of their information gathering and inspection authorities and rights, including enforcement actions related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

## XIX. RETENTION OF RECORDS

121. Until ten (10) years after EPA provides notice pursuant to Section 6.8 (Certification of Completion of the Work) of the SOW, Respondents shall preserve and retain all records and documents in their possession or control, including the documents in the possession or control of their Contractors, Subcontractors and agents on and after the effective date of this Order that relate in any manner to the Site. At the conclusion of this document retention period, Respondents shall notify the United States at least ninety (90) days prior to the destruction of any such records or documents, and upon request by the United States, Respondents shall deliver any such records or documents to EPA.

122. Until ten (10) years after EPA provides notice pursuant to Section 6.8 (Certification of Completion of the Work) of the SOW, Respondents shall preserve, and shall instruct their Contractors, Subcontractors and agents to preserve, all documents, records, and information of whatever kind, nature, or description relating to the performance of the Work. Upon the conclusion of this document retention period, Respondents shall notify the United States at least ninety (90) days prior to the destruction of any such records, documents or information, and, upon request of the United States, Respondents shall deliver all such documents, records, and information to EPA.

123. Within thirty (30) days after the effective date of this Order, each Respondent shall submit a written certification to EPA's RPM that it has not altered, mutilated, discarded, destroyed, or otherwise disposed of any records, documents, or other information relating to their potential liability with regard to the Site since notification of potential liability by the United States or the State or the filing of suit against it regarding the Site. Respondents shall not dispose of any such documents without prior approval by EPA. Respondents shall, upon EPA's request and at no cost to EPA, deliver the documents or copies of the documents to EPA. Any Respondent unable to so certify shall submit a modified certification that explains in detail why it is unable to certify in full with regard to all Records.

124. All data, factual information, or documents submitted to EPA by or on behalf of Respondents may be made available for public inspection unless Respondents demonstrate that the data, factual information, or documents satisfy the business confidentiality requirements of 42 U.S.C. § 9604(e)(7)(E) and (F).

## XX. NOTIFICATIONS AND SUBMITTALS

125. Except as otherwise provided in the SOW, all notifications, written correspondence and submittals to EPA required under this Order shall be directed to EPA's Remedial Project Manager unless EPA notifies Respondents' Project Coordinator in writing of a change. All notices and notifications under this Order and SOW must be in writing unless otherwise provided. EPA's Remedial Project Manager is:

Anna Krasko  
US EPA, 5 Post Office Square, Suite 100  
Mailcode OSRR07-1  
Boston, MA 02109  
Telephone: (617) 918-1232  
Facsimile: (617) 918-0232  
Email: [krasko.anna@epa.gov](mailto:krasko.anna@epa.gov)

## XXI. DELAY IN PERFORMANCE

126. Any delay in performance of this Order that, in EPA's judgment, is not properly justified by Respondents under the terms of this Section shall be considered a violation of this Order. Any delay in performance of this Order shall not affect Respondents' obligations to fully perform all obligations under the terms and conditions of this Order.

127. Respondents shall notify EPA of any delay or anticipated delay in performing any requirement of this Order. Such notification shall be made by telephone to EPA's RPM within twenty-four (24) hours after Respondents first knew or should have known that a delay might occur. Respondents shall adopt all reasonable measures to avoid or minimize any such delay. Within five (5) business days after notifying EPA by telephone, Respondents shall provide written notification fully describing the nature of the delay, any justification for delay, any reason why Respondents should not be held strictly accountable for failing to comply with any relevant requirements of this Order, the measures planned and taken to minimize the delay, and a schedule for implementing the measures that will be taken to mitigate the effect of the delay. Increased costs or expenses associated with implementation of the activities called for in this Order are not a justification for any delay in performance.

## XXII. FINANCIAL ASSURANCE

128. Respondents shall demonstrate their ability to complete the Work required by this Order and to pay all claims that arise from the performance of the Work by obtaining and presenting to EPA financial assurance for the benefit of EPA in an amount no less than \$104,000,000 (hereinafter "Estimated Cost of the Work") that must be satisfactory in form and substance to EPA. The financial assurance shall be in the form of one or more of the following mechanisms (provided that, if Respondents intend to use multiple mechanisms, such multiple mechanisms shall be limited to surety bonds, letters of credit, trust funds, and insurance policies).

- a. A surety bond that provides EPA with acceptable rights as a beneficiary thereof unconditionally guaranteeing payment and/or performance of the Work and that is issued by a surety company among those listed as acceptable sureties on Federal bonds as set forth in Circular 570 of the U.S. Department of the Treasury;
- b. One or more irrevocable letters of credit, payable to or at the direction of EPA, that is issued by one or more financial institution(s) (i) that has the authority to issue letters of credit and (ii) whose letter-of-credit operations are regulated and examined by a U.S. Federal or State agency;
- c. A trust fund established for the benefit of EPA that is administered by a trustee (i) that has the authority to act as a trustee, (ii) whose trust operations are regulated and examined by a U.S. Federal or State agency, and that is acceptable in all respects to EPA;

d. A policy of insurance that ensures the payment and/or performance of the Work which (i) provides EPA with acceptable rights as a beneficiary thereof; and (ii) is issued by an insurance carrier (a) that has the authority to issue insurance policies in the applicable jurisdiction(s), (b) whose insurance operations are regulated and examined by a State agency, and (c) that is acceptable in all respects to EPA;

e. A demonstration by Respondents that they meet the financial test criteria of 40 C.F.R. § 264.143(f) with respect to the Estimated Cost of the Work, provided that all other requirements of 40 C.F.R. § 264.143(f) are satisfied; or

f. A written guarantee to fund or perform the Work executed in favor of EPA by one or more of the following: (i) a direct or indirect parent company of a Respondent, or (ii) a company that has a "substantial business relationship" (as defined in 40 C.F.R. § 264.141(h)) with a Respondent; provided, however, that any company providing such a guarantee must demonstrate to the satisfaction of EPA that it satisfies the financial test requirements of 40 C.F.R. § 264.143(f) with respect to the Estimated Cost of the Work that it proposes to guarantee hereunder.

129. Within thirty (30) days after approval by EPA of the Remedial Design Work Plan for the remedy, Respondents shall submit for EPA approval the selection of financial assurance mechanism(s) identified in Paragraph 128.

130. Within thirty (30) days after receiving a written decision from EPA approving the selected financial assurance mechanism(s), Respondents shall execute or otherwise finalize all instruments or other documents required to make the selected financial assurance mechanism legally binding and fully effective. Within ten (10) days thereafter, Respondents shall submit all executed and/or otherwise finalized instruments or other documents required in order to make the selected financial assurance mechanism(s) legally binding to EPA in accordance with Section XX of this Order (Notifications and Submittals).

131. If Respondents have selected, and EPA has approved, a financial assurance mechanism for completion of the Work by means of a demonstration or guarantee pursuant to Paragraphs 128.e and 128.f, above, Respondents shall also comply with other relevant requirements of 40 C.F.R. § 264.143(f), 40 C.F.R. § 264.151(f), and 40 C.F.R. § 264.151(h)(1) relating to these methods unless otherwise provided in this Order, including but not limited to: (a) the initial submission of required financial reports and statements from the relevant entity's chief financial officer and independent certified public accountant; (b) the annual re-submission of such reports and statements within ninety (90) days after the close of each such entity's fiscal year; and (c) the notification of EPA within ninety (90) days after the close of any fiscal year in which such entity no longer satisfies the financial test requirements set forth at 40 C.F.R. § 264.143(f)(1). For purposes of the financial assurance mechanisms specified in this Section XXII, references in 40 C.F.R. Part 264, Subpart H, to "closure," "post-closure," and "plugging and abandonment" shall be deemed to refer to the Work required under this Order, and the terms "current closure cost estimate," "current post-closure cost estimate," and "current plugging and abandonment cost estimate" shall be deemed to refer to the Estimated Cost of the Work.

132. Respondents shall diligently monitor the adequacy of the financial assurance. In the event that EPA determines at any time that a financial assurance mechanism provided by Respondents pursuant to this Section is inadequate or otherwise no longer satisfies the requirements set forth in this Section, whether due to an increase in the estimated cost of completing the Work or for any other reason, or in the event that Respondents become aware of information indicating that a financial assurance mechanism provided pursuant to this Section is inadequate or otherwise no longer satisfies the requirements set forth in this Section, whether due to an increase in the estimated cost of completing the Work or for any other

reason, Respondents, within thirty (30) days of receipt of notice of EPA's determination or, as the case may be, within thirty (30) days of Respondents becoming aware of such information, shall obtain and present for EPA approval a proposal for a revised or alternative form of financial assurance mechanism listed in Paragraph 128 of this Order that satisfies all requirements set forth in this Section. In seeking EPA approval for a revised or alternative form of financial assurance mechanism, Respondents shall follow the procedures set forth in Paragraph 135 of this Order. Respondents' inability to post a financial assurance mechanism for completion of the Work shall in no way excuse performance of any other requirements of this Order, including, without limitation, the obligation of Respondents to complete the Work in strict accordance with the terms hereof.

133. EPA's decision to take over the performance of all or any portion(s) of the Work pursuant to Paragraph 149 shall trigger EPA's right to receive the benefit of any financial assurance mechanism(s) provided pursuant to this Section. At such time, EPA shall have the right to enforce performance by the issuer of the relevant financial assurance mechanism and/or immediately access resources guaranteed under any such mechanism, whether in cash or in kind, as needed to continue and complete all or any portion(s) of the Work assumed by EPA. EPA reserves the right to bring an action against Respondents under Section 107 of CERCLA for recovery of any costs incurred as a result of EPA's takeover of all or portion(s) of the Work that are not paid for or reimbursed by the financial assurance. In addition, if at any time EPA is notified by the issuer of a financial assurance mechanism that such issuer intends to cancel the financial assurance mechanism it has issued, then, unless Respondents provide a substitute financial assurance mechanism in accordance with this Section no later than thirty (30) days prior to the noticed cancellation date, EPA shall be entitled (as of and after the date that is thirty (30) days prior to the impending cancellation) to draw fully on the funds guaranteed under the then-existing financial assurance

#### Modification of Amount and/or Form of Financial Assurance.

134. Reduction of Amount of Financial Assurance. If Respondents believe that the estimated cost to complete the remaining Work has diminished below the amount set forth in Paragraph 128 above, Respondents may, on any anniversary date of the effective date of this Order, or at any other time agreed to by EPA, petition EPA in writing to request a reduction in the amount of the financial assurance provided pursuant to this Section so that the amount of the financial assurance is equal to the estimated cost of the remaining Work to be performed. Respondents shall submit a written proposal for such reduction to EPA that shall specify, at a minimum, the cost of the remaining Work to be performed and the basis upon which such cost was calculated. In seeking EPA approval for a revised or alternative form of financial assurance, Respondents shall follow the procedures set forth in Paragraph 135 of this Order. If EPA decides to accept such a proposal, EPA shall notify Respondents of such decision in writing. After receiving EPA's written acceptance, Respondents may reduce the amount of the financial assurance in accordance with and to the extent permitted by such written acceptance. No change to the form or terms of any financial assurance provided under this Section, other than a reduction in amount, is authorized except as provided in Paragraphs 128 or 133 of this Order.

135. Change of Form of Financial Assurance. If, after issuance of this Order, Respondents desire to change the form or terms of any financial assurance mechanism provided pursuant to this Section, Respondents may, on any anniversary date of issuance of this Order, or at any other time agreed to by EPA, petition EPA in writing to request a change in the form of the financial assurance mechanism provided hereunder. The submission of such proposed revised or alternative form of financial assurance mechanism shall be as provided in this Paragraph 135 of this Order. Respondents shall submit a written proposal for a revised or alternative form of financial assurance mechanism to EPA which shall specify, at a minimum, the estimated cost of the remaining Work to be performed, the basis upon which such cost was calculated, and the proposed revised form of financial assurance mechanism, including all proposed

instruments or other documents required in order to make the proposed financial assurance mechanism legally binding. The proposed revised or alternative form of financial assurance mechanism must satisfy all requirements set forth or incorporated by reference in this Section. Respondents shall submit such proposed revised or alternative form of financial assurance mechanism to EPA in accordance with Section XX of this Order (Notifications and Submittals). Within ten (10) days after receiving a written decision from EPA approving the proposed revised or alternative financial assurance mechanism, Respondents shall execute and/or otherwise finalize all instruments or other documents required in order to make the selected financial assurance mechanism legally binding in a form substantially identical to the documents submitted to EPA as part of the proposal, and such financial assurance mechanism shall thereupon be fully effective. Respondents shall submit all executed and/or otherwise finalized instruments or other documents required in order to make the selected financial assurance mechanism legally binding to EPA within thirty (30) days of receiving a written decision approving the proposed revised or alternative financial assurance mechanism in accordance with Section XX of this Order (Notifications and Submittals).

136. Release of Financial Assurance. If Respondents receive written notice from EPA in accordance with Section 6.8 (Certification of Completion of the Work) of the SOW that the Work has been fully and finally completed in accordance with the terms of this Order, or if EPA otherwise so notifies Respondents in writing, Respondents may thereafter release, cancel, or discontinue the financial assurance provided pursuant to this Section. Respondents shall not release, cancel, or discontinue any financial assurance provided pursuant to this Section except as provided in this Paragraph.

#### XXIII. INSURANCE

137. At least seven (7) days prior to commencing any Work at the Site pursuant to this Order, Respondents shall maintain until the first anniversary after issuance of EPA's certification of completion of the Remedial Action, pursuant to Section 6.7 (Certification of Completion of the RA) of the SOW, commercial general liability insurance with limits of \$50,000,000 for any one occurrence, and automobile liability insurance with limits of \$10,000,000, combined single limit, naming the United States as an additional insured with respect to all liability arising out of the activities performed by or on behalf of Respondents pursuant to this Order. In addition, for the duration of this Order, Respondents shall satisfy, or shall ensure that their Contractors or Subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Respondents in furtherance of this Order. Prior to commencement of the Work under this Order, Respondents shall provide to EPA certificates of such insurance and a copy of each insurance policy. Respondents shall resubmit such certificates and copies of policies each year on the anniversary of the effective date of this Order. If Respondents demonstrate by evidence satisfactory to EPA that any Contractor or Subcontractor maintains insurance equivalent to that described above, or insurance covering the same risks but in a lesser amount, then, with respect to that Contractor or Subcontractor, Respondents need provide only that portion of the insurance described above that is not maintained by the Contractor or Subcontractor.

#### XXIV. PAYMENT OF RESPONSE COSTS

138. Upon EPA's written demand, Respondents shall pay EPA all Response Costs incurred or to be incurred in connection with this Order. On a periodic basis, EPA will send Respondents a bill requiring payment of all Response Costs incurred by the United States with respect to this Order that includes a

standard Regional itemized cost summary, which includes direct and indirect costs incurred by EPA, its contractors, and the Department of Justice.

139. Respondents shall make all payments within 30 days after receipt of each written demand requiring payment. Payment shall be made to EPA by Fedwire Electronic Funds Transfer (“EFT”) to:

Federal Reserve Bank of New York  
ABA = 021030004  
Account = 68010727  
SWIFT address = FRNYUS33  
33 Liberty Street  
New York NY 10045  
Field Tag 4200 of the Fedwire message should read “D 68010727 Environmental Protection Agency”

and shall reference Site/Spill ID Number 016P and the EPA docket number for this action.

140. At the time of payment, Respondents shall send notice that payment has been made in accordance with Section XX of this Order (Notifications and Submittals), and to the EPA Cincinnati Finance Office by email at [acctsreceivable.cinwd@epa.gov](mailto:acctsreceivable.cinwd@epa.gov), or by mail to

EPA Cincinnati Finance Office  
26 Martin Luther King Drive  
Cincinnati, Ohio 45268

Such notice shall reference Site/Spill ID Number 016P and EPA docket number for this action.

141. Interest. In the event that the payments for Response Costs are not made within 30 days after Respondents’ receipt of a written demand requiring payment, Respondents shall pay Interest on the unpaid balance. The Interest on Response Costs shall begin to accrue on the date of the written demand and shall continue to accrue until the date of payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondents’ failure to make timely payments under this Section. Respondents shall make all payments required by this Paragraph in the manner described in Paragraphs 139 and 140.

## XXV. COORDINATION AND COOPERATION

142. In accordance with the SOW, Respondents shall make best efforts to coordinate and cooperate with EPA, the State, the Town of North Providence, the Town of Johnston, other Federal agencies, other parties as required by EPA, and all contractors and representatives of these governmental agencies and other parties, including EPA Contractors and EPA Subcontractors, in the performance of the Work required by this Order.

143. Respondents shall make best efforts to coordinate in the performance of the Work required by this Order by any person not a party to this Order who offers to perform or, in lieu of performance to pay for, in whole or in part, the Work required by this Order. Best efforts to coordinate shall include, at a minimum:

- a. replying in writing within a reasonable period of time to offers to perform or pay for the Work required by this Order;
- b. engaging in good-faith negotiations with any person not a party to this Order who offers to perform or to pay for, the Work required by this Order; and
- c. good-faith consideration of good-faith offers to perform or pay for the Work required by this Order.

144. Within thirty (30) days of an offer by a person not a party to this Order to perform or pay for the Work required by this Order, Respondents shall provide notification of such offer to EPA. On request of EPA and subject to any claims of applicable privilege(s), Respondents shall submit to EPA all documents in its possession, custody, or control relating to (a) any offer to perform or pay for, or (b) the performance of or payment for, the Work required by this Order by Respondents or any non-Respondents to this Order.

## XXVI. ENFORCEMENT AND RESERVATIONS

145. EPA reserves the right to bring an action against Respondents under Section 107 of CERCLA, 42 U.S.C. § 9607, for recovery of any Response Costs incurred by the United States related to this Order and not reimbursed by Respondents as well as any other response costs. This reservation shall include but not be limited to past costs, direct costs, indirect costs, the costs of oversight, the costs of compiling the cost documentation to support oversight cost demand, as well as accrued interest as provided in Section 107(a) of CERCLA.

146. Notwithstanding any other provision of this Order, at any time during the response action, EPA may perform its own studies, complete the response action (or any portion of the response action) as provided in CERCLA and the NCP, and seek reimbursement from Respondents for its costs, or seek any other appropriate relief.

147. Nothing in this Order shall preclude EPA from taking any additional enforcement actions including modification of this Order or issuance of additional orders, and/or additional remedial or removal actions as EPA may deem necessary, or from requiring Respondents in the future to perform additional activities pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a), or any other applicable law. Respondents shall be liable under CERCLA § 107(a), 42 U.S.C. § 9607(a), for the costs of any such additional actions.

148. Notwithstanding any provision of this Order, the United States hereby retains all of its information gathering, inspection and enforcement authorities and rights under CERCLA, RCRA, and any other applicable statutes or regulations.

149. Respondents shall be subject to civil penalties under Section 106(b) of CERCLA, 42 U.S.C. § 9606(b), and the Civil Monetary Penalty Inflation Adjustment Rule, 69 Fed. Reg. 7121, 40 C.F.R. § 19.4, of not more than \$37,500 for each day in which Respondents willfully violate, or fail or refuse to comply with this Order without sufficient cause. In the event of such willful violation, or failure or refusal to comply, EPA may carry out the required actions unilaterally, pursuant to Section 104 of CERCLA, 42 U.S.C. § 9604, and/or may seek judicial enforcement of this Order pursuant to Section 106 of CERCLA, 42 U.S.C. § 9606. If EPA elects to take over the performance of all or any portion(s) of the Work pursuant to this provision, EPA shall have the right to enforce performance by the issuer of the relevant financial assurance mechanism and/or immediately access any financial assurance mechanisms provided pursuant to Section XXII (Financial Assurance) of this Order. In addition, failure to properly

provide responses or action under this Order, or any portion hereof, without sufficient cause, may result in liability under Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3), for punitive damages in an amount at least equal to, and not more than three times, the amount of any costs incurred by the Fund as a result of such failure to take proper action.

150. Nothing in this Order shall constitute or be construed as a release from any claim, cause of action, or demand in law or equity against any person for any liability it may have arising out of or relating in any way to the Site.

#### XXVII. NO RELEASE OF LIABILITY

151. Nothing herein shall constitute or be construed as a satisfaction or release of any person from liability for any conditions or claims arising as a result of past, current, or future activities at the Site, including but not limited to any and all claims of the United States for Response Costs, other response costs, money damages, and interest under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), or any other applicable statute, or the common law.

152. Notwithstanding compliance with the terms of this Order, Respondents may be required to take such further actions as may be necessary to protect public health or welfare or the environment or as may be otherwise necessary or appropriate under applicable provisions of the law.

#### XXVIII. NO PREAUTHORIZATION

153. Nothing in this Order shall constitute or be construed as preauthorization of a CERCLA claim within the meaning of CERCLA § 111, 42 U.S.C. § 9611, or Section 300.700(d) of the NCP, 40 C.F.R. § 300.700(d).

#### XXIX. ADMINISTRATIVE RECORD

154. EPA has established an administrative record that contains the documents that form the basis for the issuance of this Order, including, but not limited to, the documents upon which EPA based the selection of the Remedial Action selected in the ROD. It is available for review at EPA, Region 1, 5 Post Office Square, Boston, Massachusetts.

155. Upon request by EPA, Respondents must submit to EPA all documents related to the performance of the Work for possible inclusion in the administrative record file.

#### XXX. EFFECTIVE DATE AND COMPUTATION OF TIME

156. This Order shall be effective twenty (20) days after the Order is signed by the Director of the Office of Site Remediation and Restoration. All times for performance of obligations under this Order shall be calculated from that effective date, unless the Order (including the SOW) specifies otherwise.



### XXXI. OPPORTUNITY TO CONFER

157. Respondents may, within five (5) days after the date this Order is signed, request a conference with EPA to discuss this Order. Such conference shall be held within fifteen (15) days of the date this Order is signed by the Director of the Office of Site Remediation and Restoration at the EPA Offices at 5 Post Office Square, Suite 100, Boston, MA.

158. The purpose and scope of the conference shall be limited to issues involving the implementation of the response actions required by this Order and the extent to which Respondents intend to comply with this Order. This conference is not an evidentiary hearing, and does not constitute a proceeding to challenge this Order. It does not give Respondents a right to seek review of this Order, or to seek resolution of potential liability, and no official stenographic record of the conference will be made. At any conference held pursuant to Respondents' request, Respondents may appear in person or by an attorney or other representative.

159. Requests for a conference must be by telephone followed by written confirmation mailed and emailed that day to:

M. Gretchen Muench, Senior Enforcement Counsel  
United States Environmental Protection Agency  
5 Post Office Square, Suite 100 (Mail code OES04-4)  
Boston, MA 02109  
Telephone: (617) 918-1896  
Email: muench.gretchen@epa.gov

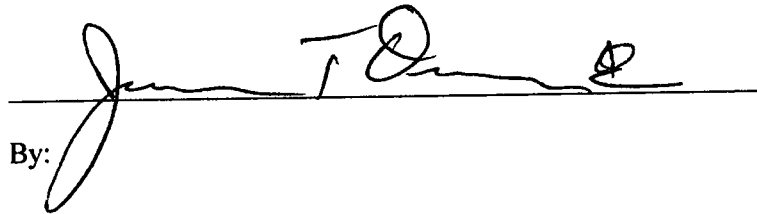
### XXXII. SEVERABILITY

160. If a court issues an order that invalidates any provision of this Order or finds that Respondent(s) has (have) sufficient cause not to comply with one or more provisions of this Order, Respondents shall remain bound to comply with all provisions of this Order not invalidated or determined to be subject to a sufficient cause defense by the court's order.

### XXXIII. UNITED STATES NOT LIABLE

161. The United States, by issuance of this Order, assumes no liability for any injuries or damages to persons or property resulting from acts or omissions by Respondents, or their directors, officers, employees, agents, representatives, successors, assigns, Contractors, Subcontractors, or consultants in carrying out any action or activity pursuant to this Order. Neither EPA nor the United States may be deemed to be a party to any contract entered into by Respondents or their directors, officers, employees, agents, representatives, successors, assigns, Contractors, Subcontractors, or consultants in carrying out any action or activity pursuant to this Order.

So Ordered, this 10~~th~~ day of June, 2014.

  
By: \_\_\_\_\_

James T. Owens, III, Director  
Office of Site Remediation and Restoration  
U.S. Environmental Protection Agency  
Region 1

**APPENDIX 1**

**STATEMENT OF WORK**

**FOR THE REMEDIAL DESIGN AND REMEDIAL ACTION**

**CENTREDALE MANOR RESTORATION PROJECT SUPERFUND SITE**

**NORTH PROVIDENCE, RHODE ISLAND**

**EPA REGION 1**

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## 1. INTRODUCTION

- 1.1.1 Respondents shall design, implement, operate and maintain the remedy in accordance with the ROD, this SOW, the Performance Standards, and all deliverables created under this SOW and approved by EPA.

The major components of this remedy are:

1. Removal of potential buried waste in the Source Area and off-site disposal and/or treatment; relocation of underground utilities into clean corridors; and conversion of existing surfaces (soil caps, parking lots, paved areas, and landscape areas) into a RCRA C cap.
2. Excavation of sediment and floodplain soil in the Allendale and Lyman Mill reaches of the Woonasquatucket River; containment of excavated material in an upland CDF with contamination that exceeds the LDR alternative treatment standards shipped off-site for disposal and/or treatment; placement of a thin-layer cover over remaining contaminated sediment in the River, if needed; and placement of a thin-layer cover over remaining contamination in the Oxbow wetland.
3. Placement, monitoring and enforcement of ICs to permanently prohibit future excavation, restrict access to buried utilities, prevent the construction of buildings with pilings or basements or any other disturbance of the cap or other remedial components in the Source Area; permanently restrict the use of groundwater at the Source Area; permanently prevent excavation/construction or other activities that could damage the upland CDF; temporarily prevent excavation or other activities that could damage the thin-layer soil cover and Allendale Dam; temporarily restrict recreational access in the Oxbow wetland; and temporarily restrict fish consumption.
4. Long-term inspections, maintenance and monitoring of the RCRA C cap in the Source Area; installation of additional groundwater monitoring wells and groundwater monitoring at the edge of the Source Area cap; inspections, maintenance and monitoring of the upland CDF and dams, including groundwater monitoring; monitoring of sediment, surface water and biota, and monitoring and maintenance to control invasive species.
5. Wetlands and floodplain mitigation.

This SOW does not include precautionary interim measures on residential properties as described on pp. 166 and 172 of the ROD, which were completed by RIDEM and EPA in 2013/2014. Also, this SOW does not include pre-design data collection and analysis in Cap Area #1 of the Source Area which was performed in 2013 by a group of Potentially Responsible Parties not subject to this Order, under an Administrative Order on Consent.

- 1.1.2 The Performance Standards include all Applicable or Relevant and Appropriate Requirements (ARARs), cleanup goals, cleanup levels, cleanup standards, cleanup targets, specifications and all measures for the performance of treatment processes, engineering controls and other controls set forth in the ROD, the SOW and any deliverable created and approved under the Order and the SOW.

The Scope of the Remedy includes the actions described in Section L of the ROD, including, but not limited to, a combination of excavation, treatment and containment to address contaminants in soil, floodplain soil and sediment at the Site to protect human health and ecological receptors from exposure to contamination. The selected remedy at the Source Area will prevent leaching of and contact with contaminants. The selected remedy for Allendale and Lyman Mill reaches will also prevent contact with contaminated soil and sediment, ingestion of contaminated biota, and migration of contaminants. The remediated areas will be restored to provide pre-remediation use and functions to the extent possible. The most significantly contaminated principal threat waste will be sent off site for treatment prior to disposal. The selected remedy for contaminated groundwater at the Source Area will prevent migration of contaminants into the Woonasquacket River and prevent contact with or ingestion of contaminated groundwater. The remedy includes Institutional Controls to prevent exposure to contamination and to prohibit activities that might harm the selected remedy. The selected remedy will require long-term monitoring of soil, sediment, groundwater, surface water, soil and biota. Reviews of the effectiveness of the remedy will be conducted at least every five years to ensure that it remains protective over time.

For purposes of the Order, the Work is generally divided into five Action Areas consistent with ROD: Source Area, Source Area groundwater, Allendale floodplain soil, Allendale and Lyman Mill sediment, and Lyman Mill reach sediment and floodplain soil.

## 2. DEFINITIONS

Unless otherwise expressly provided in the SOW, the terms used in the SOW that are defined in CERCLA, in regulations promulgated under CERCLA, or in the Order, have the meanings assigned to them in CERCLA, in such regulations, or in the Order. Whenever terms listed below are used in the SOW or in any attachment hereto, the following definitions shall apply:

“AO” or “Order” means the Administrative Order to which this SOW is an Appendix.

“Attachment” refers to an attachment to the SOW, unless otherwise stated.

“CDF” means confined disposal facility.

“CIP” means the Community Involvement Plan.

“Construction Phase” means the construction phase of the RA.

“CQA/QCP” means Construction Quality Assurance/Quality Control Plan.

“DI” means the Design Investigation.

“ERP” means Emergency Response Plan.

“FSP” means Field Sampling Plan.

“HASP” means Health and Safety Plan.

“ICs” means Institutional Controls.

“ICIAP” means Institutional Controls Implementation and Assurance Plan.

“Operation and Maintenance” or “O&M” means all activities required to operate, maintain and monitor the effectiveness of the Remedial Action as required under the O&M Plan, and to implement, maintain, monitor, and enforce Institutional Controls as provided in the ICIAP.

“O&M Plan” means the Operation and Maintenance Plan.

“Paragraph” or “¶” means a paragraph of the SOW, unless otherwise stated.

“PDI” means the Pre-Design Investigation.

“PSVP” means Performance Standards Verification Plan.

“QAPP” means Quality Assurance Project Plan.

“QMP” means Quality Management Plan.

“RA” means the Remedial Action for the Site.

“RA Schedule” means the schedule set forth in ¶ 8.3 containing deadlines and time durations for completion of major elements of the Work, or any proposed revised RA Schedule submitted under this SOW and approved by EPA. Any proposed revised RA Schedule submitted under this SOW, upon its approval by EPA, supersedes the RA Schedule set forth in ¶ 8.3 and any version of the RA Schedule previously approved by EPA.

“RAWP” means Remedial Action Work Plan.

“RD” means the Remedial Design for the RA.

“RD Schedule” means the schedule set forth in ¶ 8.2, or any proposed revised RD Schedule submitted under this SOW and approved by EPA.

“RDWP” means Remedial Design Work Plan.

“SHPO” means the Rhode Island State Historic Preservation Officer.

“Supervising Contractor” means the principal contractor retained by Respondents to supervise and direct the implementation of the Work.

“SWMP” means the Site-Wide Monitoring Plan.

“TODP” means the Transportation and Off-Site Disposal Plan.

“WP” means Work Plan. “WP” may be used in conjunction with the abbreviations for tasks such as the “RA,” “RD,” “DI” and “PDI” to refer to the work plan regarding such tasks.

### **3. COORDINATION/SUPERVISION**

#### **3.1 Respondents’ Project Coordinator and EPA’s Remedial Project Manager**

3.1.1 Respondents’ Project Coordinator must have sufficient technical expertise to coordinate the Work. Respondents’ Project Coordinator may not be an attorney for any Respondent in this matter. Respondents’ Project Coordinator may assign other representatives, including other contractors, to assist in coordinating the Work.

3.1.2 In the Order, EPA has designated its Remedial Project Manager as Anna Krasko. EPA may also designate and notify the Respondents of an Alternate Remedial Project Manager. EPA may designate other representatives, which may include its employees, contractors and/or consultants to oversee the Work. Remedial Project Manager /Alternate Remedial Project Manager will have the authority as described in the NCP, including the authority to halt the Work and/or to conduct or direct any necessary response action when he or she determines that conditions at the Site constitute an emergency situation or may present an immediate threat to public health or welfare or the environment due to release or threatened release of Waste Material.

3.1.3 EPA’s Remedial Project Manager and Respondents’ Project Coordinator shall meet monthly unless otherwise required by EPA’s Remedial Project Manager.

#### **3.2 Supervising Contractor**

3.2.1 Respondents’ proposed Supervising Contractor must have a quality assurance system that complies with ANSI/ASQC E4-2004, *Quality Systems for Environmental Data and Technology Programs: Requirements with Guidance for Use* (American National Standard, (ANSI/ASQC E4). Respondents shall provide EPA with a copy of the proposed contractor’s Quality Management Plan (“QMP”). Respondents shall prepare the QMP in accordance with *EPA Requirements for Quality Management Plans* (reissued May 2006) or equivalent documentation as determined by EPA.

#### **3.3 Procedures for Disapproval/Notice to Proceed**

3.3.1 Respondents shall notify EPA of the name, address, email address, telephone number, fax number, and technical qualifications of the Respondents’ proposed Project Coordinator and Supervising Contractor.

3.3.2 EPA shall issue a notice of disapproval or authorization to proceed regarding hiring of the proposed Project Coordinator/Supervising Contractor, as applicable. If EPA issues a notice of disapproval, Respondents shall, within 15 days, submit to EPA a list of supplemental proposed Project Coordinators/Supervising Contractors, as applicable, including a description of the qualifications of each. EPA shall issue a notice of



disapproval or authorization to proceed regarding each supplemental proposed coordinator/contractor. Respondents may select any coordinator/contractor covered by an authorization to proceed and shall, within 21 days, notify EPA of Respondents' selection.

3.3.3 The Respondents may change their Project Coordinator/Supervising Contractor by following the procedures of ¶¶ 3.3.1-3.3.2.

#### **4. COMMUNITY INVOLVEMENT**

##### **4.1 EPA's Responsibilities for Community Involvement**

4.1.1 EPA is the lead for developing and implementing community involvement activities at the Site.

4.1.2 Previously during the RI/FS phase, EPA developed a Community Involvement Plan (CIP) for the Site. Pursuant to 40 C.F.R. § 300.435(c), EPA will review the existing CIP and determine whether it should be revised to describe further public involvement activities during the Work that are not already addressed or provided for in the existing CIP.

##### **4.2 Respondents' Responsibilities for Community Involvement**

4.2.1 If requested by EPA, Respondents shall support EPA's community involvement activities. This may include, but is not limited to, providing information regarding the history of the Site, providing documents and information about the Work, and/or participating in public meetings. EPA may describe in its CIP the Respondents' responsibilities for community involvement activities. All community involvement activities conducted by Respondents at EPA's request are subject to EPA's oversight.

4.2.2 CI Coordinator. If requested by EPA, Respondents shall, within 30 days, designate and notify EPA of Respondents' CI Coordinator. Respondents may hire a contractor for this purpose. Respondents' notice must include the name, title, address, email address, telephone number, fax number and qualifications of the CI Coordinator. The CI Coordinator will be responsible for responding to the public's inquiries about the Site to the extent directed by EPA.

#### **5. REMEDIAL DESIGN**

##### **5.1 RD Work Plan**

5.1.1 Respondents shall submit a RDWP for EPA approval. The RDWP must include:

1. Plans for implementing all RD activities and any pre-design tasks identified in the ROD, in this SOW, in the RDWP or required by EPA to be conducted in Order to develop the RD;
2. A description of Respondents' proposed RA contracting strategy;

3. A description of the overall management strategy for performing the RD, and the proposed general approach to contracting, construction, operation, maintenance, and monitoring of the RA as necessary to implement the Work, including utilization of qualified local workforce in Rhode Island and surrounding communities to the extent possible and EPA's job readiness program (Superfund Job Training Initiative (SuperJTI)) that provides training and employment opportunities in site cleanup for people living in communities affected by Superfund sites;
4. A description of the process to acquire necessary location(s) for the Upland CDF construction;
5. A proposal for phasing of design and construction, including phasing of design and construction for each Action Area and for the Upland CDF;
6. A description of the responsibility and authority of all organizations and key personnel involved with the development of the RD;
7. Descriptions of any areas requiring clarification and/or anticipated problems (e.g., data gaps), including any cleanup level evaluations and updates as envisioned by the ROD;
8. A description of any required sampling and investigation activities and strategies, including background contamination evaluations, any contamination delineation, and determination of pre-construction baseline conditions;
9. A description of any required physical and ecological surveys, including physical surveys and drainage evaluations in the Source Area and habitat evaluations and engineering and hydrodynamic analysis in the Oxbow area;
10. A description of any required Stage IB cultural resources survey to comply with the National Historic Preservation Act (NHPA) and a description of an approach to determine any required levels of mitigation of any adverse effects of the remedy on the cultural resources, which would be a basis of a Memorandum of Agreement with the Rhode Island SHPO;
11. A drawings and specifications register;
12. A description of permitting, substantive permitting requirements, and other regulatory requirements;
13. A description of plans for, and a schedule for, coordination with, and access from, entities affected by, or that may affect the Work, including the Upland CDF (e.g., property owners, state agencies, local agencies, etc.), such as permitting, property acquisition, property leases, and/or easements required for implementation of the RD and RA; a description of the process for implementing ICs (to be finalized in the ICIAP); and

14. Supporting deliverables as specified in the RD Schedule.
- 5.1.2 EPA's comments on the RDWP must include a final decision regarding Respondents' proposed RA contracting strategy, as described above in ¶ 5.1.12
- 5.1.3 The Respondents may propose, for EPA review and approval, to have the RD Work Plan, PDI and DI Work Plan, Preliminary RD, Pre-Final RD, and Final RD for different components of the selected remedy proceed along separate timelines. If Respondents wish to pursue such an alternative approach, Respondents shall provide their proposal to EPA within thirty (30) days of EPA's approval of the Supervising Contractor.

## 5.2 Pre-Design and Design Investigations

- 5.2.1 The purpose of the PDI and DI is to address data/information gaps by conducting additional field investigations, information gathering, studies, evaluations, and modeling and shall include but not be limited to all pre-design and design studies/investigations identified in the ROD.
- 5.2.2 PDI and DI Work Plan. Respondents shall submit a PDI and DI Work Plan for EPA approval. The PDI and DI Work Plan must include:
  1. A description of data or information gaps;
  2. Proposed media to be sampled and evaluated; contaminants or parameters for which sampling will be conducted; and areal extent and depths of sampling, including at the Upland CDF location;
  3. Proposed investigations such as modeling, evaluations, and studies; and
  4. A description of quality assurance/quality control procedures in accordance with QAPP.
- 5.2.3 Following the PDI and DI, Respondents shall submit a PDI and DI Evaluation Report. This report must include:
  1. A summary of the investigations performed;
  2. A summary of investigation results;
  3. A summary of validated data (i.e., tables and graphics);
  4. A data validation reports and laboratory data reports;
  5. A narrative interpretation of data and results;
  6. Results of statistical and modeling analyses;
  7. Copies of field notes and log books;

8. Photographs documenting the work conducted; and
9. Conclusions and recommendations for RD, including design parameters and criteria.

### 5.3 Preliminary (30%) RD

5.3.1 Respondents shall submit a Preliminary (30%) RD for EPA's comment. The Preliminary RD must include:

1. Design analysis, including assumptions and parameters, design restrictions, design calculations, process performance criteria, and appropriate unit processes for the treatment train (e.g., sediment dewatering);
2. Preliminary drawings and specifications;
3. Preliminary identification of the Upland CDF site(s) and permit requirements, if needed for Upland CDF;
4. Preliminary evaluations of measures to minimize impacts to the wetlands and floodplains;
5. Preliminary description of access requirements and proposed easements;
6. Preliminary O&M Plan and O&M Manual;
7. Preliminary RA Schedule; and
8. Supporting deliverables as specified in the RD Schedule (CQA/QCF, ICIAP, O&M Plan, PSVP, and TODP).

### 5.4 Pre-Final RD

5.4.1 Respondents shall submit the Pre-Final (90%/95%) RD for EPA's comment. The Pre-Final RD must be a continuation and expansion of the Preliminary RD and must address EPA's comments regarding the Preliminary RD. The Pre-Final RD will serve as the approved Final RD if EPA approves the Pre-Final RD without comments. The Pre-Final RD must include:

1. A complete set of construction drawings and specifications that are: (i) certified by a professional engineer registered in the State of Rhode Island; (ii) suitable for bid advertisement; and (iii) follow the Construction Specifications Institute's MasterFormat 2012;
2. A survey and engineering drawings showing existing Site and the Upland CDF elements and conditions, property borders, and easements;

3. Pre-Final RD (90%/95%) versions of the same elements and deliverables as are required for the Preliminary RD;
4. A specification for photographic documentation of the RA;
5. A description of Respondents' method for selecting the construction contractor(s); and
6. Supporting deliverables as specified in the RD Schedule.

## **5.5 Final RD**

- 5.5.1 Respondents shall submit the Final (100%) RD for EPA approval. The Final RD must address EPA's comments on the Pre-Final RD to EPA's satisfaction and must include final versions of all Pre-Final RD deliverables.

## **6. REMEDIAL ACTION**

### **6.1 RA Work Plan**

- 6.1.1 Respondents shall submit a RAWP for EPA approval that includes:

1. The identity of, contact information for, and description of the roles of, the members of Respondents' RA project team, including the Project Coordinator and Supervising Contractor;
2. A proposed RA Schedule;
3. A description of plans for satisfying permitting requirements, including obtaining permits for off-Site activity and for satisfying substantive requirements of permits for on-Site activity;
4. A RA sampling and monitoring plan, addressing all required construction monitoring, construction testing, and confirmatory sampling;
5. A wetland and habitat restoration and mitigation plan and lost floodplain storage capacity mitigation plan;
6. A description of plans for obtaining access agreements;
7. A summary of spill control plan or other plans to eliminate or reduce incidence of emissions during construction, and to minimize the impacts of such potential releases to adjacent environments (e.g., wetlands, surface waters, groundwater); and
8. Supporting deliverables as specified in the RD Schedule.

## 6.2 Meetings, Inspections and Reports

- 6.2.1 **Preconstruction Meeting.** Respondents shall hold a preconstruction meeting with EPA and others as directed or approved by EPA. The following elements must be addressed at the meeting: methods for documenting and reporting data; methods for distributing and storing documents and reports; methods for assuring health and safety of on-site personnel and area residents; and methods for assuring construction quality. Respondents shall prepare, and send to all parties, minutes of the preconstruction meeting.
- 6.2.2 **Periodic Meetings.** During the construction phase of the RA (Construction Phase), Respondents shall meet at least monthly with EPA, and others as directed or approved by EPA, to discuss construction issues. Respondents shall distribute an agenda and list of attendees to all parties prior to each meeting. Respondents shall prepare minutes of the meetings and shall distribute the minutes to all parties.
- 6.2.3 **Inspections.**
1. EPA shall conduct periodic inspections of the Work. At EPA's request, the Respondents' Supervising Contractor or other designee shall accompany, EPA during inspections;
  2. Respondents shall provide on-Site office space and equipment for EPA personnel to perform their oversight duties; and
  3. Upon notification by EPA of any deficiencies in the performance of the RA, Respondents shall take all necessary steps to correct the deficiencies and/or bring their performance of the RA into compliance with the approved Final RD, any approved design changes, and/or the approved RAWP. If applicable, Respondents shall comply with any schedule provided by EPA in its notice of deficiency.
- 6.2.4 **Progress Reports.** Commencing with the effective date of the Order and until EPA issues the Certification of Completion of the RA, Respondents shall submit progress reports to EPA on a monthly basis, or as otherwise requested by EPA. The reports must be submitted in electronic form. The reports must cover all activities that took place during the prior reporting period, including:
1. The actions that have been taken toward achieving compliance with the Order;
  2. A summary of all results of investigations, sampling and tests and all other data received or generated by Respondents;
  3. A description of all plans, reports, and other deliverables that were submitted;
  4. A description of all actions, including, but not limited to, investigations and data collection and implementation of work plans, that are scheduled for the next six weeks;

5. Other information relating to the progress of design, construction, monitoring, O&M, ICs, and wetland and floodplain mitigation measures, including, but not limited to, critical path diagrams, Gantt charts and Pert charts;
  6. Information regarding percentage of completion, unresolved delays encountered or anticipated that may affect the future schedule for implementation of the Work, and a description of efforts made to mitigate those delays or anticipated delays;
  7. A description of any modifications to the work plans or other schedules that Respondents have proposed or that have been approved by EPA; and
  8. A description of all activities undertaken in support of the CIP during the reporting period and those to be undertaken in the next six weeks.
- 6.2.5 Notice of Progress Report Schedule Changes. If the schedule for any activity described in the Progress Reports, including but not limited to activities required to be described under ¶ 6.2.44, changes, Respondents shall notify EPA of such change at least seven days before performance of the activity.
- 6.2.6 Emergency Reporting.
1. Upon the occurrence of any event during performance of the Work that Respondents are required to report pursuant to Section 103 of CERCLA, 42 U.S.C. § 9603, or Section 304 of the Emergency Planning and Community Right-to-know Act (EPCRA), 42 U.S.C. § 11004, Respondents shall, within 24 hours of the onset of such event, orally notify EPA's Remedial Project Manager or EPA's Alternate Remedial Project Manager (in the event of the unavailability of EPA's Remedial Project Manager), or, in the event that neither EPA's Remedial Project Manager nor its Alternate Remedial Project Manager is available, the Emergency Response Section, Region 1, U.S. EPA. These reporting requirements are in addition to the reporting required by CERCLA Section 103 or EPCRA Section 304; and
  2. Within 20 days after the onset of such an event, Respondents shall furnish to EPA a written report, signed by Respondents' Project Coordinator, setting forth the events that occurred and the measures taken, and to be taken, in response thereto. Within 30 days after the conclusion of such an event, Respondents shall submit a report setting forth all actions taken in response thereto.

### 6.3 Off-Site Shipment of Waste Material

- 6.3.1 Respondents may ship Waste Material from the Site to an off-Site facility only if Respondents comply with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondents will be deemed to be in compliance with CERCLA Section 121(d)(3) and 40 C.F.R. § 300.440 regarding a shipment if Respondents obtain a prior determination from EPA that the proposed receiving facility for such shipment is acceptable under the criteria of 40 C.F.R. § 300.440(b). Respondents may ship

Investigation Derived Waste (IDW) from the Site to an off-Site facility only if Respondents comply with EPA's Guide to Management of Investigation Derived Waste, OSWER 9345.3-03FS (January 1992).

- 6.3.2 Respondents may ship Waste Material from the Site to an out-of-state waste management facility only if prior to any shipment, Respondents provide notice to the appropriate state environmental official in the receiving facility's state and to EPA's Remedial Project Manager. This notice requirement will not apply to any off-site shipments when the total quantity of all such shipments will not exceed ten cubic yards. The notice must include the following information, if available: (1) the name and location of the receiving facility; (2) the type and quantity of Waste Material to be shipped; (3) the schedule for the shipment; and (4) the method of transportation. Respondents also shall notify the state environmental official referenced above and EPA's Remedial Project Manager of any major changes in the shipment plan, such as a decision to ship the Waste Material to a different out-of-state facility. Respondents shall provide the written notice as soon as practicable after the award of the contract for Remedial Action construction and before the Waste Material is shipped.

#### 6.4 Annual State of Compliance Reports

- 6.4.1 Respondents shall submit Annual State of Compliance reports for EPA's approval that include:

1. A comprehensive evaluation of all investigations, construction, monitoring, ICs, and wetland and floodplain mitigation measures required by this SOW;
2. An evaluation of compliance with Performance Standards for each Action Area, including assessment of the progress being made towards achieving the Performance Standards; and
3. Recommendations for changes to any aspect of the construction, monitoring, ICs, or wetland and floodplain mitigation measures, including proposed schedule for activities to implement such recommendations.

#### 6.5 Construction Completion

- 6.5.1 Construction Completion Inspection. Respondents must schedule an inspection (Construction Completion Inspection) for the purpose of obtaining EPA's approval of the completion of the Construction Phase of each Action Area. The Construction Completion Inspection must be attended by Respondents, EPA and their representatives. A reinspection must be conducted if requested by EPA.

- 6.5.2 Construction Report. Following a Construction Completion Inspection, Respondents shall submit a "Construction Report" to EPA requesting EPA's approval of the Construction Phase of the Action Area that is the subject of the Construction Report. The Construction Report must: (1) include statements by a registered professional engineer and by Respondents' Project Coordinator that the Construction Phase that is the subject of the Construction Report is complete; (2) include a demonstration (with a summary of



the documentation), that the Construction Phase that is the subject of the Construction Report is complete; (3) include as-built drawings signed and stamped by a professional engineer; (4) include GIS coordinates and survey maps of areas with residual contamination (both horizontal and vertical), areas subject to use limitations, and any constructed remedial features and components; and (5) be prepared in accordance with EPA's "Close Out Procedures for NPL Sites" guidance (May 2011).

6.5.3 If EPA determines that the Construction Phase for any Action Area is not complete, EPA shall so notify Respondents. EPA's notice will include a description of the activities that Respondents must perform in Order to complete the Construction Phase. EPA's notice will also include specifications and a schedule for such activities or will require Respondents to submit specifications and a schedule for EPA approval. Respondents shall perform all activities described in the notice or in the EPA-approved specifications and schedule. A reinspection must be conducted if requested by EPA.

6.5.4 If EPA determines, based on the initial or any subsequent Construction Report requesting approval of the Construction Phase, that the Construction Phase is complete for an Action Area, EPA shall so notify the Respondents.

## 6.6 Five-Year Review Reports

6.6.1 Respondents shall submit to EPA for its review and approval technical reports and data in support of EPA's Five-Year Reviews, which EPA will conduct five years after the start of construction and at least every five years thereafter and shall gather any data requested by EPA, if needed, for the Five-Year Reviews.

## 6.7 Certification of Completion of the RA

6.7.1 RA Completion Inspection. The RA is "complete" for purposes of this ¶ 6.7 when EPA determines that all components of the RA have been fully performed and the Performance Standards have been achieved. Respondents must schedule an inspection (RA Completion Inspection) for the purpose of obtaining EPA's Certification of Completion of the RA. The RA Completion Inspection must be attended by Respondents, EPA and their representatives. A reinspection must be conducted if requested by EPA.

6.7.2 RA Completion Report. Following the RA Completion Inspection, Respondents shall submit a RA Completion Report to EPA requesting EPA's Certification of Completion of the RA. The report must: (1) include certifications by a registered professional engineer and by Respondent's Project Coordinator that the RA is complete; (2) include as-built drawings that are signed and stamped by a professional engineer; (3) include GIS coordinates and survey maps of areas with residual contamination (both horizontal and vertical), areas subject to use limitations, and any constructed remedial features and components; and (4) be prepared in accordance with EPA's *Close Out Procedures for NPL Sites* guidance (May 2011). If the Construction Reports submitted under ¶ 6.5.2 include all elements required under this ¶ 6.7.2, then the Construction Reports suffice to satisfy all requirements under this ¶ 6.7.2.

- 6.7.3 If EPA determines that the RA is not complete, EPA shall so notify Respondents. EPA's notice will include a description of the activities that Respondents must perform in Order to complete the RA. EPA's notice will include specifications and a schedule for such activities or will require Respondents to submit specifications and a schedule for EPA approval. Respondents shall perform all activities described in the notice or in the EPA-approved specifications and schedule. A reinspection must be conducted if requested by EPA.
- 6.7.4 If EPA determines, based on the initial or any subsequent RA Completion Report requesting Certification of Completion of the RA, that the RA is Complete, EPA shall so certify to Respondents. This certification will constitute the Certification of Completion of the RA for purposes of the Order. Certification of Completion of the RA will not affect Respondents' remaining obligations under the Order.

## 6.8 Certification of Completion of the Work

- 6.8.1 Work Completion Inspection. Respondents must schedule an inspection (Work Completion Inspection) for the purpose of obtaining EPA's Certification of Completion of the Work. The Work Completion Inspection must be attended by Respondents, EPA and their representatives. A reinspection must be conducted if requested by EPA.
- 6.8.2 Work Completion Report. Following the Work Completion Inspection, Respondents shall submit a report to EPA requesting EPA's Certification of Completion of the Work. The report must: (a) include certifications by a registered professional engineer and by Respondents' Project Coordinator that the Work, including all O&M activities, is complete. If the RA Completion Report submitted under ¶ 6.7.2 includes all elements required under this ¶ 6.8.2, then the RA Completion Report suffices to satisfy all requirements under this ¶ 6.8.2.
- 6.8.3 If EPA determines that the Work is not complete, EPA shall so notify Respondents. EPA's notice will include a description of the activities that Respondents must perform in Order to complete the Work. EPA's notice will also include specifications and a schedule for such activities or will require Respondents to submit specifications and a schedule for EPA approval. Respondents shall perform all activities described in the notice or in the EPA-approved specifications and schedule. A reinspection must be conducted if requested by EPA.
- 6.8.4 If EPA determines, based on the initial or any subsequent report requesting Certification of Completion of the Work, that the Work is complete, EPA shall so certify in writing to Respondents.

## 7. DELIVERABLES

### 7.1 Applicability

- 7.1.1 Paragraphs 7.2 and 7.3 apply to any deliverable that is required to be submitted for EPA approval. Paragraph 7.2 applies to any deliverable that is required to be submitted for EPA comment.

## 7.2 General Requirements

- 7.2.1 All approvals and certifications by EPA must be in writing unless otherwise provided.
- 7.2.2 All deliverables must be submitted by the deadlines in the RD Schedule or RA Schedule, as applicable. All deliverables must be delivered to EPA in the form provided in the RD Schedule or RA Schedule, as applicable.
- 7.2.3 Required Certification for Deliverables. All plans, reports, or other deliverables listed in ¶ 8 require compliance with this Paragraph and must be signed by the Respondents' Project Coordinator, or other responsible official of a Respondent, and must contain the following statement:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

### 7.2.4 Technical Specifications for Deliverables.

1. All communications, whether written or oral, from Respondent to EPA shall be directed to EPA's Remedial Project Manager. Respondent shall submit to EPA one (1) written copy of all documents, including plans, reports, notices, data and other correspondence, which are developed pursuant to the Order and SOW in accordance with the schedules and requirements set forth in such plans and SOW. These documents shall be sent by overnight mail unless EPA notifies Respondents' Project Coordinator in writing of a change. EPA's Remedial Project Manager is:  
  
Anna Krasko  
US EPA, 5 Post Office Square, Suite 100  
Mailcode OSRR07-1  
Boston, MA 02109  
Telephone: (617) 918-1232  
Facsimile: (617) 918-0232
2. In addition, Respondent shall submit in electronic form (both Microsoft Word and PDF) all documents pursuant to the Order to [krasko.anna@epa.gov](mailto:krasko.anna@epa.gov) either directly or through file share;
3. All analytical data shall be submitted in Electronic Data Deliverable (EDD) format consistent and compatible with the existing Site database, all drawings

shall be submitted as CAD files, and all data and field evaluations shall be submitted in electronic files compatible with the existing Site GIS system.

### 7.3 Approval of Plans, Reports or Other Deliverables

#### 7.3.1 Initial Submissions.

After review of any plan, report, or other deliverable that is required to be submitted for EPA approval under the Order or the SOW, EPA shall: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; (c) disapprove, in whole or in part, the submission and direct Respondents to re-submit the document after incorporating EPA's comments; (d) disapprove the submission and assume responsibility for performing all or any part of the response action; and (e) any combination of the foregoing. In addition, EPA may also modify the initial submission to cure deficiencies in the submission.

#### 7.3.2 Resubmissions.

Upon receipt of a notice of disapproval under ¶ 7.3.1 (Initial Submissions) or if required by a notice of approval upon specified conditions under ¶ 7.3.1, Respondents shall, within 30 days or such longer time as specified by EPA in such notice, correct the deficiencies and resubmit the plan, report, or other deliverable for approval. After review of the resubmitted plan, report, or other deliverable, EPA may: (a) approve, in whole or in part, the resubmission; (b) approve the resubmission upon specified conditions; (c) modify the resubmission; (d) disapprove, in whole or in part, the resubmission, requiring Respondents to correct the deficiencies; or (e) any combination of the foregoing. In addition, EPA may also modify the resubmission to cure deficiencies in the resubmission. If any resubmission is disapproved by EPA, Respondents shall be deemed to be in violation of the Order.

7.3.3 Implementation. Upon approval, approval upon conditions, or modification by EPA under ¶ 7.3.1 (Initial Submissions) or ¶ 7.3.2 (Resubmissions), of any plan, report, or other deliverable, or any portion thereof: (a) such plan, report, or other deliverable, or portion thereof, will be incorporated into and enforceable under the Order; and (b) Respondents shall take any action required by such plan, report, or other deliverable, or portion thereof in accordance with the approved schedule.

7.3.4 Unless otherwise directed by EPA, Respondents shall not perform Work at the Site prior to EPA's approval of any plan, report, or other deliverable, or any portion thereof for such Work. Any violation of any requirement of an approved plan, report, or other deliverable, or any portion thereof (including but not limited to the schedule) shall be a violation of the Order.

### 7.4 Supporting Deliverables

7.4.1 Respondents shall submit each of the following supporting deliverables, with the exception of the HASP, for EPA approval. The HASP shall be submitted to EPA for review and comment only. The deliverables must be submitted, for the first time, by the

deadlines in the RD Schedule or the RA Schedule, or any other EPA-approved schedule, as applicable. Respondents shall develop the deliverables in accordance with all applicable regulations, guidances, and policies (see ¶ 10). Respondents shall update each of these supporting deliverables as necessary or appropriate during the course of the Work, and/or as requested by EPA.

**7.4.2 Construction Quality Assurance/Quality Control Plan.**

1. The purpose of the CQA/QCP is to describe planned and systemic activities that provide confidence that the RA construction will satisfy all plans, specifications, and related requirements, including quality objectives. The purpose of the CQA/QCP is to describe the activities to verify that RA construction has satisfied all plans, specifications, and related requirements, including quality objectives. The CQA/QCP must:
  - .1.1 Identify and describe the responsibilities of the organizations and personnel implementing the CQA/QCP;
  - .1.2 Describe verification activities, such as inspections, sampling, testing, monitoring, and production controls, under the CQA/QCP;
  - .1.3 Describe industry standards and technical specifications used in implementing the CQA/QCP;
  - .1.4 Describe procedures for tracking construction deficiencies from identification through corrective action;
  - .1.5 Describe procedures for documenting all CQA/QCP activities; and
  - .1.6 Describe procedures for retention of documents, and final storage of documents.

**7.4.3 Emergency Response Plan.** The ERP must describe procedures to be used in the event of an accident or emergency at the Site (for example, power outages, water impoundment failure, treatment plant failure, slope failure, etc). The ERP must include:

1. Name of the person or entity responsible for responding in the event of an emergency incident;
2. Plan and date(s) for meeting(s) with the local community, including local, State and Federal agencies involved in the cleanup, as well as local emergency squads and hospitals;
3. Spill Prevention, Control, and Countermeasures (SPCC) Plan (as applicable), as specified in 40 C.F.R. Part 109 describing measures to prevent, and contingency plans to address, potential spills and discharges from materials handling and transportation;

4. Notification activities in accordance with ¶ 6.2.6 in the event of a release of hazardous substances requiring reporting under Section 103 of CERCLA, 42 U.S.C. § 9603, or Section 304 of the Emergency Planning and Community Right-to-know Act ("EPCRA"), 42 U.S.C. § 11004; and
5. A description of all necessary actions to ensure compliance with Section XIV (Endangerment and Emergency Response) of the Order in the event of an occurrence during the performance of the Work that causes or threatens a release of Waste Material from the Site that constitutes an emergency or may present an immediate threat to public health or welfare or the environment.

- 7.4.4 **Field Sampling Plan.** The FSP supplements the QAPP and addresses all sample collection activities. The FSP must be written so that a field sampling team unfamiliar with the project would be able to gather the samples and field information required. Respondents shall develop the FSP in accordance with *Guidance for Conducting Remedial Investigations and Feasibility Studies*, EPA/540/G-89/004 (1988).
- 7.4.5 **Health and Safety Plan.** The HASP describes all efforts to be made to protect on-site personnel and area residents from physical, chemical and all other hazards posed by the Work. Respondents shall develop the HASP in accordance with EPA's guidance and OSHA requirements under 29 C.F.R. §§ 1910 and 1926. The HASP also must address monitoring and control measures to protect the community during the Work.
- 7.4.6 **Institutional Controls Implementation and Assurance Plan.** The ICIAP describes plans to implement, maintain and enforce the ICs at the Site. Respondents shall develop the ICIAP in accordance with *Institutional Controls: A Guide to Planning, Implementing, Maintaining, and Enforcing Institutional Controls at Contaminated Sites*, OSWER 9355.0-89, EPA/540/R-09/001 (Sept. 2012), and *Institutional Controls: A Guide to Preparing Institutional Controls Implementation and Assurance Plans at Contaminated Sites*, OSWER 9200.0-77, EPA/540/R-09/02 (Sept. 2012). The ICIAP must include the following additional requirements:
1. A contingency plan if any ICs cannot be implemented, are ineffective or are not sufficient to prevent exposure;
  2. All legal descriptions must be prepared according to current American Land Title Association (ALTA) Survey guidelines and certified by a licensed surveyor; and
  3. All geographic information system (GIS) coordinates must be formatted into an Environmental Systems Research Institute, Inc. (ESRI) polygon shape file and the Universal Transverse Mercator (UTM) zone must be identified. The shape file must be projected into the UTM, North American Datum (NAD) 83 projection system. Each shape file must include an attribute name for each polygon submitted (e.g., "site boundary," "residential use prohibited," "cap" and "groundwater use prohibited.").
- 7.4.7 **O&M Plan.** The O&M Plan describes the long-term operation and maintenance of the RA. The O&M Plan must include:

1. A description of and schedule for each operation task and maintenance task;
2. A description of each operation and maintenance task regarding ICs;
3. A description of and schedule for periodic inspections of equipment and components;
4. A description of O&M requirements;
5. A description of instrumentation and monitoring;
6. Sample checklists and periodic reports;
7. A description and analysis of potential operating problems, including common and/or anticipated remedies;
8. A description of routine monitoring and laboratory testing;
9. A description of required data collection, laboratory tests and their interpretation;
10. A schedule of monitoring frequency and procedures;
11. A description of verification sampling procedures if Performance Standards are exceeded during routine monitoring;
12. A description of alternative operations and maintenance in case of systems failure, including: (1) alternative procedures to prevent the release or threatened release of Waste Material which may endanger public health and the environment or exceed Performance Standards; (2) analysis of vulnerability and additional resource requirements should a failure occur; and (3) notification and reporting requirements should O&M systems fail or be in danger of imminent failure;
13. A description of corrective action to be implemented in the event that Performance Standards are exceeded; and a schedule for implementing these corrective actions;
14. A description of monitoring equipment and monitoring components, including identifying information, maintenance requirements and schedule, and replacement requirements and schedule; and
15. A description of records and reports that will be generated during O&M, such as daily operating logs, laboratory records, records of operating costs, reports regarding emergencies, personnel and maintenance records, and monthly and annual reports to EPA and State agencies.

7.4.8 Performance Standards Verification Plan. The PSVP describes activities to verify that all Performance Standards are satisfied, and a schedule for performing these activities. The PSVP must include the following elements:

1. A description of each of the Performance Standards required by the ROD, Order and SOW;
2. A description of plans to ensure that each Performance Standard will be met; and
3. A description of activities to be performed to determine whether Performance Standards have been met.

7.4.9 Quality Assurance Project Plan. The QAPP addresses sample analysis and data handling regarding the Work. The QAPP must include a detailed explanation of Respondents' quality assurance, quality control, and chain of custody procedures for all treatability, design, compliance, and monitoring samples. If relevant to any proceeding, validated sampling data generated in accordance with the QAPP(s) and reviewed and approved by EPA shall be admissible as evidence, without objection, in any proceeding under the Order and SOW. The QAPP must:

1. Be developed in accordance with *EPA Requirements for Quality Assurance Project Plans, QA/R-5, EPA/240/B 01/003* (reissued May 2006), *Guidance for Quality Assurance Project Plans*, EPA/240/R 02/009 (Dec. 2002), and *Uniform Federal Policy for Quality Assurance Project Plans, Parts 1-3, EPA/505/B-04/900A through 900C* (March 2005).
2. Provide EPA personnel and their authorized representatives access at reasonable times to all laboratories utilized by Respondents in implementing the Order and SOW. In addition, such laboratories shall analyze all samples submitted by EPA pursuant to the QAPP for quality assurance monitoring;
3. Require that the laboratories utilized for the analysis of samples taken pursuant to the Order and SOW perform all analyses according to accepted EPA methods. Accepted EPA methods consist of those methods which are documented in the "USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis, ILM05.4," and the "USEPA Contract Laboratory Program Statement of Work for Organic Analysis, SOM01.2," and any amendments made thereto during the course of the implementation of the Order and SOW; however, upon approval by EPA, QAPP may use other analytical methods which are as stringent as or more stringent than the CLP-approved methods;
4. Require all laboratories used for analysis of samples taken pursuant to the Order and SOW participate in an EPA or EPA-equivalent QA/QC program and also require all laboratories used to have a documented Quality System which complies with ANSI/ASQC E4-1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs," (American National Standard, January 5, 1995), and "EPA Requirements for Quality Management Plans (QA/R-2)," (EPA/240/B-01/002;



March 2001, reissued May 2006) or equivalent documentation as determined by EPA. EPA may consider laboratories accredited under the National Environmental Laboratory Accreditation Program ("NELAP") as meeting the Quality System requirements;

5. Require all field methodologies utilized in collecting samples for subsequent analysis pursuant to the Order and SOW be conducted in accordance with the procedures set forth in the QAPP approved by EPA;
6. Specify that EPA be notified not less than fourteen (14) days in advance of any sample collection activity unless shorter notice is agreed to by EPA. The QAPP shall include provisions to allow at the request of EPA, split or duplicate samples to be taken by EPA or its authorized representatives, of any samples collected by Respondents with regard to the Site or pursuant to the implementation of the Order and SOW. In addition, EPA shall have the right to take any additional samples that EPA deems necessary, including samples deemed necessary as part of EPA's oversight of Respondents' implementation of the Work; and
7. Require that the results of all sampling and/or tests or other data obtained or generated by or on behalf of Respondents with respect to the Site and/or the implementation of the Order and SOW in accordance with Section XX of the Order (Notifications and Submittals) be submitted to EPA, unless EPA agrees otherwise.

7.4.10 Site-Wide Monitoring Plan. The purpose of the SWMP is to evaluate the location and movement of contamination throughout the Site, to obtain baseline information regarding the extent of contamination in affected media, and/or to take contingent action if necessary. The SWMP must:

1. Describe the environmental media to be monitored;
2. Describe the data collection parameters, including existing and proposed monitoring devices and locations, frequency of monitoring, and analytical parameters to be monitored;
3. Describe how performance data will be analyzed, interpreted, and reported, and/or other Site-related requirements; and
4. Propose contingency actions in the event that results from monitoring devices indicate higher than expected concentrations of the contaminants, such as increases in frequency of monitoring, and/or installation of additional monitoring devices in the affected areas.

7.4.11 Transportation and Off-Site Disposal Plan. The TODP describes plans to ensure compliance with ¶ 6.3 (Off-Site Shipments of Waste Material); these plans shall also apply to transportation and disposal in the Upland CDF. The TODP must include:

1. Proposed routes for off-site shipment of waste material;

2. Identification of communities affected by shipment of waste material; and
3. A description of plans to minimize impacts on affected communities.

## 8. SCHEDULES

### 8.1 Applicability and Revisions

8.1.1 All deliverables and tasks required under this SOW must be submitted or completed by the following deadlines or within the time durations listed in the RD and RA Schedules. The initial RD and RA Schedules are set forth below. Upon EPA's request, Respondents shall submit proposed revised RD Schedules or RA Schedules for EPA approval. Any such proposed revised RD Schedule or RA Schedule, upon its approval by EPA, supersedes the RD Schedule or RA Schedule, respectively, set forth below and any version of the RA Schedule or RA Schedule, respectively, previously approved by EPA.

### 8.2 RD Schedule

	Description of Deliverable / Task / Supporting Deliverable	¶ Ref.	Deadline
1	Designate proposed Project Coordinator	3.3	30 days after effective date of Order
2	Designate proposed Supervising Contractor	3.3	30 days after effective date of Order
3	Designate CI Coordinator	4.2	30 days after EPA request
4	RDWP (including HASP, ERP, FSP, QAPP, and SWMP)	5.1	120 days after EPA's approval of Supervising Contractor
5	PDI and DI WP	5.2	Same deadline as RDWP
6	Preliminary (30%) RD (including CQA/QCP, ICIAP, O&M Plan, PSVP, and TODP)	5.3	180 days after EPA approval of Final RDWP
7	PDI and DI Evaluation Report	5.2	180 days after EPA approval of PDI and DI WP and completion of activities in WP
8	Pre-Final (90/95%) RD	5.4	120 days after EPA comments on Preliminary RD
9	Final RD	5.5	30 days after EPA comments on Pre-Final RD
10	RAWP	6.1	60 days after EPA approval of Final RD

**8.3 RA Schedule**

	Description of Deliverable / Task	¶ Ref.	Deadline
1	Award RA contract		30 days after EPA approval of the RAWP
2	Pre-Construction Inspection and Meeting	6.2	30 days after Award of RA contract(s)
3	Start of Construction	6.1,	15 days after Pre-Construction meeting
4	Technical Reports/data collection to Support EPA Five-Year Reviews	6.6	A year before each Five-Year Review is due from start of construction
5	Annual State of Compliance Reports	6.4	Annually after effective date of Order
6	Construction Completion Inspection(s)	6.5	Per RAWP schedule
7	Construction Report(s)	6.5	30 days after Construction Completion Inspection(s)
8	RA Completion Inspection	6.7	30 days after Respondents determine RA is complete
9	RA Completion Report	6.7	120 days after completion of RA Completion Inspection
10	Work Completion Inspection	6.8	30 days after Respondents determine Work is complete
11	Work Completion Report	6.8	90 days after Final Inspection

**9. STATE PARTICIPATION**

- 9.1.1 Project Coordinators. The State may designate a State Project Coordinator. The State may also designate other representatives, including its employees, contractors and/or consultants to oversee the Work. If the State so designates a State Project Coordinator or other representatives, it shall notify EPA and the Respondents.
- 9.1.2 Copies. Respondents shall, at any time they send a notice, report, deliverable or submission to EPA, send a copy of such document to the State. EPA shall, at any time it sends a notice, authorization, approval, disapproval or certification to Respondents, send a copy of such document to the State in both paper and electronic format by email. Submissions directed to the State shall go to:

Louis R. Maccarone, II  
 RIDEM, Office of Waste Management  
 235 Promenade Street  
 Providence, RI 02908-5767  
 Telephone: (401) 222-2797  
 Facsimile: (401) 222-3812  
 Email: louis.maccarone@dem.ri.gov

- 9.1.3 Meetings and Inspections. For any meetings and inspections in which EPA's Project Coordinator participates, the State's Project Coordinator (if designated by the State) also may participate. Respondents shall notify the State reasonably in advance of any such meetings or inspections.
- 9.1.4 Review and Comment. If requested by the State, the State will have a reasonable opportunity for review and comment prior to any EPA determination, authorization, approval or disapproval under this SOW.

## 10. REFERENCES

The regulations and guidance documents in the Administrative Record, including the Compendium of Selected Key Guidance Documents and the following documents, among others, apply to the Work. Regulations and/or guidances cited in the Order or SOW shall be read to include any subsequent modification, amendment or replacement of such regulations or guidances.

1. Interim Guidance on Compliance with Applicable of Relevant and Appropriate Requirements, OSWER 9234.0-05 (July 9, 1987).
2. Guidance on EPA Oversight of Remedial Designs and Remedial Actions Performed by Potentially Responsible Parties, EPA/540/G-90/001 (April 1990).
3. Guidance on Expediting Remedial Design and Remedial Actions, EPA/540/G-90/006 (August 1990).
4. Construction Quality Management for Remedial Action and Remedial Design Waste Containment Systems, EPA/540/R 92/073 (October 1992).
5. Scoping the Remedial Design, OSWER 9355.5-21/FS (March 1995).
6. Remedial Design/Remedial Action Handbook, OSWER 9355.0-04B, EPA/540/R-95/059 (June 1995)
7. Construction Quality Assurance (CQA) Plan Requirements for Hazardous Waste Landfills, EM 1110-1-4011 (1999).
8. EPA Guidance for Data Quality Assessment, Practical Methods for Data Analysis, QA/G-9, EPA/600/R-96/084 (July 2000).
9. USEPA Contract Laboratory Program National Functional Guidelines for Low Concentration Organic Data Review with Environmental Data Review Supplement, EPA/540/R-08-01 (June 2008).
10. Guidance for Quality Assurance Project Plans, QA/G-5, EPA/240/R-02/009 (December 2002).

11. Uniform Federal Policy for Quality Assurance Project Plans, Parts 1-2, EPA/505/B-04/900A through 900C (March 2012).
12. Superfund Community Involvement Handbook, EPA/540/K-05/003 (April 2005).
13. EPA Guidance on Systematic Planning Using the Data Quality Objectives Process, QA/G-4, EPA/240/B-06/001 (February 2006).
14. EPA Requirements for Quality Assurance Plans, QA/R-5, EPA/240/B-01/003 (March 2001, reissued May 2006).
15. EPA Requirements for Quality Management Plans, QA/R-2, EPA/240/B-01/002 (March 2001, reissued May 2006).
16. USEPA Contract Laboratory Program Statement of Work for Multi-Media Multi-Concentration Organic Analysis, SOM01.2 (2007).
17. USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, EPA/540/R-08/01 (June 2008).
18. USEPA Contract Laboratory Program Statement of Work for Inorganic Superfund Methods (Multi-Media, Multi-Concentration), ISM01.2 (January 2010).
19. Close Out Procedures for NPL Sites, OSWER 9320.2-22, (May 2011).
20. Construction Specifications Institute's MasterFormat 2012, available from the Construction Specifications Institute, [www.csinet.org/masterformat](http://www.csinet.org/masterformat).
21. Institutional Controls: A Guide to Planning, Implementing, Maintaining, and Enforcing Institutional Controls at Contaminated Sites, OSWER 9355.0-89, EPA/540/R-09/001 (December 2012).
22. Institutional Controls: A Guide to Preparing Institutional Controls Implementation and Assurance Plans at Contaminated Sites, OSWER 9200.0-77, EPA/540/R-09/02 (December 2012).
23. Occupational Health and Safety Administration, Standards for General Industry and for Construction Industry, 29 C.F.R. Parts 1910 and 1926.

APPENDIX 2

RECORD OF DECISION

CENTREDALE MANOR RESTORATION PROJECT SUPERFUND SITE

THE ROD CAN BE FOUND AT:

[WWW.EPA.GOV/REGION1/SUPERFUND/SITES/CENTREDALE/521788.pdf](http://WWW.EPA.GOV/REGION1/SUPERFUND/SITES/CENTREDALE/521788.pdf)

**APPENDIX 3**

**DRAFT EASEMENT**

**CENTREDALE MANOR RESTORATION PROJECT SUPERFUND SITE**

Centredale Manor Restoration Project Superfund Site

**DECLARATION OF COVENANTS AND ENVIRONMENTAL  
PROTECTION/CONSERVATION AND ACCESS EASEMENT<sup>1</sup>**

This Declaration of Covenants and Environmental Protection/Conservation and Access Easement ("Declaration") is made this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between \_\_\_\_\_, ("Grantor"), having an address of \_\_\_\_\_, and the STATE OF RHODE ISLAND ("Grantee"), having an address of Rhode Island Department of Environmental Management, Office of Waste Management, 235 Promenade Street, Providence, Rhode Island 02908.

**WITNESSETH:**

1. WHEREAS, Grantor is the owner in fee simple of a parcel of land located in the Town of North Providence [Johnston], Providence County, State of Rhode Island, more particularly described by the Class I survey attached hereto as Exhibit A and made a part hereof (the "Property"); and
2. WHEREAS, the State of Rhode Island (the "State") and the United States Environmental Protection Agency ("EPA") have determined that the Property and certain land in close proximity to the Property contain hazardous materials and other adverse environmental conditions; and
3. WHEREAS, the Property is part of the Centredale Manor Restoration Project Superfund Site ("Site"), which EPA, pursuant to Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9605, placed on the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register on March 6, 2000; and
4. WHEREAS, in a Record of Decision dated September 28, 2012 (the "ROD"), the Director of EPA Region 1's Office of Site Remediation and Restoration selected a "remedial action" for the Site, which provides for the following actions (among others) at the Site:
  - a. Removal of potential buried waste in the Source Area and off-site disposal and/or treatment; relocation of underground utilities into clean corridors; and conversion of existing surfaces (soil caps, parking lots, paved areas, and landscape areas) into a RCRA C cap.
  - b. Excavation of sediment and floodplain soil in the Allendale and Lyman Mill reaches of the Woonasquatucket River; containment of excavated material in an upland CDF with contamination that exceeds the Land Disposal Restrictions' alternative

<sup>1</sup> This is a form document for use in drafting restrictions and access easements at the Centredale Manor Restoration Project Superfund Site. The language in this document may be modified as it is applied to particular parcels with the approval of EPA and RIDEM.



treatment standards shipped off-site for disposal and/or treatment; placement of a thin-layer cover over remaining contaminated sediment in the River, if needed; and placement of a thin-layer cover over remaining contamination in the Oxbow wetland.

c. Placement, monitoring and enforcement of ICs to permanently prohibit future excavation, restrict access to buried utilities, prevent the construction of buildings with pilings or basements or any other disturbance of the cap or other remedial components in the Source Area; permanently restrict the use of groundwater at the Source Area; permanently prevent excavation/construction or other activities that could damage the upland CDF; temporarily prevent excavation or other activities that could damage the thin-layer soil cover and Allendale Dam; temporarily restrict recreational access in the Oxbow wetland; and temporarily restrict fish consumption.

d. Long-term inspections, maintenance and monitoring of the RCRA C cap in the Source Area; installation of additional groundwater monitoring wells and groundwater monitoring at the edge of the Source Area cap; inspections, maintenance and monitoring of the upland CDF and dams; monitoring of sediment, surface water, floodplain soil and biota, and monitoring and maintenance to control invasive species.

e. Wetlands and floodplain mitigation.

5. WHEREAS, EPA has issued an Administrative Order Docket No. CERCLA 01-2014-0024 ("Order") to Emhart Industries, Inc. and Black & Decker, Inc. ("Respondents") directing them to perform a Remedial Design and to implement the Remedial Design by performing a Remedial Action and performing Operation and Maintenance of such Remedial Action for the remedy described in the ROD for the Site;

6. WHEREAS, the parties hereto have agreed 1) to grant a permanent right of access over the Property to the Grantee for purposes of implementing, facilitating and monitoring the remedial action; and 2) to impose on the Property use restrictions as covenants that will run with the land for the purpose of protecting human health and the environment by protecting the remedial action which has been and will be taken at the Site; and

7. WHEREAS, Grantor wishes to cooperate fully with the Grantee in the implementation of all response actions at the Site.

NOW, THEREFORE:

8. Grant: For good and valuable consideration paid and the agreements and promises hereinafter set forth, the receipt and sufficiency of which are hereby acknowledged, Grantor, on behalf of itself, its successors and assigns, does hereby covenant and declare that the Property shall be subject to the restrictions on use set forth below, and does give, grant and convey to the Grantee, with general warranties of title, 1) the perpetual right to enforce said use restrictions, and 2) an environmental protection/conservation easement pursuant to Title 34, Chapter 39 of the General Laws of Rhode Island, as amended, and an Access Easement, of the nature and character and for the purposes hereinafter set forth, with respect to the Property.

9. Purpose: It is the purpose of this Declaration to give the Grantee the right to

implement and/or monitor the remedial action to assure that the Property will be used only for purposes which are compatible with the remedial action and to ensure that the Property will not be used in a manner that will pose a threat to human health or the environment.

10. Covenant, Conditions and Restrictions on Use: The following covenants, conditions, and restrictions apply to the use of the Property, run with the land, and are binding on the Grantor and Grantor's heirs, successors, successors in title, and assigns:

[To be determined]

11. Modification or Termination of Restrictions: The above covenants and restrictions may be modified or terminated, in whole or in part, in writing by the Grantee, subject to EPA's review and written concurrence. All expenses and costs of drafting and recording any modifications or terminations shall be borne by the Grantor. If requested by the Grantor, such writing will be executed by the Grantee in recordable form.

12. Environmental Protection/Conservation and Access Easement: Grantor hereby grants to the Grantee (and to the Grantee's agents, contractors, designees, and assigns, including but not limited to EPA and the Respondents to the Order) an irrevocable, permanent, and continuing right of access at all reasonable times to the Property for the purposes of conducting any activity related to the Order, including but not limited to:

- a. Implementing the response actions in the ROD;
- b. Verifying any data or information submitted to EPA or the State;
- c. Verifying that no action is being taken on the Property in violation of the terms of this Declaration or of any federal or state environmental laws or regulations;
- d. Overseeing and monitoring response actions on the Site and conducting investigations relating to contamination on or near the Site, including, without limitation, obtaining samples of air, water, sediments, soils, biota and specifically, without limitation, obtaining split or duplicate samples, and using a camera, sound recording device, or other documentary type equipment;
- e. Assessing the need for, planning, or implementing additional or new response actions at or near the Site;
- f. Assessing implementation of quality assurance and quality control practices for the remedial action;
- g. Implementing the activities required by the Order pursuant to the conditions set forth therein;
- h. Inspecting and copying records, operating logs, contracts, or other documents maintained or generated by the Respondents to the Order or their agents, consistent with Section XVIII (Access to Information) of the Order;

- i. Assessing compliance with the Order by the Respondents to the Order; and
- j. Determining whether the Site or other property is being used in a manner that is prohibited or restricted, or that needs to be prohibited or restricted, by or pursuant to the Order.

13. Reserved rights of Grantor: Grantor hereby reserves unto itself, its successors, and assigns, all rights and privileges in and to the use of the Property which are not incompatible with the restrictions, rights, and easements granted herein.

14. No Limitation on Access: Nothing in this document shall limit or otherwise affect EPA's or the State of Rhode Island's or their agents' rights of entry and access provided by law or regulation or EPA's authority to take response actions under CERCLA, the NCP, or other federal law.

15. No Public Access and Use: No right of access or use by the general public to any portion of the Property is conveyed by this Declaration.

16. Notice requirement: Grantor, and any person who subsequently acquires any interest in the Property, including, but not limited to, by deeds, leases, and mortgages, shall give (a) written notice of the Order and this Declaration to the person or entity that will receive the conveyance ("transferee"), and (b) written notice of the conveyance to Grantee and EPA, including the name and address of the transferee and the date on which the Grantor gave the notice to that transferee. Such transfer shall take place only if the transferee agrees, as a part of the agreement to purchase or otherwise obtains the Property, that it will comply with the obligations of the Grantor to provide access to the Property and with all of the declarations set forth herein. Grantor agrees to include in any instrument conveying any interest in any portion of the Property, including but not limited to deeds, leases, and mortgages, a notice which is in substantially the following form:

NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO THE EFFECT OF A DECLARATION OF COVENANTS AND ENVIRONMENTAL PROTECTION/CONSERVATION AND ACCESS EASEMENT, DATED \_\_\_\_\_, RECORDED IN THE RECORDS OF LAND EVIDENCE FOR THE TOWN OF NORTH PROVIDENCE [JOHNSTON], RHODE ISLAND ON \_\_\_\_\_, 20 \_\_\_\_, IN BOOK \_\_\_\_\_, PAGE \_\_\_\_\_, IN FAVOR OF AND ENFORCEABLE BY THE STATE OF RHODE ISLAND AND THE UNITED STATES OF AMERICA AND THEIR SUCCESSORS AND ASSIGNS.

The failure to include such a provision shall not affect the validity or applicability to the Property of this Declaration.

17. Copy of Notice. Within thirty (30) days of the date any such instrument of conveyance is executed, Grantor must provide Grantee and EPA with a certified true copy of

said instrument and, if it has been recorded in the public land records, its recording reference.

18. Administrative jurisdiction: The Rhode Island Department of Environmental Management is the state agency having administrative jurisdiction over the interests acquired by the State of Rhode Island through this Declaration. The Director of the Rhode Island Department of Environmental Management or his or her delegatee shall exercise the discretion and authority granted to the State herein. If the State of Rhode Island assigns its interest(s) created by this Declaration, unless it provides otherwise in any such assignment document, the discretion and authority referred to in this paragraph shall also be assigned, unless otherwise provided in the assignment document, and a document evidencing same shall be recorded with the Records of Land Evidence of the Town of North Providence, Rhode Island or the Town of Johnston, Rhode Island, as appropriate.

19. Enforcement: The Grantee shall be entitled to enforce the terms of this Declaration by resort to specific performance or legal process. All reasonable costs and expenses of the Grantee, including but not limited to attorneys' fees, incurred in any such enforcement action shall be borne by the Grantor or its successors in interest to the Property. All remedies available hereunder shall be in addition to any and all other remedies at law or in equity, including those provided under CERCLA. Enforcement of the terms of this Declaration shall be at the discretion of the Grantee, and any forbearance, delay or omission to exercise its rights under this Declaration in the event of a breach of any term of this Declaration shall not be deemed to be a waiver by the Grantee of such term or of any subsequent breach of the same or any other term, or of any of the rights of the Grantee under this Declaration. EPA is a third-party beneficiary to this Declaration and is entitled to all the rights and privileges accorded to third-party beneficiaries under Rhode Island law, including enforcement rights.

20. Damages: Grantee shall be entitled to recover damages for violations of the terms of this Declaration, or for any injury to the remedial action, to the public or to the environment protected by this Declaration.

21. Waiver of certain defenses: Grantor hereby waives any defense of laches, estoppel, or prescription against the United States or the State of Rhode Island in any action taken to enforce the terms of this Declaration. In accordance with the Rhode Island General Laws, Title 34, Chapter 39, entitled, "Conservation and Preservation Restrictions on Real Property," no provision of this Declaration shall be unenforceable on account of (i) lack of privity of estate or contract; (ii) lack of benefit to particular land; (iii) the benefit being assignable or being assigned to any governmental body or to any entity with like purposes; or (iv) any other doctrine of property law which might cause the termination of the provision.

22. Covenants: Grantor, for itself and for its heirs, successors, successors in title, assigns, executors, and administrators, hereby covenants to and with the Grantee and its assigns that the Grantor is lawfully seized in fee simple of the Property, that the Grantor has a good and lawful right and power to grant and convey the above easement, covenants, and land use restrictions, that the Property is free and clear of encumbrances, except those noted on **Exhibit B** attached hereto, that the Grantee and its assigns shall at all times hereafter peacefully and quietly have and enjoy the granted interest in the Property, and that the Grantor and its heirs, successors, successors in title, assigns, executors, and administrators shall warrant and defend the premises to the Grantee and its assigns forever against the lawful claims and demands of all

persons.

23. Notices: Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by first-class mail, postage prepaid, addressed as follows:

To Grantor:

To Grantee:

Louis R. Maccarone II, Project Coordinator  
Rhode Island Department of Environmental Management  
Division of Site Remediation  
235 Promenade Street  
Providence, RI 02908

To EPA:

Anna Krasko, Remedial Project Manager  
Centredale Manor Restoration Project Superfund Site  
U.S. Environmental Protection Agency  
5 Post Office Square, Suite 1100  
Boston, MA 02109-3912

To Respondents named in the Order:

Emhart Industries, Inc.  
Black & Decker, Inc.  
[supply address]

24. General provisions:

a. Governing law: The interpretation and performance of this Declaration shall be governed by the laws of the United States or, if there is no applicable federal law, by the law of Rhode Island.

b. Definitions: Any provision or term not otherwise defined in this Declaration shall have the meaning set forth in the Order and the appendices to the Order.

c. Liberal construction: Any general rule of construction to the contrary notwithstanding, this Declaration shall be liberally construed in favor of the grant to effect the purpose of this Declaration and the policy and purpose of CERCLA. If any provision of this Declaration is found to be ambiguous, an interpretation consistent with the purpose of this Declaration that would render the provision valid shall be favored

over any interpretation that would render it invalid.

d. Limitations: Nothing in this Declaration shall be construed to transfer liability for environmental conditions on the Property to the Grantee or EPA. Respondents are not the United States' or the State's representatives with respect to liability associated with Site activities.

e. Severability: If any provision of this Declaration, or the application of it to any person or circumstance, is found to be invalid, the remainder of the provisions of this Declaration, or the application of such provisions to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.

f. Entire Agreement: This Declaration sets forth the entire agreement of the parties with respect to rights and restrictions created hereby, and supersedes all prior discussions, negotiations, understandings, or agreements relating thereto, all of which are merged herein.

g. No Forfeiture: Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

h. Joint Obligation: If there are two or more parties identified as Grantor herein, the obligations imposed by this Declaration upon them shall be joint and several.

i. Successors: The covenants, terms, conditions, and restrictions of this Declaration shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, successors in title, and assigns and shall continue as a servitude running in perpetuity with the Property. The term "Grantor," wherever used herein, and any pronouns used in place thereof, shall include the person and/or entity named at the beginning of this document and identified as "Grantor" and its personal representatives, heirs, successors, and assigns. The term "Grantee," wherever used herein, and any pronouns used in place thereof, shall include the State of Rhode Island and its personal representatives and assigns. The rights of the Grantee and Grantor under this Declaration are freely assignable, subject to the notice provisions hereof. Any transferee of the fee title to the Property or of any leasehold interest in the Property shall automatically be deemed, by acceptance of such interest, to have acquired such title or interest subject to the restrictions contained or referred to in this Declaration and to have agreed to execute any and all instruments reasonably necessary to carry out the provisions of this Declaration. Consistent with Title 34, Chapter 39-3(c) of the General Laws of Rhode Island, the rights and obligations under this Declaration shall not be subject to a 30-year limitation on restrictive covenants.

j. Termination of Rights and Obligations: A party's rights and obligations under this Declaration terminate upon transfer of the party's interest in the Easement or Property, except that (i) liability for acts or omissions occurring prior to the transfer shall survive the transfer; (ii) the transfer shall in no way alter the obligations under the Order of the Respondents to the Order; and (iii) the

transfer shall not affect the Grantee's rights under this Easement.

k. Captions: The captions in this Declaration have been inserted solely for convenience of reference and are not a part of this Declaration and shall have no effect upon construction or interpretation.

l. Counterparts: The parties may execute this Declaration in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

TO HAVE AND TO HOLD unto the Grantee and Grantee's personal representatives and assigns forever.

IN WITNESS WHEREOF, Grantor has caused this Declaration to be executed by its duly authorized representative this \_\_ day of \_\_\_\_\_, 20\_\_.

WITNESS: [Name of Grantor]

By: \_\_\_\_\_

Its: \_\_\_\_\_

STATE OF RHODE ISLAND) ss  
COUNTY OF PROVIDENCE)

On this \_\_\_\_ day of \_\_\_\_\_, 20\_\_, before me, the undersigned, a Notary Public in and for the State of Rhode Island, duly commissioned and sworn, personally appeared \_\_\_\_\_ of \_\_\_\_\_, known by me to be the party so executing the foregoing instrument, and acknowledged the said instrument to be his free act and deed in said capacity and the free act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that he is authorized to execute said instrument.

Witness my hand and official seal hereto affixed the day and year first above written.

\_\_\_\_\_  
Notary Public in and for the  
State of Rhode Island  
My Commission Expires: \_\_\_\_\_

IN WITNESS WHEREOF, Grantee hereby acknowledges its acceptance of the above-described property interest (e.g., use restrictions and environmental conservation/protection and access easement) by its duly authorized representative this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

WITNESS:

STATE OF RHODE ISLAND  
DEPARTMENT OF ENVIRONMENTAL  
MANAGEMENT

By: \_\_\_\_\_

Director

STATE OF RHODE ISLAND)                    ss  
COUNTY OF PROVIDENCE)

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, the undersigned, a Notary Public in and for the State of Rhode Island, duly commissioned and sworn, personally appeared \_\_\_\_\_, Director of Rhode Island Department of Environmental Management ("RIDEM"), known by me to be the party so executing the foregoing instrument for and on behalf of RIDEM, and acknowledged the said instrument to be her free act and deed in said capacity and the free act and deed of RIDEM, for the uses and purposes therein mentioned, and on oath stated that she is authorized to execute said instrument.

Witness my hand and official seal hereto affixed the day and year first above written.

\_\_\_\_\_

Notary Public in and for the  
State of Rhode Island  
My Commission Expires: \_\_\_\_\_



Approved this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by the Rhode Island State  
Properties Committee

APPROVED AS TO  
TERMS AND CONDITIONS:

\_\_\_\_\_  
Chairman, State Properties Committee

APPROVED AS TO FORM:

\_\_\_\_\_  
Attorney General

APPROVED AS TO SUBSTANCE:

\_\_\_\_\_  
Director of Administration

APPROVED:

\_\_\_\_\_  
Public Member, State Properties Committee

Attachments:

Exhibit A  
Exhibit B

legal description of the Property  
list of permitted title encumbrances