UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2

IN THE MATTER OF: Lower Passaic River Study Area of the Diamond Alkali Superfund Site Occidental Chemical Corporation and Tierra Solutions, Inc., Respondents.	ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT FOR REMOVAL ACTION U.S. EPA Region 2 CERCLA Docket No. 02-2008-2020 Proceeding Under Sections 104, 106(a), 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622

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I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Settlement Agreement and Order on Consent ("Settlement Agreement") is entered into voluntarily by the United States Environmental Protection Agency ("EPA"), Occidental Chemical Corporation, and Tierra Solutions, Inc. This Settlement Agreement provides for the performance of a removal action by Respondent and the reimbursement of Future Response Costs incurred by the United States at or in connection with the Lower Passaic River Study Area ("LPRSA") portion of the Diamond Alkali Superfund Site (the "Site") generally located in and about Essex, Hudson, Bergen and Passaic Counties, New Jersey.

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

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

4. a. EPA and Respondent recognize that the State of New Jersey, by and through the Department of Environmental Protection ("NJDEP"), has partnered with EPA to analyze and develop the removal action that is the subject of this Settlement Agreement through the contribution of time and expertise, including technical evaluation and support from NJDEP contractors.

b. EPA, the NJDEP, and Respondent acknowledge this removal action as a step in addressing contamination of the Passaic River, with any additional response action for the LPRSA and Newark Bay to be addressed pursuant to the ongoing Remedial Investigation/ Feasibility Studies in the Passaic River and Newark Bay and the Focused Feasibility Study and resultant remedies. The remedy selection process for any additional response actions for the LPRSA and Newark Bay will take into consideration the Work to be performed under this Settlement Agreement.

5. Respondent and Tierra represent that pursuant to a 1986 stock transaction, the corporation now named Maxus Energy Corporation ("Maxus") indemnified Respondent for (among other things) environmental liabilities arising from ownership and/or operation of 80 and 120 Lister Avenue by Diamond Shamrock Chemicals Company or its predecessors in interest. Respondent and Tierra represent further that, in 1996, Tierra (then known as Chemical Land Holdings, Inc.) agreed by contract with Maxus to perform the indemnification responsibilities that Maxus owes Respondent. Respondent and Tierra further represent that because of these agreements, Maxus and Tierra participated in the negotiation of this Settlement Agreement on Respondent's behalf, and otherwise acknowledge their private contractual responsibilities to perform on Respondent's behalf the Work required by this Settlement Agreement. Similarly,

Respondent and Tierra further represent that Maxus and Tierra negotiated and/or performed on Respondent's behalf the work required under the judicial consent decree and administrative orders on consent referenced in Paragraphs 10(h), (l), and (o).

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

II. PARTIES BOUND

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

a. Tierra is a party to this Settlement Agreement for specific, limited purposes. Specifically, Tierra shall allow access to its property on Lister Avenue, as provided in Section X. In addition, insofar as Tierra performs other Work on Respondent's behalf, Tierra shall abide by the Access to Information and Record Retention provisions in Section XI and XII.

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

III. DEFINITIONS

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

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

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

c. “Engineering Evaluation/Cost Analysis (“EE/CA”) Approval Memorandum” shall mean the EPA Action Memorandum relating to the Site signed on June 12, 2008, by the Regional Administrator, EPA Region 2 and all attachments thereto. The EE/CA Approval Memorandum is attached as Appendix A.

d. “Effective Date” shall be the effective date of this Settlement Agreement as provided in Section XXXI.

e. “EPA” shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

f. “Future Response Costs” shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs in reviewing or developing plans, reports and other items pursuant to this Settlement Agreement, verifying the Work, or otherwise implementing, overseeing, or enforcing this Settlement Agreement, including but not limited to, payroll costs, contractor costs, travel costs, laboratory costs, the costs incurred pursuant to Paragraph 38 (costs and attorneys fees and any monies paid to secure access, including the amount of just compensation), Paragraph 48 (emergency response), and Paragraph 72 (work takeover).

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

h. “Lower Passaic River Study Area” or “LPRSA” shall mean that portion of the Passaic River encompassing the 17-mile stretch of the Passaic River and its tributaries from Dundee Dam to Newark Bay located in and about Essex, Hudson, Bergen and Passaic Counties, New Jersey. The LPRSA is part of the Site, as hereinafter defined.

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

j. “NJDEP” shall mean the New Jersey Department of Environmental Protection and any successor departments or agencies of the State.

k. “Paragraph” shall mean a portion of this Settlement Agreement identified by an Arabic numeral. References to paragraphs in the SOW will be so identified (for example, “SOW paragraph 15").

l. “Parties” shall mean EPA and Respondent.

m. “Phase I EE/CA” shall mean that EE/CA related to the removal of sediments from the Phase I Area identified in Appendix B and the transport and the off-site disposal of those materials.

n. “Phase I Work” shall mean all activities necessary to implement the removal of sediments from the Phase I Area identified in Appendix B and the transport and off-site disposal of those materials pursuant to an Action Memorandum to be issued by EPA, Region 2, based on the Phase I EE/CA.

o. “Phase II EE/CA” shall mean the EE/CA related to the removal of sediments from the Phase II Area identified in Appendix B and the transport and disposal of those materials to a Confined Disposal Facility (“CDF”) located on-site, as that term is defined in 40 C.F.R. Part 300.5.

p. “Phase II Work” shall mean shall mean all activities necessary to implement the removal of sediments from the Phase II Area identified in Appendix B and the transport and disposal of those materials to a CDF located on-site, as that term is defined in 40 C.F.R. Part 300.5, pursuant to an Action Memorandum to be issued by EPA, Region 2, based on the Phase II EE/CA.

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

r. “Respondent” shall mean Occidental Chemical Corporation, which has its headquarters and principal place of business in Dallas, Texas and is successor to Diamond Shamrock Chemicals Company. For purposes of Sections X, XI, and XII of this Settlement Agreement, the term “Respondent” also includes Tierra.

s. “Tierra” shall mean Tierra Solutions, Inc., which has offices in East Brunswick, New Jersey, and was formerly named Chemical Land Holdings, Inc. and before that Diamond Shamrock Chemical Land Holdings, Inc.

t. “Section” shall mean a portion of this Settlement Agreement identified by a Roman numeral.

u. “Settlement Agreement” shall mean this Administrative Settlement Agreement and Order on Consent and all appendices attached hereto (listed in Section XXX). In the event of conflict between this Settlement Agreement and any appendix, this Settlement Agreement shall control.

v. “Site” for purposes of this Settlement Agreement shall mean the Diamond Alkali Superfund Site, including the property located at 80 and 120 Lister Avenue in Newark, New Jersey, and the Lower Passaic River Study Area, and the areal extent of contamination.

w. “State” shall mean the State of New Jersey.

x. “Statement of Work” or “SOW” shall mean the Statement of Work for implementation of the removal action, as set forth in Appendix C to this Settlement Agreement, and any modifications made thereto in accordance with this Settlement Agreement.

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

z. “Work” shall mean Phase I Work, Phase II Work and all activities Respondent is required to perform under this Settlement Agreement except those required by Section XII (Record Retention).

aa. “Work Area” shall mean that portion of the LPRSA, as shown on Appendix B, in which Phase I and Phase II Work activities will occur.

IV. EPA FINDINGS OF FACT

10. EPA makes the following findings of fact:

a. Since the late 1800s, the lower Passaic River has been a highly industrialized waterway, receiving direct and indirect discharges from numerous industrial facilities.

b. The bottom sediments of the lower Passaic River contain concentrations of numerous hazardous substances, including, but not limited to, cadmium, copper, lead, mercury, nickel, zinc, polyaromatic hydrocarbons (“PAHs”), bis (2-ethylhexyl) phthalate, polychlorinated biphenyls (“PCBs”), dichlorodiphenyl-trichloroethate (“DDT”), diesel (“TELPH”), polychlorinated dibenzo-p-dioxins (“PCDDs”), including 2,3,7,8-tetrachloro-dibenzo-p-dioxin (“TCDD”), polychlorinated dibenzofurans (“PCDFs”), 2,4-dichlorophenoxy acetic acid (“2,4-D”), 2,4,5-trichlorophenoxy acetic acid (“2,4,5-T”), and 2,3,5-trichlorophenol (“2,4,5-TCP”).

c. Between March 1951 and August 1969, the Diamond Alkali Company operated a facility located at 80 Lister Avenue (“Diamond Alkali Facility”). Among other chemicals, the company manufactured 2,4-D, 2,4,5-T, and 2,4,5-TCP, from which 2, 3, 7, 8-TCDD is a by-product. Production activities at the Diamond Alkali Facility ceased in August 1969.

d. In 1983, hazardous substances were detected at the Diamond Alkali Facility located at 80 Lister Avenue.

e. EPA, pursuant to Section 105 of CERCLA, 42 U.S.C. Section 9605, placed the

Diamond Alkali Superfund Site on the National Priorities List, which is set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register on September 21, 1984, 49 Fed. Reg. 37070.

f. The entity which operated the Diamond Alkali Facility from 1951-1969 was Diamond Alkali Company, which changed its name in 1967 to Diamond Shamrock Corporation, and, in 1983, to Diamond Shamrock Chemicals Company. A corporation now named Maxus Energy Corporation ("Maxus") became the owner of Diamond Shamrock Chemicals Company's stock in 1983. In 1986, through a stock transaction, Diamond Shamrock Chemicals Company became a wholly-owned indirect subsidiary of Occidental Petroleum Corporation and was then renamed Occidental Electrochemicals Corporation. In 1987, Occidental Electrochemicals Corporation was merged into Occidental Chemical Corporation, a wholly-owned indirect subsidiary of Occidental Petroleum Corporation.

g. Removal activities at the Diamond Alkali Facility were initiated by EPA and NJDEP in 1983 and completed by Diamond Shamrock Chemicals Company in 1984 through 1986 pursuant to Administrative Consent Orders with NJDEP. The remedial investigation/ feasibility study ("RI/FS") conducted at the Diamond Alkali Facility included the sampling and assessment of sediment contamination within the Passaic River.

h. EPA issued a Record of Decision ("ROD") that set forth an interim remedy for the 80 and 120 Lister Avenue portion of the Diamond Alkali Superfund Site on September 30, 1987. Pursuant to a judicial Consent Decree with EPA, NJDEP, and Chemical Land Holdings, Inc., which had acquired the property shortly before the 1986 stock transaction and was a party to the Consent Decree for specific, limited purposes, Respondent agreed to implement the 1987 ROD. In 1987, the name of Diamond Shamrock Chemical Land Holdings, Inc. was changed to Chemical Land Holdings and, in 2002, was changed to Tierra Solutions Inc.

i. Sampling and assessment of sediments in the Passaic River during the investigation of the Diamond Alkali Facility revealed many hazardous substances including, but not limited to, 2,3,7,8 -TCDD, 2,4-D, 2,4,5-T, 2,4,5-TCP, DDT, PCBs, PAHs, mercury, cadmium, copper, lead, nickel, and zinc.

j. Some of the chemicals found in the sediments during the course of the remedial investigation may have migrated from the Diamond Alkali Facility portion of the Site into the Passaic River through direct discharges and ground-water and surface-water runoff.

k. Based on the results of monitoring and research undertaken since the mid-1970s, the State of New Jersey has taken a number of steps, in the form of consumption advisories, closures, and sales bans, to limit the exposure of the fish-eating public to toxic contaminants in the lower Passaic River, Newark Bay, the Hackensack River, the Arthur Kill and the Kill Van Kull. The initial measures prohibited the sale, and advised against the consumption, of several species of fish and eel and was based on the presence of PCB contamination in the

seafood. The discovery of widespread dioxin contamination in the Newark Bay Complex led the State of New Jersey to issue a number of Administrative Orders in 1983 and 1984 which prohibited the sale or consumption of all fish, shellfish, and crustaceans from the Lower Passaic River Study Area. These State fish advisories and prohibitions are still in effect.

l. In 1994, Respondent executed an Administrative Order on Consent ("AOC"), Index No. II-CERCLA-0117 with EPA to investigate a six-mile stretch of the Passaic River whose southern boundary was the abandoned Conrail Railroad bridge located at the U.S. Army Corps of Engineers ("USACE") station designation of 40+00 to a transect six miles upriver located at the USACE station designation of 356+80. The primary objectives of the investigation were to determine: (1) the spatial distribution and concentration of hazardous substances, both horizontally and vertically in the sediments; (2) the primary human and ecological receptors of contaminated sediments; and (3) the transport of contaminated sediment.

m. Sampling results from this study, as well as other earlier sampling events taken across from and immediately downstream of the Diamond Alkali Facility portion of the Site show concentrations of 2,3,7,8-TCDD that significantly exceed the levels that can produce toxic effects to biota. Recent studies have shown that 2,3,7,8-TCDD bio-accumulates in fish, to levels rendering the fish unfit for human consumption, from sediment with a much lower level of 2,3,7,8-TCDD than found in these sediments.

n. These sampling results demonstrated that evaluation of a larger area was necessary because sediments contaminated with hazardous substances and other potential sources of hazardous substances are present along at least the entire 17-mile stretch of the LPRSA and were further dispersed by the tidal nature of the Lower Passaic River. As a result, in January 2001, EPA directed the Respondent to suspend certain work under the AOC.

o. EPA, with assistance from NJDEP, undertook an RI/FS that would encompass a larger geographic area in the Lower Passaic River. In May 2007, however, certain parties ("Cooperating Parties Group" or "CPG") entered into an AOC under which the CPG would complete the RI/FS for the LPRSA. The work pursuant to that AOC is on-going. The RI/FS, since its inception, has been performed under CERCLA and has been coordinated with the USACE and its local sponsor the New Jersey Department of Transportation, Office of Maritime Resources ("OMR"), and NJDEP under the authority of the Water Resources Development Act ("WRDA") in order to identify and address water quality improvement, remediation, and restoration opportunities in the LPRSA. Further, the federal and State Natural Resource Trustees (specifically, the Fish and Wildlife Service of the U.S. Department of the Interior, the National Oceanic and Atmospheric Administration of the U.S. Department of Commerce, and NJDEP) have provided input to the process.

p. Although the LPRSA ends at the mouth of Passaic River, because of the tidal nature of the Passaic River, there is reason to believe that the areal extent of contamination extends beyond that boundary. Consequently, in order to determine more accurately the

boundaries of contamination from the area studied originally under the AOC, in February 2004, EPA and Respondent entered into an AOC, under which Respondent is performing an RI/FS for Newark Bay. This RI/FS is also on-going.

q. EPA, with the assistance of NJDEP, is currently evaluating interim remedial measures or interim or final early action alternatives for the LPRSA.

r. While the distribution of dioxin is being studied in these several investigations, based on data gathered by EPA and by other entities, including Respondent, the most concentrated inventory of 2,3,7,8-TCDD, a hazardous substance, appears to be in the sediments immediately adjacent to the Diamond Alkali Facility portion of the Site.

V. EPA CONCLUSIONS OF LAW AND DETERMINATIONS

11. Based on the Findings of Fact set forth above, and the Administrative Record supporting the response action to which this settlement applies, EPA has determined that:

a. The conditions in the sediments immediately adjacent to the 80 and 120 Lister Avenue portion of the Site meet a number of the specific factors identified in 40 CFR Part 300.415(b)(2), including, but not limited to:

i. there is an actual or potential release of hazardous substances, including 2,3,7,8-TCDD, exposing nearby human populations, animals or the food chain (40 CFR §300.415(b)(2)(i));

ii. there is the threat of actual or potential impacts to sensitive ecosystems due to the presence of hazardous substances, including 2,3,7,8-TCDD (40 CFR §300.415(b)(2)(ii)); and

iii. there are high levels of hazardous substances, including 2,3,7,8-TCDD, which could migrate or be released due to weather conditions (40 CFR §300.415(b)(2)(iv) & (v)).

b. The response action to be performed pursuant to this Settlement Agreement is a removal action, pursuant to Section 101(23) of CERCLA, 42 U.S.C. 9601(23).

c. Although this is a removal action, a planning period of greater than six (6) months is available, such that this is a non-time critical removal action, pursuant to 40 C.F.R.§ 300.415(b)(4).

d. The implementation of the removal action will contribute to the efficient performance of any anticipated long-term remedial action, by reducing the inventory of dioxin in the Passaic River.

e. This Settlement Agreement concerns the Work Area portion of the LPRSA

located in and about Essex, Hudson, Bergen and Passaic Counties, New Jersey. The LPRSA is a facility as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

f. The contamination found in the Work Area includes "hazardous substance(s)" as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), that may present an imminent and substantial endangerment pursuant to Sections 104(a)(1) and 106(a) of CERCLA, 42 U.S.C. §§ 9604(a)(1) and 9606(a).

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

h. Respondent is a responsible party under one or more subsections of Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

i. The conditions described in the Findings of Fact above constitute an actual or threatened "release" of a hazardous substance from a facility as defined by Section 101(22) of CERCLA, 42 U.S.C.§ 9601(22), that may present an imminent and substantial endangerment pursuant to Sections 104(a)(1) and 106(a) of CERCLA, 42 U.S.C. §§ 9604(a)(1) and 9606(a).

j. The removal action required by this Settlement Agreement is necessary to protect the public health, welfare, or the environment and, if carried out in compliance with the terms of this Settlement Agreement, will be consistent with the NCP, as provided in Section 300.700(c)(3)(ii) of the NCP. EPA has determined that the removal action will be done properly by Respondent and that it is in the public interest pursuant to Sections 104(a)(1) and 122(a) of CERCLA, 42 U.S.C. §§ 9401(a)(1) and 9622(a).

k. The removal action required by this Settlement Agreement is determined to be on-site for purposes of Section 121(e)(1) of CERCLA, 42 U.S.C. § 9621(e)(1).

VI. SETTLEMENT AGREEMENT AND ORDER

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

13. Respondent shall finance and perform the Work in accordance with this Settlement Agreement, the SOW, and all work plans and other plans, standards, specifications, and schedules set forth herein or developed by Respondent and approved by EPA pursuant to this Settlement Agreement. Respondent shall also reimburse the United States for Future Response Costs as provided in this Settlement Agreement.

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

14. Respondent shall retain one or more contractors to perform the Work and shall notify EPA of the name(s) and qualifications of such contractor(s) within 10 days of the Effective Date. Respondent shall also notify EPA of the name(s) and qualification(s) of any other contractor(s) or subcontractor(s) retained to perform the Work at least 21 days prior to commencement of such Work. EPA retains the right to disapprove of any or all of the contractors and/or subcontractors retained by Respondent. If EPA disapproves of a selected contractor, Respondent shall retain a different contractor and shall notify EPA of that contractor's name and qualifications within 14 days of EPA's disapproval. Any proposed contractor must demonstrate compliance with ANSI/ASQC E4-1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs," (American National Standard, January 5, 1995), by submitting a copy of the proposed contractor's Quality Management Plan (QMP). The QMP should be prepared in accordance with "EPA Requirements for Quality Management Plans (QA/R-2)," (EPA/240/B-01-002, March 2001) or equivalent documentation as determined by EPA.

15. Within 10 days after the Effective Date, Respondent shall designate a Project Coordinator who shall be responsible for administration of all actions by Respondent required by this Settlement Agreement and shall submit to EPA the designated Project Coordinator's name, address, telephone number, and qualifications. To the greatest extent possible, the Project Coordinator shall be present or readily available during the Work. EPA retains the right to disapprove of the designated Project Coordinator. If EPA disapproves of the designated Project Coordinator, Respondent shall retain a different Project Coordinator and shall notify EPA of that person's name, address, telephone number, and qualifications within 10 days following EPA's disapproval. Receipt by Respondent's Project Coordinator of any notice or communication from EPA relating to this Settlement Agreement shall constitute receipt by Respondent.

16. After the Effective Date of the Settlement Agreement, EPA will designate an On-Scene Coordinator ("OSC") from the Removal Action Branch in the Emergency and Remedial Response Division, Region 2. Except as otherwise provided in this Settlement Agreement, Respondent shall direct all submissions required by this Settlement Agreement to the OSC at:

U.S. Environmental Protection Agency
2890 Woodbridge Avenue
Edison, New Jersey 08837

17. Respondent, subject to Paragraph 15, and EPA shall have the right to change their respective designated Project Coordinator or OSC. Respondent shall notify EPA 10 days before such a change is made. The initial notification may be made orally, but shall be promptly followed by a written notice.

VIII. WORK TO BE PERFORMED

18. Respondent shall perform all actions necessary to implement the Statement of Work. The objective of this Work shall be to excavate sediment from the Site, as shown in Appendix B, which has been delineated to encompass some of the most concentrated inventory of 2,3,7,8-TCDD found in the LPRSA. Other than the Work outlined in the Statement of Work, Respondent is not agreeing at this time to perform or participate in any manner in any interim remedial measures or interim or early final actions that may be taken in the LPRSA. The Work shall be implemented as set forth in the Statement of Work, which is attached as Appendix C, and generally includes, but is not limited to, the following:

a. Performance of the Phase I EE/CA pursuant to the EE/CA Approval Memorandum issued by the Regional Administrator, Region 2, on June 12, 2008 and performance of the Phase I Work as described in the Phase I Action Memorandum to be issued by the Regional Administrator, Region 2, as a result of the Phase I EE/CA; and

b. Performance of the Phase II EE/CA pursuant to the EE/CA Approval Memorandum issued by the Regional Administrator, Region 2, on June 12, 2008 and performance of the Phase II Work as described in the Phase II Action Memorandum to be issued by the Regional Administrator, Region 2, as a result of the Phase II EE/CA.

19. EE/CA Schedule. a. Within 30 days after the Effective Date, Respondent shall submit to EPA for approval a Phase I EE/CA Work Plan and Schedule for completion of a Phase I EE/CA consistent with the EE/CA Approval Memorandum issued by the Regional Administrator, Region 2, on June 12, 2008. Such submittal shall be consistent with 40 C.F.R. 300.415(b)(4) and "Guidance for Conducting Non-Time-Critical Removal Actions under CERCLA," OSWER 9360.0-32, December 1993, and includes an outline for the report that:

i. addresses the elements identified in the Statement of Work, including, but not limited to, a summary of the available information relating to the area in which the removal action will be taken, including previously gathered physical and chemical data, a description of the surrounding area, an evaluation of potentially sensitive ecosystems, the source, nature, and extent of excavation, a streamlined risk evaluation, and a listing of additional sampling that will be required for the EE/CA;

ii. identifies the scope, goals, and objectives of the removal action, with a proposed schedule for completion of removal activities; and

iii identifies removal action alternatives that will meet the objectives of the removal action and evaluates the developed alternatives for effectiveness, implementability, and cost, as well as comparing the alternatives for consistency

with applicable or relevant and appropriate requirements ("ARARs") and other criteria, guidance, and policies.

b. Within 30 days after EPA approval of the Phase I Removal Design Work Plan, Respondent shall submit to EPA for approval a Phase II EE/CA Work Plan and Schedule for completion of a Phase II EE/CA consistent with the EE/CA Approval Memorandum issued by the Regional Administrator, Region 2, on June 12, 2008. Such submittal shall be consistent with 40 C.F.R. 300.415(b)(4) and "Guidance for Conducting Non-Time-Critical Removal Actions under CERCLA," OSWER 9360.0-32, December 1993 and includes an outline for the report that:

i. addresses elements identified in the Statement of Work, including, but not limited to, a summary of the available information relating to the area in which the removal action will be taken, including previously gathered physical and chemical data, a description of the surrounding area, an evaluation of potentially sensitive ecosystems, the source, nature, and extent of contamination, a streamlined risk evaluation, and a listing of additional sampling that will be required for the EE/CA;

ii. summarizes available locations and information for siting a CDF that is to be located on-site, as that term is defined in 40 C.F.R. Part 300.5, including, but not limited to, previously gathered physical and chemical data, a detailed description of the proposed areas, an evaluation of potentially sensitive ecosystems, and any additional sampling that may be required, within the schedule for completion of the EE/CA;

iii. identifies the scope, goals, and objectives of the removal action, with a proposed schedule for completion of removal activities; and

iv identifies removal action alternatives that will meet the objectives of the removal action and evaluates the developed alternatives for effectiveness, implementability, and cost, as well as comparing the alternatives for consistency with ARARs and other criteria, guidance, and policies.

20. EE/CA Submittal. Upon completion of each EE/CA, Respondent shall submit such EE/CA to EPA for review. EPA may, in its unreviewable discretion, modify such EE/CA without following the procedure outlined in Section IX and issue separate Action Memoranda based on the conclusions of each such EE/CA.

21. Work Plans and Implementation. After issuance of each Action Memorandum by EPA, Region 2, Respondent shall prepare and implement the following work plans for various stages of the project as follows:

a. Within 45 days of issuance of each Action Memorandum, Respondent shall submit to EPA a work plan for the design work ("Removal Design Work Plan") with respect to the Phase I Work and the Phase II Work. Each Removal Design Work Plan shall provide for the performance of all work necessary for the design of the Phase I Work and the Phase II Work as described in the SOW and each Action Memorandum.

i. Each Removal Design Work Plan shall include plans and schedules for implementation of all design tasks identified in the SOW, including, but not limited to, plans and schedules for the completion of the Work.

ii. Upon approval of each Removal Design Work Plan by EPA, Respondent shall implement such Removal Design Work Plan. Respondent shall submit to EPA all plans, submittals and other deliverables required in accordance with each such approved schedule for review and approval pursuant to Section IX (EPA Approval of Plans and Other Submissions).

b. Within 45 days of EPA's approval of all deliverables submitted in connection with each Removal Design Work Plan, Respondent shall submit to EPA a work plan ("Removal Action Work Plan") for the performance of the Phase I Work and the Phase II Work, in relation thereto. Each Removal Action Work Plan shall provide for the construction and implementation of the Phase I Work and the Phase II Work set forth in each Action Memorandum in accordance with the SOW and the design plans and specifications developed in accordance with the Removal Design Work Plan.

i. Each Removal Action Work Plan shall include plans and an expeditious schedule for implementation of all design tasks identified in the SOW.

ii. Upon approval of each Removal Action Work Plan by EPA, Respondent shall implement the activities required under such Removal Action Work Plan. Respondent shall submit to EPA all plans, submittals, or other deliverables required under each such approved Removal Action Work Plan in accordance with the approved schedule for review and approval pursuant to Section IX (EPA Approval of Plans and Other Submissions). Respondent shall not commence any Work except in conformance with the terms of this Settlement Agreement. Respondent shall not commence implementation of any Work Plan developed hereunder until receiving written EPA approval.

22. Each Removal Action Work Plan shall contain a Quality Assurance/Quality Control Project Plan ("QAPP"), which shall be prepared in accordance with the Uniform Federal Policy for Implementing Quality Systems ("UFP-QS"), EPA-505-F-03-001, March 2005 or newer, Uniform Federal Policy for Quality Assurance Project Plans ("UFP-QAPP"), Parts 1, 2A and 2B, EPA-505-B-04-900A, B and C, March 2005 or newer, and other guidance documents referenced in the aforementioned guidance documents. The QAPP shall include the following elements:

a. An explanation of the way(s) the sampling, analysis, testing, and monitoring will produce data;

b. A detailed description of the sampling, analysis, and testing to be performed, including sampling methods, analytical and testing methods, sampling locations and frequency of sampling;

c. A map depicting sampling locations; and

d. A schedule for performance of specific tasks.

In the event that additional sampling locations, testing, and analyses are utilized or required, Respondent shall submit to EPA an addendum to the QAPP for approval by EPA.

23. All sampling, analysis, data assessment, and monitoring shall be performed in accordance with the guidance provided at http://www.epa.gov/fedfac/documents/qualityassurance.htm, the guidance and procedures located in the EPA Region 2 DESA/HWSB web site: http://www.epa.gov/region02/qa/documents.htm, other OSWER directives and EPA Region 2 policies, as appropriate, or an alternate EPA-approved test method, and the guidelines set forth in this Administrative Order. All testing methods and procedures shall be fully documented and referenced to established methods or standards.

24. In order to provide quality assurance and maintain quality control with respect to samples to be collected, Respondent shall ensure the following:

a. Quality assurance and chain-of-custody procedures shall be performed in accordance with standard EPA protocol and guidance, including the guidance provided in the EPA Region 2 Quality Assurance Homepage, and the guidelines set forth in this Order.

b. The laboratory to be used must be specified in the QAPP. Any laboratory certified for the analytic service to be provided by one of the following accreditation/certification programs: USEPA Contract Laboratory Program ("CLP"), National Environmental Laboratory Accreditation Program ("NELAP"), American Association for Laboratory Accreditation ("A2LA"), or a certification issued by a program conducted or approved by a state, and acceptable to EPA, will not require project-specific Performance Evaluation ("PE") samples, as these certifications require PEs on a quarterly basis. For EPA to approve use of a laboratory that does not participate in any of the certification programs listed above for the analyses required, PE samples must be analyzed to demonstrate the capability to conduct the required analysis. Once a non-certified laboratory demonstrates capability by analyzing PE samples, the laboratory should submit a copy of their Laboratory Quality Assurance Program Plan ("LQAPP") to EPA for review and approval.

c. The laboratory utilized for analyses of samples performs all analyses according to accepted EPA methods as documented in the Contract Lab Program Statement of Work for Organic and Inorganic Analysis, the latest revision, or other EPA approved methods.

d. Unless indicated otherwise in the approved QAPP, upon receipt from the laboratory, all data shall be validated.

e. Submission of the validation package (checklist, report and Form Is containing the final data) upon request by EPA, prepared in accordance with the provisions of Subparagraph f., below.

f. Assurance that all analytical data that are validated as required by the QAPP are validated according to the procedures stated in the EPA Region 2 Contract Lab Program Organics Data Review and Preliminary Review (the latest revision), and the "Evaluation of Metals Data for the Contract Laboratory Program" (the latest revision), or EPA-approved equivalent procedures. Region 2 Standard Operating Procedures are available at: http://www.epa.gov/region02/desa/hsw/sops.htm

g. Unless indicated otherwise in the QAPP, Respondent shall require deliverables equivalent to CLP data packages from the laboratory for analytical data. Upon EPA's request, Respondent shall submit to EPA the full documentation (including raw data) for this analytical data. EPA reserves the right to perform an independent data validation, data validation check, or qualification check on generated data and corresponding certificates of accreditation from the programs listed in Subparagraph b., above.

h. Respondent shall insert a provision in its contract(s) with the laboratory utilized for analyses of samples, which will require granting access to EPA personnel and authorized representatives of the EPA for the purpose of ensuring the accuracy of laboratory results related to the Site.

25. For any analytical work performed, including that done in a fixed laboratory, in a mobile laboratory, or in on-site screening analyses, Respondent must submit to EPA a Non-CLP Superfund Analytical Services Tracking System form for each laboratory utilized during a sampling event, within thirty (30) days after acceptance of the analytical results. Upon completion, such documents shall be submitted to the EPA Project Coordinator, with a copy of the form and transmittal letter to:

Regional Sample Control Center Coordinator
U.S. EPA Region 2
Division of Environmental Science & Assessment
2890 Woodbridge Avenue, Bldg. 209, MS-215
Edison, NJ 08837

26. Upon request by EPA, Respondent shall allow EPA, NJDEP or their authorized representatives to take split and/or duplicate samples. Respondent shall notify EPA and NJDEP not less than 14 days in advance of any sample collection activity, unless shorter notice is agreed to by EPA. EPA and NJDEP shall have the right to take any additional samples that EPA deems necessary. Upon request, EPA shall allow Respondent to take split or duplicate samples of any samples it takes as part of its oversight of Respondent's implementation of the Work.

27. Health and Safety Plan. Within 30 days after the Effective Date, Respondent shall submit for EPA review and comment a plan that ensures the protection of the public health and safety during performance of Work under this Settlement Agreement. This plan shall be prepared in accordance with EPA's Standard Operating Safety Guide (PUB 9285.1-03, PB 92-963414, June 1992). In addition, the plan shall comply with all currently applicable Occupational Safety and Health Administration ("OSHA") regulations found at 29 C.F.R. Part 1910. If EPA determines that it is appropriate, the plan shall also include contingency planning. Respondent shall incorporate all changes to the plan recommended by EPA and shall implement the plan during the pendency of the removal action.

28. Reporting.

a. Respondent shall submit a written progress report to EPA and NJDEP concerning actions undertaken pursuant to this Settlement Agreement the 20th day of each month after the date of receipt of EPA's approval of each EE/CA Work Plan and Schedule until termination of this Settlement Agreement, unless otherwise directed in writing by the OSC. These reports shall describe all significant developments during the preceding period, including the actions performed and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

b. Respondent shall submit 4 copies of all plans, reports or other submissions required by this Settlement Agreement, the Statement of Work, or any approved work plan. Upon request by EPA, Respondent shall submit such documents in electronic form. One copy of each report shall be submitted to the following:

U.S. Environmental Protection Agency
2890 Woodbridge Avenue
Edison, New Jersey 08837
Attn: Lower Passaic River Study Area On-Scene Coordinator

New Jersey Remediation Branch
Emergency and Remedial Response Division
U.S. Environmental Protection Agency, Region 2
290 Broadway, 19th Floor

New York, New York 10007-1866
Attn: Lower Passaic River Study Area Remedial Project Manager

Office of Regional Counsel
U.S. Environmental Protection Agency, Region 2
290 Broadway, 17th Floor
New York, New York 10007-1866
Attn: Lower Passaic River Study Area Site Attorney

New Jersey Department of Environmental Protection
Site Remediation Program
401 E. State Street
P.O. Box 028
Trenton, New Jersey 08265-0028
Attn: Lower Passaic River Study Area Project Manager

29. Final Reports. Within 60 days after completion of both the Phase I Work and the Phase II Work, Respondent shall submit for EPA review and approval a final report summarizing the actions taken to comply with this Settlement Agreement. Respondent shall also send a copy to NJDEP. Each final report shall conform, at a minimum, with the requirements set forth in Section 300.165 of the NCP entitled "OSC Reports." Each final report shall include a good faith estimate of total costs or a statement of actual costs incurred in complying with the Settlement Agreement, a listing of quantities and types of materials removed off-Site or handled on-Site, a discussion of removal and disposal options considered for those materials, a listing of the ultimate destination(s) of those materials, a presentation of the analytical results of all sampling and analyses performed, and accompanying appendices containing all relevant documentation generated during the removal action (e.g., manifests, invoices, bills, contracts, and permits). Each final report shall also include the following certification signed by a person who supervised or directed the preparation of that report:

> "Under penalty of law, I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of the report, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

30. Off-Site Shipments.

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

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

ii. The identity of the receiving facility and state will be determined by Respondent following the award of the contract for the removal action. Respondent shall provide the information required by Paragraph 30(a) and 30(b) as soon as practicable after the award of the contract and before the Waste Material is actually shipped.

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

IX. EPA APPROVAL OF PLANS AND OTHER SUBMISSIONS

31. After review of any plan, report or other item which is required to be submitted for approval pursuant to this Settlement Agreement, EPA shall: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; (c) modify the submission to cure the deficiencies; (d) disapprove, in whole or in part, the submission, directing that the Respondent modify the submission; or (e) any combination of the above. However, EPA shall not modify a submission without first providing Respondent at least one notice of deficiency and an opportunity to cure within 10 days, except where to do so would cause serious disruption to the Work or where previous submission(s) have been disapproved due to material defects and the deficiencies in the submission under consideration indicate a bad faith lack of effort to submit an acceptable deliverable.

32. In the event of approval, approval upon conditions, or modification by EPA, pursuant to Paragraph 31(a), (b), or (c), Respondent shall proceed to take any action required by the plan, report, or other item, as approved or modified by EPA subject only to its right to invoke the Dispute Resolution procedures set forth in XVII (Dispute Resolution) with respect to the modifications or conditions made by EPA. In the event that EPA modifies the submission to cure the deficiencies pursuant to Paragraph 31(c) and the submission has a material defect, EPA retains its right to seek stipulated penalties, as provided in Section XIX (Stipulated Penalties).

33. Resubmission of Plans.

a. Upon receipt of a notice of disapproval pursuant to Paragraph 31(d), Respondent shall, within 10 days or such longer time as specified by EPA in such notice, correct the deficiencies and resubmit the plan, report, or other item for approval. Any stipulated penalties applicable to the submission, as provided in Section XIX, shall accrue during the 10-day period or otherwise specified period but shall not be payable unless the resubmission is disapproved or modified due to a material defect as provided in Paragraphs 31 and 32.

b. Notwithstanding the receipt of a notice of disapproval pursuant to Paragraph 31(d), Respondent shall proceed, at the direction of EPA, to take any action required by any non-deficient portion of the submission. Implementation of any non-deficient portion of a submission shall not relieve Respondent of any liability for stipulated penalties under Section XIX (Stipulated Penalties).

34. In the event that a resubmitted plan, report or other item, or portion thereof, is disapproved by EPA, EPA may again require the Respondent to correct the deficiencies, in accordance with the preceding Paragraphs. EPA also retains the right to modify or develop the plan, report or other item. Respondent shall implement any such plan, report, or item as modified or developed by EPA, subject only to its right to invoke the procedures set forth in Section XVII (Dispute Resolution).

35. If upon resubmission, a plan, report, or item is disapproved or modified by EPA due to a material defect, Respondent shall be deemed to have failed to submit such plan, report, or item timely and adequately unless the Respondent invokes the dispute resolution procedures set forth in Section XVII (Dispute Resolution) and EPA's action is overturned pursuant to that Section. The provisions of Section XVII (Dispute Resolution) and Section XIX (Stipulated Penalties) shall govern the implementation of the Work and accrual and payment of any stipulated penalties during Dispute Resolution. If EPA's disapproval or modification is upheld, stipulated penalties shall accrue for such violation from the date on which the initial submission was originally required, as provided in Section XIX.

36. All plans, reports, and other items required to be submitted to EPA under this Settlement Agreement shall, upon approval or modification by EPA, be enforceable under this Settlement Agreement. In the event EPA approves or modifies a portion of a plan, report, or other item required to be submitted to EPA under this Consent Decree, the approved or modified portion shall be enforceable under this Settlement Agreement.

X. SITE ACCESS

37. If any property where access is needed to implement this Settlement Agreement is owned or controlled by Respondent, Respondent shall, commencing on the Effective Date, provide EPA, the State, and their representatives, including contractors, with access at all reasonable times to the Site, or such other property, for the purpose of conducting any activity related to this Settlement Agreement.

38. Where any action under this Settlement Agreement is to be performed in areas owned by or in possession of someone other than Respondent, Respondent shall use its best efforts to obtain all necessary access agreements within 60 days after the Effective Date, or no fewer than 120 days before access to such parcel is needed pursuant to the SOW, whichever is later, or as otherwise specified in writing by the OSC. Respondent shall immediately notify EPA if after using its best efforts it is unable to obtain such agreements. For purposes of this Paragraph, "best efforts" includes the payment of reasonable sums of money in consideration of access. Respondent shall describe in writing its efforts to obtain access. If Respondent cannot obtain access agreements, EPA may either obtain access for Respondent or EPA may assist Respondent in gaining access, to the extent necessary to effectuate the response actions described in this Settlement Agreement, using such means as EPA deems appropriate. Respondent shall reimburse EPA for all costs and attorney's fees incurred by the United States in obtaining such access, in accordance with the procedures in Section XVI (Payment of Response Costs).

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

XI. ACCESS TO INFORMATION

40. Respondent shall provide to EPA, upon request, copies of all documents and information within its possession or control or that of its contractors or agents relating to the implementation of the Work under this Settlement Agreement, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Work. Respondent shall also make available to EPA, for purposes of investigation, information gathering, or testimony, its employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

41. Respondent may assert business confidentiality claims covering part or all of the documents or information submitted to EPA under this Settlement Agreement to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. §9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when they are submitted to EPA or if EPA has notified Respondent that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such documents or information without further notice to Respondent.

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

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

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

XII. RECORD RETENTION

44. Until 10 years after Respondent's receipt of EPA's notification pursuant to Section XXIX (Notice of Completion of Work), Respondent shall preserve and retain all nonidentical copies of records and documents (including records or documents in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work under this Settlement Agreement, regardless of any corporate retention policy to the contrary. Until 10 years after Respondent's receipt of EPA's notification pursuant to Section XXIX (Notice of Completion of Work), Respondent shall also instruct its contractors and agents to preserve all documents, records, and information of whatever kind, nature or description relating to performance of the Work.

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

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

XIII. COMPLIANCE WITH OTHER LAWS

47. Respondent shall perform all actions required pursuant to this Settlement Agreement in accordance with all applicable state and federal laws and regulations except as provided in Section 121(e) of CERCLA, 42 U.S.C. § 9621(e), and 40 C.F.R. §§ 300.400(e) and 300.415(j). In accordance with 40 C.F.R. § 300.415(j), all actions required pursuant to this Settlement Agreement shall, to the extent practicable, as determined by EPA, considering the exigencies of the situation, attain ARARs under federal environmental or state environmental or facility siting laws. Respondent shall identify ARARs in the Work Plans subject to EPA approval.

XIV. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES

48. In the event of any action or occurrence during performance of the Work which causes or threatens a release of Waste Material that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Respondent shall immediately take all appropriate action. Respondent shall take these actions in accordance with all applicable provisions of this Settlement Agreement, including, but not limited to, the Health and Safety Plan, in order to prevent, abate or minimize such release or endangerment caused or threatened by the release. Respondent shall also immediately notify the OSC or, in the event of his/her unavailability, the EPA Regional Emergency 24-hour telephone number 732-548-8730, of the incident or Site conditions. In the event that Respondent fails to take appropriate response action as required by this Paragraph, and EPA takes such action instead, Respondent shall reimburse EPA for all costs of the response action not inconsistent with the NCP pursuant to Section XVI (Payment of Response Costs).

49. In addition, in the event of any release of a hazardous substance resulting from actions required pursuant to this Settlement Agreement, Respondent shall immediately notify the OSC and the National Response Center at (800) 424-8802. Respondent shall submit a written report to EPA and NJDEP within 7 days after each release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in addition to, and not in lieu of, reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004.

XV. AUTHORITY OF ON-SCENE COORDINATOR

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

XVI. PAYMENT OF RESPONSE COSTS

51. Payments for Future Response Costs.

a. Respondent shall pay EPA all Future Response Costs not inconsistent with the NCP. On a periodic basis, EPA will send Respondent a bill requiring payment that includes a Regionally-prepared cost summary, which includes direct and indirect costs incurred by EPA and its contractors. EPA will endeavor to send such bills on an annual basis. Respondent shall make all payments within 30 days of receipt of each bill requiring payment, except as otherwise provided in Paragraph 53 of this Settlement Agreement.

b. Respondent shall make all payments required by this Paragraph by wire transfer directed to the Federal Reserve Bank of New York with the following information:

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

c. At the time of payment, Respondent shall send notice that payment has been made, referencing the name and address of the party making payment, Docket No. CERCLA-02-2008-2020 and EPA Site/Spill ID number 02-96 to:

New Jersey Remediation Branch
Emergency and Remedial Response Division
U.S. Environmental Protection Agency, Region 2
290 Broadway, 19th Floor
New York, New York 10007-1866
Attn: Lower Passaic River Study Area Remedial Project Manager

Office of Regional Counsel
U.S. Environmental Protection Agency, Region 2
290 Broadway, 17th Floor
New York, New York 10007-1866
Attn: Lower Passaic River Study Area Site Attorney

U.S. Environmental Protection Agency
Cincinnati Finance Office
26 Martin Luther King Drive

Cincinnati, Ohio 45268
Attn: Finance (Richard Rice)
acctsreceivable.cinwd@epa.gov

d. The total amount to be paid by Respondent pursuant to Paragraph 51(a) shall be deposited by EPA in the Diamond Alkali Operable Unit 2, Fund-lead, Special Account within the EPA Hazardous Substance Superfund to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by EPA to the EPA Hazardous Substance Superfund.

52. In the event that payments for Future Response Costs are not made within 30 days of Respondent's receipt of a bill, Respondent shall pay Interest on the unpaid balance. The Interest on Future Response Costs shall begin to accrue on the date of the bill and shall continue to accrue until the date of payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondent's failure to make timely payments under this Section, including but not limited to, payment of stipulated penalties pursuant to Section XIX.

53. Respondent may contest payment of any Future Response Costs billed under Paragraph 51 if it determines that EPA has made a mathematical error or has allocated the costs to the wrong Operable Unit account, or if it believes EPA incurred excess costs as a direct result of an EPA action that was inconsistent with the NCP. Such objection shall be made in writing within 30 days of receipt of the bill and must be sent to the OSC and the Site attorney. Any such objection shall specifically identify the contested Future Response Costs and the basis for objection. In the event of an objection, Respondent shall within the 30-day period pay all uncontested Future Response Costs to EPA in the manner described in Paragraph 51. Simultaneously, Respondent shall establish an interest-bearing escrow account in a federally-insured bank duly chartered in the State of New Jersey and remit to that escrow account funds equivalent to the amount of the contested Future Response Costs. Respondent shall send to the EPA OSC and the Site attorney a copy of the transmittal letter and check paying the uncontested Future Response Costs, and a copy of the correspondence that establishes and funds the escrow account, including, but not limited to, information containing the identity of the bank and bank account under which the escrow account is established as well as a bank statement showing the initial balance of the escrow account. Simultaneously with establishment of the escrow account, Respondent shall initiate the Dispute Resolution procedures in Section XVII (Dispute Resolution). If EPA prevails in the dispute, within 5 days of the resolution of the dispute, Respondent shall pay the sums due (with accrued interest) to EPA in the manner described in Paragraph 51. If Respondent prevails concerning any aspect of the contested costs, Respondent shall pay that portion of the costs (plus associated accrued interest) for which it did not prevail to EPA in the manner described in Paragraph 51. Respondent shall be disbursed any balance of the escrow account. The dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section XVII (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding Respondent's obligation to reimburse EPA for its Future Response Costs.

XVII. DISPUTE RESOLUTION

54. Respondent and EPA shall make reasonable efforts to informally and in good faith resolve all disputes or differences of opinion which arise with respect to the implementation of this Settlement Agreement. Unless otherwise expressly provided for in the Settlement Agreement, the Dispute Resolution procedures of this Section shall be the exclusive mechanism for resolving disputes arising under this Settlement Agreement that cannot otherwise be resolved expeditiously and informally. Disputes under provisions of this Settlement Agreement shall be resolved according to the following procedures:

a. If Respondent objects in good faith to any EPA action taken pursuant to this Settlement Agreement, including billings for Future Response Costs, it shall notify EPA in writing of its objection(s) within 14 days of such action, unless the objection(s) has/have been resolved informally. EPA and Respondent shall have 31 days from EPA's receipt of Respondent's written objection(s) to resolve the dispute through formal negotiations (the "Negotiation Period"). The Negotiation Period may be extended at the sole discretion of EPA.

b. Any agreement reached by the Parties pursuant to section a, above, shall be in writing and shall, upon signature by both Parties, be incorporated into and become an enforceable part of this Settlement Agreement. If the Parties are unable to reach an agreement within the Negotiation Period, the Director, Emergency and Remedial Response Division will issue a written decision on the dispute to Respondent. EPA's decision shall be incorporated into and become an enforceable part of this Settlement Agreement.

c. If the dispute and its resolution, as described above cause a delay that makes it impossible for Respondent to meet a deadline set forth in or established pursuant to this Settlement Agreement, then that deadline shall be extended by EPA by a period of time not to exceed the delay resulting from the dispute and its resolution; provided that Respondent shall not be entitled to any such extension if the Director, Emergency and Remedial Response Division, determines that Respondent's disagreement with the comments or determinations specified above is not in good faith or otherwise lacks a reasonable basis. Notwithstanding any of the foregoing, if Respondent requests an extension of a deadline set forth in or established pursuant to this Settlement Agreement, and if EPA declines to grant an extension in response to such a request, any delay caused solely by the resolution of such a dispute shall not entitle Respondent to an extension of time.

55. Notwithstanding any of the foregoing, EPA will be the final arbiter of all disputes under this Settlement Agreement and the final arbiter as to the sufficiency and acceptability of all work conducted pursuant to this Settlement Agreement. However, nothing in this Paragraph shall affect any rights that Respondent may have to judicial review, if any, of EPA's actions or determinations under this Settlement Agreement, and, except as provided in Sections XX and XXII, respectively, EPA and Respondent expressly reserve all rights and defenses they may have pursuant to applicable law.

XVIII. FORCE MAJEURE

56. Respondent agrees to perform all requirements of this Settlement Agreement within the time limits established under this Settlement Agreement, unless the performance is delayed by a *force majeure*. For purposes of this Settlement Agreement, a *force majeure* is defined as any event arising from causes beyond the control of Respondent, or of any entity controlled by Respondent, including but not limited to their contractors and subcontractors, which delays or prevents performance of any obligation under this Settlement Agreement despite Respondent's best efforts to fulfill the obligation. Force majeure does not include financial inability to complete the Work, or increased cost of performance or a failure to attain performance standards/action levels set forth in the Action Memoranda.

57. If any event occurs or has occurred that may delay the performance of any obligation under this Settlement Agreement, whether or not caused by a *force majeure* event, Respondent shall notify EPA orally within 3 days of when Respondent first knew that the event might cause a delay. Within 7 days thereafter, Respondent shall provide to EPA in writing an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondent's rationale for attributing such delay to a *force majeure* event if it intends to assert such a claim; and a statement as to whether, in the opinion of Respondent, such event may cause or contribute to an endangerment to public health, welfare or the environment. Failure to comply with the above requirements shall preclude Respondent from asserting any claim of *force majeure* for that event for the period of time of such failure to comply and for any additional delay caused by such failure.

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

XIX. STIPULATED PENALTIES

59. Respondent shall be liable to EPA for stipulated penalties in the amounts set forth in Paragraphs 60 and 61 for failure to comply with the requirements of this Settlement Agreement specified below, unless excused under Section XVIII (Force Majeure). "Compliance" by

Respondent shall include completion of the activities under this Settlement Agreement or any work plan or other plan approved under this Settlement Agreement identified below in accordance with all applicable requirements of law, this Settlement Agreement, the SOW, and any plans or other documents approved by EPA pursuant to this Settlement Agreement and within the specified time schedules established by and approved under this Settlement Agreement.

60. Stipulated Penalty Amounts - Work.

a. The following stipulated penalties shall accrue per violation per day for any noncompliance identified in Paragraph 60(b):

Penalty Per Violation Per Day	**Period of Noncompliance**
$2,000	1st through 14th day
$3,000	15th through 30th day
$6,000	31st day and beyond

b. Compliance Milestones

- Submittal of EE/CA Work Plans and Schedules (Paragraph 19)
- Submittal of EE/CAs (Paragraph 20)
- Submittal of Removal Design Work Plans (Paragraph 21a)
- Submittal of Removal Action Work Plans (Paragraph 21b)
- Compliance with Work Milestones as Identified in the SOW

61. Stipulated Penalty Amounts - Reports. The following stipulated penalties shall accrue per violation per day for failure to submit timely or adequate reports or other written documents pursuant to Paragraph 28 and Paragraph 29:

Penalty Per Violation Per Day	**Period of Noncompliance**
$1,000	1st through 14th day
$2,000	15th through 30th day
$3,000	31st day and beyond

62. In the event that EPA assumes performance of a portion or all of the Work pursuant to Paragraph 72 of Section XXI, Respondent shall be liable for a stipulated penalty in the amount of $1,000,000.00.

63. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not

accrue: 1) with respect to a deficient submission under Section VIII (Work to be Performed), during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies Respondent of any deficiency; and 2) with respect to a decision by the Director, Emergency & Remedial Response Division, under Paragraph 54 of Section XVII (Dispute Resolution), during the period, if any, beginning on the 31st day after the Negotiation Period begins until the date that the EPA management official issues a final decision regarding such dispute. Nothing in this Settlement Agreement shall prevent the simultaneous accrual of separate penalties for separate violations of this Settlement Agreement.

64. Following EPA's determination that Respondent has failed to comply with a requirement of this Settlement Agreement, EPA may give Respondent written notification of the failure and describe the noncompliance. EPA may send Respondent a written demand for payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether EPA has notified Respondent of a violation.

65. All penalties accruing under this Section shall be due and payable to EPA within 30 days of Respondent's receipt from EPA of a demand for payment of the penalties, unless Respondent invokes the dispute resolution procedures in accordance with Section XVII (Dispute Resolution). All payments to EPA under this Section shall be paid in accordance with the procedures set forth in Paragraph 51, and shall indicate that the payment is for stipulated penalties. At the time of payment, Respondent shall send notice that payment has been made to the EPA Project Coordinator, Site Attorney and Cincinnati Finance Center in accordance with Paragraph 51(b).

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

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

68. If Respondent fails to pay stipulated penalties when due, EPA may institute proceedings to collect the penalties, as well as Interest. Respondent shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 65. Nothing in this Settlement Agreement shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of Respondent's violation of this Settlement Agreement or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Sections 106(b) and 122(l) of CERCLA, 42 U.S.C. §§ 9606(b) and 9622(l), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3); provided, however, that EPA shall not seek civil penalties pursuant to Section 106(b) or 122(l) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided in this Section, except in the case of a willful violation of this Settlement Agreement or in the event that EPA assumes performance of a portion or all of the Work pursuant to Section XXI, Paragraph

72. Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Settlement Agreement.

XX. COVENANT NOT TO SUE BY EPA

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

XXI. RESERVATIONS OF RIGHTS

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

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

a. claims based on a failure by Respondent to meet a requirement of this Settlement Agreement;

b. liability for costs not included within the definition of Future Response Costs;

c. liability for performance of response action other than the Work;

d. criminal liability;

e. liability for damages for injury to, destruction of, or loss of natural resources,

and for the costs of any natural resource damage assessments;

f. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of the Work Area; and

g. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry related to the Work Area.

72. Work Takeover.

a. In the event EPA determines that Respondent has (i) ceased implementation of any portion of the Work, or (ii) is seriously or repeatedly deficient or late in its performance of the Work, or (iii) is implementing the Work in a manner which may cause an endangerment to human health or the environment, EPA may issue a written notice ("Work Takeover Notice") to Respondent that EPA intends to take over the Work. Any Work Takeover Notice issued by EPA will specify the grounds upon which such notice was issued and will provide Respondent a period of 10 days within which to remedy the circumstances giving rise to EPA's issuance of such notice.

b. If, after expiration of the 10-day notice period specified in Paragraph 72(a), Respondent has not remedied to EPA's satisfaction the circumstances giving rise to EPA's issuance of the relevant Work Takeover Notice, EPA may at any time thereafter assume the performance of all or any portions of the Work as EPA deems necessary ("Work Takeover"). EPA shall notify Respondent in writing (which writing may be electronic) if EPA determines that implementation of a Work Takeover is warranted under this Paragraph.

c. Respondent may invoke the procedures set forth in Section XVII (Dispute Resolution), to dispute EPA's implementation of a Work Takeover under Paragraph 72(b). However, notwithstanding Respondent's invocation of such dispute resolution procedures and during the pendency of any such dispute, EPA may in its sole discretion commence and continue a Work Takeover under Paragraph 72(b) until the earlier of (i) the date that Respondent remedies, to EPA's satisfaction, the circumstances giving rise to EPA's issuance of the relevant Work Takeover Notice or (ii) the date that a final decision is rendered in accordance with Section XVII (Dispute Resolution), requiring EPA to terminate such Work Takeover.

d. After commencement and for the duration of any Work Takeover, EPA shall have immediate access to and benefit of any performance guarantee(s) in an amount sufficient to fund the estimated cost of the remaining Work pursuant to Section XXVII of this Settlement Agreement, in accordance with the provisions of Paragraph 93 of that Section. If and to the extent that EPA is unable to secure the resources guaranteed under any such performance guarantee(s) and Respondent fails to remit a cash amount up to but not exceeding the amount needed to fund the estimated cost of the remaining Work, all in accordance with the provisions of Paragraph 93, any unreimbursed costs incurred by EPA in performing Work under the Work

Takeover shall be considered Future Response Costs that Settling Parties shall pay pursuant to Section XVI (Payment of Response Costs).

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

XXII. COVENANT NOT TO SUE BY RESPONDENT

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

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

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

c. any claim against the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, relating to the Work or Future Response Costs.

d. This Covenant Not to Sue by Respondent shall not extend to, and Respondent specifically reserves, (1) any claims or causes of action in contribution pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, against the United States as a "covered person" (within the meaning of Section 107(a) of CERCLA, 42 U.S.C. § 9607(a)) with respect to this Settlement Agreement, based solely on actions by the United States other than the exercise of the government's authority under CERCLA or WRDA; and (2) any claims or causes of action pursuant to the Tucker Act, 28 U.S.C. § 1491, against the United States with respect to this Settlement Agreement based solely on contracts that do not address or relate to the exercise of the government's authority under CERCLA or WRDA.

75. These covenants not to sue shall not apply in the event the United States brings a cause of action or issues an order pursuant to the reservations set forth in Paragraphs 71(b) or (c), but only to the extent that Respondent's claims arise from the same response action, response costs, or damages that the United States is seeking pursuant to the applicable reservation.

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

77. Respondent agrees not to assert any claims and to waive all claims or causes of action that it may have for Work and Future Response Costs, including for contribution, against the Passaic Valley Sewerage Commissioners and its member and contributing municipalities ("PVSC Parties"), as identified in Appendix D.

78. The waiver in Paragraph 77 shall not apply with respect to any defense, claim, or cause of action that Respondent may have against a PVSC Party if that PVSC Party asserts a claim or cause of action against Respondent relating to Work or Future Response Costs. This waiver also shall not apply to any claim or cause of action against a PVSC Party if EPA determines:

a. that such PVSC Party has failed to comply with any EPA requests for information or administrative subpoenas issued pursuant to Section 104(e) or 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) or 9622(e), or Section 3007 of the Solid Waste Disposal Act (also known as RCRA), 42 U.S.C. § 6972, or has impeded or is impeding, through action or inaction, the performance of a response action or natural resource restoration with respect to the Site, or has been convicted of a criminal violation for the conduct to which this waiver would apply and that conviction has not been vitiated on appeal or otherwise; or

b. that the materials containing hazardous substances contributed to the Site by such PVSC Party have contributed significantly, or could contribute significantly, either individually or in the aggregate, to the cost of response action or natural resource restoration at the Site.

XXIII. OTHER CLAIMS

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

80. Except as expressly provided in Section XXII, Paragraph 77 and Section XX (Covenant Not to Sue by EPA), nothing in this Settlement Agreement constitutes a satisfaction of or release from any claim or cause of action against Respondent or any person not a party to this Settlement Agreement, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States for costs, damages and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607 or any claim of the State under state or federal law.

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

XXIV. CONTRIBUTION

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

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

c. Except as provided in Section XXII, Paragraph 77, of this Settlement Agreement, nothing in this Settlement Agreement precludes the United States or Respondent from asserting any claims, causes of action, or demands for indemnification, contribution, or cost recovery against any persons not parties to this Settlement Agreement. Nothing in this Settlement Agreement diminishes the right of the United States, pursuant to Section 113(f)(2) & (3) of CERCLA, 42 U.S.C. § 9613(f)(2) & (3), or the State pursuant to state or federal law, to pursue any such persons to obtain additional response costs or response action and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2) or state law.

XXV. INDEMNIFICATION

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

84. The United States and the State shall give Respondent notice of any claim for which

either plans to seek indemnification pursuant to this Section and shall consult with Respondent prior to settling such claim.

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

XXVI. INSURANCE

86. At least 30 days prior to commencing any Work under this Settlement Agreement, Respondent shall secure, and shall maintain for the duration of this Settlement Agreement, comprehensive general liability insurance and automobile insurance with limits of $5 million dollars, combined single limit, naming EPA and NJDEP as an additional insured. Within the same time period, Respondent shall provide EPA and NJDEP with certificates of such insurance and a copy of each insurance policy. Respondent shall submit such certificates and copies of policies each year on the anniversary of the Effective Date. In addition, for the duration of the Settlement Agreement, Respondent shall satisfy, or shall ensure that its contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Respondent in furtherance of this Settlement Agreement. If Respondent demonstrates by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then Respondent need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor.

XXVII. FINANCIAL ASSURANCE

87. Respondent shall establish and maintain financial security for the benefit of EPA in the amount of $80 million in one or more of the following forms, in order to secure the full and final completion of Work by Respondent:

a. a surety bond unconditionally guaranteeing payment and/or performance of the Work;

b. one or more irrevocable letters of credit, payable to or at the direction of EPA, issued by financial institution(s) acceptable in all respects to EPA;

c. a trust fund administered by a trustee acceptable in all respects to EPA;

d. a policy of insurance issued by an insurance carrier acceptable in all respects to EPA, which ensures the payment and/or performance of the Work;

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

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

88. Respondent has selected, and EPA has approved, that the initial form of the financial security described in Paragraph 87 shall be a trust fund pursuant to the Trust Agreement attached hereto as Appendix E. Within ten days of the Effective Date of this Settlement Agreement, Respondent shall execute or otherwise finalize all instruments or other documents required in order to make the Trust Agreement legally binding in a form substantially identical to the documents attached hereto as Appendix E, and the financial security shall thereupon be fully effective. Within 30 days of the Effective Date of this Settlement Agreement, Respondent shall submit to the EPA OSC all executed and/or otherwise finalized instruments or other documents required in order to make financial assurance legally binding as designated in Paragraph 16, with a copy to the Diamond Alkali Superfund Site/Lower Passaic River Study Area Attorney.

89. Any and all financial assurance instruments provided pursuant to this Section shall be in form and substance satisfactory to EPA, determined in EPA's sole discretion. In the event that EPA determines at any time that the financial assurances provided pursuant to this Section (including, without limitation, the instrument(s) evidencing such assurances) are inadequate, Respondent shall, within 30 days of receipt of notice of EPA's determination, obtain and present to EPA for approval one of the other forms of financial assurance listed in Paragraph 87, above. In addition, if at any time EPA notifies Respondent that the anticipated cost of completing the Work has increased, then, within 30 days of such notification, Respondent shall obtain and present to EPA for approval a revised form of financial assurance (otherwise acceptable under this Section) that reflects such cost increase. Respondent's inability to demonstrate financial ability to complete the Work shall in no way excuse performance of any activities required under this Settlement Agreement.

90. If Respondent seeks to ensure completion of the Work through a guarantee pursuant to Subparagraph 87(e) or 87(f) of this Settlement Agreement, Respondent shall (i) demonstrate to EPA's satisfaction that the guarantor satisfies the requirements of 40 C.F.R. Part 264.143(f); and (ii) resubmit sworn statements conveying the information required by 40 C.F.R. Part 264.143(f) annually, on the anniversary of the Effective Date or such other date as agreed by EPA, to EPA.

For the purposes of this Settlement Agreement, wherever 40 C.F.R. Part 264.143(f) references "sum of current closure and post-closure costs estimates and the current plugging and abandonment costs estimates," the dollar amount to be used in the relevant financial test calculations shall be the current cost estimate for the Work plus any other RCRA, CERCLA, the Toxic Substances Control Act, 15 U.S.C. § 2601, et seq. ("TSCA"), or other federal environmental obligations financially assured by the relevant Respondent or guarantor to EPA by means of passing a financial test.

91. If, after the Effective Date, Respondent can show that the estimated cost to complete the remaining Work has diminished below the amount set forth in Paragraph 87 of this Section, Respondent may, on any anniversary date of the Effective Date, or at any other time agreed to by the Parties, reduce the amount of the financial security provided under this Section to the estimated cost of the remaining Work to be performed. Respondent shall submit a proposal for such reduction to EPA, in accordance with the requirements of this Section, and may reduce the amount of the security after receiving written approval from EPA. In the event of a dispute, Respondent may seek dispute resolution pursuant to Section XVII (Dispute Resolution). Respondent may reduce the amount of security in accordance with EPA's written decision resolving the dispute.

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

93. The commencement of any Work Takeover pursuant to Paragraph 72 of this Settlement Agreement shall trigger EPA's right to receive the benefit of any Performance Guarantee(s) provided pursuant to Paragraph 87(a), (b), (c), (d), or (e), in accordance with Paragraph 72 and at such time EPA shall have immediate access to resources guaranteed under any such Performance Guarantee(s), whether in cash or in kind, as needed to continue and complete the Work assumed by EPA under the Work Takeover. If for any reason EPA is unable to promptly secure the resources guaranteed under any such Performance Guarantee(s), whether in cash or in kind, necessary to continue and complete the Work assumed by EPA under the Work Takeover, or in the event that the Performance Guarantee involves a demonstration of satisfaction of the financial test criteria pursuant to Paragraph 87.f, Respondent shall immediately upon written demand from EPA deposit into an account specified by EPA, in immediately available funds and without setoff, counterclaim, or condition of any kind, a cash amount up to but not exceeding the estimated cost of the remaining Work to be performed as of such date, as determined by EPA.

XXVIII. MODIFICATIONS

94. This Settlement Agreement and its appendices may be amended by mutual agreement

of EPA and Respondent. Amendments shall be in writing and shall be effective when signed by EPA.

95. If Respondent seeks permission to deviate from any approved work plan or schedule or Statement of Work, Respondent's Project Coordinator shall submit a written request to EPA for approval outlining the proposed modification and its basis. Respondent may not proceed with the requested deviation until receiving written approval from EPA pursuant to Paragraph 94.

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

XXIX. NOTICE OF COMPLETION OF WORK

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

XXX. INTEGRATION/APPENDICES

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

99. This Settlement Agreement and its appendices constitute the final, complete and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Settlement Agreement. The parties acknowledge that there are no representations, agreements or understandings relating to the settlement other than those expressly contained in this Settlement Agreement. The following appendices are attached to and incorporated into this Settlement Agreement:

"Appendix A" is the EE/CA Approval Memorandum.

"Appendix B" is the map of the Work Area.
"Appendix C" is the Statement of Work.
"Appendix D" is the list of PVSC Parties.
"Appendix E" is the Trust Agreement.

XXXI. EFFECTIVE DATE

100. This Settlement Agreement shall be effective on the date it is signed by the Regional Administrator or his delegatee. The undersigned representative of Respondent certifies that s/he is fully authorized to enter into the terms and conditions of this Settlement Agreement and to bind the party it represents to this document.

Agreed this 4th day of June, 2008.

For Respondent Occidental Chemical Corporation

By _____

Dennis F. Blake
(Printed)

Title Senior Vice President Business Analysis

Agreed this 19th day of June, 2008.

For Respondent Tierra Solutions, Inc.

By _____

DAVID RABBE
(Printed)

Title PRESIDENT

It is so ORDERED and Agreed this 23 day June of 2008.

BY: Alan J. Steinberg
Alan J. Steinberg

Regional Administrator
Region 2
U.S. Environmental Protection Agency

APPENDIX A

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2

DATE: JUN 12 2008

SUBJECT: Documentation of concurrence with the preparation of an Engineering Evaluation/Cost Analysis in support of a CERCLA Non-Time Critical Removal Action at the Diamond Alkali Superfund Site in Newark, New Jersey

FROM: Raymond Basso, Strategic Integration Manager
Emergency and Remedial Response Division

TO: Alan J. Steinberg
Regional Administrator

THRU: George Pavlou, Acting Division Director
Emergency and Remedial Response Division

I. SUBJECT

The purpose of this memorandum is to document your concurrence for the preparation of two Engineering Evaluation/Cost Analyses (EE/CAs) for removal actions in the sediments of the Lower Passaic River in front of 80-120 Lister Avenue in Newark, New Jersey (NJ), all part of the Diamond Alkali Superfund Site. In February 2008, the U.S. Environmental Protection Agency (EPA) received a proposal from the Occidental Chemical Corporation (OCC), one of the potentially responsible parties at the Site, to evaluate these removal actions under the Comprehensive Environmental Response, Compensation and Liability Act, as amended (CERCLA), 42 U.S.C. Sections 9601 *et seq.*

The Diamond Alkali Superfund Site ("the Site") includes the Diamond Alkali plant located at 80 and 120 Lister Avenue in Newark, NJ, and the Lower Passaic River Study Area (LPRSA), and the areal extent of contamination. The LPRSA is the 17-mile, tidal portion of the Passaic River, from Dundee Dam to Newark Bay, located in Essex, Hudson, Bergen and Passaic Counties, NJ. The LPRSA is considered a facility as defined by Section 101(9) of CERCLA, 42 U.S.C. Section 9601(9). Past industrial operations at the Diamond Alkali plant have resulted in the release of hazardous substances, as defined by CERCLA, into the Lower Passaic River and Newark Bay. Based on the available information, a CERCLA removal action is warranted in the sediments of the Lower Passaic River in front of the Diamond Alkali plant to minimize the potential for release of extremely high concentrations of 2,3,7,8-Tetrachloro-dibenzo-p-dioxin (2,3,7,8-TCDD) that could impact nearby human populations, animals or the food chain.

The goal of the removal action would be to excavate a portion of the highest concentrations of 2,3,7,8-TCDD in the area delineated in Figure 1. The removal would be implemented in two phases. Phase I involves the excavation of 40,000 cubic yards as shown in Figure 1, behind sheet piling, with the dredged materials sent to an off-site treatment and disposal facility. Phase II involves the excavation of 160,000 cubic yards as shown in Figure 1, behind sheet piling, with

the dredged materials sent to a modular confined disposal facility (CDF) within the areal extent of contamination of the Diamond Alkali Superfund Site.

Because the most highly concentrated 2,3,7,8-TCDD-contaminated sediments are several feet below the surface, outside of the biologically active zone, the removal proposed is non-time critical. A planning and design period of at least six months exists prior to on-Site removal activities. The non-time critical removal action will minimize the possibility that the most concentrated inventory of 2,3,7,8-TCDD will migrate due to extreme weather events. Although the sediment to be removed is not on the surface and poses no immediate risk, because the possibility exists for erosion and resuspension due to a severe storm or other river disturbances, it would be of value to address this earlier than would be done in any of the remedial actions currently under investigation in the LPRSA. However, it is considered an interim action because both a Focused Feasibility Study (FFS) for an early action on the sediments of the lower eight miles of the river and a Remedial Investigation/Feasibility Study (RI/FS) for the 17-mile tidal portion of the river are underway (see Background section) to address the remediation of the overall LPRSA.

II. BACKGROUND

In 1984, the Diamond Alkali Superfund Site was placed on the National Priorities List. The RI/FS conducted at the Diamond Alkali plant included the sampling and assessment of sediment contamination within the Passaic River. Pursuant to a 1990 Consent Decree, OCC implemented a 1987 Record of Decision for an interim remedy at the plant, which included a cap and wall around the property, and a pump and treat system to contain contaminated ground water. Sampling of sediments in the Passaic River revealed many hazardous substances including, but not limited to dioxins and furans (including 2,3,7,8-TCDD), dichlorodiphenyl-trichloroethane (DDT), polychlorinated biphenyls (PCBs), polyaromatic hydrocarbons (PAHs), mercury, cadmium, copper, lead, nickel, and zinc. Some of the chemicals found in the sediments during the course of the remedial investigation may have migrated from the Diamond Alkali plant into the Passaic River through direct discharges, and ground-water and surface-water runoff.

In 1994, OCC signed an Administrative Order on Consent (AOC) with EPA to investigate a six-mile stretch of the Passaic River centered on the Diamond Alkali plant. A significant portion of the RI was completed by OCC. It showed that evaluation of a larger area was necessary because sediments contaminated with hazardous substances and other potential sources of hazardous substances are present along at least the entire 17-mile tidal stretch of the Passaic River and were further dispersed by the tidal nature of the Lower Passaic River. As a result, in January 2001, EPA directed OCC to suspend work under the AOC.

EPA and a partnership of federal and State of NJ agencies undertook a joint CERCLA-Water Resources Development Act (WRDA) study of the 17-mile tidal stretch of the Passaic River (the LPRSA). That work is on-going. During the course of the 17-mile study, the sediments of the lower eight miles of the Passaic River were found to be a major source of on-going contamination to the tidal river and Newark Bay. Therefore, EPA, NJDEP and the other partner agencies are developing a FFS to evaluate taking an early action to address that major source of on-going contamination.

III. THREAT TO PUBLIC HEALTH, WELFARE AND THE ENVIRONMENT

As a result of the contamination of fish and crab by dioxins and PCBs in the Newark Bay complex, the State of NJ has imposed consumption advisories, closures and sales bans, to limit the exposure of the fish- and crab-eating public to toxic contaminants in the Lower Passaic River, Newark Bay, Hackensack River, Arthur Kill and Kill Van Kull.

Sampling results from the six-mile RI/FS, as well as other earlier sampling events, show concentrations of 2,3,7,8-TCDD that significantly exceed the levels that can produce toxic effects to biota. Recent studies have shown that 2,3,7,8-TCDD bio-accumulates in fish, to levels rendering the fish unfit for human consumption, from sediment with a much lower level of 2,3,7,8-TCDD than found in these Passaic River sediments.

While the distribution of dioxin is still being studied in the 17-mile study and FFS for a potential early action, based on data gathered by EPA and other entities, including OCC, the highest concentrations of 2,3,7,8-TCDD (at levels exceeding 5 parts per million) appear to be in the sediments immediately in front of the Diamond Alkali plant.

The conditions in the sediments directly in front of the Diamond Alkali plant meet a number of the specific factors identified in 40 CFR Part 300.415(b)(2), including, but not limited to:

1. There is an actual or potential release of a hazardous substance, specifically 2,3,7,8-TCDD, exposing nearby of human populations, animals or the food chain (40 CFR 300.415(b)(2)(i));
2. There is the threat of actual or potential impacts to sensitive ecosystems due to the presence of 2,3,7,8-TCDD (40 CFR 300.415(b)(2)(ii)); and
3. There are high levels of 2,3,7,8-TCDD which could migrate or be released due to weather conditions (40 CFR 300.415(b)(2)(iv) & (v)).

As noted above, without a response action to remove the highly contaminated sediments in front of the Diamond Alkali plant, an extreme weather event might erode the sediments, which would cause the extremely toxic concentrations of 2,3,7,8-TCDD to migrate throughout the Lower Passaic River and Newark Bay, impacting human health and the environment. Consequently, while the removal action may not be time-critical, it is important to take the removal action in advance of potential remedial actions that may result from the on-going remedial investigations.

IV. ENFORCEMENT ACTIONS

As noted above, OCC proposed this action earlier this year and has agreed to enter into an AOC to undertake the removal action in front of the Diamond Alkali plant. The AOC would provide for OCC to perform the EE/CAs for each phase of the removal action, with EPA oversight. OCC would agree to pay EPA all Future Response Costs not inconsistent with the National Contingency Plan.

With regard to the LPRSA (17-mile study area), in June 2007, a group of 73 potentially responsible parties named the Cooperating Parties Group or CPG entered into an AOC with EPA to complete a RI/FS for the LPRSA. OCC is a member of the CPG. It is not anticipated that the CPG would sign on to any potential AOC for the removal action.

V. PROJECT COSTS

It is estimated that the two phases of the removal action would cost approximately $100 million total. It is estimated that EPA oversight costs would be approximately $5 million.

VI. RECOMMENDATION

A CERCLA Non-Time Critical Removal Action is needed to minimize the possibility that the highest concentrations of 2,3,7,8-TCDD in the Lower Passaic River will migrate due to extreme weather events and cause high risks to human health and the environment. The proposed response action is considered non-time critical, because the highest concentrations of 2,3,7,8-TCDD are buried beneath several feet of sediments and sufficient time is available before the removal action must be initiated. Because of the availability of a planning and design period of at least six months prior to on-Site remedial action activities, an EE/CA is appropriate to analyze the various removal alternatives available for the Site. The EE/CAs (Phase I and II) will be prepared by OCC, under EPA oversight, in conformance with the guidelines in Guidance on Conducting Non-Time-Critical Removal Actions under CERCLA (EPA/540-R-93-057, August 1993).

I recommend that you approve the preparation of the EE/CAs for the excavation of Lower Passaic River sediments in front of 80-120 Lister Avenue, as shown in Figure 1, as per the current delegation of authority, by signing below.

Approved: Alan J. Steinberg Date: 6-12-08

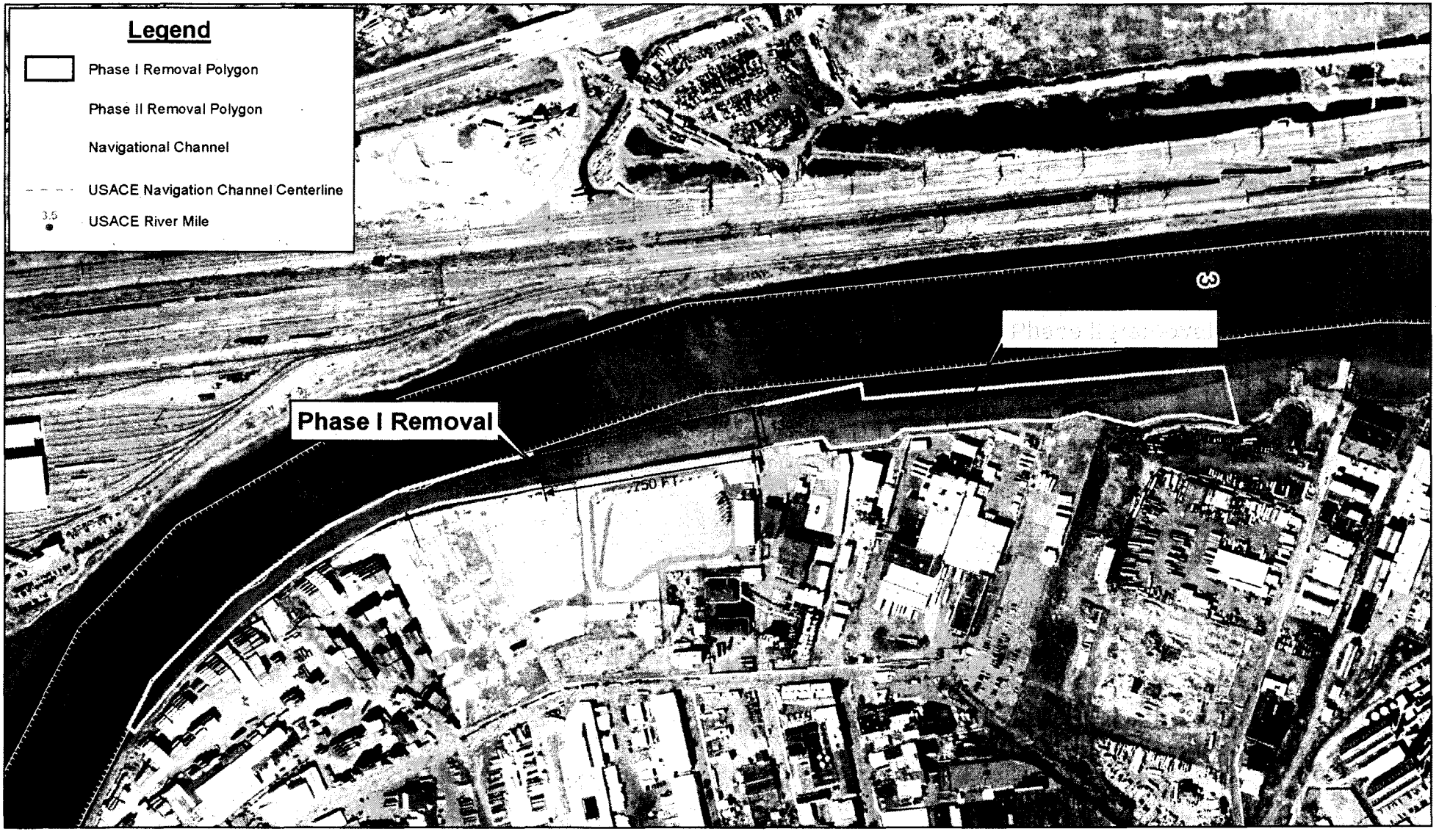
Alan J. Steinberg
Regional Administrator

Disapproved: _____ Date: _____

Alan J. Steinberg
Regional Administrator

cc: (After approval is obtained)

R. Basso, ERRD
E. Butler, ERRD
A. Yeh, ERRD
P. Hick, ORC
G. Zachos, Regional Public Liaison



Phase I and II Removal

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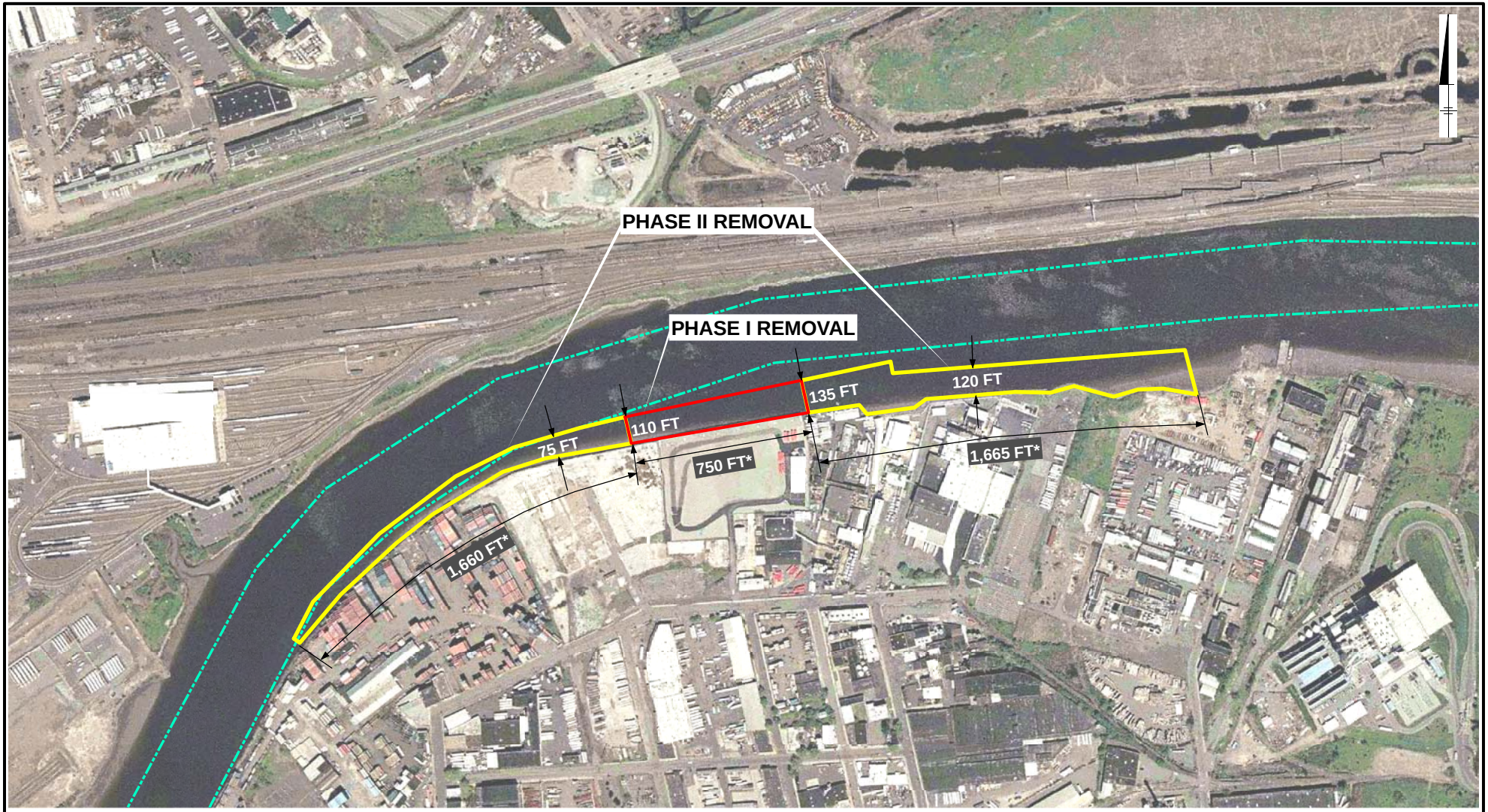
APPENDIX B



LEGEND:

- PHASE I REMOVAL POLYGON
- PHASE II REMOVAL POLYGON
- NAVIGATIONAL CHANNEL

NOTES:

1. PHASE I AND PHASE II DREDGING WILL BE TO A DEPTH OF 12 FEET.
2. *LENGTH SHOWN REPRESENTS THE APPROXIMATE LENGTH ALONG SOUTHERN EDGE OF POLYGON.

0 600 1,200 Feet

GRAPHIC SCALE

ADMINISTRATIVE SETTLEMENT AGREEMENT
AND ORDER ON CONSENT FOR REMOVAL ACTION
U.S. EPA Region 2
CERCLA Docket No. 02-2008-2020

PHASE I AND PHASE II WORK AREAS

APPENDIX
B

APPENDIX C

STATEMENT OF WORK

Purpose: The purpose of this Statement of Work is to provide a framework by which the Respondent will develop work plans to perform an expedited but non-time-critical removal action to excavate a portion of the most concentrated inventory of 2,3,7,8-TCDD, as well as other hazardous substances, in the sediments immediately adjacent to the 80/120 Lister Avenue portion of the Lower Passaic River Study Area of the Diamond Alkali Superfund Site.

Project Description: The Respondent shall perform all activities necessary to excavate sediment in the area delineated on Appendix B to the Administrative Order on Consent. The action will be performed in two Phases, with each Phase supported by an Engineering Evaluation/Cost Analysis ("EE/CA") and an EPA-issued Action Memorandum. Phase I will result in the removal and off-site treatment and disposal of the most highly concentrated material as delineated on Appendix B (approximately 40,000 cubic yards). Phase II will result in the removal of an additional one hundred sixty thousand cubic yards of material, as delineated on Appendix B, and placement of that material in a Confined Disposal Facility ("CDF") that must be capable of future expansion to accommodate additional dredge material from the Site.

Summary of Work Phases

A. Phase I

1. Submittal of an EE/CA Work Plan and Schedule for completion of the Phase I EE/CA within 30 days of the Effective Date of the AOC, pursuant to the EE/CA Approval Memorandum issued by the Regional Administrator, Region 2, on June 12, 2008, consistent with 40 C.F.R. 300.415(b)(4) and "Guidance for Conducting Non-Time-Critical Removal Actions under CERCLA," OSWER 9360.0-32, December 1993. The EE/CA Work Plan and Schedule shall include but not be limited to:

a. the scope, goals, and objectives of the Phase I removal action, with a proposed schedule for completion of sediment removal and backfilling activities not to exceed two and a half (2 1/2) years from the Effective Date of the AOC*;

b. a summary of the available information relating to the area in which the removal action will be taken, including previously gathered physical and chemical data, a description of the surrounding area, an evaluation of potentially sensitive ecosystems, the extent and configuration of excavation, a streamlined risk evaluation, and a listing of additional sampling and geophysical information that may be required for the EE/CA; and

* The schedule assumes an EPA review and approval period of 30 days, except for the Removal Design approval, which assumes a 45-day review and approval period. For each day of EPA review exceeding those specified, the schedule will be increased by one day.

c. a description of removal action alternatives, including available off-site treatment and disposal facilities, dewatering, transportation, and pre-treatment requirements that will meet the objectives of the Work, evaluate the developed alternatives for effectiveness, implementability, and cost, as well as comparing the alternatives for consistency with ARARs and other criteria, guidance, and policies.

2. Submittal of draft Phase I EE/CA according to the schedule approved by EPA in the EE/CA Work Plan and Schedule.

3. Within 45 days after issuance by the Regional Administrator, Region 2, of the Action Memorandum based on the Phase I EE/CA, Respondent shall submit a Phase I Removal Design Work Plan and schedule for the performance of Phase I Work. Such work plan shall include but not be limited to:

a. Sampling and Analysis Plan for Off-Site Disposal of Dredged Material
b. Quality Assurance Plan
c. Health and Safety Plan
d. Geotechnical Investigation Plan
e. Sediment Assessment
f. Sediment Excavation Enclosure Plan
g. Sediment Excavation Plan
h. Post-Phase I/Pre-Phase II Condition Plan
i. Transportation Plan for Off-Site Disposal
j. Water Treatment Plan (dredged material supernatant)
k. Habitat Assessment/Restoration Studies

4. Within 7 days of approval of the Phase l Removal Design Work Plan, Respondent shall initiate the Phase I Removal Design, providing all deliverables and meeting all schedules detailed in the Phase I Removal Design Work Plan.

5. Within 45 days of approval of the Phase I Removal Design, Respondent shall submit a Phase I Removal Action Work Plan to perform the response action consistent with the AOC, the Phase I Action Memorandum and the Phase I Removal Design.

6. Within 7 days of the approval of the Phase I Removal Action Work Plan, Respondent shall initiate performance of the Phase I Work, implementing all actions, providing all deliverables, and meeting all schedules detailed in the EPA-approved Removal Action Work Plan.

7. Submittal of final report for Phase I Work pursuant to Paragraph 29 of the AOC.

B. Phase II EE/CA

1. Submittal of an Phase II EE/CA Work Plan and Schedule for completion of the Phase II EE/CA within 30 days of the approval of the Phase l Removal Design Workplan, pursuant to the EE/CA Approval Memorandum issued by the Regional Administrator, Region 2, on June 12, 2008, consistent with 40 C.F.R. 300.415(b)(4) and "Guidance for Conducting Non-Time-Critical Removal Actions under CERCLA," OSWER 9360.0-32, December 1993. The EE/CA schedule shall include but not be limited to:

a. the scope, goals, and objectives of the Phase II removal action, with a proposed schedule for completion of removal activities;

b. a summary of the available information relating to the area in which the removal action will be taken, including previously gathered physical and chemical data, a description of the surrounding area, an evaluation of potentially sensitive ecosystems, the extent and configuration of excavation, a streamlined risk evaluation, and a listing of additional sampling and geophysical information that may be required for the EE/CA;

c. summarizes available locations and information for the siting of a modular CDF located on-site, as that term is defined in 40 C.F.R. Part 300.5, designed to accommodate a minimum of 160,000 cubic yards of dredged material and must be capable of future expansion to accommodate additional dredge material from the Site, and shall include, but not be limited to, previously gathered physical and chemical data, a detailed description of the proposed locations, an evaluation of potentially sensitive ecosystems, and any additional sampling that may be required, within the schedule for completion of the EE/CA; and

d. identifies alternatives, including pre-treatment requirements and transportation options, that will meet the objectives of the removal action and evaluates the developed alternatives for effectiveness, implementability, and cost, as well as comparing the alternatives for consistency with ARARs and other criteria, guidance, and policies.

2. Submittal of draft Phase II EE/CA according to the schedule approved by EPA in the EE/CA schedule.

3. Within 45 days after issuance by the Regional Administrator, Region 2, of the Action Memorandum based on the Phase II EE/CA , Respondent shall submit a Phase II Removal Design Work Plan and schedule for the performance of Phase II Work. The CDF must be designed to accommodate a minimum of 160,000 cubic yards of dredged material and capable of future expansion to receive additional dredge material from the Site. Such Work Plan shall include but not be limited to:

a. Health and Safety Plan
b. Geotechnical Investigation Plan(excavation site & CDF location)
c. Sediment Assessment
d. Sediment Excavation Enclosure Plan
e. Sediment Excavation Plan
f. Materials Handling and Transportation Plan
g. Water Treatment Plan (dredged material supernatant)
h. CDF Enclosure & Cap Design
i. Long Term Monitoring Program
j. Post-Phase II Condition Plan
k. Habitat Assessment & Restoration Studies

4. Within 7 days of approval of the Phase II Removal Design Work Plan, Respondent shall initiate the Removal Design, providing all deliverables and meeting all schedules detailed in the Removal Design Work Plan.

5. Within 45 days of approval of the Phase II Removal Design, Respondent shall submit a Phase II Removal Action Work Plan to perform the response action consistent with the AOC, the Phase lI Action Memorandum and the Phase II Removal Design.

6. Within 7 days of the approval of the Phase II Removal Action Work Plan, Respondent shall initiate performance of the Phase II Work, implementing all actions, providing all deliverables and meeting all schedules detailed in the EPA-approved Removal Action Work Plan.

7. Submittal of final report for Phase II Work, pursuant to paragraph 29 of the AOC.

APPENDIX D

List of Member and Contributing Municipalities Contributing to PVSC

City of Bayonne
Township of Belleville
Township of Bloomfield
Township of Cedar Grove
City of Clifton
Borough of East Newark
City of East Orange
Borough of East Rutherford
City of Elizabeth
Borough of Elmwood Park
Borough of Fair Lawn
Borough of Franklin Lakes
City of Garfield
Borough of Glen Ridge
Borough of Glen Rock
City of Hackensack
Borough of Hasbrouck Heights
Borough of Haledon
Town of Harrison
Borough of Hawthorne
Township of Hillside
City of Jersey City
Town of Kearny
Township of Little Falls
Borough of Lodi
Township of Lyndhurst
Township of Montclair
City of Newark
Borough of North Arlington
Borough of North Caldwell
Borough of North Haledon
Township of Nutley
City of Orange
City of Passaic
City of Paterson
Borough of Prospect Park
Village of Ridgewood
Borough of Rutherford
Township of Saddle Brook
Township of South Hackensack
Township of South Orange
Borough of Totowa
City of Union City
Borough of Wallington
Township of West Orange
Borough of West Paterson
Borough of Wood-Ridge
Township of Wyckoff

APPENDIX E

TRUST AGREEMENT

Phase I and Phase II Removal Action Area Portion of the Diamond Alkali Superfund Site

Dated: June ___, 2008

This Trust Agreement (this "Agreement") is entered into as of June ___, 2008 by and between Occidental Chemical Corporation, a corporation organized and existing under the laws of the State of Texas (the "Grantor"), and _____, a corporation organized and existing under the laws of the State of _____ (the "Trustee").

Whereas, the United States Environmental Protection Agency ("EPA"), an agency of the United States federal government, and the Grantor have entered into an Administrative Order on Consent (hereinafter the "Settlement Agreement"), to which this Trust Agreement is attached as Exhibit E, for a portion of the Diamond Alkali Superfund Site (the "Site");

Whereas, the Settlement Agreement provides that the Grantor shall provide assurance that funds will be available as and when needed for performance of the Work required by the Settlement Agreement;

Whereas, in order to provide such financial assurance, Grantor has agreed to establish and fund the trust created by this Agreement; and

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this Agreement, and the Trustee has agreed to act as trustee hereunder.

Now, therefore, the Grantor and the Trustee agree as follows:

***Section 1. Definitions. As used in this Agreement*:**

(a) The term "Beneficiary" shall have the meaning assigned thereto in Section 3 of this Agreement.

(b) The term "Business Day" means any day, other than a Saturday or a Sunday, that banks are open for business in the State of New Jersey, USA.

(c) The term "Claim Certificate" shall have the meaning assigned thereto in Section 4(a) of this Agreement.

(d) The term "Fund" shall have the meaning assigned thereto in Section 3 of this Agreement.

(e) The term "Grantor" shall have the meaning assigned thereto in the first paragraph of this Agreement.

(f) The term "Objection Notice" shall have the meaning assigned theretoin Section 4(b) of this Agreement.

(g) The term "Settlement Agreement" shall mean the Administrative Order on Consent executed by Grantor on June ___, 2008, CERCLA Docket No.02-2008-2020.

(h) The term "Site" shall have the meaning assigned thereto in Section 2 of this Agreement.

(i) The term "Trust" shall have the meaning assigned thereto in Section 3 of this Agreement.

(j) The term "Trustee" shall mean the trustee identified in the first paragraph of this Agreement, along with any successor trustee appointed pursuant to the terms of this Agreement.

(k) The term "Work" shall have the meaning assigned thereto in the Settlement Agreement.

Section 2. Identification of Facilities and Costs. This Agreement pertains to costs for Work required at the Site, pursuant to the above referenced Settlement Agreement.

Section 3. Establishment of Trust Fund.

(a) The Grantor and the Trustee hereby establish a trust (the "Trust"), for the benefit of EPA (the "Beneficiary"), to assure that funds are available to pay for performance of the Work in the event that Grantor fails to conduct or complete the Work required by, and in accordance with the terms of, the Settlement Agreement. The Grantor and the Trustee intend that no third party shall have access to monies or other property in the Trust except as expressly provided herein.

(b) The Trust is established initially as consisting of funds in the amount of two million U.S. Dollars ($ 2,000,000). This initial payment shall be deposited into the Trust within 90 days from the Effective Date of the Settlement Agreement. Every six (6) months after the date of the initial payment, an additional payment of ten million U.S. Dollars ($10,000,000) shall be deposited into the Trust until a total of $80 million has been deposited through the initial payment and the additional payments. Such funds, along with any other monies and/or other property hereafter deposited into the Trust, and together with all earnings and profits thereon, are referred to herein collectively as the "Fund."

(c) The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor owed to the United States.

Section 4. Payment for Work Required Under the Settlement Agreement. The Trustee shall make payments from the Fund in accordance with the following procedures.

(a) From time to time, the Grantor and/or its representatives or contractors may request that the Trustee make payment from the Fund for Work performed under the Settlement Agreement by delivering to the Trustee and EPA a written invoice and certificate (together, a "Claim Certificate") signed by an officer of the Grantor (or the relevant representative or contractor) and certifying:

(i) that the invoice is for Work performed at the Site in accordance with the Settlement Agreement;

(ii) a description of the Work that has been performed, the amount of the claim, and the identity of the payee(s); and

(iii) that the Grantor has sent a copy of such Claim Certificate to EPA, both to the EPA attorney and the EPA OSC at their respective addresses shown in this Agreement, the date on which such copy was sent, and the date on which such copy was received by EPA as evidenced by a return receipt (which return receipt may be written, as in the case of overnight delivery, certified mail, or other similar delivery methods, or electronic, as in the case of e-mail, facsimile, or other similar delivery methods).

(iv) The Claim Certificate shall designate the entity to which the requested payment from the Fund is to be made.

(b) EPA may object to any payment requested in a Claim Certificate submitted by the Grantor (or its representatives or contractors), in whole or in part, by delivering to the Trustee a written notice (an "Objection Notice") within thirty (30) days after the date of EPA's receipt of the Claim Certificate as shown on the relevant return receipt. An Objection Notice sent by EPA shall state (i) whether EPA objects to all or only part of the payment requested in the relevant Claim Certificate; (ii) the basis for such objection, (iii) that EPA has sent a copy of such Objection Notice to the Grantor and the date on which such copy was sent; and (iv) the portion of the payment requested in the Claim Certificate, if any, which is not objected to by EPA, which undisputed portion the Trustee shall proceed to distribute in accordance with Section 4(d) below. EPA may object to a request for payment contained in a Claim Certificate only on the grounds that the requested payment is either (x) not for the costs of Work under the Settlement Agreement or (y) otherwise inconsistent with the terms and conditions of the Settlement Agreement.

(c) If the Trustee receives a Claim Certificate and does <u>not</u> receive an Objection Notice from EPA within the time period specified in Section 4(b) above, the Trustee shall, after the expiration of such time period, promptly make the payment from the Fund requested in such Claim Certificate.

(d) If the Trustee receives a Claim Certificate and also receives an Objection Notice from EPA within the time period specified in Section 4(b) above, but which Objection Notice objects to only a portion of the requested payment, the Trustee shall, after the expiration of such time period, promptly make payment from the Fund of the uncontested amount as requested in the Claim Certificate. The Trustee shall not make any payment from the Fund for the portion of the requested payment to which EPA has objected in its Objection Notice.

(e) If the Trustee receives a Claim Certificate and also receives an Objection Notice from EPA within the time period specified in Section 4(b) above, which Objection Notice objects to all of the requested payment, the Trustee shall not make any payment from the Fund for amounts requested in such Claim Certificate.

(f) Any disputes with respect to requests for payments or Objection Notices shall be resolved pursuant to Section XVII (Dispute Resolution) of the Settlement Agreement.

(g) If, at any time during the term of this Agreement, EPA implements a "Work Takeover" pursuant to the terms of the Settlement Agreement and intends to direct payment of monies from the Fund to pay for performance of Work during the period of such Work Takeover, the timing and amounts of the payments established by Section 3(b) above shall be superseded, and consistent with the requirements of Paragraph 93 of the Settlement Agreement, the Grantor shall immediately upon written demand of EPA deposit into the Trust in immediately available funds and without setoff, counterclaim or condition of any kind, a cash amount up to but not exceeding the estimated cost of the remaining Work to be performed, as determined by EPA. EPA shall notify the Trustee in writing of EPA's commencement of such Work Takeover. Upon receiving such written notice from EPA, the disbursement procedures set forth in Sections 4(a)-(e) above shall immediately be suspended, and the Trustee shall thereafter make payments from the Fund only to such person or persons as the EPA may direct in writing from time to time for the sole purpose of providing payment for performance of Work required by the Settlement Agreement. Further, after receiving such written notice from EPA, the Trustee shall not make any disbursements from the Fund at the request of the Grantor, including its representatives and/or contractors, or of any other person except at the express written direction of EPA. If EPA ceases such a Work Takeover in accordance with the terms of the Settlement Agreement, EPA shall so notify the Trustee in writing and, upon the Trustee's receipt of such notice, the disbursement procedures specified in Sections 4(a)-(e) above shall be reinstated.

(h) While this Agreement is in effect, disbursements from the Fund are governed exclusively by the express terms of this Agreement.

Section 5. Trust Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with directions which the Grantor may communicate in writing to the Trustee from time to time, except that:

(a) securities, notes, and other obligations of any person or entity shall not be acquired or held by the Trustee with monies comprising the Fund, unless they are securities, notes, or other obligations of the U.S. federal government or any U.S. state government or as otherwise permitted in writing by the EPA;

(b) the Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent such deposits are insured by an agency of the U.S. federal or any U.S. state government; and

(c) the Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 6. Commingling and Investment.

(a) The Trustee is expressly authorized in its discretion to transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions hereof and thereof, to be commingled with the assets of other trusts participating therein.

(b) The Trustee is authorized to purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. § 80a-1 *et seq.*, including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 7. Express Powers of Trustee. Without in any way limiting the powers and discretion conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) to make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(b) to register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the U.S. federal government or any U.S. state government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund; and

(c) to deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the U.S. federal government.

Section 8. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund shall be paid from the Fund. All other expenses and charges incurred by the Trustee in connection with the administration of the Fund and this Trust shall be paid by the Grantor.

Section 9. Annual Valuation. The Trustee shall annually, no more than thirty (30) days after the anniversary date of establishment of the Fund, furnish to the Grantor and to the Beneficiary a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The annual valuation shall include an accounting of any fees or expenses levied against the Fund. The Trustee shall also provide such information concerning the Fund and this Trust as EPA may request from time to time.

Section 10. Advice of Counsel. The Trustee may from time to time consult with counsel with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder; provided, however, that any counsel retained by the Trustee for such purposes may not, during the period of its representation of the Trustee, serve as counsel to the Grantor.

Section 11. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing with the Grantor and as notified in writing to the Beneficiary.

Section 12. Trustee and Successor Trustee. The Trustee and any replacement Trustee must be approved in writing by EPA and must not be affiliated with the Grantor. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee approved in writing by EPA and this successor accepts such appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to EPA or a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the Fund and the Trust in a writing sent to the Grantor, the Beneficiary, and the present Trustee by certified mail no less than 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 8.

Section 13. Instructions to the Trustee. All instructions to the Trustee shall be in writing, signed by such persons as are empowered to act on behalf of the entity giving such instructions. The Trustee shall be fully protected in acting without inquiry on such written instructions given in accordance with the terms of this Agreement. The Trustee shall have no duty to act in the absence of such written instructions, except as expressly provided for herein.

Section 14. Amendment of Agreement. This Agreement may be amended only by an instrument in writing executed by the Grantor and the Trustee, and with the prior written consent of EPA.

Section 15. Irrevocability and Termination. This Trust shall be irrevocable and shall continue until terminated upon the earlier to occur of (a) the written direction of EPA to terminate, consistent with the terms of the Settlement Agreement and (b) the complete exhaustion of the Fund comprising the Trust as certified in writing by the Trustee to EPA and the Grantor. Upon termination of the Trust pursuant to Section 15(a), all remaining trust property (if any), less final trust administration expenses, shall be delivered to the Grantor.

Section 16. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the EPA issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct made by the Trustee in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 17. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of New Jersey.

Section 18. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

Section 19. Notices. All notices and other communications given under this agreement shall be in writing and shall be addressed to the parties as follows or to such other address as the parties shall by written notice designate:

(a) If to the Grantor, to [_____].

(b) If to the Trustee, to [_____].

(c) If to EPA, to the EPA Region 2, On-Scene Coordinator to be designated by EPA pursuant to Section VII of the Settlement Agreement, at:

U.S. Environmental Protection Agency
2890 Woodbridge Avenue
Edison, NJ 08837

and to the Site Attorney at:

U.S. Environmental Protection Agency
Office of Regional Counsel, 17th Floor
290 Broadway
New York, NY 10007
Attn: Diamond Alkali Superfund Site, LPRSA Attorney

[Remainder of page left blank intentionally.]

In Witness Whereof, the parties hereto have caused this Agreement to be executed by their respective officers duly authorized and attested as of the date first above written:

GRANTOR

[Signature of Grantor]
[Name and Title]

State of _____
County of _____

On this [date], before me personally came [name of Grantor official], to me known, who, being by me duly sworn, did depose and say that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; and that she/he signed her/his name thereto.

[Signature of Notary Public]

TRUSTEE

[Signature of Trustee]
[Name and Title]

State of _____
County of _____

On this [date], before me personally came [name of Trustee official], to me known, who, being by me duly sworn, did depose and say that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; and that she/he signed her/his name thereto.

[Signature of Notary Public]