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**UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 1 - NEW ENGLAND**

IN THE MATTER OF:

Centredale Manor Restoration Project
Superfund Site

North Providence, Rhode Island

Emhart Industries, Inc.

Respondent

ADMINISTRATIVE SETTLEMENT
AGREEMENT AND ORDER ON
CONSENT FOR REMOVAL ACTION

U.S. EPA New England
CERCLA Docket No. 01-2009-0086

Proceeding Under Sections 104, 106(a), 107
and 122 of the Comprehensive
Environmental Response, Compensation,
and Liability Act, as amended, 42 U.S.C. §§
9604, 9606(a), 9607 and 9622

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I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Settlement Agreement and Order on Consent ("Settlement Agreement") is entered into voluntarily by the United States Environmental Protection Agency ("EPA") and Emhart Industries, Inc. ("Respondent"). This Settlement Agreement provides for the performance of a removal action by Respondent at or in connection with a portion of the property located at 2072 and 2074 Smith Street in North Providence, Rhode Island, as well as other locations to which contamination from that area has come to be located or from which that contamination came, known as the "Centredale Manor Restoration Project Superfund Site" or the "Site."

2. This Settlement Agreement is issued under the authority vested in the President of the United States by Sections 104, 106(a), 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622, as amended ("CERCLA").

3. EPA has notified the State of Rhode Island (the "State") of this action pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

4. EPA and Respondent recognize that this Settlement Agreement has been negotiated in good faith and that the actions undertaken by Respondent in accordance with this Settlement Agreement do not constitute an admission of any liability. Respondent does not admit, and retains the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this Settlement Agreement, the validity of the findings of fact, conclusions of law, and determinations in Sections IV and V of this Settlement Agreement, and denies any liability or violation of law. Respondent agrees to comply with and be bound by the terms of this Settlement Agreement and further agrees that it will not contest the basis or validity of this Settlement Agreement or its terms.

II. PARTIES BOUND

5. This Settlement Agreement applies to and is binding upon EPA and Respondent and its heirs, successors and assigns. Any change in ownership or corporate status of Respondent including, but not limited to, any transfer of assets or real or personal property shall not alter Respondent's responsibilities under this Settlement Agreement.

6. Respondent is jointly and severally liable for carrying out all activities required by this Settlement Agreement.

7. Respondent shall ensure that its contractors, subcontractors, and representatives receive a copy of this Settlement Agreement and comply with this Settlement Agreement. Respondent shall be responsible for any noncompliance with this Settlement Agreement.

III. DEFINITIONS

8. Unless otherwise expressly provided in this Settlement Agreement, terms used in this Settlement Agreement which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Settlement Agreement or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

a. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, *et seq.*

b. "Day" shall mean a calendar day. In computing any period of time under this Settlement Agreement, where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the close of business of the next working day.

c. "Effective Date" shall be the effective date of this Settlement Agreement as provided in Section XXIX.

d. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

e. "Interest" shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.

f. "National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

g. "Settlement Agreement" shall mean this Administrative Settlement Agreement and Order on Consent and all appendices attached hereto. In the event of conflict between this Settlement Agreement and any appendix, this Settlement Agreement shall control.

h. "Paragraph" shall mean a portion of this Settlement Agreement identified by an Arabic numeral.

i. "Parties" shall mean EPA and Respondent.

j. "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).

k. "Respondent" shall mean Emhart Industries, Inc.

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

m. "Section" shall mean a portion of this Settlement Agreement identified by a Roman numeral.

n. "Site" shall mean the Centredale Manor Restoration Project Superfund Site, which is comprised of 2072 and 2074 Smith Street in North Providence, Rhode Island (Plat 14, Lots 200 and 250, encompassing approximately 9.7 acres) as well as surface water, sediment and floodplain areas of the Woonasquatucket 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 from this area has come to be located.

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

p. "Statement of Work" or "SOW" shall mean the statement of work for implementation of the removal action, as set forth in Appendix A to this Settlement Agreement, and any modifications made thereto in accordance with this Settlement Agreement.

q. "United States" shall mean the United States of America including its departments, agencies and instrumentalities.

r. "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).

s. "Work" shall mean all activities Respondent is required to perform under this Settlement Agreement.

IV. EPA'S FINDINGS OF FACT

9. 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 9.7 acres), as well as surface water, sediment and floodplain areas of the Woonasquatucket 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 from this area has come to be located.

10. Prior to 1936, the properties were occupied by Centredale Worsted Mills, a woolens manufacturing plant. Atlantic Chemical Company, a chemical manufacturer, began operating on a portion of the Site in approximately 1940. Atlantic Chemical Company changed its name in 1953 to Metro-Atlantic, Inc., and operated until the late 1960s or early 1970s. In the late 1960s or early 1970s, Metro-Atlantic, Inc., changed its name to Crown-Metro, Inc. The chemical company ceased operating at the Site in the early 1970s. New England Container

Company operated a drum reconditioning facility on a portion of the Site from 1952 until the early 1970s. A major fire in the early 1970s destroyed most of the structures at the Site. In 1976, Brook Village Associates Limited Partnership purchased 2072 Smith Street, where the chemical company previously operated, and completed construction of an apartment building that provides affordable housing to the elderly. Centerdale Manor Associates purchased 2074 Smith Street in 1983 and built a similar building. Evidence suggests that the operations of the chemical companies and the drum reconditioning facility at the Site resulted in releases and threats of releases of hazardous substances at the Site.

11. Respondent is a successor to certain assets and liabilities of the chemical companies which operated at the Site.

12. Acting on a verbal approval of funding, EPA initiated a removal action (including sampling and placement of temporary fencing around contaminated surface soil) in January 1999. An Action Memorandum documenting this verbal approval, and authorizing additional activities, was issued on May 4, 1999.

13. On September 13, 1999, an Action Memorandum addendum was issued which changed the scope of the ongoing removal activities to include designing and implementing a Flood Evaluation Study of the Site and surrounding area; designing and implementing interim soil caps for specific areas of the Site; and reconstruction of the former tailrace at the eastern edge of the Site.

14. In 1999, EPA began conducting Remediation Investigation ("RI") activities at the Site.

15. On September 15, 1999, EPA mailed Notice of Potential Liability letters to three potentially responsible parties ("PRPs"): Brook Village Associates Limited Partnership; Centerdale Manor Associates Limited Partnership; and New England Container Company, Inc. On December 2, 1999, EPA issued a proposed Administrative Order on Consent ("AOC") for time-critical removal activities to Brook Village Associates Limited Partnership and Centerdale Manor Associates Limited Partnership. These negotiations were unsuccessful.

16. On February 3, 2000, EPA issued a letter to the three PRPs requesting that they voluntarily perform or finance an Engineering Evaluation/Cost Analysis ("EE/CA") for a portion of the Site. The parties declined to negotiate. The EE/CA was completed in September 2000.

17. On February 28, 2000, EPA mailed two additional Notice of Potential Liability letters to Respondent and Crown-Metro, Inc. Negotiations with these two PRPs, as well as the three PRPs previously named, to perform or fund the remaining time-critical removal activities at the Site were not successful.

18. The Site was placed on the National Priorities List ("NPL") on March 6, 2000.

19. On April 12, 2000, EPA issued a Unilateral Administrative Order ("UAO") to Respondent and four other PRPs at the Site, ordering the parties to complete time-critical removal activities at the Site including completion of the second interim soil cap and implementation of certain flood control measures. EPA approved the PRPs' Completion of Work Report on September 11, 2000.

20. On April 27, 2000, EPA issued a letter to Respondent and the four other PRPs requesting that they indicate their interest in completing the RI/FS at the Site, and reimbursing EPA for its past costs. These negotiations were unsuccessful and EPA continued to work on the RI/FS.

21. On June 1, 2000, a second Action Memorandum addendum was issued transitioning certain time-critical removal activities to non-time critical removal activities and noting that the second interim soil cap and certain flood control measures would be performed by PRPs at the Site pursuant to a UAO.

22. On January 18, 2001, EPA issued an Action Memorandum to remove contaminated soils and sediments from properties subject to residential and recreational use and to restore the Allendale Dam to minimize further migration of contaminated sediment in the River. On March 26, 2001, EPA issued a Second UAO to Respondent and the four other PRPs at the Site, ordering the parties to implement the Work in the Action Memorandum. The Allendale Dam restoration was completed in February, 2002. EPA approved the PRPs' Completion of Work Report on May 13, 2005.

23. In 2003, EPA mailed Notice of Potential Liability letters to eleven additional parties.

24. By letter dated May 5, 2003, EPA requested that all the PRPs participate in the Third Administrative Order on Consent for a Removal Action ("Third AOC") to complete time critical removal activities in the tailrace portion of the Site. Ten PRPs, including Respondent, signed the Third AOC which became effective on September 16, 2003. Pursuant to the Third AOC, Respondent and three other PRPs constructed a cap over contaminated soil and sediment, and installed storm drainage equipment intended to separate soil, sediment, debris and other materials at the outfall of a storm drain line. Six other PRPs contributed to the costs of the work. EPA issued a Notice of Completion for this work on June 27, 2006.

25. In October 2003, EPA issued a UAO to two PRPs that declined to sign the Third AOC. That UAO ordered both parties to participate and cooperate with the respondents to the Third AOC. Subsequently, both PRPs contributed to the costs of the removal action.

26. In May 2004, EPA issued two additional general notice letters.

27. In 2006, Respondent agreed to place fill around the storm drainage equipment installed pursuant to the Third AOC; armor the slopes; replace the manhole covers; and replace

the screen in the concrete pipe outfall. This work was completed by Respondent in the Fall of 2006.

28. In September, 2007, Respondent signed an Administrative Settlement Agreement and Order on Consent pursuant to which it agreed to perform certain studies and investigations to assist EPA in its analysis of the conditions that would potentially result from the removal of the Allendale and Lyman Mill Dams.

29. In 2007 and 2008, EPA issued a total of 9 additional Notices of Potential Liability.

30. Analysis of soils, sediments, wetlands and flood plain samples at the Site indicated elevated levels of hazardous substances, pollutants or contaminants, including 2,3,7,8-Tetrachlorodibenzo-*p*-Dioxin ("dioxin"), polychlorinated biphenyls ("PCBs" or "Aroclors"), polycyclic aromatic hydrocarbons ("PAHs"), including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene, metals (including antimony, arsenic, chromium, lead, and manganese), and several Volatile Organic Compounds ("VOCs") and Semi-Volatile Organic Compounds ("SVOCs").

31. Soil samples taken in the vicinity of monitoring well MW-5 located adjacent to the Brook Village parking lot have revealed dioxin concentrations up to 33 ppb in surficial and sub-surface soils. This removal action is a continuing response to reduce the potential for migration of contaminants.

32. The installation of an engineered cap near monitoring well MW-5 and excavation and off-site disposal of contaminated soils will mitigate potential migration of dioxin. Groundwater monitoring points will be installed to assess effectiveness of this removal action.

33. On July 16, 2009, the Director of EPA's Office of Site Remediation and Restoration, or his designee, signed an Action Memorandum approving EPA's proposed removal action ("Action Memorandum"). The Action Memorandum is attached as Appendix B. Respondent submitted a response to EPA's signed Action Memorandum for inclusion in the Administrative Record. This removal action is based on documents and data which will be available to the public in the Administrative Record for public review within 60 days of the inception of these proposed actions, as described in the National Contingency Plan (40 CFR 300.415(m)(i)).

V. EPA'S CONCLUSIONS OF LAW AND DETERMINATIONS

34. Based on the Findings of Fact set forth above, and the Administrative Record supporting this removal action, EPA has determined that:

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

b. The contamination found at the Site, as identified in the Findings of Fact above, includes "hazardous substances" as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

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

d. Respondent is a responsible party under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

e. The conditions described in Paragraphs 30 and 31 of the Findings of Fact above constitute an actual or threatened "release" of a hazardous substance from the facility as defined by Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

f. The removal action required by this Settlement Agreement is necessary to protect the public health, welfare, or the environment and, if carried out in compliance with the terms of this Settlement Agreement, will be consistent with the NCP, as provided in Section 300.700(c)(3)(ii) of the NCP.

VI. SETTLEMENT AGREEMENT AND ORDER

Whereas, EPA has identified a "groundwater action area" on the Site that it believes may present an imminent and substantial endangerment to public health, welfare, or the environment due to the presence of elevated levels of dioxin and other hazardous substances in subsurface soils;

Whereas, the removal action to be performed pursuant to this Settlement Agreement will involve the removal and off-site disposal of subsurface soils and the installation of a cap in the groundwater action area, all of which are intended to mitigate a potential release of contaminants into the environment; and

Whereas, the removal action to be performed pursuant to this Settlement Agreement is intended to be consistent with the efficient performance of long term remedial action, and EPA believes that, subject to post-implementation monitoring, the removal action will mitigate a potential risk to public health, welfare or the environment posed by this area of the Site; and

Based upon the foregoing Findings of Fact, Conclusions of Law, Determinations, and the Administrative Record for this Site, it is hereby Ordered and Agreed that Respondent shall comply with all provisions of this Settlement Agreement, including, but not limited to, all attachments to this Settlement Agreement and all documents incorporated by reference into this Settlement Agreement.

VII. DESIGNATION OF CONTRACTOR, PROJECT COORDINATOR, AND ON-SCENE COORDINATOR

35. Respondent shall retain one or more contractors to perform the Work and shall notify EPA of the name(s) and qualifications of such contractor(s) within seven (7) days of the Effective Date. Respondent shall also notify EPA of the name(s) and qualification(s) of any other contractor(s) or subcontractor(s) retained to perform the Work at least seven (7) days prior to commencement of such Work. EPA retains the right to disapprove of any or all of the contractors and/or subcontractors retained by Respondent. If EPA disapproves of a selected contractor, Respondent shall retain a different contractor and shall notify EPA of that contractor's name and qualifications within five (5) days of EPA's disapproval.

36. Within seven (7) days after the Effective Date, Respondent shall designate a Project Coordinator who shall be responsible for administration of all actions by Respondent required by this Settlement Agreement and shall submit to EPA the designated Project Coordinator's name, address, telephone number, and qualifications. To the greatest extent possible, the Project Coordinator shall be present on Site or readily available during Site work. EPA retains the right to disapprove of the designated Project Coordinator. If EPA disapproves of the designated Project Coordinator, Respondent shall retain a different Project Coordinator and shall notify EPA of that person's name, address, telephone number, and qualifications within five (5) days following EPA's disapproval. Receipt by Respondent's Project Coordinator of any notice or communication from EPA relating to this Settlement Agreement shall constitute receipt by Respondent.

37. EPA has designated Edward Bzenas of the Emergency Planning and Response Branch, Region 1, as its On-Scene Coordinator ("OSC"). Except as otherwise provided in this Settlement Agreement, Respondent shall direct all submissions required by this Settlement Agreement to the OSC at the U.S. Environmental Protection Agency, Region 1, One Congress Street, Suite 1100, Mail Code HBR, Boston, Massachusetts 02114-2023.

38. EPA and Respondent shall have the right, subject to Paragraph 36, to change their respective designated OSC or Project Coordinator. Respondent shall notify EPA five (5) days before such a change is made. The initial notification may be made orally, but shall be promptly followed by a written notice.

VIII. WORK TO BE PERFORMED

39. Respondent shall perform the actions necessary to implement the Statement of Work which is attached as Appendix A to this Settlement Agreement and generally includes: (1) focused excavation and off-site disposal of contaminated soil; (2) installation of steel sheeting to control surface water during the construction; (3) the backfilling and regrading of the excavation area; (4) installation of an engineered cap; (5) installation of groundwater monitoring points; and (6) one round of monitoring.

40. Work Plan and Implementation.

a. Within fourteen (14) days after the Effective Date, Respondent shall submit to EPA for approval a draft Work Plan for performing the removal action generally described in Paragraph 39 above. The draft Work Plan shall provide a description of, and an expeditious schedule for, the actions required by this Settlement Agreement.

b. EPA may approve, disapprove, require revisions to, or modify the draft Work Plan in whole or in part consistent with the attached Statement of Work within seven (7) days of receipt of the draft Work Plan or within seven (7) days of the Effective Date, whichever is later. If EPA requires revisions, Respondent shall submit a revised draft Work Plan within seven (7) days of receipt of EPA's notification of the required revisions. Respondent shall implement the Work Plan as approved in writing by EPA in accordance with the schedule approved by EPA. Once approved, or approved with modifications, the Work Plan, the schedule, and any subsequent modifications shall be incorporated into and become fully enforceable under this Settlement Agreement.

c. Respondent shall not commence any Work except in conformance with the terms of this Settlement Agreement. Respondent shall not commence implementation of the Work Plan developed hereunder until receiving written EPA approval pursuant to Paragraph 40(b).

41. Health and Safety Plan. Within seven (7) days after the Effective Date, Respondent shall submit for EPA review and comment a plan that ensures the protection of the public health and safety during performance of on-Site work under this Settlement Agreement. This plan shall be prepared in accordance with EPA's Standard Operating Safety Guide (PUB 9285.1-03, PB 92-963414, June 1992). In addition, the plan shall comply with all currently applicable Occupational Safety and Health Administration ("OSHA") regulations found at 29 C.F.R. Part 1910. If EPA determines that it is appropriate, the plan shall also include contingency planning. Respondent shall incorporate all changes to the plan recommended by EPA and shall implement the plan during the pendency of the removal action.

42. Quality Assurance and Sampling.

a. All sampling and analyses performed pursuant to this Settlement Agreement shall conform to EPA direction, approval, and guidance regarding sampling, quality assurance/quality control ("QA/QC"), data validation, and chain of custody procedures. Respondent shall ensure that the laboratory used to perform the analyses participates in a QA/QC program that complies with the appropriate EPA guidance. Respondent shall follow, as appropriate, "Quality Assurance/Quality Control Guidance for Removal Activities: Sampling QA/QC Plan and Data Validation Procedures" (OSWER Directive No. 9360.4-01, April 1, 1990), as guidance for QA/QC and sampling. Respondent shall only use laboratories that have a documented Quality System that complies with ANSI/ASQC E-4 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),” 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.

b. Upon request by EPA, Respondent shall have such a laboratory analyze samples submitted by EPA for QA monitoring. Respondent shall provide to EPA the QA/QC procedures followed by all sampling teams and laboratories performing data collection and/or analysis.

c. Upon request by EPA, Respondent shall allow EPA or its authorized representatives to take split and/or duplicate samples. Respondent shall notify EPA not less than ten (10) days in advance of any sample collection activity, unless shorter notice is agreed to by EPA. EPA shall have the right to take any additional samples that EPA deems necessary. Upon request, EPA shall allow Respondent to take split or duplicate samples of any samples it takes as part of its oversight of Respondent’s implementation of the Work.

43. Post-Removal Site Control. In accordance with the Work Plan schedule, or as otherwise directed by EPA, Respondent shall submit a proposal for post-removal site control consistent with Section 300.415(I) of the NCP and OSWER Directive No. 9360.2-02.

44. Reporting.

a. Respondent shall submit a written progress report to EPA concerning actions undertaken pursuant to this Settlement Agreement every thirtieth (30th) day after the date of receipt of EPA’s approval of the Work Plan until termination of this Settlement Agreement, unless otherwise directed in writing by the OSC. These reports shall describe all significant developments during the preceding period, including the actions performed and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

b. Respondent shall submit four (4) copies of all plans, reports or other submissions required by this Settlement Agreement, the Statement of Work, or any approved work plan. Upon request by EPA, Respondent shall submit such documents in electronic form.

45. Final Report. Within forty five (45) days after completion of all Work required by this Settlement Agreement, Respondent shall submit for EPA review and approval a final report summarizing the actions taken to comply with this Settlement Agreement. The final report shall conform, at a minimum, with the requirements set forth in Section 300.165 of the NCP entitled “OSC Reports.” The final report shall include a good faith estimate of total costs or a statement of actual costs incurred in complying with the Settlement Agreement, a listing of quantities and types of materials removed off-Site or handled on-Site, a discussion of removal and disposal options considered for those materials, a listing of the ultimate destination(s) of those materials, a presentation of the analytical results of all sampling and analyses performed, and accompanying

appendices containing all relevant documentation generated during the removal action (e.g., manifests, invoices, bills, contracts, and permits). The final report shall also include the following certification signed by a person who supervised or directed the preparation of that report:

“Under penalty of law, I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of the report, the information submitted is 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.”

46. Off-Site Shipments.

a. Respondent shall, prior to any off-Site shipment of Waste Material from the Site to an out-of-state waste management facility, provide written notification of such shipment of Waste Material to the appropriate state environmental official in the receiving facility's state and to the OSC. However, this notification requirement shall not apply to any off-Site shipments when the total volume of all such shipments will not exceed 10 cubic yards.

i. Respondent shall include in the written notification the following information: 1) the name and location of the facility to which the Waste Material is to be shipped; 2) the type and quantity of the Waste Material to be shipped; 3) the expected schedule for the shipment of the Waste Material; and 4) the method of transportation. Respondent shall notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship the Waste Material to another facility within the same state, or to a facility in another state.

ii. The identity of the receiving facility and state will be determined by Respondent following the award of the contract for the removal action. Respondent shall provide the information required by Paragraphs 46(a) and 46(b) as soon as practicable after the award of the contract and before the Waste Material is actually shipped.

b. Before shipping any hazardous substances, pollutants, or contaminants from the Site to an off-site location, Respondent shall obtain EPA's certification that the proposed receiving facility is operating in compliance with the requirements of CERCLA Section 121(d)(3), 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondent shall only send hazardous substances, pollutants, or contaminants from the Site to an off-site facility that complies with the requirements of the statutory provision and regulation cited in the preceding sentence.

IX. SITE ACCESS

47. If the Site, or any other property where access is needed to implement this Settlement Agreement, is owned or controlled by Respondent, Respondent shall, commencing on the Effective Date, provide EPA, the State, and their representatives, including contractors, with

access at all reasonable times to the Site, or such other property, for the purpose of conducting any activity related to this Settlement Agreement.

48. Where any action under this Settlement Agreement is to be performed in areas owned by or in possession of someone other than Respondent, Respondent shall use best efforts, consistent with the property owners' obligations pursuant to the Consent Decrees entered in *United States v. Brook Village Associates Limited Partnership and Centerdale Manor Associates*, C.A. No. 05-195 (D.R.I), to obtain all necessary access agreements within fourteen (14) days after the Effective Date, or as otherwise specified in writing by the OSC. Respondent shall immediately notify EPA if after using best efforts it is unable to obtain such agreements. Respondent shall describe in writing its efforts to obtain access. EPA may then assist Respondent in gaining access, to the extent necessary to effectuate the response actions described in this Settlement Agreement, using such means as EPA deems appropriate. EPA reserves the right to bring an action to recover any costs and attorney's fees incurred in obtaining such access, in accordance with Section XIX (Reservation of Rights By EPA).

49. Notwithstanding any provision of this Settlement Agreement, EPA and the State retain all of their access authorities and rights, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

X. ACCESS TO INFORMATION

50. Respondent shall provide to EPA and the State, upon request, copies of all non-privileged documents and information within its possession or control or that of its contractors or agents relating to the implementation of this Settlement Agreement, 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 related to the Work. Respondent shall also make available to EPA and the State, for purposes of investigation, information gathering, or testimony, its employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

51. Respondent may assert business confidentiality claims covering part or all of the documents or information submitted to EPA and the State under this Settlement Agreement 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). Documents or information 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 documents or information when they are submitted to EPA and the State, or if EPA has notified Respondent that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such documents or information without further notice to Respondent.

52. Respondent may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondent asserts such a privilege in lieu of providing documents, it shall provide EPA and the State with the following: 1) the title of the document, record, or information; 2) the date of the

document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a description of the contents of the document, record, or information; and 6) the privilege asserted by Respondent. However, no final documents, reports or other information created or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.

53. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Site.

XI. RECORD RETENTION

54. Until 10 years after Respondent's receipt of EPA's notification pursuant to Section XXVII (Notice of Completion of Work), Respondent shall preserve and retain all non-identical copies of records and documents (including records or documents in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work or the liability of any person under CERCLA with respect to the Site, regardless of any corporate retention policy to the contrary. Until 10 years after Respondent's receipt of EPA's notification pursuant to Section XXVII (Notice of Completion of Work), Respondent shall also instruct its contractors and agents to preserve all documents, records, and information of whatever kind, nature or description relating to performance of the Work.

55. At the conclusion of this document retention period, Respondent shall notify EPA and the State at least 90 days prior to the destruction of any such records or documents, and, upon request by EPA or the State, Respondent shall deliver any such records or documents to EPA or the State. Respondent may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondent asserts such a privilege, it shall provide EPA or the State with the following: 1) the title of the document, record, or information; 2) the date of the document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a description of the subject of the document, record, or information; and 6) the privilege asserted by Respondent. However, no final documents, reports or other information created or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.

56. Respondent hereby certifies that to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed or otherwise disposed of any records, documents or other information (other than identical copies) relating to its potential liability regarding the Site since notification of potential liability by EPA or the State or the filing of suit against it regarding the Site and that it has fully complied with any and all EPA requests for information pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927.

XII. COMPLIANCE WITH OTHER LAWS

57. Respondent shall perform all actions required pursuant to this Settlement Agreement in accordance with all applicable state and federal laws and regulations except as provided in Section 121(e) of CERCLA, 42 U.S.C. § 6921(e), and 40 C.F.R. §§ 300.400(e) and 300.415(j). In accordance with 40 C.F.R. § 300.415(j), all on-Site actions required pursuant to this Settlement Agreement shall, to the extent practicable, as determined by EPA, considering the exigencies of the situation, attain applicable or relevant and appropriate requirements ("ARARs") under federal environmental or state environmental or facility siting laws. Respondent shall identify ARARs in the Work Plan subject to EPA approval.

XIII. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES

58. In the event of any action or occurrence during performance of the Work which causes or threatens a release of a hazardous substance from the Site that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Respondent shall immediately take all appropriate action. Respondent shall take these actions in accordance with all applicable provisions of this Settlement Agreement, including, but not limited to, the Health and Safety Plan, in order to prevent, abate or minimize such release or endangerment caused or threatened by the release. Respondent shall also immediately notify the OSC or, in the event of his/her unavailability, the Regional Duty Officer, Emergency Planning and Response Branch, EPA Region 1, at (617) 723-8928, and the National Response Center at (800) 424-8802 of the incident or Site conditions. In the event that Respondent fails to take appropriate response action as required by this Paragraph, and EPA takes such action instead, EPA reserves the right to bring an action to recover such costs, in accordance with Section XIX (Reservation of Rights By EPA).

59. Respondent shall submit a written report to EPA within seven (7) days after any such release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in addition to, and not in lieu of, reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004, *et seq.*

XIV. AUTHORITY OF ON-SCENE COORDINATOR

60. The OSC shall be responsible for overseeing Respondent's implementation of this Settlement Agreement. The OSC shall have the authority vested in an OSC by the NCP, including the authority to halt, conduct, or direct any Work required by this Settlement Agreement, or to direct any other removal action undertaken at the Site. Absence of the OSC from the Site shall not be cause for stoppage of work unless specifically directed by the OSC.

XV. DISPUTE RESOLUTION

61. Unless otherwise expressly provided for in this Settlement Agreement, the dispute resolution procedures of this Section shall be the exclusive mechanism for resolving disputes arising under this Settlement Agreement. The Parties shall attempt to resolve any disagreements concerning this Settlement Agreement expeditiously and informally.

62. If Respondent objects to any EPA action taken pursuant to this Settlement Agreement, it shall notify EPA in writing of its objection within seven (7) days of such action, unless the objection has been resolved informally. EPA and Respondent shall have fourteen (14) days from EPA's receipt of Respondent's written objection to resolve the dispute through formal negotiations (the "Negotiation Period"). The Negotiation Period may be extended at the sole discretion of EPA.

63. Any agreement reached by the Parties pursuant to this Section shall be in writing and shall, upon signature by both parties, be incorporated into and become an enforceable part of this Settlement Agreement. If the Parties are unable to reach an agreement within the Negotiation Period, Respondent or EPA may, by providing notice in writing, request the employment of a neutral mediator to be selected in accordance with EPA guidance on the use of Alternative Dispute Resolution. Respondent and EPA shall, in the first instance, consider employing EPA's in-house mediator. Such mediation shall be non-binding and shall not last longer than 30 days from the date of selection of the mediator unless extended by written agreement of EPA and Respondent. If neither party requests mediation, or the dispute is not resolved at the end of the mediation period, an EPA management official at the branch chief level or higher will issue a written decision on the dispute to Respondent. The decision of EPA shall be incorporated into and become an enforceable element of this Settlement Agreement upon Respondent's receipt of the EPA decision regarding the dispute. Respondent's obligations under this Settlement Agreement shall not be tolled by submission of any objection for dispute resolution under this Section. Any agreement reached by the Parties pursuant to this Section shall not alter Respondent's obligation to perform or complete other tasks required by the Settlement Agreement which are not directly affected by the agreement reached pursuant to this Section.

64. Following resolution of the dispute, as provided by this Section, Respondent shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with EPA's decision, whichever occurs. No EPA decision made pursuant to Paragraph 63 shall constitute a final action giving rise to judicial review.

XVI. FORCE MAJEURE

65. Respondent agrees to perform all requirements of this Settlement Agreement within the time limits established under this Settlement Agreement, unless the performance is delayed by a *force majeure*. For purposes of this Settlement Agreement, a *force majeure* is defined as any event arising from causes beyond the control of Respondent, or of any entity controlled by Respondent, including but not limited to its contractors and subcontractors, which delays or prevents performance of any obligation under this Settlement Agreement despite Respondent's

best efforts to fulfill the obligation. *Force majeure* does not include financial inability to complete the Work or increased cost of performance.

66. If any event occurs or has occurred that may delay the performance of any obligation under this Settlement Agreement, whether or not caused by a *force majeure* event, Respondent shall notify EPA orally within seven (7) days of when Respondent first knew that the event would likely cause a delay. Within seven (7) days thereafter, Respondent shall provide to EPA in writing an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondent's rationale for attributing such delay to a *force majeure* event if it intends to assert such a claim; and a statement as to whether, in the opinion of Respondent, such event may cause or contribute to an endangerment to public health, welfare or the environment. Failure to comply with the above requirements shall preclude Respondent from asserting any claim of *force majeure* for that event for the period of time of such failure to comply and for any additional delay caused by such failure.

67. If EPA agrees that the delay or anticipated delay is attributable to a *force majeure* event, the time for performance of the obligations under this Settlement Agreement that are affected by the *force majeure* event will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the *force majeure* event shall not, of itself, extend the time for performance of any other obligation. If EPA does not agree that the delay or anticipated delay has been or will be caused by a *force majeure* event, EPA will notify Respondent in writing of its decision. If EPA agrees that the delay is attributable to a *force majeure* event, EPA will notify Respondent in writing of the length of the extension, if any, for performance of the obligations affected by the *force majeure* event.

XVII. STIPULATED PENALTIES

68. Respondent shall be liable to EPA for stipulated penalties in the amounts set forth in Paragraphs 69 and 70 for failure to comply with the requirements of this Settlement Agreement specified below, unless excused under Section XVI (*Force Majeure*). "Compliance" by Respondent shall include completion of the activities under this Settlement Agreement or any work plan or other plan approved under this Settlement Agreement identified below in accordance with all applicable requirements of law, this Settlement Agreement, the SOW, and any plans or other documents approved by EPA pursuant to this Settlement Agreement and within the specified time schedules established by and approved under this Settlement Agreement.

69. Stipulated Penalty Amounts - Work.

a. The following stipulated penalties shall accrue per violation per day for any noncompliance identified in Paragraph 69(b):

| <u>Penalty Per Violation Per Day</u> | <u>Period of Noncompliance</u> |
|--------------------------------------|--------------------------------|
| \$250 | 1st through 14th day |
| \$500 | 15th through 30th day |
| \$1,000 | 31st day and beyond |

b. Compliance Milestones: Deadlines for Commencing Work, and Completing Work, shall be specified in the Work Plan.

70. Stipulated Penalty Amounts - Reports. The following stipulated penalties shall accrue per violation per day for failure to submit timely or adequate reports or other written documents pursuant to Paragraphs 44, 45 and 46.

| <u>Penalty Per Violation Per Day</u> | <u>Period of Noncompliance</u> |
|--------------------------------------|--------------------------------|
| \$100 | 1st through 14th day |
| \$250 | 15th through 30th day |
| \$500 | 31st day and beyond |

71. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: 1) with respect to a deficient submission under Section VIII (Work to be Performed), during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies Respondent of any deficiency; and 2) with respect to an agreement reached or a final position issued pursuant to Section XV (Dispute Resolution), during the period, if any, beginning on the 21st day after the Negotiation Period begins until the date that an agreement is reached or a final position is issued regarding such dispute. Nothing in this Settlement Agreement shall prevent the simultaneous accrual of separate penalties for separate violations of this Settlement Agreement.

72. Following EPA's determination that Respondent has failed to comply with a requirement of this Settlement Agreement, EPA may give Respondent written notification of the failure and describe the noncompliance without unreasonable delay. EPA may send Respondent a written demand for payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether EPA has notified Respondent of a violation.

73. All penalties accruing under this Section shall be due and payable to EPA within 30 days of Respondent's receipt from EPA of a demand for payment of the penalties, unless Respondent invokes the dispute resolution procedures under Section XV (Dispute Resolution).

All payments to EPA under this Section shall be paid by certified or cashier's check(s) made payable to "EPA Hazardous Substances Superfund," shall be mailed to U.S. Environmental Protection Agency, Fines and Penalties, Cincinnati Finance Center, P.O. Box 979077, St. Louis, MO 63197-9000, shall indicate that the payment is for stipulated penalties, and shall reference the EPA Region and Site/Spill ID Number 016P, the EPA Docket Number 01-2009-0086, and the name and address of the party(ies) making payment. Copies of check(s) paid pursuant to this Section, and any accompanying transmittal letter(s), shall be sent to EPA as provided in Paragraph 37.

74. The payment of penalties shall not alter in any way Respondent's obligation to complete performance of the Work required under this Settlement Agreement.

75. Penalties shall continue to accrue during any dispute resolution period, but need not be paid until 15 days after the dispute is resolved by agreement or by receipt of EPA's decision.

76. If Respondent fails to pay stipulated penalties when due, EPA may institute proceedings to collect the penalties, as well as Interest. Respondent shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 72. Nothing in this Settlement Agreement shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of Respondent's violation of this Settlement Agreement or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Sections 106(b) and 122(l) of CERCLA, 42 U.S.C. §§ 9606(b) and 9622(l), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Provided, however, that EPA shall not seek civil penalties pursuant to Section 106(b) or 122(l) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided in this Section, except in the case of a willful violation of this Settlement Agreement or in the event that EPA assumes performance of a portion or all of the Work pursuant to Section XIX, Paragraph 80. Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Settlement Agreement.

XVIII. COVENANT NOT TO SUE BY EPA

77. In consideration of the actions that will be performed and the payments that will be made by Respondent under the terms of this Settlement Agreement, and except as otherwise specifically provided in this Settlement Agreement, EPA covenants not to sue or to take administrative action against Respondent pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work. This covenant not to sue shall take effect upon the Effective Date and is conditioned upon the complete and satisfactory performance by Respondent of all obligations under this Settlement Agreement. This covenant not to sue extends only to Respondent and does not extend to any other person.

XIX. RESERVATIONS OF RIGHTS BY EPA

78. Except as specifically provided in this Settlement Agreement, nothing in this Settlement Agreement shall limit the power and authority of EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing in this Settlement Agreement shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Settlement Agreement, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondent in the future to perform additional activities pursuant to CERCLA or any other applicable law.

79. The covenant not to sue set forth in Section XVIII above does not pertain to any matters other than those expressly identified therein. EPA reserves, and this Settlement Agreement is without prejudice to, all rights against Respondent with respect to all other matters, including, but not limited to:

- a. claims based on a failure by Respondent to meet a requirement of this Settlement Agreement;
- b. liability for costs incurred or to be incurred by EPA at the Site;
- c. liability for performance of response actions other than the Work;
- d. criminal liability;
- e. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
- f. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of the Site; and
- g. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry related to the Site.

80. Work Takeover. In the event EPA determines that Respondent has ceased implementation of any portion of the Work, is seriously or repeatedly deficient or late in its performance of the Work, or is implementing the Work in a manner which may cause an endangerment to human health or the environment, EPA may assume the performance of all or any portion of the Work as EPA determines necessary. Respondent may invoke the procedures set forth in Section XV (Dispute Resolution) to dispute EPA's determination that takeover of the Work is warranted under this Paragraph. EPA reserves the right to bring an action to recover any costs incurred by the United States in performing the Work pursuant to this Paragraph, in accordance with Section XIX (Reservation of Rights By EPA). Notwithstanding any other

provision of this Settlement Agreement, EPA retains all authority and reserves all rights to take any and all response actions authorized by law.

XX. COVENANT NOT TO SUE BY RESPONDENT

81. Respondent covenants not to sue and agrees not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to the Work or this Settlement Agreement, including, but not limited to:

a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund established by 26 U.S.C. § 9507, based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;

b. any claim arising out of response actions at or in connection with the Site, including any claim under the United States Constitution, the Rhode Island State Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law; or

c. any claim against the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, relating to the Work or this Settlement Agreement, except that Respondent specifically reserves any and all claims under Section 113(f)(3)(B) of CERCLA, 42 U.S.C. § 9613(f)(3)(B), against the United States Department of the Navy and the United States Department of the Air Force in connection with the Work or this Settlement Agreement.

82. Nothing in this Agreement shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

XXI. OTHER CLAIMS

83. By issuance of this Settlement Agreement, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondent. The United States or EPA shall not be deemed a party to any contract entered into by Respondent or its directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Settlement Agreement.

84. Except as expressly provided in Section XVIII (Covenant Not to Sue by EPA), nothing in this Settlement Agreement constitutes a satisfaction of or release from any claim or cause of action against Respondent or any person not a party to this Settlement Agreement, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States for costs, damages and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

85. No action or decision by EPA pursuant to this Settlement Agreement shall give rise to any right to judicial review, except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

XXII. CONTRIBUTION

86. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2), and that Respondent is entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), for "matters addressed" in this Settlement Agreement. The "matters addressed" in this Settlement Agreement are the Work.

87. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(3)(B) of CERCLA, 42 U.S.C. § 9613(f)(3)(B), pursuant to which Respondent has, as of the Effective Date, resolved its liability to the United States for the Work.

88. Nothing in this Settlement Agreement precludes the United States or Respondent from asserting any claims, causes of action, or demands for indemnification, contribution, or cost recovery against any persons not parties to this Settlement Agreement. Nothing in this Settlement Agreement diminishes the right of the United States, pursuant to Section 113(f)(2) and (3) of CERCLA, 42 U.S.C. § 9613(f)(2)-(3), to pursue any such persons to obtain additional response costs or response action and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2).

XXIII. INDEMNIFICATION

89. Respondent shall indemnify, save and hold harmless the United States, its officials, agents, contractors, subcontractors, employees and representatives from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of Respondent, its officers, directors, employees, agents, contractors, or subcontractors, in carrying out actions pursuant to this Settlement Agreement. In addition, Respondent agrees to pay the United States all costs incurred by the United States, including but not limited to attorneys fees and other expenses of litigation and settlement, arising from or on account of claims made against the United States based on negligent or other wrongful acts or omissions of Respondent, its officers, directors, employees, agents, contractors, subcontractors and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Settlement Agreement. The United States shall not be held out as a party to any contract entered into by or on behalf of Respondent in carrying out activities pursuant to this Settlement Agreement. Neither Respondent nor any such contractor shall be considered an agent of the United States.

90. The United States shall give Respondent notice of any claim for which the United States plans to seek indemnification pursuant to this Section and shall consult with Respondent prior to settling such claim.

91. Respondent waives all claims against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between Respondent and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays. In addition, Respondent shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between Respondent and any person for performance of Work pursuant to this Settlement Agreement, including, but not limited to, claims on account of construction delays.

XXIV. INSURANCE

92. At least seven (7) days prior to commencing any on-Site work under this Settlement Agreement, Respondent shall secure, and shall maintain for the duration of this Settlement Agreement, comprehensive general liability insurance and automobile insurance with limits of one million dollars, combined single limit, naming EPA as an additional insured. Within the same time period, Respondent shall provide EPA with certificates of such insurance and a copy of each insurance policy. Respondent shall submit such certificates and copies of policies each year on the anniversary of the Effective Date. In addition, for the duration of the Settlement Agreement, Respondent 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 Respondent in furtherance of this Settlement Agreement. If Respondent demonstrates by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then Respondent need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor.

XXV. FINANCIAL ASSURANCE

93. Within 90 days of the Effective Date, Respondents shall establish and maintain financial security for the benefit of EPA in the amount of \$1.5 million in one or more of the following forms, in order to secure the full and final completion of Work by Respondents:

- a. a surety bond unconditionally guaranteeing payment and/or performance of the Work;
- b. one or more irrevocable letters of credit, payable to or at the direction of EPA, issued by financial institution(s) acceptable in all respects to EPA;
- c. a trust fund administered by a trustee acceptable in all respects to EPA;
- d. a policy of insurance issued by an insurance carrier acceptable in all respects to EPA, which ensures the payment and/or performance of the Work;

e. a written guarantee to pay for or perform the Work provided by one or more parent companies of Respondent, or by one or more unrelated companies that have a substantial business relationship with Respondent; including a demonstration that any such guarantor company satisfies the financial test requirements of 40 C.F.R. Part 264.143(f); and/or

f. a demonstration of sufficient financial resources to pay for the Work made by Respondent, which shall consist of a demonstration that Respondent satisfies the requirements of 40 C.F.R. Part 264.143(f).

94. Any and all financial assurance instruments provided pursuant to this Section shall be in form and substance satisfactory to EPA, determined in EPA's sole discretion. In the event that EPA determines at any time that the financial assurances provided pursuant to this Section (including, without limitation, the instrument(s) evidencing such assurances) are inadequate, Respondent shall, within 30 days of receipt of notice of EPA's determination, obtain and present to EPA for approval one of the other forms of financial assurance listed in Paragraph 93, above. In addition, if at any time EPA notifies Respondent that the anticipated cost of completing the Work has increased, then, within 30 days of such notification, Respondent shall obtain and present to EPA for approval a revised form of financial assurance (otherwise acceptable under this Section) that reflects such cost increase. Respondent's inability to demonstrate financial ability to complete the Work shall in no way excuse performance of any activities required under this Settlement Agreement.

95. If Respondent seeks to ensure completion of the Work through a guarantee pursuant to Subparagraph 93(e) or 93(f) of this Settlement Agreement, Respondent shall (i) demonstrate to EPA's satisfaction that the guarantor satisfies the requirements of 40 C.F.R. Part 264.143(f); and (ii) resubmit sworn statements conveying the information required by 40 C.F.R. Part 264.143(f) annually, on the anniversary of the Effective Date or such other date as agreed by EPA, to EPA. For the purposes of this Settlement Agreement, wherever 40 C.F.R. Part 264.143(f) references "sum of current closure and post-closure costs estimates and the current plugging and abandonment costs estimates," the dollar amount to be used in the relevant financial test calculations shall be the current cost estimate of \$1.5 million for the Work at the Site plus any other RCRA, CERCLA, TSCA, or other federal environmental obligations financially assured by the relevant Respondent or guarantor to EPA by means of passing a financial test.

96. If, after the Effective Date, Respondent can show that the estimated cost to complete the remaining Work has diminished below the amount set forth in Paragraph 93 of this Section, Respondent may reduce the amount of the financial security provided under this Section to the estimated cost of the remaining Work to be performed. Respondent shall submit a proposal for such reduction to EPA, in accordance with the requirements of this Section, and may reduce the amount of the security after receiving written approval from EPA. In the event of a dispute, Respondent may seek dispute resolution pursuant to Section XV (Dispute Resolution). Respondent may reduce the amount of security in accordance with EPA's written decision resolving the dispute.

97. Respondent may change the form of financial assurance provided under this Section at any time, upon notice to and prior written approval by EPA, provided that EPA determines that the new form of assurance meets the requirements of this Section. In the event of a dispute, Respondent may change the form of the financial assurance only in accordance with the written decision resolving the dispute.

XXVI. MODIFICATIONS

98. The OSC may make modifications to any plan or schedule or Statement of Work in writing or by oral direction. Any oral modification will be memorialized in writing by EPA promptly, but shall have as its effective date the date of the OSC's oral direction. Any other requirements of this Settlement Agreement may be modified in writing by mutual agreement of the Parties.

99. If Respondent seeks permission to deviate from any approved work plan or schedule or Statement of Work, Respondent's Project Coordinator shall submit a written request to EPA for approval outlining the proposed modification and its basis. Respondent may not proceed with the requested deviation until receiving oral or written approval from the OSC pursuant to Paragraph 93.

100. No informal advice, guidance, suggestion, or comment by the OSC or other EPA representatives regarding reports, plans, specifications, schedules, or any other writing submitted by Respondent shall relieve Respondent of its obligation to obtain any formal approval required by this Settlement Agreement, or to comply with all requirements of this Settlement Agreement, unless it is formally modified.

XXVII. NOTICE OF COMPLETION OF WORK

101. When EPA determines, after EPA's review of the Final Report, that all Work has been fully performed in accordance with this Settlement Agreement, with the exception of any continuing obligations required by this Settlement Agreement, including post removal site controls, EPA will provide written notice to Respondent. If EPA determines that any such Work has not been completed in accordance with this Settlement Agreement, EPA will notify Respondent, provide a list of the deficiencies, and require that Respondent modify the Work Plan if appropriate in order to correct such deficiencies. Respondent shall implement the modified and approved Work Plan and shall submit a modified Final Report in accordance with the EPA notice. Failure by Respondent to implement the approved modified Work Plan shall be a violation of this Settlement Agreement.

XXVIII. INTEGRATION/APPENDICES

102. This Settlement Agreement and its appendices constitute the final, complete and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Settlement Agreement. The Parties acknowledge that there are no

representations, agreements or understandings relating to the settlement other than those expressly contained in this Settlement Agreement.

XXIX. EFFECTIVE DATE

103. This Settlement Agreement shall be effective five (5) days after the Settlement Agreement is signed by the Director, Office of Site Remediation and Restoration.

The undersigned representative of Respondent certifies that it is fully authorized to enter into the terms and conditions of this Settlement Agreement and to bind the parties it represent(s) to this document.

Agreed this 5th day of AUGUST, 2009.

For Respondent EMHART INDUSTRIES, INC.

By Ginda Ablajon

Title VICE PRESIDENT

It is so ORDERED and Agreed this 6th day of August, 2009.

BY: *James T. Owens, III*

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

EFFECTIVE DATE: August 11, 2009

APPENDIX A

STATEMENT OF WORK

This Statement of Work is provided for the Centredale Manor Restoration Project in North Providence, Rhode Island

Preface

EPA has determined that the Respondent has the ability to promptly and properly prevent, mitigate, or eliminate the threats posed by hazardous substances at the Site. Therefore, EPA has issued a Administrative Settlement Agreement and Order on Consent (Order) to the Respondent with this attached Statement of Work (SOW).

As described previously in the Order, EPA has undertaken Removal Actions at the Site to prevent exposure and control migration of dioxin contamination at the Site. This statement of work addresses the Removal Activities which are proposed in the Action Memorandum for the Centredale Manor Restoration Project, dated July 16, 2009.

The Order and SOW compel the Respondent to develop a **work plan** (plan) for implementing the specific actions described below. The components of this work plan (also called a "deliverable") must be submitted to EPA for approval before implementation. The work plan shall consist of/describe the components listed below:

GENERAL COMPONENTS

1. All actions taken by the Respondent shall not be inconsistent with the National Contingency Plan (NCP), found in Title 40, Part 300 of the Code of Federal Regulations (40 CFR 300)
2. The Respondent shall communicate freely with the On-Scene Coordinator (OSC) prior to and during development of plans and deliverables, and throughout the implementation of approved plans. At a minimum, **weekly** progress meetings will be scheduled throughout the implementation of the Order.
3. **Site Security** - The plan shall provide for on-site security during construction and thereafter. The effectiveness of signs, fences, and barriers will be evaluated during the construction phase to determine if they adequately restrict access. If not deemed to be sufficient by the OSC, additional fencing, the placement of security guards or other measures may be warranted. Site security shall be maintained until EPA determines that the threats posed by conditions at the Site are eliminated or substantially mitigated.
4. **Project schedule** - The plan will provide a detailed project schedule, including completion dates for interim activities. Out of respect for the residents, noisy equipment (such as dump trucks or bulldozers) will not be operated before 0800hrs. **Daily, weekly and project work schedules** will be provided to the OSC.

5. **Site-Specific Health and Safety Plan (HASP)** - The Respondent shall develop and implement a HASP for all activities to be conducted at the Site in accordance with the NCP §300.150, and OSHA 1910.50. The HASP shall be developed to protect all on-site personnel and the general public. Private employers are responsible for the health and safety of their own employees. Nothing contained in this SOW or the Order shall relieve the Respondent of this liability. The HASP shall be provided to EPA for review and approval within 7 days of the effective date of the Order.
6. **Traffic Management Plan** - The Respondent shall develop a traffic management plan to provide for safe and efficient movement of response related vehicles entering and exiting the site, as well as on site traffic control. The Traffic Management Plan shall be provided to EPA for review and approval within 7 days of the effective date of the Order.
7. **Quality Assurance Plan (QAP)** - The Respondent shall develop a QAP to be used in conducting all field and laboratory analysis. The QAP shall ensure that analytical results generated are of known quality. The QAP will be consistent with the Region 1, EPA- New England *Compendium of Quality Assurance Project Plan Guidance*. The QAP shall be provided to EPA for review and approval within 7 days of the effective date of the Order.
8. **Completion of Work Report (CWR)** - Upon completion of the tasks in this Order and SOW, the Respondent shall submit a CWR summarizing the work performed. At a minimum, the CWR will provide an estimate of the Respondent's costs incurred; identify all required activities and certify that each has been completed in accordance with the approved plans; include original photographs with written descriptions; include analytical results of any environmental samples collected during the period of performance, in both tables and on site maps; include 'as-built' drawings of any structures or features constructed; contain a chronology of onsite activities; identify subcontractors and their roles. The CWR shall be provided to EPA for review and approval within 45 days of the completion of the other tasks in this Order and SOW.

SPECIFIC ACTIONS

9. Install steel sheeting on the riverbank to control surface water
10. Perform limited excavation to the specified lines and grades, as negotiated in the Administrative Settlement and Order on Consent, sufficient to remove primary source dioxin contaminated soils
11. Conduct dewatering and water treatment as necessary
12. Provide off-site disposal of primary source dioxin contaminated soils
13. Backfill and re-grade the excavation to existing grades and slopes
14. Install an engineered impermeable cap compliant with RCRA regulations to control percolation of precipitation and prevent direct contact with any remaining contaminated soils

15. Install groundwater/pore water monitoring points near the ground water/ surface water interface
16. Conduct one round of ground water/pore water sample collection and analysis to evaluate the effectiveness of the engineered impermeable cap
17. Construct erosion control armoring on the riverbank
18. Repair any response related damages including landscaping, pavement and walkways
19. Obtain all necessary local, state or federal permits for construction, except as specifically exempted by the OSC
20. Confirm and attain applicable or relevant and appropriate requirements under federal environmental or state environmental laws to the extent practicable

21. **Other specific actions**

At any time prior to the completion of the work specified in this SOW, EPA may determine that additional tasks are necessary, consistent with this SOW, in order to achieve the objectives of the Order, the SOW and CERCLA.

APPENDIX B



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

CONTAINS ENFORCEMENT-SENSITIVE INFORMATION

MEMORANDUM

DATE: July 16, 2009

SUBJ: Request for a Removal Action at the Centredale Manor Restoration Site, North Providence, Bristol County, Rhode Island - **Action Memorandum**

FROM: Ted Bazenas, On-Scene Coordinator
Emergency Response and Removal Section II

THRU: Steven R. Novick, Chief
Emergency Response and Removal Section II

Arthur V. Johnson III, Chief
Emergency Planning & Response Branch

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

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval of the proposed removal action at the Centredale Manor Restoration Site (the Site or CMRP), which is located in North Providence, Bristol County, Rhode Island. Hazardous substances, present in soil, surface water, sediment and groundwater at the Site, if not addressed by implementing the response actions selected in this Action Memorandum, will continue to pose a threat to human health and the environment.. EPA has negotiated an Administrative Order on Consent for implementation of the actions described herein. In the event that the Potentially Responsible Party (the Respondent) does not perform the actions as directed in the Order, EPA is prepared to undertake the work on a fund-lead basis, pending availability of funding. There are no nationally significant or precedent-setting issues associated with this Site, and there has been no use of the OSC's \$200,000 warrant authority.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID# : RID981203755
SITE ID# : 016P
CATEGORY : Time-Critical

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A. Site Description

1. Removal site evaluation

There have been several previous investigations at the Site by EPA Removal Program and the Remedial Program and several removal actions documented in a series of Action Memorandums. Please refer to previous Action Memorandums of May, 1999; September, 1999; June, 2000; September, 2003; and June, 2005. (note: all references in this document to "previous Action Memorandums" include all of these documents.)

On January 31 and February 05, 2008 groundwater monitoring wells were installed at the site as part of the Remedial Investigation/Feasibility Study (RI/FS) for the EPA Remedial Program. Samples of the soil borings were analyzed and revealed elevated levels of dioxin in surface and subsurface soils. EPA has determined that dioxin is migrating to the adjacent Woonasquatucket River. Though dioxin is not soluble in water, migration may be facilitated by elevated levels of volatile organic compounds found in the same samples.

EPA has evaluated this data and other data found in the Interim Final Remedial Investigation, June 2005. A Preliminary Assessment (PA) was initiated by OSC Bzenas on March 26, 2009 and updated on June 26, 2009. The Site Investigation Closure Memorandum dated July 13, 2009 documents the determination that a Removal Action is appropriate at this Site.

2. Physical location

The Site encompasses the soil, surface water, sediment and flood plain of the Woonasquatucket River from the bridge at Route 44 in North Providence, downstream to the Lyman Mill Dam, including all contaminated areas within this area and any other locations where contamination from this area has come to be located; and the Brook Village and Centredale Manor Apartment properties which are located at 2072 and 2074 Smith Street in North Providence, Providence County, Rhode Island. The geographic coordinates for the Site are 41° 51' 29.5" north latitude and 71° 30' 28.5" west longitude.

Please refer to the previous Action Memorandums for additional information.

3. Site characteristics

The Centredale Manor Site encompasses the following:

- The Brook Village Apartment property (Brook Village), located at 2072 Smith Street, North Providence, Providence County, Rhode Island

- The Centredale Manor Apartment property (Centredale Manor), located at 2074 Smith Street, North Providence, Providence County, Rhode Island

- The flood plain of the adjacent Woonasquatucket River, as defined in the Federal Emergency Management Agency Flood Insurance Rate Map of the 100 year flood plain, from Route 44 southerly, up to and inclusive of the Allendale Dam and its associated structures, including the tailrace of the Allendale Dam, in North Providence, Providence County, Rhode Island.

Brook Village and Centredale Manor are zoned for residential occupancy and encompass a total of 9.7 acres of land. Centredale Manor was constructed in 1983. It is an eight-story apartment building for elderly and handicapped. There are two paved parking lots located to the north and west of the building.

Brook Village was constructed in 1977. It is an eleven-story apartment building for elderly and handicapped residents. A series of parking lots extend to the south of the building. The area around both buildings is landscaped with grass ground cover.

Both properties are privately owned and are currently active apartment buildings, providing subsidized housing for several hundred elderly residents.

The approximate area population is :

1,091 people within ¼ mile
3,334 people within ½ mile
13,516 people within 1 mile

Also within 1 mile of the site are two other elderly care facilities, three public schools, three private day schools, and six daycare facilities.

According to the EPA Region 1 Environmental Justice Mapping Tool, the Site is not in an environmental justice area.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

The compound 2,3,7,8-tetrachlorodibenzo-p-dioxin (dioxin or TCDD) is a hazardous substance as defined in Section 101(14) of CERCLA and is listed at 40 CFR 302.4. Analytical data from the samples collected at this area of the Site indicate dioxin concentrations up to 33ppb in surficial and sub-surface soils. The conceptual site model describes migration of dioxin facilitated by VOCs such as

tetrachloroethylene and trichloroethylene, via groundwater to the surface water of the Woonasquatucket River.

Dioxin has also been identified in samples collected from surface soils in wetlands and flood plain areas downstream of the Site. These areas will be addressed in the long term remedy for the Site. The past use of the Site as a chemical manufacturing company and a barrel reclamation facility is not inconsistent with the presence of dioxin. EPA has established that hexachlorophene was manufactured at the Site; dioxin is a well-documented byproduct of hexachlorophene production.

5. NPL status

The Site and associated impact areas were added to the National Priorities List on March 06, 2000.

B. Other Actions to Date

1. Previous actions

EPA and RIDEM have undertaken several previous actions at the Site including time-critical removals, non-time-critical removals and remedial actions to characterize the extent of contamination, remove contaminated soils from adjacent residential properties, construct earthen caps over contaminated areas, and reconstruct a dam on the Woonasquatucket River. Please refer to previous Action Memoranda and the Administrative Record for additional information.

2. Current actions

The EPA and the United States Army Corps of Engineers have been conducting a RI/FS for the Centredale Manor Restoration Project Superfund Site since 2000. Several studies have been performed to characterize the nature and extent of contamination in soil, groundwater, sediment, surface water and biota at the site. As warranted by the data collection and evaluation efforts, several areas warranting removal actions were identified. This removal action will address a source of loading and/or leaching of contaminants from the source area into the Woonasquatucket River.

EPA has released the Interim Final Remedial Investigation Report in June 2005, followed by Interim Final Baseline Human Health Risk and Ecological Risk Assessment Reports, and Interim Final Preliminary Remedial Goals Report in November 2005. A report on the FS is expected in the summer of 2009. The FS will evaluate a range of remedial alternatives to address remaining soil, sediment

and groundwater contamination at the site, including Allendale and Lyman Mill reaches of the Woonasquatucket River which pose an unacceptable risk to human health or the environment.

C. State and Local Authorities' Roles

1. State and local actions to date

EPA has held Dialogue Group meetings with interested stakeholders, including the Towns of North Providence and Johnston, the Woonasquatucket River Watershed Council, the Audubon Society, the Natural Resources Trustees, and the Potentially Responsible Parties (PRPs). These meetings provide a forum to exchange ideas, make the involvement process accessible and give stakeholders input into EPA's cleanup selection process.

Representatives from the Town of North Providence, Brook Village and Centredale Manor properties have been advised of this Removal Action and the property managers have discussed ways in which they can accommodate the displacement of residents' vehicles and assist in the dissemination of information to their residents.

Since the first Removal Actions in 1999 and subsequent designation of the Site to the National Priorities List, the State of Rhode Island has been a partner with EPA in making decisions related to investigations and cleanup actions at the Site.

2. Potential for continued State/local response

EPA and RI DEM will continue to coordinate site activities in regard to state regulations. RI DEM is coordinating wetlands issues with its state counterparts.

North Providence local government and elected officials have pledged the Town's assistance and cooperation in providing local information and personnel when appropriate. The Town will continue to provide access to meeting rooms, historical documents and other support services. EPA may seek other non-monetary contributions to support the Removal Action from the Town of North Providence

The Brook Village and Centredale Manor property managers have stated their willingness to continue to assist EPA in keeping their residents well informed throughout the Removal Action. Such assistance will include meeting notifications, access to meeting rooms, and helping to communicate the accommodations made for residents with displaced vehicles.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants; [§300.415(b)(2)(i)];

The primary contaminant, dioxin, is migrating from contaminated soils via groundwater to the Woonasquatucket River where humans, animals and the food chain may be negatively impacted. Unless addressed through these actions, sediments throughout the river floodplain will continue to accumulate dioxins

Actual or potential contamination of drinking water supplies or sensitive ecosystems [§300.415(b)(2)(ii)];

The Woonasquatucket River and its associated floodplain is a sensitive ecosystem that will continue to be negatively impacted by the migration of dioxins into sediments and the food chain.

High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate [§300.415(b)(2)(iv)];

The primary contaminant, dioxin, is migrating from contaminated soils largely at or near the surface via groundwater to the Woonasquatucket River where humans, animals and the food chain are negatively impacted.

The availability of other appropriate Federal or State response mechanisms to respond to the release [§300.415(b)(2)(vii)];

If the Respondent fails to complete these actions, there are no other available funds from the State of Rhode Island or other sources to address this ongoing release.

Contaminant specific information

Dioxin¹ has been identified at the Site at levels up to 140ppb in soils samples collected in 2000. Samples collected from the groundwater impact area in 2008 have identified dioxin in soil up to 33ppb.

¹ Agency for Toxic Substances and Disease Registry (ATSDR), U.S. Department of Health and Human Services, Public Health Service, *Toxicological Profile for Chlorinated Dibenzo-p-dioxins (CDDs)*, December, 1998

Dioxin occurs as a contaminant in the manufacturing process of certain chlorinated organic compounds, especially chlorinated phenols such as hexachlorophene, and herbicides such as 2,4,5-trichlorophenoxyacetic acid (2,4,5-T). Use of hexachlorophene and 2,4,5-T is currently restricted in this country. Currently, dioxins are primarily released to the environment during combustion of fossil fuels (coal, oil, and natural gas) and wood, and during the incineration processes (municipal and medical waste, and hazardous waste incineration). Uncontrolled burning of many materials that contain chlorine, such as plastics, wood treated with PCP, pesticide-treated wastes, other polychlorinated chemicals, and even bleached paper, can produce dioxins.

Dioxin has a tendency to persist in the environment. It can bind to soil particles and bioaccumulate in the food chain, especially in foods such as meats, dairy products, and fish. Dioxin can enter the human body through ingestion, inhalation, and dermal absorption. Human exposure to very high levels of dioxin causes a skin condition called chlor-acne and is suspected of causing immunological problems and liver impairment.

The EPA considers dioxin to be a probable human carcinogen. Dioxin has been shown to cause biochemical alterations; thyroid, reproductive and immune toxicity; and cancer in animals. It is suspected of causing cancer in humans.

Animal studies have shown that dioxin is highly toxic although there are a wide variety of responses among the various species tested. Adverse health effects in animals tested include reproductive and developmental toxicity, hepatotoxicity (liver), immunotoxicity, and carcinogenicity.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.²

²In accordance with OSWER Directive 9360.0-34, an endangerment determination is made based on relevant action levels, cleanup standards, risk management guidance, or other relevant information published and relied upon by the State of Rhode Island.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed action description

Impacts to the Woonasquatucket River and groundwater can be effectively reduced by excavation and disposal of contaminated soils in the area near the eastern bank of the river at the southern end of the Brook Village parking lot. The subsequent installation of an impermeable cap will prevent percolation of precipitation through underlying soils and further mitigate the migration of any residual contamination. The cap also provides a physical barrier that minimizes the possibility of direct exposure to residual levels of dioxin in soils. The excavation/cap area will be approximately ¼ acre in surface area and impact approximately 150 feet of the eastern bank of the Woonasquatucket River.

Specific removal activities will include the following:

- conduct a site walk with the cleanup contractor;
- install steel sheeting on the riverbank to control surface water
- perform limited excavation to the specified lines and grades as negotiated in the Administrative Order and described in the Work Plan, pending EPA approval, sufficient to remove primary source dioxin contaminated soils
- conduct dewatering and water treatment as necessary
- provide off-site disposal of primary dioxin contaminated source soils
- backfill and re-grade excavations to existing grades and slopes
- install an engineered impermeable cap to control percolation of precipitation and prevent direct contact with any remaining contaminated soils
- install groundwater/pore water monitoring points near the groundwater/surface water interface
- conduct at least one round of ground water/ pore water sample collection and analysis to evaluate the effectiveness of the engineered impermeable cap
- construct erosion control armoring on the river bank
- repair any response-related damages, including landscaping, pavement and walkways

The Respondent has a proposal and schedule for these specific actions that include a work plan, a safety plan, a traffic management plan, and other plans as needed. The EPA OSC will review all aspects of the proposal and provide comments before approval.

2. Community relations

EPA and the RIDEM have committed to a series of meetings, letters and press releases to ensure that the residents of the two elderly housing complexes and all of North Providence are kept informed and up to date on activities at the Site.

3. Contribution to remedial performance

The cleanup actions proposed in this Action Memorandum will mitigate the remaining primary source of dioxin migration to the Woonasquatucket River. The FS will consider several alternative remedies for addressing contaminated sediments, none of which can be implemented until the migration of dioxin into the river and sediments has been mitigated to minimize re-contamination. The actions have been developed in concert with the EPA Remedial Program to be consistent with long term remedies and will not impede any future response actions.

3. Description of alternative technologies

Alternative technologies have been employed in investigation of the extent of contamination and migration of organic contaminants in groundwater.³

5. Applicable or relevant and appropriate requirements (ARARs)

Federal ARARs:

40 CFR Part 262 Standards Applicable to Generators of Hazardous Waste:

Subpart B - The Manifest

- 262.20 : General requirements for manifesting
- 262.21 : Acquisition of manifests
- 262.22 : Number of copies of manifests
- 262.23 : Use of the manifest

Subpart C - Pre-Transport Requirements

- 262.30 : Packaging
- 262.31 : Labeling
- 262.32 : Marking

Subpart D - Recordkeeping and Reporting

- 262.40 : Recordkeeping

40 CFR Part 264 Hazardous Waste Regulations - RCRA Subtitle C:

- 268-270 : Hazardous and Solid Waste Amendments Land Disposal Restrictions Rule

40 CFR Part 300.440 Procedures for Planning and Implementing Off-Site Response Actions (Off-Site Rule)

³ United States Geologic Survey, September, 1999. *Distribution of Selected Volatile Organic Compounds Determined with Water-to-Vapor Diffusion Samplers at the Interface Between Groundwater and Surface Water, Centredale Manor Site, North Providence, Rhode Island.*

State ARARs:

The OSC will coordinate with State officials to identify additional State ARARs, if any. In accordance with the National Contingency Plan and EPA Guidance Documents, the OSC will determine the applicability and practicability of complying with each ARAR which is identified in a timely manner.

6. Project schedule

Mobilization to the Site is expected to occur in August, 2009. Field excavation and construction activities are expected to be completed within three months. Site restoration and documentation may require several additional months. All activities are to be completed within one year from mobilization.

B. Estimated Costs

The OSC's independent estimate for the costs associated with this action are summarized below and provided in the event that EPA must initiate or complete the removal action in lieu of the Respondent. This action memo addendum does not obligate funds from the removal budget. Actual funding will be dependent on funds available at the time of the request and other factors.

| COST CATEGORY | | CEILING |
|---|-----|-----------------------|
| REGIONAL REMOVAL ACTION COSTS | | |
| ERRS Contractor | | \$1,500,000.00 |
| Interagency Agreement | | \$ 0.00 |
| OTHER EXTRAMURAL COSTS NOT FUNDED FROM THE REGIONAL ALLOCATION | | |
| START Contractor | | \$60,000.00 |
| Extramural Subtotal | | \$1,560,000.00 |
| Extramural Contingency | 10% | \$156,000.00 |
| TOTAL, REMOVAL ACTION CEILING | | \$1,716,000.00 |

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Dioxin contamination will continue to migrate to the Woonasquatucket River, perpetuating contamination of the sediments and floodplains. Unacceptable risks to human health from contact with these media will remain unaddressed.

VII. OUTSTANDING POLICY ISSUES

Until the agency's reassessment of the toxicity of dioxin is complete, EPA/ OSWER Directive 9200.4-26, Memorandum - Approach for Addressing Dioxin in Soil at CERCLA and RCRA Sites, April 13, 1998 provides guidance for setting starting points for remediation goals at dioxin sites. The proposed actions are consistent with the guidance document. OSWER concurrence for this Nationally Significant Removal Action was signed on May 05, 1999.

There are no other precedent-setting policy issues associated with this site.

VIII. ENFORCEMENT ... For Internal Distribution Only

See attached Enforcement Strategy.

The total EPA costs for this removal action based on full-time accounting practices that will be eligible for cost recovery are estimated to be \$1,716,000 (extramural costs) + \$ 80,000 (EPA intramural costs) = \$1,796,000 X 1.361 (regional indirect rate) = \$2,444,356⁴.

IX. RECOMMENDATION

This decision document represents the selected removal action for the Centredale Manor Restoration Project Site in North Providence, Rhode Island, developed in accordance with CERCLA, as amended, and is not inconsistent with the National Contingency Plan. The basis for this decision will be documented in the administrative record to be established for the Site.

Conditions at the Site meet the NCP Section 300.415 (b) (2) criteria for a removal action due to the following:

Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants [§300.415(b)(2)(i)];

Actual or potential contamination of drinking water supplies or sensitive ecosystems [§300.415(b)(2)(ii)];

⁴Direct Costs include direct extramural costs \$1,716,000 and direct intramural costs \$80,000. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site specific costs [36.1% x \$ 1,796,000] consistent with the full accounting methodology effective October 2, 2000. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States' right to cost recovery.

High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate [§300.415(b)(2)(iv)];

The availability of other appropriate Federal or State response mechanisms to respond to the release [§300.415(b)(2)(vii)];

Other situations or factors that may pose threats to public health or welfare of the United States or the environment [§300.415(b)(2)(viii)].

I recommend that you approve the proposed removal action. The total removal action project ceiling if approved will be \$1,796,000.

APPROVAL: _____



DATE: _____

7-17-09

DISAPPROVAL: _____

DATE: _____