



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 NEW ENGLAND
 1 CONGRESS ST., SUITE 1100
 BOSTON, MA 02114-2023

MAR 26 2001

VIA FACSIMILE AND REGULAR MAIL

[SEE ATTACHED LIST OF ADDRESSEES]

Re: Centredale Manor Superfund Site, North Providence, Rhode Island ("Site")

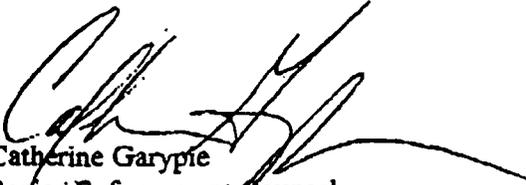
Counselors:

Please find enclosed a copy of a Unilateral Administrative Order ("UAO"), issued today by the United States Environmental Protection Agency New England ("EPA"). Please note that you may request a conference with EPA within the next three (3) business days. If a conference is requested, it must be held within the next seven (7) business days. The UAO becomes effective ten (10) business days from the date it is signed by EPA.

Additionally, to facilitate project coordination, EPA is transmitting under separate cover to Emhart a CD containing EPA's sampling data from the Site, as well as a CD containing GIS data. Finally, I am enclosing information pursuant to the Small Business Regulatory Enforcement Fairness Act for the benefit of Centerdale Manor Associates Limited Partnership, Crown-Metro, Inc., and New England Container Company, Inc.

If you have any questions regarding this matter, please contact me at 617/918-1540.

Sincerely yours,


 Catherine Garypie
 Senior Enforcement Counsel

Enclosure

Centerdale Manor
 10.7
 285413



SDMS DocID

285413

LIST OF ADDRESSEES**For Brook Village Associates Limited Partnership:**

Colburn T. Cherney
Ropes & Gray
One Franklin Square
1301 K Street, NW, Suite 800 East
Washington, D.C. 20005-3333
PH 202-626-3900
FAX 202-626-3961

Howard Castleman
Murtha Cullina Roche Carens & DeGiacomo
99 High Street
Boston, MA 02110
PH 617-457-4000
FAX 617-482-3868

For Centerdale Manor Associates Limited Partnership (C/S Housing Associates):

Leonard H. Freiman
Goulston & Storrs, A Professional Corporation
400 Atlantic Avenue
Boston, MA 02110-3333
PH 617-482-1776
FAX 617-574-4112

For Centerdale Manor Associates Limited Partnership (Centerdale Associates):

Richard J. Welch
Moses & Alfonso, Ltd.
170 Westminster Street, Suite 201
Providence, RI 02903
PH 401-453-3600
FAX 401-453-3604

For Embart Industries, Inc.

Jerome C. Muys, Jr.
Swidler Berlin Shereff Friedman LLP
3000 K Street, NW, Suite 300
Washington DC 20007-5116
PH 202-424-7547
FAX 202-424-7643

For Crown-Metro, Inc.
Knox L. Haynsworth, III
Brown, Massey, Evans, McLeod & Haynsworth, P.A.
P.O. Box 2464
Greenville, SC 29602
PH 864-271-7424
FAX 864-242-6469

For New England Container Company, Inc.:
Deming E. Sherman, Esq.
Edwards & Angell, LLP
2800 BankBoston Plaza
Providence, RI 02903-2499
PH 401-274-9200
FAX 401-276-6611

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND**

In the Matter of:)	
)	U.S. EPA New England
)	CERCLA Docket No.
Centredale Manor Restoration Project)	CERCLA-1-2001-0032
Superfund Site)	
Brook Village Associates Limited Partnership;)	
Centerdale Manor Associates Limited Partnership;)	
Crown Metro, Inc.; Emhart Industries, Inc., and;)	
New England Container Company, Inc.)	
)	
Respondents,)	SECOND ADMINISTRATIVE
)	ORDER FOR REMOVAL ACTION
Proceeding under Section 106(a) of the)	
Comprehensive Environmental Response,)	
Compensation and Liability Act, as)	
as amended, 42 U.S.C. § 9606(a))	

JURISDICTION

1. This Administrative Order ("Order") is issued pursuant to the authority vested in the President of the United States by section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended ("CERCLA"), 42 U.S.C. § 9606(a). This authority was delegated to the Administrator of the United States Environmental Protection Agency ("EPA") on January 23, 1987, by Executive Order 12580, 52 Fed. Reg. 2926 (January 29, 1987), and further delegated to the Regional Administrators by EPA Delegation Nos. 14-14-A (April 15, 1994) and 14-14-B (May 11, 1994) and further delegated to the Director of the Office of Site Remediation and Restoration by EPA New England Delegation Nos. 14-14-A (September 29, 1995) and 14-14-B (September 3, 1996).

STATE COORDINATION

2. Pursuant to section 106(a) of CERCLA, 42 U.S.C. § 9606(a), the State of Rhode Island has been notified in writing of the issuance of this Order.

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PURPOSE

3. The purpose of this Order is to compel the Respondents to perform removal activities at the Centredale Manor Restoration Project Superfund Site in North Providence, Rhode Island, as set forth in the Action Memorandum signed by the Director of the EPA New England Office of Site Remediation and Restoration on January 18, 2001, and the Scope of Work appended to this Order as Appendix A.

FINDINGS OF FACT

Site Description

4. The Centredale Manor Restoration Project Superfund Site ("Site") is located in North Providence, Rhode Island. It consists of two parcels, 2072 and 2074 Smith Street (or, Plat 14, Lots 200 and 250, encompassing approximately 9.7 acres) as well as sediments and floodplain areas of the Woonasquatucket River from Route 44 southerly to the breached Allendale Dam and further to an area just below the Lymansville Dam. The Site consists of all contaminated areas within this area as well as any other location to which contamination from that area has come to be located, or from which that contamination came.

5. The Brook Village Apartments are located at 2072 Smith Street, and consist of an eleven-story apartment building housing approximately 135 elderly residents. A series of three parking lots extend to the south of the building. The area around the building is landscaped with grass ground cover. The parcel is bordered to the north by Route 44, to the west by the Woonasquatucket River, to the east by a tailrace, and to the south by 2074 Smith Street. A road allowing 2074 Smith Street access to Route 44 is located on the eastern portion of the parcel.

6. The Centredale Manor Apartments are located at 2074 Smith Street, and consist of an eight-story apartment building housing approximately 200 elderly residents. There are two paved parking lots located to the north and west of the building. The area around the building is landscaped with grass ground cover. The building and parking lots are located on the northern end of the parcel. At the start of EPA's activities at the Site, the southern end of the parcel was heavily wooded. EPA activities at the Site, including the construction of an interim cap, have resulted in the removal of a number of trees in that portion of the Site. The southern end of the parcel is bordered by the Woonasquatucket River to the west and south and a tailrace to the east and south. The northern end of the parcel borders 2072 Smith Street to the north, the Woonasquatucket River to the west, and a tailrace to the east. The parcel accesses Route 44 via a road running along the western portion of 2072 Smith Street.

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7. Pursuant to section 105(8)(B) of CERCLA, 42 U.S.C. § 9605(8)(B), the Site is listed on the National Priorities List, 40 C.F.R. Part 300, Appendix B.

Respondents

8. Respondent Brook Village Associates Limited Partnership is a Massachusetts limited partnership with its principal place of business at Six Fanueil Hall Marketplace, Boston, Massachusetts.

9. Respondent Centredale Manor Associates Limited Partnership, is a Rhode Island limited partnership with its principal place of business at 75 Newman Avenue, Rumford, Rhode Island.

10. Respondent Crown-Metro, Inc., is a South Carolina corporation with its principal place of business in Greenville, South Carolina.

11. Respondent Emhart Industries, Inc., is a Connecticut corporation with its principal place of business in Towson, Maryland.

12. Respondent New England Container Corporation is a Rhode Island corporation with its principal place of business in Smithfield, Rhode Island.

13. By letter dated September 15, 1999, EPA notified three Respondents of their status as a potentially responsible party at the Site and afforded them the opportunity to perform or finance necessary removal activities: Brook Village Associates Limited Partnership; Centredale Manor Associates Limited Partnership; and New England Container Company, Inc. By letter dated February 28, 2000, EPA notified two additional Respondents of their status as a potentially responsible party at the Site and afforded them the opportunity to perform or finance necessary removal activities: Emhart Industries, Inc., and Crown-Metro, Inc.

Site History

14. 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 in the early 1970s. New England Container Company operated a drum reconditioning facility on a portion of the Site from 1952 until approximately 1969. A major fire in the early 1970s destroyed most of the structures at the Site. Evidence

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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.

15. Centerdale Manor Associates Limited Partnership is a current owner of a portion of the Site, through its purchase of 2074 Smith Street on March 18, 1982. Brook Village Associates Limited Partnership is a current owner of a portion of the Site, through its purchase of 2072 Smith Street on October 19, 1976. New England Container Company, Inc., formerly operated at the Site. Crown Metro, Inc., and Emhart Industries, Inc., are successors of certain assets and liabilities of the chemical companies which operated at the Site.

16. From approximately 1970 to approximately 1986 the Rhode Island Department of Environmental Management ("RIDEM") was involved in the inspection of the Site as well as oversight of response actions taken by others at the Site. Hundreds of drums were observed by RIDEM representatives at the Site, some of which were visibly smoking. Some of these drums contained hazardous waste materials requiring disposal; other (empty) drums were crushed and disposed of as non-hazardous. RIDEM also directed that soil unearthed at the Site be disposed of at a solid waste landfill.

17. In November 1981, a Notice of Violation and Order was issued by RIDEM to the then-property owners (Joseph Buonanno and Edward Ricci) for violations of the State Hazardous Waste Management Act requiring the property owners to immediately identify all hazardous material on site, then dispose of all hazardous wastes off-site.

18. In August 1986, EPA's contractors conducted a Preliminary Assessment ("PA") of the Centredale Manor property. The PA recommended a Screening Site Inspection, which was completed in October 1990. Soil sample analysis detected several VOCs and SVOCs, pesticides, and two PCB congeners (Aroclors 1242 and 1254).

19. In 1996, as part of the EPA Providence Urban Initiative Program, fish and eel tissue samples from the Woonasquatucket watershed were analyzed. This led to a joint advisory from the Rhode Island Department of Health and EPA against eating fish and eels from the Woonasquatucket River, due to PCB, mercury, and dioxin contamination concerns.

20. In June 1998, EPA initiated an Expanded Site Inspection ("ESI") of the Centredale Manor property. The ESI assessed the extent of contamination in areas of potential human exposure, the potential for source areas to be located up-river from the Centredale Manor property, and the presence of dioxin/furan and hexachloroxanthene contamination on the Centredale Manor property.

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21. 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. The additional activities included: site clearing; sampling activities; the erection of permanent fencing, and community outreach.

22. EPA has conducted certain Remedial Investigation activities at the Site starting in August 1999. These activities include: the use of vapor-diffusion samplers to identify possible discharge areas for contaminated groundwater into the surface water bodies at the Site and the initiation of biota, sediment, surface water and soil sampling at the Site (including the floodplain area from Route 44 southerly to below the Lymansville Dam).

23. On September 13, 1999, an Action Memorandum was issued which changed the scope of the ongoing removal activities and authorized the expenditure of additional funds. The removal activities approved in the September Action Memorandum 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.

24. On September 15, 1999, EPA mailed Notice of Potential Liability letters to three PRPs: Brook Village Associates Limited Partnership; Centredale Manor Associates Limited Partnership; and New England Container Company, Inc.

25. On November 26, 1999, EPA issued a proposed Administrative Order on Consent ("AOC") for remedial investigation/feasibility study ("RI/FS") activities to Brook Village Associates Limited Partnership and Centredale Manor Associates Limited Partnership - the two parties who indicated a willingness to participate in Site activities after receiving General Notice letters. These negotiations were unsuccessful.

26. On December 2, 1999, EPA issued a proposed AOC for time-critical removal activities to Brook Village Associates Limited Partnership and Centredale Manor Associates Limited Partnership - the two parties who indicated a willingness to participate in Site activities after receiving General Notice letters. These negotiations were unsuccessful.

27. On February 3, 2000, EPA issued a letter to the three potentially responsible parties ("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.

28. On February 28, 2000, EPA mailed two additional Notice of Potential Liability letters to Emhart Industries, Inc., and Crown-Metro, Inc. Negotiations with these two PRPs as

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well as the three PRPs previously named, to perform or fund the remaining time-critical removal activities at the Site, were not successful.

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

30. On April 27, 2000, EPA issued a letter to all five PRPs requesting that they indicate their interest in completing the RI/FS at the Site and reimbursing EPA for its past costs at the Site. These negotiations were unsuccessful and EPA is continuing its work on the RI/FS.

31. On June 1, 2000, an Action Memorandum was issued which changed the scope of the ongoing removal activities, authorized the expenditure of additional funds, and granted a 12-month exemption for a continued removal action. The change in scope primarily concerns the transition of certain time-critical removal activities to non-time-critical removal activities. The Action Memorandum also notes that the second interim soil cap and certain flood control measures will be performed by PRPs at the Site pursuant to a UAO.

32. On January 18, 2001, EPA issued an Action Memorandum to mitigate the human health threats posed by dioxin and other hazardous substances released at the Site by removing contaminated soils and sediments from properties subject to residential and recreational use located in the floodplain of the Woonasquatucket River southerly from Route 44 to an area just below the Lymanville Dam and by restoring the Allendale Dam to minimize further migration of contaminated sediment in the River.

33. On February 13, 2001, EPA issued a proposed AOC for non-time-critical removal activities to the five PRPs at the Site. These negotiations were unsuccessful.

34. On February 28, 2001, EPA issued a proposed AOC for past costs to the five PRPs at the Site. The parties declined to negotiate.

Endangerment

35. The conditions present at the facility constitute an imminent and substantial endangerment to public health, welfare, or the environment. Factors that may be considered are set forth in Section 300.415(b)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan, as amended, 40 C.F.R. Part 300 ("NCP").

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"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)].

With regard to actual or potential exposure to nearby human populations, EPA has documented elevated levels of contaminants including dioxin and PCBs in numerous areas at the Site which could result in human exposure. First, elevated levels of dioxin have been found in surface soils and sediments at properties subject to residential and recreational use along the floodplain of the Woonasquatucket River.

Elevated levels of dioxin in surface soil include levels above 1 ppb. EPA has recommended that 1 ppb (TEQs, or toxicity equivalent) be used as a starting point for residential soil cleanup level for CERCLA non-time critical removal sites and as a preliminary remediation goal (PRG) for remedial sites (Approach for Addressing Dioxin on Soil at CERCLA and RCRA Sites, OSWER Directive 9200.4-26, April 13, 1998). Based on this guidance, 1 ppb of dioxins (as 2,3,7,8-TCDD) has been established as the PRG for the Site for situations involving residential exposure scenario. For the areas evaluated for the NTCRA, the criteria of 1 ppb is used for residential and recreational areas where cancer risk was estimated to exceed 1×10^{-4} and non-cancer risk was estimated to exceed 1.0.

The EE/CA evaluated exposure to floodplain sediments and soils for current and future residential and recreational receptors along the Woonasquatucket River between the Centredale Manor property and Lymanville Dam. Possible exposures of residents to site-related contaminants would be through play and yard work near their homes. Possible exposures of recreational users would be through activities such as walking, or exploring the edges of the ponds and river. Assumptions used in exposure assessment for each scenario are described in detail in the EE/CA. Dermal and accidental ingestion exposures were considered for both child and adult. Thirty-two different residential exposure areas and four recreational exposure areas were evaluated and carcinogenic and non-carcinogenic risk was calculated within each exposure area. The streamlined risk evaluation set a target cancer risk equal to or greater than one in ten thousand, or 1×10^{-4} , and a target noncancer risk hazard index (HI) equal or greater than 1 was used as an indicator of unacceptable risk.

Elevated levels of numerous hazardous substances have been found in surface soils at the residential-use areas and in areas used by recreational users of the River.

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EPA's time critical removal activities included placing fences and interim caps in the areas of surface soil contamination. However, the fences are clearly temporary measures and the caps are interim and will ultimately fail if no further action is taken where they are located. Contamination was found in Woonasquatucket River sediments between Route 44 and a point just below the Allendale Dam. The Woonasquatucket River becomes relatively shallow approximately 2,000 feet south of Route 44, in an area known as the Allendale Pond. Due to a 1991 breach of the Allendale Dam, the sediments in this portion of the river are readily accessible to neighborhood children who have been known to play in the area. Finally, data from the initial RI activities indicate that there are elevated levels of contaminants entering the Woonasquatucket River itself. The River is used by recreational boaters and wading fishermen. It is possible that these boaters and fishermen could come in contact with surface water contamination while in the Site area.

For additional information see EE/CA, Appendix B, Streamlined Human Health Risk Evaluation.

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

High levels of hazardous substances have been found in soils largely at or near the surface of the Site that will be the subject of this removal action. These soils are in areas subject to erosion by the Woonasquatucket River as well as periodic flooding. Erosion and flooding appear to have caused the contaminated soil to migrate, since elevated levels of hazardous substances have been found in Woonasquatucket River sediments located in the downstream portion of the Site, including below the Allendale Dam.

"Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;" [§300.415(b)(2)(v)].

The land portions of the Site that will be the subject of this removal action are located in the floodplain and have been frequently flooded during high river stage. These weather conditions have caused and will continue to cause the migration of contaminated soil at the Site (particularly from those areas which are not covered by an interim cap) into the Woonasquatucket River and the migration of contaminated sediments further downstream. Allendale Dam, the first flood control structure downstream from 2072 and 2074 Smith Street (approximately 3,100 feet), was breached in November of 1991 and its condition is continuing to

deteriorate. This is causing the release of contaminated sediment into downstream reaches of the river, particularly during flood events.

"The availability of other appropriate federal or state response mechanisms to respond to the release;" (§300.415(b)(2)(vii)).

There are no other known federal or state funds or response mechanisms available to finance this action.

36. The following table identifies the highest concentrations of some of the chemical compounds detected by EPA in soil samples collected at the Site:

CHEMICAL COMPOUND	HIGHEST CONCENTRATION (in parts per billion - ppb)
2,3,7,8 -Tetrachlorodibenzo- <i>p</i> -Dioxin	140
PCBs	1,300,000
1,2-dichlorobenzene	2,800,000
benzene	480,000
chlorobenzene	1,000,000
tetrachloroethene	1,7000,000
trichloroethene	2,400,000
cadmium	180,000
lead	3,160,000
manganese	6,420,000
aluminum	16,100,000
antimony	27,800
arsenic	49,300
cadmium	180,000
chromium	472,000
copper	934,000
mercury	7,400
silver	35,500
vanadium	72,500

37. The following table represents some of the dangers to human health associated with each of the hazardous substances found on-site, as well as the potential routes of human exposure to these wastes:

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HAZARDOUS SUBSTANCE	ROUTE(S) OF EXPOSURE	POTENTIAL HUMAN HEALTH EFFECTS
2,3,7,8 - Tetrachlorodi benzo- <i>p</i> -Dioxin	inhalation; skin absorption; ingestion; skin and/or eye contact	irritated eyes, skin, and mucous membranes; chloroacne; porphyria; gastrointestinal disturbances; possible reproductive problems; teratogenic effects The World Health Organization has classified dioxin as a human carcinogen
PCBs	inhalation; skin absorption	irritated eyes; chloroacne; liver damage; reproductive problems
1,2-dichloro-benzene	inhalation; skin absorption; ingestion; skin and/or eye contact	irritated eyes and nose; liver and kidney damage; skin blisters
benzene	inhalation; skin absorption; ingestion; skin and/or eye contact	irritated eyes, skin, nose and respiratory system; giddiness; headache, nausea, staggered gait; fatigue, anorexia, lassitude; dermatitis; bone marrow depression The U.S. Department of Health and Human Services has designated benzene as a known human carcinogen
chloro-benzene	inhalation; ingestion; skin and/or eye contact	irritated eyes, skin, nose; drowsiness, incoordination; central nervous system depression.
tetrachloro-ethene	inhalation; skin absorption; ingestion; skin and/or eye contact	irritated eyes, nose, throat; nausea; flushed face and neck; vertigo, dizziness, incoordination; headache, somnolence; skin erythema; liver damage
trichloro-ethene	inhalation; skin absorption; ingestion; skin and/or eye contact	irritates eyes and skin; headache, vertigo; visual disturbance; fatigue, giddiness, tremors, somnolence, nausea, vomiting; dermatitis; cardiac arrhythmia, paresthesia, liver injury
cadmium	inhalation; ingestion	pulmonary edema, dyspnea, cough, chest tightness, substernal pain; headache, chills, muscle aches; nausea, vomiting, diarrhea; anemia, emphysema, proteinuria, mild anemia

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lead	inhalation; ingestion; skin and/or eye contact	[NOTE: THESE SYMPTOMS ARE MORE PRONOUNCED IN CHILDREN] weakness, lassitude, insomnia; facial pallor; anorexia, weight loss; constipation, abdominal pain, colic, anemia; gingival lead line; tremors, paralysis of the wrist and ankles; encephalopathy; kidney disease, irritated eyes; hypotension.
manganese	inhalation; ingestion	Parkinson's; asthenia, insomnia, mental confusion, metal fume fever; dry throat, cough, chest tightness, dyspnea, rales, flu-like fever; lower back pain; vomiting; malaise; fatigue; kidney damage
aluminum	inhalation; skin and/or eye contact	irritated eyes, skin and respiratory system
antimony	inhalation; ingestion; skin and/or eye contact	irritated eyes, skin, nose, throat, mouth; cough; dizziness; headache; nausea, vomiting, diarrhea; stomach cramps; insomnia; anorexia; unable to smell properly
arsenic	inhalation; skin absorption; ingestion; skin and/or eye contact	ulceration of nasal septum, dermatitis, gastrointestinal disturbances, peripheral neuropathy, respiratory irritation, hyperpigmentation of skin The U.S. Department of Health and Human Services has designated arsenic as a known carcinogen.
cadmium	inhalation; ingestion	pulmonary edema, dyspnea, cough, chest tightness, substernal pain; headache; chills, muscle aches; nausea, vomiting, diarrhea; anoxemia, emphysema, proteinuria, mild anemia
chromium	inhalation; ingestion; skin and/or eye contact	irritated eyes and skin; lung fibrosis
copper	inhalation; ingestion; skin and/or eye contact	irritated eyes, nose, pharynx; nasal perforation; metallic taste; dermatitis
mercury	inhalation; skin absorption; ingestion; skin and/or eye contact	irritated eyes and skin; cough, chest pain, dyspnea, bronchial pneumonia; tremors, insomnia, irritability, indecision, headache, fatigue, weakness; stomatitis, salivation, gastrointestinal disturbance, anorexia, weight loss, proteinuria
silver	inhalation; ingestion; skin and/or eye contact	blue-gray eyes, nasal septum, throat and skin irritation, ulceration skin; gastrointestinal disturbance

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vanadium	inhalation; ingestion; skin and/or eye contact	irritated eyes, skin and throat; green tongue, metallic taste, eczema, cough; fine rales, wheezing, bronchitis, dyspnea
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38. A portion of the Site (the drainage swale and the Woonasquatucket River and its floodplain extending south from Route 44 to a point just below the Lymanville Dam) is adjacent to or includes a number of residential yards as well as church grounds used for picnics and other events. The non-time-critical removal action addresses areas down stream of the highrises.

39. The Agency for Toxic Substances and Disease Registry ("ATSDR") issued a Health Consultation on June 7, 1999. In that Health Consultation, ATSDR concluded that although current exposures are probably low, significant risks could exist for children or adults who have frequent contact with contaminated soils or sediment at the Site. ATSDR made several recommendations, including that public access be restricted to surface soils which exceed 1 part per billion (ppb) of dioxin. Additional risk information relating to the specific areas addressed by this response action is explained in paragraph 35, above, and the EE/CA supporting the January 18, 2001 Action Memorandum.

40. The excavation of floodplain sediments and soils described in the January 18, 2001 Action Memorandum will prevent possible exposures to contaminants for current and future residential and recreational receptors along the Woonasquatucket River between the Centredale Manor property and Lymanville Dam. As explained above, possible exposures of residents to site-related contaminants would be through play and yard work near their homes, while possible exposures of recreational users would be through activities such as walking, or exploring the edges of the ponds and river. Both the excavation and dam restoration activities will help prevent the migration of contaminants through erosion and flooding.

CONCLUSIONS OF LAW AND DETERMINATIONS

On the basis of the findings of fact, EPA makes the following Conclusions of Law and Determinations:

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

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

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43. Each Respondent is a liable party within the meaning of section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

44. Each substance listed in paragraph 36, above, is a "hazardous substance" as that term is defined in section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

45. The conditions described above in paragraph 35 constitute an actual or threatened "release" into the "environment" within the meaning of section 101(8), (22) of CERCLA, 42 U.S.C. § 9601(8), (22).

46. The actual or threatened releases of hazardous substances at or from the Site may pose "an imminent and substantial endangerment to the public health or welfare or the environment" within the meaning of section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

47. In order to protect public health and welfare and the environment, and prevent further release or threat of release of hazardous substances at or from the Site, a Removal Action is necessary and appropriate. The Removal Action will consist of implementation of the Scope of Work appended to this Order. The Removal Action is designed to prevent, minimize, and/or mitigate damage to the public health or welfare or the environment which may otherwise result from the release or threat of release of hazardous substances, and was developed in accordance with the criteria set forth at section 300.415 of the National Contingency Plan ("NCP"), 40 C.F.R. § 300.415.

48. The removal actions specified in this Order will be done promptly and properly by the Respondents, and will be consistent with the NCP, if performed in accordance with the terms of this Order and Scope of Work.

ORDER

49. Based upon EPA's jurisdiction, and the findings of fact and determinations set forth above, the Respondents are **ORDERED** to perform all work required under this Order. The Respondents shall comply with the following provisions and perform all actions required by the terms and conditions of this Order.

PARTIES BOUND

50. This Order shall apply to and be binding upon the Respondents and upon their receivers, trustees, successors, and assigns. No change in ownership or corporate status shall in any way alter the Respondents' responsibilities under this Order. Respondents are jointly and severally responsible for carrying out all activities required of them by this Order. The failure of

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one or more Respondent to comply with all or any part of this Order shall not in any way excuse or justify noncompliance by any other Respondent, including but not limited to the failure to perform all obligations of any defaulting Respondent.

DESIGNATION OF SUPERVISING CONTRACTOR AND PROJECT COORDINATOR

51. Within five (5) days after the effective date of this Order, the Respondents shall retain the services of a qualified and experienced Supervising Contractor for the purpose of performing the work required by this Order in accordance with the terms and conditions of the Scope of Work. Within the same five (5) day period, the Respondents shall notify EPA in writing of the name, address, and qualifications of the proposed supervising contractor and the name and telephone number of the supervising contractor's primary contact person. The Respondents shall also notify EPA of the identity and qualifications of any other contractor(s) or subcontractor(s) to be used at the Site at least seven (7) days in advance of their performing any work under this Order.

52. The supervising contractor shall be a qualified professional engineer with substantial expertise and experience in the cleanup of hazardous waste sites. EPA reserves the right to disapprove, based on professional qualifications, conflicts of interest, and/or deficiencies in previous similar work, any contractor or subcontractor or other person engaged directly or indirectly by the Respondents to conduct work activities under this Order. If EPA disapproves the selection of any proposed contractor, the Respondents shall notify EPA in writing of the name, address, and qualifications of another contractor within seven (7) days after receipt of the notice of disapproval.

53. The Respondents shall provide a copy of this Order to all contractors, subcontractors, laboratories, and consultants retained in connection with this Order within seven (7) days after the Order's effective date or of such retention, whichever is later. The Respondents shall ensure that all such contractors, subcontractors, laboratories and consultants will perform all work in conformity with CERCLA, the NCP, and the terms and conditions of this Order and Scope of Work.

54. Within five (5) days after the effective date of this Order, the Respondents shall designate a Project Coordinator who shall be responsible for administration of all of the Respondents' actions called for by this Order, and shall submit the designated coordinator's name, address, and telephone number to EPA. EPA will deem the project coordinator's receipt of any notice or communication from EPA relating to this Order as receipt by the Respondents.

Centredale Manor Restoration Project Superfund Site
Second Administrative Order for Removal Action
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COMMUNICATION AND COOPERATION AMONG THE RESPONDENTS

55. Within twenty-one (21) days after the effective date of this Order, the Respondents shall submit to EPA for approval a Communication and Coordination Plan (CCP) that specifies the requirements and procedures by which the Respondents will communicate and coordinate with one another in carrying out the requirements of this Order. The CCP shall include at a minimum the following:

A. Communication Strategy. The Respondents shall specify how the designated coordinator and the individual Respondents will communicate and disseminate information relative to this Order. The name, title, address and telephone number of the primary contact person for each Respondent shall be included in the communication strategy.

B. Coordination of Efforts. The Respondents shall describe with specificity how the technical, financial, and administrative requirements of this Order are to be coordinated and distributed among and performed by the Respondents. The CCP shall describe the obligations of each and every Respondent in full.

Each Respondent shall sign the CCP (by a duly authorized representative if the Respondent is other than a natural person) prior to its submission to EPA. Failure of any Respondent to sign the CCP will constitute a violation of this Order by that individual Respondent. The Respondents shall submit all proposed changes or amendments to the CCP to EPA for approval. The CCP as approved by EPA shall be incorporated into and enforceable under this Order.

EPA ON-SCENE COORDINATOR

56. The EPA On-Scene Coordinator ("OSC") will administer EPA's responsibilities and receive all written notices, reports, plans and other documents required by this Order. All submissions required by this Order shall be sent to EPA's OSC at the following address:

Anna Krasko, On-Scene Coordinator
U.S. Environmental Protection Agency New England
1 Congress Street, Suite 1100 (HBR)
Boston, MA 02114
(617) 918-1232
FAX (617) 918-1291

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57. EPA's OSC shall have the authority vested in her/him by the NCP, including but not limited to the authority to stop work being performed pursuant to this Order and the authority to modify the Scope of Work. Absence of the OSC from the Site shall not be cause for stoppage of work by the Respondents unless specifically directed by the OSC.

REMOVAL WORK TO BE PERFORMED; COMPLETION OF WORK

58. Respondents shall perform, at a minimum, the removal action described in the Statement of Work, which is included as Attachment A to this Order and generally includes: (1) excavation of impacted recreational and residential use soils and flood plain sediments; and (2) restoration of Allendale Dam.

Work Plan and Implementation

59. Within fourteen (14) days after the effective date of this Order, the Respondents shall submit to EPA for approval and the State for review and comment, a Design Schedule for performing the removal action set forth above. Within thirty (30) days after the effective date of this Order the Respondents shall submit to EPA for approval and the State for review and comment, a Design Work Plan. Within ninety (90) days after the effective date of this Order, Respondents shall submit to EPA for approval and the State for review and comment, a 100% Design, an Institutional Controls Plan, an Implementation Schedule, an Implementation Work Plan, and a Project Operations Plan.

60. Within ten (10) days of EPA approval of the 100% Design, Respondents shall conduct a preconstruction meeting and start construction. Within one hundred twenty (120) days of EPA approval of the 100% Design, Respondents shall submit to EPA for approval and the State for review and comment, a Post-Removal Site Control Plan. Within one hundred eighty (180) days of EPA approval of the 100% Design, Respondents shall substantially complete construction and implement all institutional controls.

61. Within fifteen (15) days of completing all work required under this Order, the Respondents shall schedule and conduct a Pre-Final Inspection, including the development of a "Punch List". Within forty five (45) days of completing all work required under this Order, the Respondents shall submit to EPA for approval and the State for review and comment, a Completion of Work Report.

62. Within fifteen (15) days after the Respondents conclude that the "Punch List" deficiencies have been corrected and the Performance Standards have been met, the Respondents shall schedule and conduct a Final Inspection

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63. Within ten (10) days of EPA approval of a Completion of Work Report, Respondents shall implement all Post-Removal Site Controls.

Site Management Plan

64. Before any field activities shall commence at the Site, Respondents shall obtain EPA approval of a Site Management Plan pursuant to Appendix E to this Order.

Sampling and Analysis Plan

65. Before any field activities shall commence at the Site, EPA Respondents shall obtain EPA approval of a Sampling and Analysis Plan pursuant to Appendix E to this Order.

Health and Safety Plan

66. Before any field activities shall commence at the Site, Respondents shall submit to EPA and the State for comment a Health and Safety Plan pursuant to Appendix E to this Order. The Health and Safety Plan shall be an enforceable part of this Order.

Community Relations Support Plan

67. Before any field activities shall commence at the Site, Respondents shall obtain EPA approval of a Community Relations Support Plan pursuant to Appendix E to this Order.

REPORTING

68. The Respondents shall submit a written progress report to EPA concerning activities undertaken pursuant to this Order by the tenth day of each calendar month until termination of this Order. These reports shall describe all significant developments during the preceding month, including the work performed and any problems encountered, and the developments anticipated during the next calendar month, including the work to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

69. Respondents shall submit a written progress report with a certification to EPA concerning actions undertaken pursuant to this Order every tenth (10th) day of each month, consistent with Appendix D.

70. Respondents or their representatives shall be listed as the generator(s) on all manifested shipments of hazardous waste generated during performance of the Work.

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71. With respect to any property owned or controlled by the Owner Respondents that is located within the Site, within 15 days after the entry of this Order, the Owner Respondents shall submit to EPA for review and approval a notice to be filed with the Recorder's Office or Registry of Deeds or other appropriate office, Providence County, State of Rhode Island, which shall provide notice to all successors-in-title that the property is part of the Site, that EPA selected a non-time-critical removal remedy for the Site on January 18, 2001, and that potentially responsible parties have been issued an Order requiring implementation of the response action. Such notice(s) shall identify the name and administrative action number of this case, and the date the Order became effective. The Owner Respondents shall record the notice(s) within 10 days of EPA's approval of the notice(s). The Owner Respondents shall provide EPA with a certified copy of the recorded notice(s) within 10 days of recording such notice(s).

72. At least 30 days prior to the conveyance of any interest in property located within the Site including, but not limited to, fee interests, leasehold interests, and mortgage interests, the Owner Respondent conveying the interest shall give the grantee written notice of (i) this Order, (ii) any instrument by which an interest in real property has been conveyed that confers a right of access to the Site (hereinafter referred to as "access easements") pursuant to this Section VII.3 ("Access to Property and Information") and Section VII.4 ("Institutional Controls"), and (iii) any instrument by which an interest in real property has been conveyed that confers a right to enforce restrictions on the use of such property (hereinafter referred to as "restrictive easements") pursuant to Section VII.4 ("Institutional Controls"). At least 30 days prior to such conveyance, the Owner Respondent conveying the interest shall also give written notice to EPA and the State of the proposed conveyance, including the name and address of the grantee, and the date on which notice of the Order, access easements, and/or restrictive easements was given to the grantee.

73. In the event of any such conveyance, the Owner Respondents' obligations under this Order, including, but not limited to, its obligation to provide or secure access and institutional controls, as well as to abide by such institutional controls, pursuant to this Section VII.3 ("Access to Property and Information") and Section VII.4 ("Institutional Controls") of this Order, shall continue to be met by the Owner Respondents. In no event shall the conveyance release or otherwise affect the liability of the Owner Respondents to comply with all provisions of this Order, absent the prior written consent of EPA. If EPA approves, the grantee may perform some or all of the work under this Order.

**SUBMISSIONS REQUIRING AGENCY APPROVAL:
RESPONDENTS' OBLIGATION TO PROCEED**

74. After review of any deliverable, plan, report or other item ("submission") which the Respondents are required to submit for approval pursuant to this Order and Scope of Work, EPA may: (i) approve the submission; (ii) conditionally approve the submission with required

modifications; (iii) disapprove the submission and notify the Respondents of deficiencies; or (iv) disapprove the submission and modify the deliverable, plan, report, or other item itself to cure any deficiencies. In the event EPA approves or conditionally approves the submission, or disapproves and modifies the submission itself, the Respondents shall perform all actions required by the submission, as approved, conditionally approved, or modified by EPA.

75. Upon receipt of a notice of disapproval with deficiencies ((iii) above), the Respondents shall correct the deficiencies and resubmit the submission within seven (7) days or such other time period specified in the notice of disapproval. Notwithstanding a notice of disapproval, the Respondents shall proceed to take any action required by any non-deficient portion of the submission. If EPA does not approve the submission as resubmitted, Respondents shall be in violation of the Order.

76. For each submission provided to EPA, the Respondents shall submit such copies as specified by the OSC. Any deliverable, plan, or report submitted to EPA pursuant to this Order shall be dated and shall include, in a prominent location in the document, the following disclaimer: "Disclaimer: This document has been prepared pursuant to a government administrative order (U.S. EPA New England CERCLA Docket No. CERCLA-1-2001-0032) and is subject to approval by the U.S. Environmental Protection Agency. The opinions, findings, and conclusions expressed are those of the authors and not those of the U.S. Environmental Protection Agency." In addition, any such deliverable, plan, or report which has not received final approval from EPA shall be marked "Draft" on each page.

INCORPORATION AND ENFORCEABILITY OF DOCUMENTS

77. The Scope of Work and all other appendices or attachments to this Order shall be deemed incorporated into, and made an enforceable part of, this Order. Upon approval by EPA pursuant to the procedures of paragraphs 74-76, all contracts, deliverables, plans, reports, specifications, schedules, or other items required by or developed under this Order shall be deemed incorporated into, and made an enforceable part of, this Order. In the event of conflict between this Order and any document attached to, incorporated into, or enforceable hereunder, the provisions of this Order shall control.

SITE ACCESS

78. All Respondents that own, occupy, or control property at the Site, or property other than the Site to which access is required in order to properly carry out the terms of this Order, shall grant access to the other Respondents, the other Respondents' authorized representatives, and EPA and its officers, employees, agents, contractors, consultants, and other

**Centredale Manor Restoration Project Superfund Site
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authorized representatives for purposes of implementing and monitoring work to be performed under this Order.

79. To the extent access to, use or ownership of, or easements over property other than property owned by Respondent at the Site is required for the proper and complete implementation of this Order, the Respondents shall use their best efforts to obtain site access agreements or other interests in the property, in writing, sufficient to allow implementation of this Order within sixty (60) days after the Order's effective date. For purposes of this paragraph, "best efforts" include but are not limited to the payment of money in consideration of access to property.

80. Such written access agreements or other interests obtained pursuant to the preceding paragraph shall provide the Respondents, the Respondents' authorized representatives, and EPA and its officers, employees, agents, contractors, consultants, and other authorized representatives access to the Site at all times for purposes of implementing and monitoring work under this Order. Such written access agreements or other interests shall specify that the Respondents are not EPA's representatives or agents with respect to liability associated with the Site.

81. In the event that site access agreements or other interests sufficient for implementation and monitoring of work under this Order are not obtained within the time period specified above, the Respondents shall notify EPA in writing within three (3) days thereafter regarding the lack of such agreements and the efforts made by the Respondents to obtain them. Lack of access shall not excuse or justify failure to perform any activity or to meet any deadline not requiring or directly dependent upon such access.

QUALITY ASSURANCE/SAMPLING

82. The Respondents shall submit to EPA, upon request, the results of all sampling or tests and all other data generated by the Respondents, their contractor(s), or on the Respondents' behalf in the course of implementing this Order. The Respondents shall also provide the quality assurance/quality control procedures followed by all sampling teams and laboratories performing data collection and/or analysis.

83. Upon request, the Respondents shall allow EPA or its authorized representatives to take split and/or duplicate samples of any samples collected by the Respondents while performing work under this Order. The Respondents shall notify EPA not less than fourteen (14) days in advance of any sample collection activity. In addition, EPA shall have the right to take any additional samples that it deems necessary.

**Centredale Manor Restoration Project Superfund Site
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84. The Respondents shall assure that EPA and its authorized representatives are allowed access to any laboratory utilized by the Respondents in implementing this Order. Upon request, the Respondents shall have a designated laboratory analyze samples submitted by EPA for quality assurance monitoring.

**ACCESS TO INFORMATION; RECORD PRESERVATION;
CONFIDENTIALITY CLAIMS**

85. Upon request, the Respondents shall provide EPA with copies of all records, documents, and other information generated by the Respondents and their contractor(s) which relates in any way to the Site or to the implementation of this Order, including but not limited to, sampling and analysis records, field sheets and field notes, engineering logs, chain of custody records, contracts, bills of lading, trucking logs, manifests, receipts, reports, and correspondence. In addition, the Respondents' employees, agents, or representatives with knowledge of facts concerning the conditions at the Site or performance of work under this Order shall be made available to EPA to provide such information.

86. For a period of at least nine (9) years following completion of all work conducted by the Respondents pursuant to this Order, the Respondents shall preserve all documents, records, and information of whatever kind, nature or description in their possession and/or control or that of their officers, employees, agents, accountants, contractors, attorneys, successors and assigns, that relate in any way to liability and/or the performance of work under this Order, or relate in any way to releases or threatened releases of hazardous substances which are the subject of the removal action addressed by this Order. After this nine (9) year period has expired, the Respondents shall provide EPA with thirty (30) days advance written notice prior to the destruction of any such records, documents, or information. The Respondents shall send such notice, accompanied by a copy of this Order, to:

Office of Environmental Stewardship
U.S. Environmental Protection Agency New England
1 Congress Street, Suite 1100 (SES)
Boston, MA 02114

Re: Removal Action at Centredale Manor Restoration Project Superfund Site,
CERCLA Docket No. CERCLA-1-2001-0032

Upon request, the Respondents shall provide to EPA copies of all such records, documents, or information.

87. The Respondents may assert a confidentiality claim, if appropriate, covering part or all of the information required by or requested under this Order, pursuant to section 104(e)(7)

Centredale Manor Restoration Project Superfund Site
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of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b) (1989). The Respondents shall adequately substantiate all such assertions. Analytical and other data specified in section 104(e)(7)(F) of CERCLA shall not be claimed as confidential by the Respondents. Information determined to be confidential by EPA will be afforded the protection required by section 104(e)(7) of CERCLA and by 40 C.F.R. Part 2, Subpart B. If no confidentiality claim accompanies the information when submitted to EPA, EPA may make it available to the public without further notice to the Respondents.

CREATION OF DANGER: EMERGENCY RESPONSE

88. Upon the occurrence of any incident or change of conditions during the activities conducted pursuant to this Order that causes or threatens a release of hazardous substances from the Site or an endangerment to the public health or welfare or the environment, the Respondents shall immediately take all appropriate action to prevent, abate or minimize such release or endangerment. The Respondents shall also immediately notify the Regional Duty Officer of the Emergency Planning and Response Branch, EPA New England, telephone (617) 223-7265. In taking any actions under this paragraph, the Respondents shall act in accordance with all applicable provisions of the Health and Safety Plan prepared pursuant to the Scope of Work.

89. The Respondents shall submit a written report to EPA within seven (7) days after each incident specified above, setting forth the events that occurred and the measures taken and to be taken to mitigate any release or endangerment caused or threatened by the incident and to prevent the reoccurrence of such an incident.

90. Nothing herein 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.

OFF-SITE RULE

91. All hazardous substances, pollutants, or contaminants removed off-site for treatment, storage, or disposal pursuant to this Order shall be treated, stored, or disposed of at a facility in compliance with the EPA Off-Site Rule pursuant to the National Contingency Plan, 40 C.F.R. § 300.440 (Procedures for Planning and Implementing Off-Site Response Actions). This Rule was published in the Federal Register, Volume 58, Number 182, Page 49200, on Wednesday, September 22, 1993.

AMENDMENTS

92. This Order, other than the Scope of Work and the schedule of work in paragraphs 49-67 of this Order, may only be amended in writing by signature of the Director of the Office of Site Remediation & Restoration of EPA New England. Amendments to the Scope of Work and changes to the schedule of work in paragraphs 49-67 may be made in writing by the OSC or at the OSC's oral direction. Where the OSC makes an oral modification, he/she will memorialize the modification in writing to the Respondents within three (3) days; provided, however, that the effective date of the modification shall be the date of the OSC's oral direction.

93. No informal advice, guidance, suggestion, or comment by EPA regarding reports, plans, specifications, schedules, and any other writing submitted by the Respondents shall be construed as relieving the Respondents of their obligation to obtain such formal approval as may be required by this Order.

OTHER APPLICABLE LAWS

94. Except as otherwise provided pursuant to paragraph 95 herein and Section 121(e) of CERCLA, all on-site and off-site actions required pursuant to this Order shall be performed in accordance with all applicable local, state, and federal laws and regulations. Such laws shall include, but not be limited to, the laws relating to occupational health and safety and worker's compensation.

95. In accordance with 40 C.F.R. § 300.415(i), all on-site actions required pursuant to this Order shall, to the extent practicable, as determined by EPA, considering the exigencies of the situation, attain applicable or relevant and appropriate requirements under federal environmental, state environmental, or facility siting laws.

INSURANCE

96. At least seven (7) days prior to commencing any on-site work under this Order, the Respondents shall secure, and shall maintain for the duration of this Order, comprehensive general liability and automobile insurance with limits of \$2.6 million dollars, combined single limit. The United States shall be named as an additional insured for all such insurance policies. Within the same time period, the Respondents shall provide EPA with certificates of such insurance and a copy of each insurance policy. If the Respondents demonstrates to EPA that any contractor or subcontractor maintains insurance equivalent to that described above or insurance covering the same risks but in a lesser amount, then the Respondents need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor.

ENFORCEMENT: PENALTIES FOR NONCOMPLIANCE

97. Violation of this Order may subject the Respondents to civil penalties of up to twenty-seven thousand five-hundred dollars (\$27,500) for each day the violation occurs, as provided in section 106(b)(1) of CERCLA, 42 U.S.C. § 9606(b)(1). The Respondents may also be subject to punitive damages in an amount up to three (3) times the amount of any costs incurred by the United States as a result of such violation, as provided in section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3).

DISCLAIMER OF LIABILITY BY EPA

98. By issuance of this Order, the United States and EPA assume no liability for injuries or damages to persons or property resulting from acts or omissions by the Respondents, its/their officers, employees, agents, representatives, successors, assigns, contractors, or consultants in carrying out activities pursuant to this Order. Neither the United States nor EPA shall be held as a party to any contract entered into by the Respondents or their directors, officers, employees, agents, representatives, successors, assigns, contractors, or consultants in carrying out activities pursuant to this Order.

NO RELEASE FROM LIABILITY

99. Nothing in this Order shall constitute or be construed as a satisfaction or release from any claim, cause of action, or demand in law or equity against the Respondents or any other person, whether or not a party to this Order, for any liability such person may have for any conditions or claims arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous substances, hazardous wastes, pollutants, or contaminants found at, taken to, or taken from the Site, including but not limited to any and all claims of the United States for money damages and interest under section 107(a) of CERCLA, 42 U.S.C. § 9607(a), or under any other applicable statute or the common law.

100. Nothing in this Order shall be deemed to constitute any decision on preauthorization of a claim within the meaning of section 111 of CERCLA, 42 U.S.C. § 9611.

RESERVATION OF RIGHTS BY THE UNITED STATES GOVERNMENT

101. The United States reserves all rights against the Respondents and all other persons to take any further civil, criminal, or administrative enforcement action pursuant to CERCLA and/or any other available legal authority, including the right to seek injunctive relief, the recovery of money expended or to be expended (plus interest); monetary penalties; criminal sanctions; and/or punitive damages regarding: (i) any violation of this Order, or (ii) any actual or

potential threat to human health or welfare or the environment, or any release or threat of release of hazardous substances on, at, in, or near the Site.

102. EPA further expressly reserves the right both to disapprove work performed by the Respondents and to request or order the Respondents to perform tasks in addition to those detailed in the Order. In addition, EPA reserves the right to undertake response actions at any time and to perform any and all portions of the work activities which the Respondents have failed or refused to perform properly or promptly.

103. EPA further expressly reserves, and this Order is without prejudice to, all rights against Respondents with respect to all other matters, including but not limited to, the following: (1) claims based on a failure by Respondents to meet a requirement of this Order; (2) liability arising from the past, present, or future disposal, release, or threat of release of waste materials outside of the Site; (3) liability for future disposal of waste material at the Site, other than as provided in the January 18, 2001 Action Memorandum, the Work, or otherwise ordered by EPA; (4) liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments; (5) criminal liability; (6) liability for violations of federal or state law which occurred before, during or after implementation of the removal activities selected in the January 18, 2001 Action Memorandum; (7) liability for additional response actions that EPA determines are necessary; and (8) liability for costs that EPA and/or the United States have incurred or will incur related to the Site.

104. Notwithstanding any other provision of this Order, EPA shall retain all of its information gathering, entry, inspection, and enforcement authorities and rights under CERCLA and under any other applicable law, regulation, or permit.

OPPORTUNITY TO CONFER

105. Within three (3) business days after receipt of this Order, the Respondents may request a conference with EPA to be held no later than three (3) business days before the effective date. Requests for a conference should be submitted to:

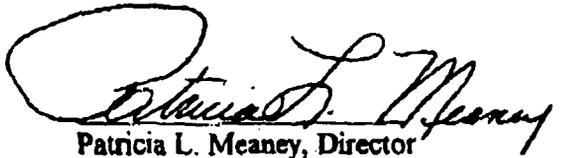
Catherine Garypie, Senior Enforcement Counsel
Office of Environmental Stewardship
U.S. Environmental Protection Agency New England
1 Congress Street, Suite 1100 (SES)
Boston, MA 02114
(617) 918-1540
FAX (617) 918-1809

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

EFFECTIVE DATE; COMPUTATION OF TIME

107. This Order shall be effective ten business (10) days after the Order is signed by the Director of the Office of Site Remediation & Restoration. All times for performance of obligations under this Order shall be calculated from the effective date. For purposes of this Order, the term "day" shall mean a calendar day unless otherwise noted herein. When computing any period of time under this Order, if the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the next working day.

IT IS SO ORDERED. Issued at Boston, Massachusetts this 26th day of March,
2001.



Patricia L. Meaney, Director
Office of Site Remediation & Restoration

APPENDIX A

Scope of Work

APPENDIX A

STATEMENT OF WORK

**NON-TIME CRITICAL REMOVAL ACTION
(NTCRA)**

**CENTREDALE MANOR RESTORATION PROJECT
SUPERFUND SITE
NORTH PROVIDENCE, RHODE ISLAND**

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NTCRA SOW APPENDIX A
CENTREDALE MANOR RESTORATION PROJECT
Page 1 of 18

I. INTRODUCTION AND PURPOSE

This Non-Time-Critical Removal Action (NTCRA) Statement of Work ("SOW") defines the response activities and deliverable obligations of the Respondents pursuant to the Unilateral Administrative Order For Removal Action ("Order") at the Centredale Manor Restoration Project Superfund Site, located in North Providence, Rhode Island (the "Site"). The activities described in this SOW are based upon the United States Environmental Protection Agency ("EPA") Action Memorandum for the Site signed by the Director, Office of Site Remediation and restoration, EPA New England Region, on January 18, 2001.

II. DEFINITIONS

The definitions provided in the Order are incorporated herein by reference. In addition, the following definitions shall apply to this SOW:

- A. "Design" shall mean an identification of the technology to be used for the NTCRA and its performance and operational specifications, in accordance with all federal and state applicable or relevant and appropriate requirements, including, but not limited to:
1. All significant computations used to size units, to determine the appropriateness of technologies, and the projected effectiveness of the NTCRA;
 2. Materials handling and system layouts for the Allendale Dam reconstruction, and excavation, characterization and off-site removal of debris, soil and sediments;
 3. Scale drawings of all significant system layouts identified above and including, but not limited to, the Allendale Dam design drawings, and excavation areas and cross-sections;
 4. Quantitative analysis demonstrating the anticipated effectiveness of the design to achieve the Performance Standards for the NTCRA;
 5. Technical specifications, which detail the major components of the NTCRA and required performance criteria for each major component;
 6. Description of the extent of ambient air monitoring including equipment, monitor locations, and data handling procedures;
 7. Description of access, land easements and/or other institutional controls required, to be supplied with the construction plans and specifications; and
 8. All final plans and specifications stamped by a State of Rhode Island Professional Engineer.

NTCRA SOW APPENDIX A
CENTREDALE MANOR RESTORATION PROJECT
Page 2 of 18

- B. "Contaminated Soil and Sediment" shall mean soil and sediment containing contaminants at the Centredale Manor Restoration Project Superfund Site that exceed the dioxin levels of 1 part per billion (TEQ, or toxicity equivalent).
- C. "Action Areas" shall mean the areas of the Site at specific locations along the eastern shore of the Allendale and Lymansville Ponds and Reaches, as well as an area around the Allendale Dam as generally depicted in the EE/CA and the January 18, 2001 Action Memorandum. Action Areas are to be defined by the extent of Contaminated Soil and Sediment and the work area necessary for the re-construction of the Allendale Dam.

These areas are shown on Figures 3-1 and 3-2 of the EE/CA and are generally defined as the following areas where dioxin concentrations in soil and sediment exceed 1 part per billion (ppb):

1. Flood plain sediments in Allendale Pond between elevations of 92.5 and 93.5 feet;
 2. Flood plain sediments in Lymansville Pond between the existing shoreline and into the pond to a depth of one foot of water;
 3. Residential and recreational use soils between elevation 93.5 feet and the 10-year flood elevation along the eastern shoreline of the Allendale Pond and the Allendale Reach of the Woonasquatucket River;
 4. Residential and recreational use soils along the eastern shoreline of the Lymansville Pond and Lymansville Reach of the Woonasquatucket River, between the existing shoreline and the 10-year flood elevation; and
 5. Floodplain and aquatic sediments in areas adjacent to and immediately upgradient and downgradient of the Allendale Dam that will be disturbed during dam restoration.
- D. "NTCRA" shall mean the Non-Time Critical Removal Action approved in an Action Memorandum signed by the Director, Office of Site Remediation and Restoration, EPA New England Region, on January 18, 2001, which is further defined by this SOW.
- E. "Respondents' Certification" shall mean the following statement, signed by a responsible corporate official of the Respondents or the Respondents' Project Coordinator:

"To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware that there are significant penalties for

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submitting false information, including the possibility of fine and imprisonment for knowing violations."

- F. "Performance Standards" shall mean those cleanup standards, standards of control, cleanup levels, Institutional Controls, and other substantive requirements, criteria or limitations set forth in Section IV of this SOW.
- G. "Post Removal Site Controls" shall mean the activities found in Section VI.A.1. of the January 18, 2001 Action Memorandum, or other activities that EPA determines are necessary to ensure the protectiveness of the NTCRA.

III. NTCRA OVERVIEW

The Action Memorandum, signed on January 18, 2001, generally describes the NTCRA that shall be performed by the Respondents.

A. Objectives of the NTCRA

1. Prevent migration of contaminated sediments to downstream areas;
2. Eliminate or reduce the risk of human exposure to flood plain sediments containing concentrations of dioxin in excess of removal action levels (1 ppb);
3. Eliminate or reduce the risk of human exposure to residential and recreational use soils containing concentrations of dioxin in excess of removal action levels (1 ppb); and
4. Properly dispose of for off-site treatment the Waste Materials generated during the NTCRA.

B. Major components of the NTCRA

1. Reconstruct Allendale Dam and restore Allendale Pond; and
2. Excavate contaminated soil and sediment from the Action Areas.

The process of design and implementation of the NTCRA will be further defined and approved in the Design Workplan, the 100% Design, and the Implementation Workplan. After the design phase, the Respondents shall implement the construction in compliance with the Performance Standards

The Respondents shall implement the NTCRA until EPA determines that the Performance Standards have been achieved, The Respondents shall maintain Post-Removal Site Controls upon completion of construction activities.

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IV. PERFORMANCE STANDARDS

The Respondents shall conduct investigations necessary to further define the Action Areas, conduct and confirm excavation of Contaminated Soil and Sediment, and to design and construct the Allendale Dam in compliance with all applicable or relevant and appropriate requirements ("ARARs") and Performance Standards specified in this SOW.

A. NTCRA Performance Standards

The Respondents shall design and implement a NTCRA which meets the following Performance Standards:

1. Removing all soil and adjacent sediment from residential and recreational use properties that contains dioxin in excess of 1 ppb;
2. Replacing excavated soil with like clean fill materials placed to match the surrounding grade;
3. Destroying the dioxin in that soil through controlled incineration at a licensed off-site location; and
4. Restoring the Allendale Dam with provisions for water level controls and returning the Allendale Pond to the original elevation by use of completion of the spillway at 93.5 feet NGVD.

B. NTCRA Requirements

To achieve the above Performance Standards the Respondents shall demonstrate to the satisfaction of EPA the following, at a minimum,

1. Refinement of the extent of Action Areas by establishing an organized sampling program and methodology which identifies horizontal and vertical limits of Contaminated Soil and Sediment removal;
2. Refinement of the estimates of Contaminated Soil and Sediment to be removed off-site;
3. Confirmation that Action Areas which undergo excavation met the cleanup level of 1 ppb for dioxin by establishing a post-excavation confirmatory soil and sediment sampling and analysis program;
4. Confirmation that upon re-construction of the Allendale Dam, no areas which were identified to exceed the dioxin level of 1 ppb remain under less than one (1.0) foot of water, by establishing a surveying and evaluation program of the excavated areas and water levels in the Allendale Pond, and a program for additional excavation if required by EPA to meet the Performance Standards;

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5. Confirmation of an off-site facility chosen to accept, incinerate and dispose of the residual ashes;
6. Demonstration that the proposed sequence and scheme of construction for the Allendale Dam are safe and will not cause damage to features that will remain after restoration;
7. Establishment of measurements to control dust, odors and other air emissions during construction activities, including any air quality monitoring program deemed necessary by EPA;
8. Establishment of control and diversion of water during construction to minimize sediment migration downstream of the Allendale Dam
9. Establishment of the necessary controls at the Allendale Dam for future controls of the water levels in the Allendale Pond to prevent flooding of adjacent properties;
10. Employment of controlled methods of excavation and dewatering, including run-on and run-off controls, to mitigate the potential for contaminated sediment migration outside of the Action Areas;
11. Employment of erosion and sedimentation controls to minimize impact on adjacent wetlands, floodplains, water bodies, and wildlife resources, including minimization of adverse impacts or violation of water quality standards;
12. Employment of construction techniques and procedures to minimize disturbance and impacts on the affected residential and recreational use properties;
13. Restoration of all disturbed excavated areas to original elevations using suitable material such as clean fill and topsoil, and establishment of vegetative cover to minimize erosion;
14. Removal of trees and shrubs in the Allendale Pond area to be submerged, protection of landscape features outside the work areas, and establishment of temporary and permanent protection of disturbed areas.

In the event that EPA determines at any time during the NTCRA that the Respondents' design or implementation of the NTCRA do not satisfy the requirements of the Performance Standards, the Respondents shall propose to EPA adjustments to the NTCRA, and implement them as directed by EPA.

The Respondents shall design and implement the NTCRA in accordance with the Applicable and Relevant and Appropriate Requirements (ARARs) set forth in the Action Memorandum.

V. DESIGN PHASE

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The Design Phase shall include: 1) preparing performance and operational specifications for the Allendale Dam and excavation activities; 2) securing access required to perform the NTCRA; and 3) preparing an Institutional Controls Plan. The Respondents shall engage the services of a professional engineer licensed in Rhode Island and experienced in the design and construction of small dams. The Respondents may utilize preliminary design for the Allendale Dam prepared by the COE in 1997, with the necessary modifications for water level controls in the Allendale Pond, or propose an alternate design and construction sequence and scheme, which meets the objectives and Performance Standards of the NTCRA. The Design shall be in accordance with commonly accepted standards and practices and shall be sufficiently detailed to show the manner of construction of the Allendale Dam and that the NTCRA can be performed in the required time frame.

This section describes the Respondents' responsibilities for submitting deliverables and conducting project meetings during Design.

A. Deliverables

The Respondents shall submit the following deliverables to EPA and the Rhode Island Department of Environmental Management ("RI DEM") during the design of the NTCRA. Each deliverable shall be subject to review and approval or modification by EPA, pursuant to the procedures specified in Section VII of the Order (hereafter "EPA Review and Approval" or "EPA Approval").

1. Design Schedule
2. Design Workplan
3. Access Agreements
4. 100% Design
5. Institutional Controls Plan
6. Progress Reports

Any submittals by the Respondents to EPA and the RI DEM not referenced in Section VII of the Order, shall include the Respondents' certification, (hereafter "Respondents' Certification")

1. Design Schedule

Within 14 days of the effective date of the Order, the Respondents shall submit a Design Schedule. The Design Schedule shall identify the date, or if the milestone is dependant on completion of other tasks, the critical path, for performance of all major milestones to be performed for completion of the

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design of the NTCRA, including the date for submission of all deliverables required by the SOW. If it is not possible to identify a submission date, the critical path task(s) which must be completed in order to produce the deliverable shall be identified. The Design Schedule shall include but not be limited to the following deadlines:

- a. The Respondents shall submit to EPA and RI DEM the Design Workplan, within 30 days of the effective date of this Order;
- b. The Respondents shall secure all Access Agreements required to perform the NTCRA within 60 days of the effective date of this Order; and
- c. The Respondents shall submit to EPA and RI DEM the 100% Design within 90 days of the effective date of this Order.

2. Design Workplan

Within 30 days of the effective date of this Order, the Respondents shall submit a Design Workplan. The Design Workplan shall include:

- a. A statement of objectives for the NTCRA and activities to be implemented to achieve such objectives;
- b. A detailed Design Schedule and a preliminary Implementation Schedule;
- c. A description of tasks required to complete the Design phase, including proposed sequence and scheme of Allendale Dam construction and excavation work at the residential properties;
- d. An outline of required design specifications and drawings; and
- e. A description of reporting and communications with EPA, RI DEM, and other interested parties, during the Design phase.

3. Site Access Agreements

Within 60 days of the effective date of this Order, the Respondents shall provide to EPA copies of all executed ACCESS AGREEMENTS required to perform the NTCRA.

4. 100% Design

Within 90 days of the effective date of this Order, the Respondents shall submit a 100% DESIGN consisting of a PERFORMANCE SPECIFICATION SUBMITTAL, which at a minimum includes:

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- a. The description and basis of design of all activities to be undertaken in connection with the design and construction of the NTCRA;
- b. A complete set of design calculations, drawings, description of equipment to be used, test and quality control procedures, material test reports, and permits, if required, for construction of the Allendale Dam;
- c. A description of the project data base management;
- d. A description of how all ARARs shall be attained.

5. Institutional Controls Plan (ICP)

Within 90 days of the effective date of this Order, the Respondents shall submit an Institutional Controls Plan (ICP) outlining the approach, including a detailed schedule, to establish and maintain the necessary institutional controls and access restrictions which will ensure non-interference with the functional integrity and performance of the NTCRA. The Plan shall include the following elements:

a. Property Owned By Respondents

If the Site, or any other property where access and/or land/water use restrictions are needed to implement this Order, is owned or controlled by any of the Respondents, such Owner Respondents shall, consistent with this SOW, execute and record in the Recorder's Office or Registry of Deeds or other appropriate land records office of Providence County, State of Rhode Island an easement, running with the land, that grants the right to enforce the land/water use restrictions found in the January 18, 2001, Action Memorandum, or other restrictions that EPA determines are necessary to implement, ensure non-interference with, or ensure the protectiveness of the response measures to be performed pursuant to this Order. Respondents shall grant the rights to enforce the land/water use restrictions to one or more of the following persons, as determined by EPA, (i) EPA and its representatives, (ii) the State and its representatives, (iii) the other Respondents and their representatives, and/or (iv) other appropriate grantees. Respondents shall submit to EPA for review and approval with respect to such property:

1. A draft easement, in substantially the form attached hereto as Attachment 2, that is enforceable under the laws of the State of Rhode Island, free and clear of all prior liens and encumbrances (except as

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approved by EPA), and acceptable under the Attorney General's Title Regulations promulgated pursuant to 40 U.S.C. § 255; and

2. a current title commitment or report prepared in accordance with the U.S. Department of Justice Standards for the Preparation of Title Evidence in Land Acquisitions by the United States (1970) (the "Standards").

Within 15 days of EPA's approval and acceptance of the easement, such Respondents shall update the title search and, if it is determined that nothing has occurred since the effective date of the commitment or report to affect the title adversely, record the easement with the Recorder's Office or Registry of Deeds or other appropriate office of Providence County. Within 30 days of recording the easement, such Respondents shall provide EPA with final title evidence acceptable under the Standards, and a certified copy of the original recorded easement showing the clerk's recording stamps.

b. Other Property

If the Site, or any other property where access and/or land/water use restrictions are needed to implement this Order, is owned or controlled by persons other than any of the Respondents, Respondents shall use best efforts to secure from such persons the execution and recordation in the Recorder's Office or Registry of Deeds or other appropriate land records office of Providence County, State of Rhode Island, of an easement, running with the land, that grants the right to enforce the land/water use restrictions found in the January 18, 2001 Action Memorandum, or other restrictions that EPA determines are necessary to implement, ensure non-interference with, or ensure the protectiveness of the response activities to be performed pursuant to this Order. Respondents shall grant the rights to enforce the land/water use restrictions to one or more of the following persons, as determined by EPA, (i) EPA and its representatives, (ii) the State and its representatives, (iii) the other Respondents and their representatives, and/or (iv) other appropriate grantees.

If EPA so requests, Respondents shall submit to EPA for review and approval with respect to such property:

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1. A draft easement, in substantially the form attached hereto as Attachment 2, that is enforceable under the laws of the State of Rhode Island, free and clear of all prior liens and encumbrances (except as approved by EPA), and acceptable under the Attorney General's Title Regulations promulgated pursuant to 40 U.S.C. § 255; and
2. a current title commitment or report prepared in accordance with the U.S. Department of Justice Standards for the Preparation of Title Evidence in Land Acquisitions by the United States (1970) (the "Standards").

Within 15 days of EPA's approval and acceptance of the easement, Respondents shall update the title search and, if it is determined that nothing has occurred since the effective date of the commitment or report to affect the title adversely, the easement shall be recorded with the Recorder's Office or Registry of Deeds or other appropriate office of Providence County. Within 30 days of the recording of the easement, Respondents shall provide EPA with final title evidence acceptable under the Standards, and a certified copy of the original recorded easement showing the clerk's recording stamps.

6. Progress Reports

Within 30 days of the effective date of this Order, the Respondents shall submit to EPA and RI DEM monthly Progress Reports. The Progress Reports shall be submitted each month and shall summarize all activities that have been conducted that month and those planned for the next month. In addition, the Progress Reports shall identify any problems encountered, including projected problems in meeting the deadlines specified in the Design Schedule, if any. The Progress Report shall be due by the 10th day of each month.

B. Project Meetings

The Respondents and their contractors shall meet monthly with EPA and RI DEM during the design phase to discuss the status of the design, present the results of any investigations, and to discuss any issues associated with the development of the design. At least one week prior to the meeting, the Respondents shall submit to EPA and RI DEM an agenda for the meeting, a summary of the issues that will be discussed and any supporting information. To

the extent possible, the dates for these meetings shall be specified in the Design Schedule.

VI. IMPLEMENTATION PHASE

The Implementation Phase shall include implementation of the NTCRA. This section describes the Respondents' responsibilities for submitting deliverables and conducting project meetings during implementation.

A. Deliverables

The Respondents shall submit the following deliverables to EPA and the RI DEM during the Implementation Phase of the NTCRA. Each deliverable shall be subject to review and approval or modification by EPA, pursuant to the procedures specified in Section VII of the Order (hereafter "EPA Review and Approval" or "EPA Approval").

1. Implementation Schedule
2. Implementation Workplan
3. Progress Reports
4. Completion of Work Report
5. Post-Removal Site Control Plan

Any submittals by the Respondents to EPA and the RI DEM not referenced in Section VII of the Order, shall include the Respondents' certification, (hereafter "Respondents' Certification")

1. Implementation Schedule

Within 90 days of the effective date of this Order, concurrently with the 100% Design, the Respondents shall submit an Implementation Schedule. The Implementation Schedule shall identify the date for performance of all major milestones to be performed in order to implement the NTCRA, including the date for submission of all deliverables required by this section of the SOW. The Implementation Schedule shall include the following deadlines:

- a. The Respondents shall conduct a preconstruction meeting with representatives from the EPA, COE, RI DEM and shall start construction 10 days after EPA Approval of the 100% Design;

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- b. The Respondents shall substantially complete the construction of the NTCRA within 180 days of EPA Approval of the 100% Design;
- c. The Respondents shall submit to EPA and RI DEM the Implementation Workplan and the Project Operations Plan concurrently with the 100% Design, within 90 days of the effective date of this Order;
- d. The Respondents shall submit to EPA and RI DEM the Post-Removal Site Control Plan within 120 days of EPA Approval of the 100% Design; and
- e. The Respondents shall implement all required institutional controls within 180 days of EPA Approval of the 100% DESIGN.

The Respondents shall receive EPA Approval of the determination that construction is complete in compliance with the Performance Standards. Prior to receiving EPA Approval, the Respondents shall perform a final inspection with EPA and submit a Demonstration of Compliance Report, demonstrating that the construction has been completed and the system is operating in compliance with the Performance Standards.

2. Implementation of Work Plan

Within 90 days of the effective date of this Order, concurrently with the 100% Design, the Respondents shall submit to EPA and RI DEM an Implementation Work Plan and the Project Operations Plan. The Implementation Work Plan shall include:

- a. descriptions of all activities necessary to implement the NTCRA, consistent with the Performance Standards, including but not limited to the following:
 - (1) A pre-construction photographic survey of the Action Areas, including Allendale Dam. The purpose of this survey is to fully document existing conditions of the project. The survey shall photographically record all major topographic and landscaping features of the Action Areas and tall major components of the Allendale Dam and related pertinent historical features. Photographs shall be taken to document such items as dam structures, access ways, fencing, vegetation, etc., with corresponding written descriptions. Similarly, the Respondents shall prepare a post-construction photographic survey;
 - (2) A pre-excavation investigation to further establish horizontal and vertical delineation of Action Areas; performance monitoring during the excavation program; and post-excavation confirmatory investigation. The objective of these investigations shall be to establish an organized

sampling program and methodology which refines the limits of soil and sediment removal and ensures that all Contaminated Soil and Sediment is removed. The Respondents shall include such information as, but not limited to, the sampling grid size, sampling frequency, sampling methodology, analytical methods, quality assurance, quality control, and/or other exploratory methods which will be used as part of the investigation. The Respondents shall identify the statistical basis for their recommendations and shall use as guidance the information contained in the US EPA document titled "Methods for Evaluating the Attainment of Cleanup Standards", Volume I: Soils and Solid Media, EPA 230/02-89-042, February 1989. It is anticipated that a mobile laboratory will be utilized on-site to use immunoassay screening for dioxin analyses; in such case an appropriate percentage of samples shall be sent for analyses at a fixed laboratory. The Respondents shall evaluate a need to conduct additional correlation studies and to propose a "safety factor" in utilizing such immunoassay screening;

- (3) A topographic survey to lay out the 93.5 foot elevation, the 10-year flood elevation and the lower limits of the Action areas, based on 1.0 foot below the 93.5 elevation in the Allendale Pond and 1.0 foot below the existing shoreline in the Lymanville Pond;
- (4) A surveying and evaluation program of the excavated areas and established water levels in the Allendale Pond to confirm that upon reconstruction of the Allendale Dam, no areas which were identified to exceed the dioxin level of 1 ppb remain under less than one (1.0) foot of water. If such areas are found, the Respondents shall implement a program for additional excavation to meet the Performance Standards in all areas under less than 1.0 foot of water;
- (5) Layout of the work areas, including staging areas, and description of the transportation routes and operations;
- (6) To the extent that any liquid and/or solid wastes/residues/debris are produced during the excavation of soils and reconstruction of Allendale Dam, as well as dioxin-containing waste materials, it shall be the responsibility of the Respondents to store, treat, and dispose of such wastes/residues. The Respondents shall identify what liquid and solid wastes/residues are anticipated and how such wastes/residues will be stored, treated, and disposed of. The dioxin containing waste material shall be transported to an off-site incinerator. All storage, treatment, and disposal activities will be carried out in accordance with Federal and State applicable or relevant and appropriate requirements;

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- (7) A detailed statement of how all Federal and State applicable or relevant and appropriate public health and environmental requirements and standards will be met, given the specific circumstances and response activities to be undertaken at this Site, including, but not limited to, all standards and requirements referenced in the January 18, 2001 Action Memorandum;
 - (8) Award of project contracts, including all agreements with off-site treatment and/or disposal facilities;
 - (9) Activities to support contractor mobilization/Site preparation;
 - (10) Resolution of any outstanding issues regarding establishment and maintenance of institutional controls, access, access restrictions; and
 - (11) Site restoration and demobilization of all facilities.
- b. a Construction Quality Control Plan in support of all construction operations, including plans, procedures, personnel, tests, and records necessary to implement the project in accordance with the specifications and Performance Standards;
 - c. a Contingency Plan which shall specify the measures to be taken in the event of an accident or emergency to protect on-site construction workers and the local community; and,
 - d. a Project Operations Plan in support of all fieldwork to be conducted according to the Implementation Workplan, to be prepared in accordance with Attachment 1.

3. Progress Reports

Within 30 days of approval of the 100% Design, the Respondents shall submit to EPA and RI DEM monthly Progress Reports. Submittal of Design Phase Progress Reports may be discontinued at this time. The Progress Reports shall be submitted each month and shall summarize all activities that have been conducted that month, those planned for the next month, the percentage of construction completed, problems encountered, including projected problems in meeting the Implementation Schedule. Progress Reports shall include digital photographs of the site activities. Photographs shall be labeled with the date, brief description of the activity, weather conditions and direction/orientation of the photograph. After completion of all construction activities, Respondents may, upon EPA Approval, reduce the frequency of submission of Progress Reports, or terminate their obligation to

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submit such reports. The Progress Report shall be due by the 10th day of each month.

4. Completion of Work Report

Within 45 days after completing all work required under the Order, with the exception of any continuing obligations required by this Order, including post-removal site controls, and this SOW, the Respondents shall submit the Completion of Work Report for EPA Review and Approval, after reasonable opportunity for review and comment by the RI DEM. The Completion of Work report shall satisfy the requirements of Paragraph 59 of the Order, Section 300.165 of the NCP entitled "OSC Reports" and OSWER Directive 9360.3-03 "Removal Response Reporting". In addition to the requirements set forth in the Order and the NCP, the Completion of Work Report shall include:

- a. a synopsis of the work defined in the SOW and certification that this work was performed;
- b. an explanation of any modifications to work in the SOW and why these were necessary for the project;
- c. a chronology of events and procedures used to excavate the Contaminated Soil and Sediment and to reconstruct the Allendale Dam, handle any and all residues (solid or liquid) from the excavation and construction, and documentation of the off-site disposal of any materials generated during the NTCRA;
- d. tabulation of all analytical data and field notes prepared during the course of the NTCRA including, but not limited to, data to confirm the removal of all Contaminated Soil and Sediment, and any other analytical data collected during NTCRA (full copies of all results and notes shall be available and produced for EPA and RI DEM upon request);
- e. validation reports describing review of all chemical data;
- f. all information necessary to demonstrate compliance with the Performance Standards; including, but not limited to: sampling locations and procedures to confirm that all Contaminated Soil and Sediments have been excavated and removed off-site;
- g. Quality assurance/quality control (QA/QC) construction documentation;
- h. presentation of sampling results in appropriate figures and tables;
- i. a description, with appropriate photographs, maps and tables, of the conditions of the Site, including areas and volumes of soil and sediment removed and disturbance;
- j. copies of all signed waste manifests;

- k. final, detailed cost breakdowns for contract cost items specific to the NTCRA;
- l. a description of access restrictions and institutional controls established;
- m. a pre-construction and post-construction photographic survey reports, with photographic prints and the written reports;
- n. as built drawings and specifications with design changes and construction change orders; and
- o. electronic version of data base with all analytical data and electronic version of Geographic Information System (GIS) or Computer Aided Design (CAD) files;

5. Post-Removal Site Control Plan

Within 120 days of EPA Approval of the 100% Design, the Respondents shall submit a Post-Removal Site Control Plan. This plan shall be consistent with Section 300.415(k) of the NCP and OSWER Directive 9360.2-02 and shall address provisions for inspection, continued maintenance and repair of the Allendale Dam and provisions for maintaining the Institutional Controls, including submission to EPA and RI DEM the necessary periodic status reports. The Post-Removal Site Control Plan shall include, at a minimum, the following:

- a. a description and schedule of routine maintenance and inspection requirements of the Allendale Dam;
- b. a description of potential operational problems;
- c. an operational safety plan;
- d. annual operation and maintenance budget; and
- e. record keeping and reporting requirements, including periodic reviews of the effectiveness of established institutional controls.

Within ten (10) days of receiving EPA's Approval of the Respondents' Completion of Work Report, the Respondents shall implement all Post-Removal Site Controls in accordance with the terms and schedules set forth in the Post-Removal Site Control Plan as approved by EPA.

B. Project Meetings

- 1. 10 days after EPA Approval of the 100% Design, the Respondents shall conduct a Preconstruction Meeting. The purpose of the meeting will be to review communications procedures between the Respondents, EPA, COE, RI DEM, and the contractors who will be working on the project, to review

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construction quality control procedures, and to review the health and safety procedures for the Site;

2. The Respondents and their contractors shall meet monthly with EPA and RI DEM during implementation of the NTCRA to discuss the status of the project, and to discuss any issues that arise. At least one week prior to the meeting, the Respondents shall submit to EPA and the RI DEM an agenda for the meeting, a summary of the issues that will be discussed and any supporting information. The Respondents shall take minutes documenting major points of discussions and agreements and distribute to attendees within one week after the meetings. To the extent possible, the dates for these meetings shall be specified in the Implementation Schedule;
3. Within fifteen (15) days after the Respondents conclude that the construction of the NTCRA has been fully implemented, the Respondents shall schedule and conduct a Pre-Final Inspection. This inspection shall include participants from the Respondents and their contractors, EPA, COE and RI DEM. As a result of this inspection, the Respondents shall develop and submit a "Punch List" of items to be resolved. This inspection and any deficiency corrections shall be accomplished within the time slated for completion of NTCRA construction;
4. Within fifteen (15) days after the Respondents conclude that the punch list items (including deficiencies), identified in the Pre-Final Inspection have been corrected and the Performance Standards have been met, the Respondents shall schedule and conduct a Final Inspection. This inspection shall include participants from the Respondents and their contractors, EPA, COE and RI DEM. The Final Inspection shall occur no longer than 60 days following the Pre-Final Inspection.

VII. SUBMISSIONS REQUIREMENTS FOR AGENCY APPROVAL

- A. All plans, deliverables and reports identified in the SOW for submittal, shall be submitted to EPA and RI DEM and shall be delivered to EPA and RI DEM in accordance with the Unilateral Administrative Order and this SOW. The Respondents shall submit to EPA and RI DEM 6 copies of each deliverable, including monthly progress reports. Along with required paper copies of the plans, deliverables and reports, the Respondents shall provide their electronic version to EPA and RI DEM along with electronic version of the data base and the GIS files.

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- B. Any plan, deliverable, or report submitted to EPA and RI DEM for review shall be printed using two-sided printing and marked "Draft" on each page and shall include, in a prominent location in the document, the following disclaimer:
"Disclaimer: This document is a DRAFT document prepared by the Respondents under a government Unilateral Administrative Order. This document has not undergone formal review by the EPA and RI DEM. The opinions, findings, and conclusions, expressed are those of the author and not those of the U.S. Environmental Protection Agency or the Rhode Island Department of Environmental Management."
- C. Approval of a plan, deliverable or report does not constitute approval of any model or assumption used by the Respondents in such plan, deliverable or report.

ATTACHMENT 1

PROJECT OPERATIONS PLAN

Before any field activities shall commence on the Site, several site-specific plans shall be written to establish procedures to be followed by the Respondents in performing field, laboratory, and analysis work and community and agency liaison activities. These site-specific plans include the:

- 1) Site Management Plan;
- 2) Sampling and Analysis Plan (SAP) which includes the Field Sampling Plan (FSP) and the Quality Assurance Project Plan (QAPP);
- 3) Health and Safety Plan (HSP); and
- 4) Community Relations Support Plan.

The Respondents shall combine these plans to prepare the Project Operations Plan. The four components of the Project Operations Plan are discussed in the following Sections.

The respondents shall modify the format and scope of each plan as required by EPA, after reasonable opportunity for review and comment by RI DEM, to describe changes to the sampling, analyses, and other matters which may arise as the NTCRA progresses. EPA, after reasonable opportunity for review and comment by RI DEM, may modify the scopes of these activities at any time during the NTCRA at the discretion of EPA in response to the evaluation of NTCRA results, changes in NTCRA requirements, and other developments or circumstances.

1. Site Management Plan

The overall objective of the Site Management Plan is to provide EPA with a written understanding and commitment of how various project aspects such as access, security, contingency procedures, management responsibilities, waste disposal, budgeting, and data handling are being managed by the Respondents. As part of the plan, the Respondents shall include, at a minimum:

- a. a map and list of properties, the property owners, and addresses of owners to whose property access may be required and where

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- access agreements are in place;
- b. a clear indication of the exclusion zone, contamination reduction zone, and clean area for on-site activities;
- c. necessary procedures and sample letters to land owners to arrange field activities and to ensure EPA is kept abreast of access-related problems and issues;
- d. a provision for the security of government and private property on the Site;
- e. measures to prevent unauthorized entry to the Site, which might result in exposure of persons to potentially hazardous conditions;
- f. the location of a field office for on-site activities;
- g. contingency and notification plans for potentially dangerous activities associated with the NTCRA;
- h. provision for the monitoring of airborne contaminants released by Site activities which may affect the local populations;
- i. communication to EPA, the State of Rhode Island, and the public the organization and management of the NTCRA, including key personnel and their responsibilities;
- j. a list of potential contractors and subcontractors of the Respondents in the NTCRA and a description of their activities and roles;
- k. provisions to provide to EPA regular financial reports of Respondents expenditures on NTCRA activities;
- l. provision for the proper disposal of materials used and wastes generated during the NTCRA (e.g., excavated debris, soil and sediment, protective clothing, disposable equipment). These provisions shall be consistent with the offsite disposal requirements of CERCLA, RCRA, and applicable state laws. The Respondents, a representative of the Respondents, or another party acceptable

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to EPA, after reasonable opportunity for review and comment by RI DEM, shall be identified as the generator of wastes for the purpose of regulatory or policy compliance; and

- m. plans and procedures for organizing, evaluating, and presenting the data generated and for verifying its quality before and during the NTCRA. These plans shall include the description of the proposed computer data base management system that is compatible with the existing Site-wide data base based on hardware and software available to EPA New England personnel for handling media-specific sampling results obtained before and during the NTCRA (GIS-based data management system). The description shall include data input fields, examples of data base management output from the coding of all pre-NTCRA sample data, appropriate quality assurance/quality control to ensure accuracy, and capabilities of data manipulation. To the degree possible, the data base management parameters shall be compatible with the EPA New England data storage and analysis system. The newly generated data shall be downloaded periodically into a master data base for the Site maintained by EPA New England.

2. Sampling and Analysis Plan (SAP)

The purpose of the Sampling and Analysis Plan is to ensure that sampling data collection activities will be comparable to and compatible with previous data collection activities performed at the site while providing a mechanism for planning and approving field activities.

The overall objectives of the sampling and analysis plan are as follows:

- a. to document specific objectives, procedures, and rationales for field work and sample analytical work;
- b. to provide a mechanism for planning and approving Site and laboratory activities;
- c. to ensure that sampling and analysis activities are necessary and sufficient; and

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- d. to provide a common point of reference for all parties to ensure the comparability and compatibility of all objectives and of sampling and analysis activities.

To achieve these objectives, the SAP shall document all anticipated field objectives and activities (e.g., sampling objectives, data quality objectives, evaluation of existing data, standard operating procedures) and contain specific information on the field work (e.g., sampling locations and rationale, sample numbers and rationale, analyses of samples). During the NTCRA, the SAP shall be revised as necessary. Revisions or a statement regarding the need for revisions shall be included in each deliverable describing new field work.

The SAP consists of two parts: (1) a Quality Assurance Project Plan (QAPP), and (2) the Field Sampling Plan (FSP). Components of these two individual plans are described in the following sections. The FSP and QAPP should be submitted as a single document (although they may be bound separately to facilitate use of the FSP in the field).

The SAP shall specify in the FSP provisions for notifying EPA thirty (30) days before initiation of field sampling or monitoring activities. The plan shall also allow split, replicate, or duplicate samples to be taken by EPA, RI DEM (or their contractor personnel), and by other parties approved by EPA. At the request of EPA or RI DEM, the Respondents shall provide these samples in appropriate containers to the government representatives. Identical procedures shall be used to collect the Respondents', EPA and RI DEM parallel samples unless otherwise specified by EPA or RI DEM.

Guidance on the topics covered in the QAPP and FSP and their integration into each of these plans and the integration of the QAPP and the FSP into the SAP can be found in the following several references and shall be used to develop the SAP:

Region I, EPA-New England, Compendium of Quality Assurance Project Plan Guidance, Draft-Final, September 1998;

Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (OSWER Directive 9355.3-01, EPA/540/G-89/004, October 1988);

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Guidance for the Data Quality Objectives Process for Hazardous Waste
EPA QA/G-4HW Draft

Guidance for the Data Quality Objective Process, EPA/600/R-96/055,
Final, September 1994,(EPA QA/G-4);

Data Quality Objectives Decision Errors Feasibility Trials (DEFT)
Software, EPA QA/G-4D(EPA/600/R-96/056, September 1994)

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods
(EPA Pub. SW-846, Third Edition, December 1996) Third Update June
1998;

Guidance for Data Usability for in Risk Assessment, Part A (EPA pub.
9285.7-09A/FS, April, 1992;

EPA Requirements for Quality Assurance Project Plans for Environmental
Data Operations, Draft-Final, October 1998,(EPA QA/R-5);

EPA Guidance for Quality Assurance Project Plans (EPA QA/G-5),
EPA/600/R-98/018, February 1998;

EPA Quality Manual for Environmental Programs (EPA Order 5360) 1998;

Performance Evaluation Program Guidance (EPA Region 1), July 1996;

Region 1, EPA-New England Data Validation Functional Guidelines for
Evaluating Environmental Analyses, Parts I and II, December 1996;

EPA NEIC Policies and Procedures Manual,(revised May 1986, EPA
330/9-78-001-R)

Guidance for the Preparation of Standard Operating Procedures for
Quality Related Documents, EPA QA/G-6 (EPA/600/R-96-027)

Guidance for Data Quality Assessment: Practical Methods for Data
Analysis, EPA QA/G-9(EPA/600/R-96-084)

A. Quality Assurance Project Plan (QAPP)

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The Quality Assurance Project Plan (QAPP) shall document in writing site-specific objectives, policies, organizations, functional activities, and specific quality assurance/ quality control activities designed to achieve the data quality objectives (DQOs) of the NTCRA. The QAPP shall cover all environmentally related measurements. The QAPP developed for this project shall document quality control and quality assurance policies, procedures, routines, and specifications.

All project activities throughout the NTCRA shall comply with the QAPP. All QAPP sampling and analysis objectives and procedures shall be consistent with EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations, Draft-Final, October 1998, (EPA QA/R-5); EPA Guidance for Quality Assurance Project Plans (EPA QA/G-5) EPA/600/R-98/018, February 1998; and appropriate EPA handbooks, manuals, and guidelines including Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (EPA Pub. SW-846, Third Edition, as amended by update 3) and Guidelines Establishing Test Procedures for the Analysis of Pollutants (40 CFR, Part 136).

The basic groups and elements of the QAPP are:

- Project Management Elements;
 - Title and Approval Sheet;
 - Table of Contents;
 - Distribution List;
 - Project/Task Organization;
 - Problem Definition/Background;
 - Project/Task Description;
 - Quality Objectives and Criteria for Measurement Data;
 - Special Training Requirements/Certification;
 - Documentation and Records;

- Measurement/Data Acquisition Elements;
 - Sampling Process Design (Experimental Design);
 - Sampling Methods Requirements;
 - Sample Handling and Custody Requirements;
 - Analytical Methods Requirements;
 - Quality Control Requirements;

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- Instrument/Equipment Testing, Inspection, and Maintenance Requirements;
- Instrument Calibration and Frequency;
- Inspection/Acceptance Requirements for Supplies and Consumables;
- Data Acquisition Requirements (Non-direct Measurements);
- Data Management;
- Assessment/Oversight Elements;
- Assessments and Response Actions;
- Reports to Management;
- Data Validation and Usability;
- Data Review, Validation, and Verification Requirements;
- Validation and Verification Methods; and
- Reconciliation with User Requirements.

As indicated in, EPA Guidance for Quality Assurance Project Plans Draft-Final July 1998 (EPA QA/G-5); and EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations, Draft-Final, October 1998, (EPA QA/R-5), and Region I, EPA-New England, Compendium of Quality Assurance Project Plan Guidance, Draft-Final, September 1998; the above list of essential elements must be considered in the QAPP for the NTCRA. If a particular element is not relevant to a project and therefore excluded from the QAPP, specific and detailed reasons for exclusion must be provided.

Information in a plan other than the QAPP may be cross-referenced clearly in the QAPP provided that all objectives, procedures, and rationales in the documents are consistent, and the reference material fulfills the requirements of EPA QA/R-5 and subsequent guidance referenced above. Examples of how this cross reference might be accomplished can be found in the Guidance for the Data Quality Objectives Process EPA QA/G-4 and the Data Quality Objectives Decision Errors Feasibility Trials EPA QA/G-4D(EPA/600/R-96/056). EPA-approved references, or equivalent, or alternative methods approved by EPA shall be used, and their corresponding EPA-approved guidelines shall be applied when they are available and applicable.

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Laboratory QA/QC Procedures

The QA/QC procedures for any laboratory (both fixed and mobile) used during the NTCRA shall be included in the Respondents' QAPP. When this work is performed by a contractor to a private party, each laboratory performing chemical analyses shall meet the following requirements:

- 1) be approved by the State Laboratory Evaluation Program, if available;
- 2) have successful performance in one of EPA's National Proficiency Sample Programs (i.e., Water Supply or Water Pollution Studies or the State's proficiency sampling program);
- 3) be familiar with the requirements of 48 CFR Part 1546 contract requirements for quality assurance;
- 4) have a QAPP for the laboratory including all relevant analysis. This plan shall be referenced as part of the contractor's QAPP; and
- 5) perform all analyses according to accepted EPA methods. See "Contract Lab Program Statement of Work for Inorganic Analysis" and the "Contract Lab Program Statement of Work for Organic Analysis", dated February 1988.

Data Validation Procedures

The Respondents are required to certify that all data has been validated by an independent person according to the EPA New England Data Validation Functional Guidelines for Evaluating Organic Analyses, the EPA New England Data Validation Functional Guidelines for Evaluating Inorganic Analyses, and EPA New England Data Validation Functional Guidelines for Evaluating Environmental Analyses, Parts I and II (USEPA New England) December 1996; (amended as necessary to account for the differences between the approved analytical methods for the project and the Contract Laboratory Procedures (CLP) procedures). Approved validation methods shall be contained in the QAPP.

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The independent person shall not be the laboratory conducting the analyses and should be a person with a working knowledge of or prior experience with EPA New England data validation procedures. The independent person shall certify that the data has been validated, discrepancies have been resolved if possible, and the appropriate qualifiers have been provided.

The Respondents must keep the complete data package and make it available to EPA or RI DEM on request in order for EPA and RI DEM to conduct an independent validation of the data. The complete data package shall consist of all results, the raw data, and all relevant QA/QC information. An example set of data package deliverables is listed below.

- 1) a summary of positive results and detection limits of non-detects with all raw data;
- 2) tabulated surrogate recoveries and QC limits from methods 3500 and 8000 in SW-846 and all validation and sample raw data;
- 3) tabulated matrix spike/matrix spike duplicate recoveries, relative percent differences, spike concentrations, and QC limits from methods 3500 and 8000 in SW-846 and all validation and sample raw data;
- 4) associated blanks (trip, equipment, and method) with accompanying raw data for tests;
- 5) tabulated initial and continuing calibration results (concentrations, calibration factors or relative response factors and mean relative response factors, % differences and % relative standard deviations) with accompanying raw data;
- 6) tabulated retention time windows for each column;
- 7) a record of the daily analytical scheme (run logbook, instrument logbook) which includes samples and standards order of analysis;

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- 8) the chain of custody for the sample shipment groups, SAS packing slip, SAS request forms;
- 9) a narrative summary of method and any problems encountered during extraction or analysis;
- 10) tabulated sample weights, volumes, and % solids used in each sample calculation;
- 11) example calculations for positive values and detection limits; and
- 12) SW-846 method 3500 and 8000 validation data for all tests.

The forms contained in Chapter 1 of SW-846 (Second Edition 1982 as amended by Update I, April 1984, and Update II, April 1985) must be utilized to report the data when applicable. Raw data includes the associated chromatograms and the instrument printouts with area and height peak results. The peaks in all standards and samples must be labeled. The concentration of all standards analyzed with the amount injected must be included.

B. Field Sampling Plan (FSP)

The objective of the Field Sampling Plan is to provide EPA, RI DEM, and all parties involved with the collection and use of field data with a common written understanding of all fieldwork. The FSP shall address the NTCRA objectives and conform to the procedures in Section 2 of this document and the National Contingency Plan (NCP).

The FSP shall define in detail the sampling and data gathering methods used on a project. The FSP should be written so that a field sampling team unfamiliar with the Site would be able to gather the samples and field information required. Guidance for the selection of field methods, sampling procedures, and custody can be acquired from the Compendium of Superfund Field Operations Methods, (OSWER Directive 9355.0-12, EPA/540/P-87/001), which is a compilation of demonstrated field techniques that have been used during remedial response activities at hazardous waste sites.

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The FSP shall be site-specific and shall include the following information:

Site Background The analysis of the existing Site details must be included in the FSP. This analysis shall include a conceptual Site model. A conceptual Site model includes a description of the Site and surrounding areas and a discussion of known and suspected contaminant sources, probable transport pathways, and other information about the Site. The FSP shall also include descriptions of specific data gaps and ways in which sampling is designed to fill those gaps, including further delineation of areas requiring removal actions and post-excavation confirmation that cleanup levels have been achieved.

Sampling Objectives Specific objectives of a sampling effort that describe the intended uses of data must be clearly and succinctly stated.

Sample Location, Analytes, and Frequency This section of the sampling plan identifies each sample matrix to be collected and the constituents to be analyzed. *A justification of where samples will be collected and how many samples will be collected must be documented in the plan.* Tables shall be used to clearly identify the number of samples to be collected along with the appropriate number of replicates and blanks. Figures shall be included to show the locations of existing or proposed sample points.

Sample Designation A sample numbering system shall be established. The sample designation should include the sample number, the sample round, the sample matrix (e.g., surface and subsurface soil, sediments), and the name of the Site.

Sampling Equipment and Procedures Sampling procedures must be clearly written. Step-by-step instructions for each type of sampling are necessary to enable the field team to gather data that shall meet the DQOs. A list should include the equipment to be used and the material composition (e.g., Teflon, stainless steel) of equipment along with decontamination procedures.

Sampling Handling and Analysis A table shall be included that identifies sample preservation methods, types of sampling jars, shipping requirements, and holding times. Examples of paperwork such as traffic reports, chain of custody forms, packing slips, and sample tags filled out

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for each sample as well as instructions for filling out the paperwork must be included. Field documentation methods including field notebooks and photographs shall be described.

3. Health and Safety Plan

The objective of the site-specific Health and Safety Plan (HSP) is to establish the procedures, personnel responsibilities, and training necessary to protect the health or safety of all on-site personnel during the NTCRA. The plan shall provide for routine but hazardous field activities and for unexpected Site emergencies.

The site-specific health or safety requirements and procedures in the HSP shall be based on an ongoing assessment of Site conditions, including the most current information on each medium. For each field task during the NTCRA, the HSP shall identify:

- a. possible problems and hazards and their solutions;
- b. environmental surveillance measures;
- c. specifications for protective clothing;
- d. the appropriate level of respiratory protection;
- e. the rationale for selecting that level; and
- f. criteria, procedures, and mechanisms for upgrading the level of protection and for suspending activity, if necessary.

The HSP shall also include the delineation of exclusion areas on a map and describe provisions for this delineation in the field. The HSP shall indicate the on-site person responsible for implementing the HSP as a representative of the Respondents, protective equipment, personnel decontamination procedures, and medical surveillance.

The site-specific HSP must meet the requirements stipulated by the Hazardous Waste Operations and Emergency Response, (Department of Labor, Occupational Safety and Health Administration, (OSHA) 29 CFR Part 1910); in addition, the following documents shall be used:

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Interim Standard Operations Safety Guides, (Hazardous Response Support Division, Office of Emergency and Remedial Response EPA, Wash. D.C. 1982); and

Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities: Appendix B, (NIOSH/OSHA/USCG/EPA 1985).

The measures in the HSP shall be developed and implemented to ensure compliance with all applicable State and Federal occupational health and safety regulations. The HSP shall be consistent with the objectives and contents of all other plans submitted by the Respondents. The HSP shall be updated at the request of EPA, after reasonable opportunity for review and comment by RI DEM, during the course of the NTCRA, and as necessary.

4. Community Relations Support Plan

EPA has developed a Community Relations Plan to describe public relations activities for this Site. The Respondents shall develop a Community Relations Support Plan, whose objective is to ensure and specify adequate support from the Respondents for the community relations efforts of EPA. This support shall be at the request of EPA and may include, at a minimum:

- a. participation in public informational or technical meetings, including periodic meetings with the Management Action Committee, including the provision of visual aids and equipment;
- b. publication and copying of fact sheets or updates; and
- c. communications with individual property owners affected by the NTCRA, including preparation of individual data packages upon completion of the NTCRA.

ATTACHMENT 2

DRAFT

**DECLARATION OF COVENANTS AND ENVIRONMENTAL
PROTECTION/CONSERVATION EASEMENT**

1. This Declaration of Covenants and Environmental Protection/Conservation Easement is made this ___ day of ___, 2001, by and between _____ ("Grantor"), having an address of _____, and the following Grantees:

a) the UNITED STATES ENVIRONMENTAL PROTECTION AGENCY and its assigns and personal representatives, having an address of: United States Environmental Protection Agency New England, Office of Site Remediation and Restoration, New Hampshire and Rhode Island Superfund Branch, mail code HBR, 1 Congress St., Suite 1100, Boston, MA 02114; and

b) the STATE OF RHODE ISLAND and its assigns and personal representatives, having an address of: Rhode Island Department of Environmental Management, Office of Waste Management, 235 Promenade St., Providence, Rhode Island 02908.

WITNESSETH:

2. WHEREAS, Grantor is the owner in fee simple of a parcel of land located in the Town of _____ County, State of Rhode Island, designated as Lot ___, Plat ___ on the 2001 tax assessor's map of the Town of _____ in _____ County, more particularly described on Exhibit A (Legal Description and Definition of Property), which is attached to this Instrument and made a part of this Instrument; and

[PLEASE DRAFT "EXHIBIT A," WHICH WILL DESCRIBE THE LOCATION OF THE PROPERTY. STREET ADDRESSES OR TAX MAP REFERENCES ARE NOT ADEQUATE DESCRIPTIONS FOR THE DEED DESCRIPTION IN EXHIBIT A.]

3. WHEREAS, the United States Environmental Protection Agency ("EPA") has determined that the Property and certain land in close proximity to the Property contain hazardous materials and other adverse environmental conditions;

4. WHEREAS, the Property is part of the Non-Time-Critical Removal Action of the Centredale Manor Restoration Project Superfund Site ("Site"), which EPA, pursuant to Section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), 42 U.S.C. Sect. 9605, placed on the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register on March 6, 2000; and

5. WHEREAS, in an Action Memorandum dated January 18, 2001, (the "Action

Memorandum"), the EPA New England Director of the Office of Site Remediation & Restoration selected a "removal action" for the Site, which provides, in part, for

"[institutional controls to] be used at the restored [Allendale] Dam in order to prevent another dam breach and the potential movement of contaminated sediments downstream. Specifically, EPA expects that a negative easement restricting alteration of the Dam will be obtained from the owner of the Dam and enforced by the holder of the easement until such time as the Dam is no longer considered by EPA to be necessary for meeting response action objectives at the Site."

6. WHEREAS, a Unilateral Administrative Order, numbered _____, was issued by EPA New England on _____.

7. WHEREAS, the Respondents to the Unilateral Administrative Order are, pursuant to the terms of the Unilateral Administrative Order: to obtain from the owner of the Allendale Dam an easement restricting alteration of the Dam, enforceable by the easement until such time as the Dam is no longer considered by EPA to be necessary for meeting response action objectives at the Site.

NOW, THEREFORE:

8. Grant: For and in consideration of the terms of the Consent Decree and other good and valuable consideration paid and the agreements and promises hereinafter set forth, the receipt and sufficiency of which is hereby acknowledged, Grantor, on behalf of itself, its heirs, successors, successors-in-title, and assigns, does hereby covenant and declare that the Property shall be subject to the covenants, conditions, and restrictions on use set forth below, and does give, grant, and convey to the Grantees and Grantees' personal representatives and assigns a) the right to enforce said use restrictions, and b) an environmental protection/conservation easement of the nature and character set forth below.

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

No alteration of the Dam will be conducted without the written consent of EPA New England until the Grantor is informed in writing that EPA New England no longer considers this restriction to be necessary for meeting response action objectives at the Site.

10. Modification or Termination of Restrictions: The above covenants and restrictions may be modified or terminated, in whole or in part, in writing and recorded with the Records of Land

Evidence of the Town of _____, Rhode Island, by the EPA New England after reasonable opportunity for review and comment by the State of Rhode Island. At the very latest, such covenants and restrictions shall be terminated when EPA notifies the Grantor, after a reasonable opportunity for review and comment by the State of Rhode Island, that the First Operable Unit of the Site does not pose a threat to human health and the environment. EPA shall review such termination at the time it reviews the Completion of Work Report submitted by Respondents pursuant to Paragraph 59 of the Unilateral Administrative Order, and if EPA decides to approve the Completion of Work Report but not terminate the above covenants and restrictions, EPA will *explain the reasons why it believes that a threat to human health and the environment exists at that time and describe the timing and steps that will be required to terminate the above covenants and restrictions.* If requested by the Grantor, EPA New England will execute any termination or modifications of covenants and restrictions in recordable form. If EPA New England ever assigns its interest in the above covenants and restrictions to the State of Rhode Island, the State of Rhode Island shall have the authority to modify or terminate this Instrument.

11. Environmental Protection/Conservation Easement: Grantor hereby grants to the Grantees, their personal representatives and assigns, an irrevocable right of access at all reasonable times to the Property with men and by equipment for the purposes of conducting any activity related to the Unilateral Administrative Order, including, but not limited to:

- a) Monitoring the Work required by the Unilateral Administrative Order;
- b) Verifying any data or information submitted to EPA New England;
- c) Conducting investigations relating to contamination at or near the Site;
- d) Obtaining samples;
- e) Assessing the need for, planning or implementing additional response actions at or near the Site;
- f) Inspecting and copying records, operating logs, contracts, or other documents maintained or generated by Settling Defendants or their agents, consistent with the Unilateral Administrative Order and
- g) Assessing Respondents' compliance with the Unilateral Administrative Order.

12. Reserved Rights of Grantor: Grantor hereby reserves all rights and privileges in and to the use of the Property, including the right to maintain, repair, use, operate, and replace the existing facilities on the Property, as long as the Grantor's use of the Property is not incompatible with the restrictions, rights, and easements granted in this Instrument. EPA New England has found that the current use of the Property, as such use exists on the effective date of this Instrument, is compatible with the removal action and is specifically permitted. However, the permitted use

does not include any right to alter the existing improvements and facilities of the Property if such activity would disturb the removal action or be incompatible with the restrictions, rights, and easements granted in this Instrument.

13. Nothing in this document shall limit or otherwise affect EPA New England's or the State of Rhode Island's rights of entry and access provided by law or regulation.

14. No Public Access and Use: This Instrument does not convey a right of access or use by the general public to any portion of the Property.

15. Requirements for Conveyances: Grantor, and any person who subsequently acquires any interest in Grantor's property, including, but not limited to, by deeds, leases, and mortgages, shall give a) written notice of the Unilateral Administrative Order and this Instrument to the person or entity that will receive the conveyance (the transferee), and b) written notice to EPA New England and Rhode Island Department of Environmental Management of the conveyance, including the name and address of the transferee and the date on which the Grantor gave the notice to that transferee. Such transfer shall take place only if the transferee agrees, as a part of the agreement to purchase or otherwise obtain the property, that it will comply with the obligations of the Grantor to provide access to the Property and with the Declarations set forth in this Instrument. Grantor agrees to include in any Instrument conveying an interest in any portion of the Property a notice, which is in substantially the following form:

NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO THE EFFECT OF A DECLARATION OF COVENANTS AND ENVIRONMENTAL PROTECTION/ CONSERVATION EASEMENT, DATED _____, RECORDED IN THE RECORDS OF LAND EVIDENCE FOR THE TOWN OF _____, RHODE ISLAND ON _____, IN BOOK _____, PAGE _____, ENFORCEABLE BY, THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, THE STATE OF RHODE ISLAND, BROOK VILLAGE ASSOCIATES LIMITED PARTNERSHIP, CENTERDALE MANOR ASSOCIATES LIMITED PARTNERSHIP, NEW ENGLAND CONTAINER COMPANY, INC., EMHART INDUSTRIES, INC., AND CROWN-METRO, INC.

Within thirty (30) days of executing any such an instrument of conveyance, Grantor must provide Grantees with a true copy of the instrument of conveyance and, if it has been recorded in the public land records, its recording reference.

16. Construction Activities: Grantor shall notify EPA, the Rhode Island Department of Environmental Management, and the settling defendants listed in paragraph ___ of this Instrument (entitled "Notices") prior to undertaking any facility improvements or other construction activities that could disturb removal action activities (including, but not limited to, disturbing the Allendale Dam).

17. Administrative jurisdiction: The Regional Administrator of EPA New England or his or her delegate shall exercise the discretion and authority granted to EPA herein. The Rhode Island Department of Environmental Management is the state agency having administrative jurisdiction over the interests acquired by the State of Rhode Island through this Instrument. The Director of Rhode Island Department of Environmental Management or his or her delegate shall exercise the discretion and authority granted to the State herein. If the EPA or the State of Rhode Island assigns interests created by this Instrument, the discretion and authority referred to in this paragraph shall also be assigned, unless otherwise provided in the assignment document, and a document evidencing same shall be recorded with the Records of Land Evidence of the Town of _____, Rhode Island.

18. Enforcement: Each Grantee is entitled to enforce the terms of this Instrument by resorting to specific performance or legal process. Each Grantee must notify, consult and coordinate with the other grantee before taking any action to enforce the terms of this Instrument. In addition to the remedies available under this Instrument, Grantee may seek any and all other remedies available at law or in equity, including CERCLA. Grantees shall have the discretion to enforce the terms of this Instrument. Any forbearance, delay, or omission to enforce in the event of a breach of any provision of this Instrument shall not be deemed to be a waiver of a) such provision or b) of any subsequent breach of the same or any other provision, or c) of any of the rights of the Grantees under this Instrument. Grantor hereby waives any defense of laches, estoppel, or prescription against the EPA or the State of Rhode Island in any action taken to enforce the terms of this Instrument. In accordance with the Rhode Island General Laws, Title 34, Chapter 39, entitled "Conservation and Preservation Restrictions on Real Property," no provision of this Instrument shall be unenforceable on account of a) lack of privity of estate or contract, b) lack of benefit to a particular land, c) the benefit being assignable or being assigned to any governmental body or to any entity with like purposes, or d) any other doctrine of Property law which might cause the termination of the provision. The Respondents to the Unilateral Administrative Order (Brook Village Associates Limited Partnership, Centredale Manor Associates Limited Partnership, New England Container Company, Inc., Emhart Industries, Inc., and Crown-Metro, Inc.) also are entitled to enforce the terms of this Instrument.

19. Covenants: The Grantor, for itself and for its heirs, successors, successors-in-title, assigns, executors, and administrators, hereby covenants to and with the Grantees and their assigns, that the Grantor is lawfully seized in fee simple of the Property, that the Grantor has a good right, full power and lawful right to grant and convey the above easement, covenants, and land use restrictions, that the Property is free and clear of encumbrances, except those noted on Exhibit B attached hereto, **[NOTE, PLEASE DRAFT AND ATTACH AN EXHIBIT B, WHICH LISTS ALL THE ENCUMBRANCES ON THE PROPERTY (E.G., MORTGAGES, LIENS AND EASEMENTS) AND INCLUDES EVIDENCE OF TITLE]** that the Grantees and their assigns shall at all times hereafter peacefully and quietly have and enjoy the granted interest in the property, and that the Grantor and its heirs, successors, successors-in-title, assigns, executors and administrators shall warrant and defend the premises to the Grantees and their assigns and personal representatives forever against the lawful claims and demands of all persons.

20. **Notices:** Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing. Such written notice shall be directed to the individuals at the addresses specified below, unless those individuals or their successors give notice of a change to the other parties in writing.

As to the EPA:

Anna Krasko
On-Scene Coordinator/Remedial Project Manager
for the Centredale Manor Restoration Project Superfund Site
United States Environmental Protection Agency New England
Congress St., Suite 1100 (mail code HBR)
Boston, MA 02114

As to the State:

Sarah Martino
State Project Coordinator
RIDEM
Division of Site Remediation
291 Promenade St.
Providence, RI 02908

As to the Respondents:

For Brook Village Associates Limited Partnership:

Colburn T. Cherney
Ropes & Gray
One Franklin Square
1301 K Street, NW, Suite 800 East
Washington, D.C. 20005-3333
PH 202-626-3900
FAX 202-626-3961

Howard Castleman
Murtha Cullina Roche Carens & DeGiacomo
99 High Street
Boston, MA 02110
PH 617-457-4000
FAX 617-482-3868

For Centerdale Manor Associates Limited Partnership (C/S Housing Associates):

Leonard H. Freiman

Goulston & Storrs, A Professional Corporation
400 Atlantic Avenue
Boston, MA 02110-3333
PH 617-482-1776
FAX 617-574-4112

For Centerdale Manor Associates Limited Partnership (Centerdale Associates):

Richard J. Welch
Moses & Alfonso, Ltd.
170 Westminster Street, Suite 201
Providence, RI 02903
PH 401-453-3600
FAX 401-453-3604

For Emhart Industries, Inc.

Jerome C. Muys, Jr.
Swidler Berlin Shereff Friedman LLP
3000 K Street, NW, Suite 300
Washington DC 20007-5116
PH 202-424-7547
FAX 202-424-7643

For Crown-Metro, Inc.

Knox L. Haynsworth, III
Brown, Massey, Evans, McLeod & Haynsworth, P.A.
P.O. Box 2464
Greenville, SC 29602
PH 864-271-7424
FAX 864-242-6469

For New England Container Company, Inc.:

Deming E. Sherman, Esq.
Edwards & Angell, LLP
2800 BankBoston Plaza
Providence, RI 02903-2499
PH 401-274-9200
FAX 401-276-6611

As to Grantor:

[INSERT NAME/ADDRESS]

21. General provisions:

a) Controlling law: The interpretation and performance of this Instrument shall be governed by the laws of the United States or, if there are no applicable federal laws, by the law of the State of Rhode Island.

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

c) Liberal construction: Any general rule of construction to the contrary notwithstanding, this Instrument shall be liberally construed in favor of the grant to effect the purpose of this Instrument, the Unilateral Administrative Order and its appendices, and the policy and purpose of CERCLA. If any provision of this Instrument is found to be ambiguous, an interpretation consistent with the purpose of this Instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.

d) Severability: If any provision of this Instrument, or the application of it to any person or circumstance, is found to be invalid, the finding of invalidity will not affect i) the validity of the remainder of the provisions in the Instrument, or ii) the application of such provisions to any other person or circumstances.

e) Entire Agreement: This Instrument sets forth the entire agreement of the parties with respect to rights and restrictions created hereby, and supersedes all prior oral understandings relating thereto, all of which are merged into this Instrument.

f) No Forfeiture: Nothing contained in this Instrument will result in a forfeiture or reversion of Grantor's title in any respect.

g) Successors: The covenants, terms, conditions, and restrictions of this Instrument shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, successors, successors-in-title, and assigns and shall continue as a servitude running with the Property. The term "Grantor" wherever used herein, and any pronouns used in place of the term "Grantor," shall include the person and/or entity named at the beginning of this document, identified as "Grantor" and its heirs, successors, successors-in-title, personal representatives and assigns. The term "Grantee," wherever used herein, and any pronouns used in place of the term "Grantee," shall include the persons and/or entities named at the beginning of this document, identified as "Grantees," and their personal representatives and assigns. The rights of the Grantee and Grantor under this Instrument are freely assignable, subject to the notice provisions contained in Paragraph 21 of this Instrument. Any transferee of the fee title to the Property or any leasehold interest in the Property shall automatically be deemed, by acceptance of such interest, to have acquired such title or interest subject to the restrictions contained or referred to in this Instrument and to have agreed to execute any and all

Instruments reasonably necessary to carry out the provisions of this Instrument. Consistent with the Rhode Island Code, Title 34, Chapter 39-3(c), the rights and obligations under this Instrument shall not be subject to a 30-year limitation on restrictive covenants.

h) Termination of Rights and Obligations: A party's rights and obligations under this Instrument terminate upon transfer of the party's interest in the referenced in paragraph ____ of this Instrument or Property, except that liability for acts or omissions occurring prior to the transfer shall survive the transfer.

i) Captions: The captions in this Instrument have been inserted solely for convenience of reference and are not a part of this Instrument and shall have no effect upon the construction of this Instrument.

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

k) Further Assurances: From time to time after the execution of this Instrument and without further consideration, the parties hereto will execute and deliver, or arrange for the execution and delivery of, such other instruments and take such other action or arrange for such other actions as may reasonably be requested to more effectively complete any of the transactions provided for in this Instrument.

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

IN WITNESS WHEREOF, Grantor has caused this Instrument to be executed by its duly authorized representative this ____ day of _____, 2001.

WITNESS:

[NAME OF GRANTOR COMPANY]

By: _____

[TYPED OR PRINTED NAME AND TITLE]

STATE OF _____

COUNTY OF _____

On this ____ day of ____, 2001, before me, the undersigned, a Notary Public in and for the State of Rhode Island, duly commissioned and sworn, personally appeared **[INSERT NAME AND TITLE OF PERSON]** of **[INSERT NAME OF GRANTOR COMPANY]**, known by me to be the party so executing the foregoing agreement for and on behalf of **[INSERT NAME OF GRANTOR COMPANY]**, and he acknowledged said Instrument, by him so executed, to be his free act and deed in said capacity and the free act and deed of **[INSERT GRANTOR CO. NAME]**

Signature

NOTARY PUBLIC

My Commission Expires: _____.

The undersigned, the holder of a **[INSERT NAME OF INTEREST IN PROPERTY, E.G. MORTGAGE, EASEMENT]**, recorded in the Records of Land Evidence of the Town of _____, Rhode Island in Book ____ at Page ____, by execution hereof, agrees that the rights and easements reserved to it and to the portion of the Property described therein and in Exhibit B of this Instrument, shall be subject and subordinate to the terms and provisions of this Instrument.

WITNESS:

[NAME OF INTEREST HOLDER]

By: _____

[TYPED OR PRINTED NAME AND TITLE]

STATE OF _____

COUNTY OF _____

On this ____ day of ____, 2001, before me, the undersigned, a Notary Public in and for the State of _____, duly commissioned and sworn, personally appeared **[INSERT NAME AND TITLE OF PERSON SIGNING ON BEHALF OF INTEREST HOLDER]** of **[INSERT NAME OF INTEREST HOLDER]**, known by me to be the party so executing the foregoing agreement for and on behalf of **[INSERT NAME OF INTEREST HOLDER]**, and he acknowledged said Instrument, by him so executed, to be his free act and deed in said capacity

and the free act and deed of *[INSERT NAME OF INTEREST HOLDER]*.

Signature

NOTARY PUBLIC

My Commission Expires: _____.

This easement and declaration of covenants is accepted this ____ day of ____, 2001.

U.S. ENVIRONMENTAL PROTECTION AGENCY

By: _____

Its: _____

Attachments:

Exhibit A -- legal description of the Property

Exhibit B -- list of persons, other than Grantor, who hold interests in the Property