UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

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JUL 23 2012	
CHAMBERS OF JUDGE ROBERT P. PATTERSON	J

UNITED STATES OF AMERICA,

Plaintiff, v. ALLIED-SIGNAL, INC., as successor to The Bendix Company CELLU-CRAFT INC., CONSOLIDATED EDISON COMPANY OF NEW YORK, INC., CONTINENTAL HOLDINGS INC., as successor to Continental Can Co., Inc., CORTESE CONSTRUCTION CORPORATION, CUSTOM CHEMICAL COMPANY, INC., E. I. DUPONT DE NEMOURS & COMPANY, FALSTROM COMPANY, FLEXABAR CORPORATION, INC., GANES CHEMICALS, INC., HALOCARBON PRODUCTS CORPORATION HULS AMERICA INC., as successor to KAY FRIES CHEMICALS, INC., ICI AMERICAS INC.. INMONT CORPORATION, INX PRINTING INK CORP., as successor to CARLSON INK, KEUFFEL & ESSER COMPANY, MARISOL, INC., NATIONAL STARCH AND CHEMICAL CORPORATION, NICHOLAS ENTERPRISES, INC., as successor to NICHOLAS SANITATION OCCIDENTAL CHEMICAL CORP., THE OKONITE COMPANY, PACQUET ONEIDA, INC., as successor to ONEIDA PACKAGING PRODUCTS, RADIAC RESEARCH CORPORATION, RHONE-POULENC INC., R&R SANITATION. SCA SERVICES, INC., STEPAN CHEMICAL,

Defendants.

TOWN OF TUSTEN

USDC SDNY AMENDMENT HOOCUMENT CONSENT DECREE ECTRONICALLY FILED

> DOC #: DATE FILED: 8

CIVIL ACTION NO. 96-CV-1513

WHEREAS, defendants Allied-Signal, Inc., successor to the Bendix Company, X Craft Inc. (sued herein as Cellu-Craft Inc.), Consolidated Edison Company of New York, Inc., Continental Holdings Inc., as successor to Continental Can Company, Inc., Cortese Construction Corporation, Custom Chemical Company, Inc., E.I. du Pont De Nemours & Company, Inc., Falstrom Company, Inc., Flexabar Corporation, Inc., Ganes Chemicals Company, Inc., Halocarbon Products Corporation, Huls America Inc. for named defendant Kay Fries Chemicals, Inc., Inmont Corporation (also known as "BASF Corporation"), Inx Printing Ink Corp., formerly known as Roberts & Carlson, Inc. (Carlson Ink), Keuffel & Esser Company, Inc., ICI Americas Inc., Marisol Company, Inc., National Starch and Chemical Company, Nicholas Enterprises, Inc., as successor to Nicholas Sanitation, Occidental Chemical Corp., the Okonite Company, Inc., Pacquet Oneida, Inc., as successor to Oneida Packaging Products, Radiac Research Corporation, Rhone-Poulenc Inc., R&R Sanitation, SCA Services, Inc., Stepan Company, Inc., and the Town of Tusten (collectively, the "Settling Defendants") and plaintiff United States of America entered into a Consent Decree in this action concerning the Cortese Landfill Superfund Site located in Narrowsburg, New York (the "Site"), which was approved by this Court on May 1, 1996 (the "Consent Decree"); and

WHEREAS, the Consent Decree resolved certain claims under Sections 106 and 107(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. §§ 9606 and 9607(a), in connection with the performance of the remedial design and remedial action ("RD/RA") of the remedy selected by the U.S. Environmental Protection Agency ("EPA") in a 1994 Record of Decision (the "1994 ROD") for the Site and reimbursement of response costs; and

WHEREAS, the remedy in the 1994 ROD called for a landfill cap, drum removal and off-site treatment and/or disposal, extraction of contaminated groundwater, discharge of treated groundwater to either the Town of Tusten wastewater treatment plant, the Delaware River, or by reinjection to groundwater, regrading and storm-water management improvements, implementation of institutional controls, long term groundwater and surface water monitoring, and long term operation and maintenance of landfill cap and groundwater extraction system; and

WHEREAS, Settling Defendants submitted a work plan to EPA for the design of the remedial action at the Site in 1996 (the "1996 RD Work Plan"). Upon its approval by EPA, the 1996 RD Work Plan was incorporated into and became enforceable under the Consent Decree. The design of Remedial Work Element I called for drum removal and a landfill cap. The drum removal took place in 1996 and the capping of the landfill was completed by October 1998. Offsite treatment and/or disposal, implementation of institutional controls and long term operation and maintenance of the landfill cap have been implemented, and all actions under the Remedial Work Element I except landfill cap operation and maintenance have been completed and approved by EPA; and

WHEREAS, while designing the groundwater extraction and treatment system of the RD/RA for Remedial Work Element II (groundwater extraction/treatment), several of the Settling Defendants obtained information which indicated that it would be appropriate to propose a change in the remedy selected in the 1994 ROD as it pertains to addressing groundwater contamination at the Site; and

WHEREAS, in the course of the performance of the RD/RA for Remedial Work Element II, two

additional sources of contamination were identified beneath the former drum disposal areas at the Site, which required the selection of an additional response action to address this newly identified source-area contamination; and

WHEREAS, EPA issued a ROD/ROD Amendment dated October 5, 2010 (the "2010 ROD/ROD Amendment") (attached hereto as Appendix A) that necessitates this Amendment to the Consent Decree and that modified and supplemented the original remedy to provide for air sparging/soil vapor extraction ("AS/SVE") and amendment addition (i.e., injection of soil amendment into the subsurface), subsequent application of in-situ chemical oxidation, if necessary, to address the sources of contamination beneath the former drum disposal areas, and monitored natural attenuation to address the groundwater downgradient from the landfill perimeter; and

WHEREAS, on July 19, 2011, EPA issued an administrative order on consent ("2011 AOC") to certain of the Settling Defendants for performance of the remedial design aspect of the 2010 ROD/ROD Amendment; and

WHEREAS, EPA approved the work plan, dated July 8, 2011, for the design of the remedy selected in the 2010 ROD/ROD Amendment; and

WHEREAS, the United States and the Settling Defendants or, where applicable, their successor entities, that have signed this Amendment to the Consent Decree, wish to modify the Consent Decree, including the Statement of Work ("SOW") attached as Appendix B of the Consent Decree, to reflect the 2010 ROD/ROD Amendment; and

WHEREAS, certain of the original Settling Defendants have not signed this Amendment because of corporate dissolution or liquidation, as described in the following three paragraphs; and

WHEREAS, according to information obtained from the New York State Department of State Division of Corporations, two Settling Defendants, CORTESE CONSTRUCTION CORPORATION and X-CRAFT INC. (sued as Cellu-Craft Inc.) have been dissolved and therefore are not signing this Amendment to the Consent Decree; and

WHEREAS, Settling Defendant KEUFFEL & ESSER merged with Azon Corporation, which in turn was liquidated in bankruptcy proceedings in the United States Bankruptcy Court, Northern District of New York, Docket No. 02-64368 and therefore is not signing this Amendment to the Consent Decree; and

WHEREAS, the United States has demonstrated to the Court's satisfaction, that this Amendment to the Consent Decree should be approved notwithstanding that CORTESE CONSTRUCTION CORPORATION, X-CRAFT INC. (sued as Cellu-Craft Inc.) and KEUFFEL & ESSER have not signed; and

WHEREAS, in accordance with Section XXXII of the Consent Decree, the United States has provided the State of New York with a reasonable opportunity to review and comment on the modifications being made to the SOW.

NOW, THEREFORE, in order to amend the Consent Decree to permit such response actions, the parties agree to this Amendment to the Consent Decree as follows:

- 1. The SOW attached as Appendix B hereto supersedes the SOW attached as Appendix B to the Consent Decree only as it applies to Remedial Work Element II. References in the Consent Decree to "SOW" or "Statement of Work" shall be read to mean the Remedial Work Element I portions of the SOW attached to the Consent Decree and the SOW attached to this Amendment to the Consent Decree.
- 2. The effective date of this Amendment to the Consent Decree (hereinafter "the Effective Date of the Amendment to Consent Decree") shall be the date upon which this Amendment to the Consent Decree is entered by the U.S. District Court.
- 3. The following paragraphs of the Consent Decree, which each contain one or more references to "the Record of Decision" or "the ROD," are hereby revised to change said references to "the 1994 ROD and the 2010 ROD/ROD Amendment:"
 - a. Section I, Paragraph O;
 - b. Section IV, Paragraph 4, in the definition of "Performance Standards";
 - c. Section VII, Paragraphs 16, 18, and 19;
 - d. Section XX, Paragraph 66; and
 - e. Section XXII, Paragraph 81.
- 4. Section IV, Paragraph 4 of the Consent Decree is hereby modified as follows:
 - a. "Consent Decree" shall mean the Consent Decree, 96-CV-1513, entered on May 1, 1996, as modified by the Amendment to the Consent Decree.
 - b. Add a new definition after "Consent Decree" which states as follows:
 - "Cortese Landfill Superfund Site Special Account" shall mean the special account, within the EPA Hazardous Substance Superfund, established for the Site by EPA pursuant to Section 122(b)(3) of CERCLA, 42 U.S.C. § 9622(b)(3).
 - c. Replace defined term "Record of Decision" with "1994 Record of Decision." The definition shall remain the same.
 - d. Add a new definition after the definition of "1994 Record of Decision," which shall state as follows:
 - "2010 Record of Decision/Record of Decision Amendment" or "2010 ROD/ROD Amendment" shall mean the ROD/ROD Amendment relating to the Site signed on October 5, 2010 by the Director of the Emergency and Remedial Response Division, EPA Region 2."
 - e. "Remedial Action Work Plan" or "RA Work Plan" shall mean, those documents submitted by Settling Defendants pursuant to Paragraph 12 of the Consent Decree as modified by the Amendment to the Consent Decree.

- f. "Remedial Design Work Plan" or "RD Work Plan" shall mean the Remedial Design Work Plan, which EPA has approved, dated July 8, 2011.
- g. "Work" shall mean all activities Settling Defendants are required to perform under the Consent Decree as modified by the Amendment to the Consent Decree, except those required by Section XXVI of the Consent Decree (Retention of Records).
- 5. Section VI, Paragraphs 11 and 12 of the Consent Decree, are hereby replaced with the following:

11. 2010 ROD/ROD Amendment Remedial Design

- a. Settling Defendants have submitted, and EPA has approved, a work plan, dated July 8, 2011, for the design of the remedy set forth in the 2010 ROD/ROD Amendment ("RD Work Plan"). Settling Defendants shall implement the RD Work Plan and shall submit to EPA and the State all plans, submittals, and other deliverables required under the RD Work Plan in accordance with the schedules therein. All required plans, submittals, and other deliverables are subject to approval pursuant to Section XII of this Consent Decree (Submissions Requiring Agency Approval).
- b. Settling Defendants have submitted a Pre-Final RD Report and a Monitored Natural Attentuation Remedial Design, both dated August 2011, for the design of the remedy set forth in the 2010 ROD/ROD Amendment ("RD Work Plan"). EPA will either approve the Pre-Final RD Report, thereby making it the Final Report, or require modifications, in accordance with the procedures set forth in Section XII of the Consent Decree.

12. Remedial Action for Remedy Selected in 2010 ROD/ROD Amendment

- a. Within 90 days of EPA's approval of the final design submittal for the remedy selected in the 2010 ROD/ROD Amendment, or within 7 days of notification to the Settling Defendants of entry of the Amendment to the Consent Decree by the U.S. District Court, whichever is later, Settling Defendants shall award a contract to implement the remedial action ("Remedial Action Contract") in accordance with the schedule therein. Notification to the Settling Defendants for the purposes of this subparagraph 12.a. shall be satisfied by email notice sent by counsel for the United States or by EPA to Joseph O'Dea, Jr., Esquire at jodea@saul.com.
- b. Within 60 days after the award of the Remedial Action Contract, Settling Defendants shall submit to EPA and the State a work plan for the performance of the Remedial Action for implementation of the 2010 ROD/ROD Amendment ("RA Work Plan"). The RA Work Plan shall provide for construction of the remedy in accordance with the SOW, as set forth in the design plans and specifications in the approved final design submittal. Upon its approval by EPA, the RA Work Plan shall be incorporated into and become enforceable under this Consent Decree. Concurrent with the RA Work Plan submittal,

Settling Defendants shall submit to EPA and the State a Health and Safety Plan for field activities required by the RA Work Plan which conforms to the applicable Occupational Safety and Health Administration and EPA requirements, including but not limited to 29 C.F.R. § 1910.120.

- c. The RA Work Plan shall include a Remedial Action Management Plan, as set forth in the SOW.
- d. Within 60 days of approval of the RA Work Plan by EPA, after a reasonable opportunity for review and comment by the State, Settling Defendants shall implement the activities required under the RA Work Plan. Settling Defendants shall submit to EPA and the State all plans, submittals, or other deliverables required under the RA Work Plan in accordance with the approved schedule for review and approval pursuant to Section XII (Submissions Requiring Agency Approval). Unless otherwise approved by EPA, Settling Defendants shall not commence physical on-site RA activities prior to the approval of the RA Work Plan.
- 6. Section IX, Paragraph 23 of the Consent Decree is hereby modified as follows:

Settling Defendants shall use quality assurance, quality control, and chain of custody procedures for all treatability, design, compliance and monitoring samples 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 and subsequent amendments to such guidelines upon notification by EPA to Settling Defendants of such amendment. Amended guidelines shall apply only to procedures conducted after such notification.

Prior to the commencement of any monitoring project under this Consent Decree, Settling Defendants shall submit to EPA for approval, after a reasonable opportunity for review and comment by the State, a Quality Assurance Project Plan ("QAPP") that is consistent with the SOW, the NCP, and applicable guidance documents. If relevant to the proceeding, the Parties agree that validated sampling data generated in accordance with the QAPP(s) and reviewed and approved by EPA shall be admissible as evidence, without objection, in any proceeding under this Consent Decree. Settling Defendants shall ensure that EPA personnel and their authorized representatives are allowed access at reasonable times to all laboratories utilized by Settling Defendants in implementing this Consent Decree. In addition, Settling Defendants shall ensure that such laboratories shall analyze all samples submitted by EPA pursuant to the QAPP for quality assurance monitoring. Settling Defendants shall ensure that the laboratories they utilize for the analysis of samples taken pursuant to this Consent Decree perform all analyses according to accepted EPA methods. Accepted EPA methods consist of those methods that are documented in the "USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis, ISM01.2," and the "USEPA Contract Laboratory Program Statement of Work for Organic Analysis, SOM01.2." and any amendments made thereto during the course of the implementation of this Consent Decree, or any other method approved by EPA. Settling Defendants shall ensure that all laboratories they use for analysis of samples taken pursuant to this Consent Decree

participate in an EPA or EPA-equivalent quality assurance/quality control ("QA/QC") program.

7. Section XI, Paragraph 35 of the Consent Decree is hereby replaced with the following:

Settling Defendants shall submit to EPA and NYSDEC copies of all plans, reports, or other submissions required by this Consent Decree, the SOW, or any approved work plan in accordance with the schedules therein and in Section VI. Upon request by or agreement of EPA, Settling Defendants shall submit such plans, reports, or other submissions in electronic form in accordance with Paragraph 98. Any electronic submissions must be in a format that is compatible with EPA software and in database files and sizes to be specified by EPA. In addition, Settling Defendants will provide electronic submittal of sampling and geologic data collected after the Effective Date of this Amendment to the Consent Decree in accordance with EPA Region 2 policies, guidelines, and formats. Geologic data includes all newly-installed monitoring wells and representative data from borings within the source areas. The EPA Region 2 Electronic Data Deliverable ("R2 EDD") is a standardized format for all electronic submittals. Electronic submittals of sampling and geologic data will be made in accordance with the project schedule and in conjunction with the submittal of reports. Settling Defendants are responsible for reviewing any contractor work and ensuring consistency with R2 EDD requirements. The R2 EDD Comprehensive EDD Specification Manual includes instruction manuals and data-submission and validation files. The most recent R2 EDD policies, guidelines, and formats, including the most recent Comprehensive EDD Specification Manual, can be found at: http://www.epa.gov/region02/superfund/medd.htm.

- 8. Section XVII, Paragraph 53 of the Consent Decree is hereby modified as follows:
 - a. Settling Defendants shall pay EPA all Future Response Costs not inconsistent with the NCP. On a periodic basis, EPA will send Settling Defendants a bill requiring payment that includes a printout of cost data in EPA's financial management system. Settling Defendants shall make all payments to EPA via electronic funds transfer ("EFT") within 30 days of receipt of each bill requiring payment. To effect payment via EFT, Settling Defendants shall instruct their bank to remit payment in the required amount via EFT using the following information, or such other updated EFT information that EPA may subsequently provide to Settling Defendants:
 - Amount of payment
 - Bank: Federal Reserve Bank of New York
 - Account code for Federal Reserve Bank account receiving the payment:
 68010727
 - Federal Reserve Bank ABA Routing Number: 021030004
 - SWIFT Address: FRNYUS33
 33 Liberty Street
 New York, NY 10045
 - Field Tag 4200 of the Fedwire message should read: **D** 68010727 Environmental Protection Agency

• Name of remitter: Cortese Landfill Potentially Responsible Parties
Group

Index number: 96-CV-1513Site/spill identifier: 02-X9

b. At the time of payment, Settling Defendants shall send notice that such payment has been made by email to acctsreceivable.cinwd@epa.gov, rice.richard@epa.gov, Granger.Mark@epa.gov, and Charney.Lauren@epa.gov, and by regular mail to:

U.S. Environmental Protection Agency Cincinnati Finance Office 26 Martin Luther King Drive Cincinnati, OH 45268

Such notice shall reference the date of the EFT, the payment amount, the name of the Site, and Settling Defendants' names and addresses.

The total amount to be paid by Setting Defendants shall be deposited by EPA in the Cortese Landfill Superfund Site Special Account 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.

9. Section XXI, Paragraph 73 of the Consent Decree is hereby modified as follows:

All penalties owed to the United States under this section shall be due and payable within 30 days of the date of EPA's demand for payment of the penalties, unless Settling Defendants invoke the Dispute Resolution procedures under Section XX (Dispute Resolution). All payments to EPA under this Section shall be made via EFT in accordance with the payment procedures in Paragraph 53 above.

10. Section XXVII, Paragraph 98a of the Consent Decree is hereby modified as follows:

As to the United States and EPA:

1 copy: Remedial Project Manager – Cortese Landfill Site (electronic) Emergency and Remedial Response Division

United States Environmental Protection Agency, Region 2

290 Broadway, 20th Floor

New York, New York 10007-1866

Granger.Mark@epa.gov

One copy of all required written communications other than work plans, design documents and technical reports shall also be sent to each of the following individuals:

(electronic)

Chief, New York/Caribbean Superfund Branch
Office of Regional Counsel
U.S. Environmental Protection Agency, Region II
Attention: Cortese Landfill Superfund, Site Attorney
Charney, Lauren@epa.gov

Chief, Environmental Enforcement Section Environment and Natural Resources Division U.S. Department of Justice P.O. Box 7611 Ben Franklin Station Washington, D.C. 20044 Re: DOJ # 90-11-2-1078

Chief, Environmental Protection Unit United States Attorney Southern District of New York 86 Chambers Street, 3rd Floor New York, NY 10007 Re: 2011V01251

11. Section XXVII, Paragraph 98c of the Consent Decree is hereby modified as follows:

As to the Settling Defendants: Mark R. Snyder, P.E. Project Manager Waste Management 425 Perinton Parkway Fairport, NY 14450

Joseph F. O'Dea, Jr., Esq. Saul Ewing LLP 1500 Market Street, 38th Floor Philadelphia, PA 19102-2186

- 12. Upon the Effective Date of this Amendment to the Consent Decree, the 2011 AOC will be terminated and the terms of the Consent Decree, as amended, shall be operative.
- 13. Other than as explicitly stated herein, the rights, remedies, and obligations of the parties under the original Consent Decree are not affected.
- 14. This Amendment to the Consent Decree shall be lodged with the Court for a period of not less than thirty (30) days for public notice and comment in accordance with Section 122(d)(2) of CERCLA, 42 U.S.C. § 9622(d)(2), and 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding this Amendment to the Consent Decree disclose facts or considerations that indicate that this Amendment to the Consent Decree is inappropriate, improper, or inadequate. All other parties to this Amendment to the Consent Decree consent to the entry of this Amendment to the Consent Decree without further notice.

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15. Each undersigned representative of a Settling Defendant or, where applicable, successor entities, and the Assistant Attorney General for Environment and Natural Resources of the Department of Justice certifies that he or she is fully authorized to enter into the terms and conditions of this Amendment to the Consent Decree and to execute and legally bind such Party to this document.

SO ORDERED THIS 30 DAY OF argus, 200 10 10 ROR,

United States District Judge

FOR THE UNITED STATES OF AMERICA

Date: 3/24/12

Ignacia S. Moreno

Assistant Attorney General

Environment & Natural Resources Division

United States Department of Justice

PREET BHARARA

United States Attorney for the Southern District of New York

Date: 5/31/12

1/--

By:

Mara E. Trager

Assistant United States Attorney

Southern District of New York

86 Chambers Street

New York, NY 10007

(212) 637-2799 telephone

FOR THE UNITED STATES OF AMERICA (Continued)

Walter E. Mugdan, Director Emergency and Remedial Response Division U.S. Environmental Protection Agency, Region 2 290 Broadway

New York, NY 10007-1866

FOR HONEYWELL INTERNATIONAL INC. as successor to ALLIED SIGNAL, INC., successor to the BENDIX CORPORATION

Date: Apr. 17, 2012.

Rich Galloway

Remediation Manager

Honeywell International Inc.

101 Columbia Road

Morristown, NJ 07962-1057 rich.galloway@honeywell.com

(973) 455-4640

Agent Authorized to Accept Service on Behalf of Above-Signed Party, regarding this matter:

Tom Byrne Law Department Honeywell International Inc. 101 Columbia Road Morristown, NJ 07962-1057 tom.byrne@honeywell.com (973) 455-2775

-

Date: April 17, 2012

Doreen A. Simmons, Esq., Counsel

FOR INX PRINTING INK CORP., a dissolved corporation, formerly known as

ROBERTS & CARLSON, INC.

Hancock Estabrook, LLP 1500 AXA Tower I 100 Madison Street

(CARLSON INK)

Syracuse, New York 13202 Telephone: (315) 565-4500

Agent authorized to accept service on behalf of above-signed party regarding this matter:

Doreen A. Simmons, Esq., Counsel Hancock Estabrook, LLP 1500 AXA Tower I 1500 Madison Street Syracuse, New York 13202

Telephone: (315) 565-4500

Consolidated Edison Company of New York, Inc. Settling Defendant

October 5, 2011

Elizabeth Moore General Counsel Name and Title

Consolidated Edison

Address

4 Irving Place, Room 1810-S

New York, NY 10003

> FOR CONTINENTAL HOLDINGS INC., as successor to CONTINENTAL CAN COMPANY,

INC.

Date: April 23, 2012

Gregory T. Diamond Authorized Representative 1505 5th Avenue, Suite 501 Seattle, WA 98110

Agent Authorized to Accept Service on Behalf of Above-Signed Party:

Alan S. Golub, Esq. 160 Littleton Road, Suite # 300 Parsippany, New Jersey 07054 Telephone: (973) 968-3377

FOR DSM POWDER COATING RESINS, Inc. as successor to CUSTOM CHEMICAL COMPANY, INC.

Date: APRIL 11,2012

James Philip Spielberg

Assistant Secretary

45 Waterview Blvd. Parsippany, NJ 07054

(973)257-8445

james.spielberg@dsm.com

Agent authorized to accept service on behalf of above-signed party regarding this matter:

James Philip Spielberg Senior Counsel DSM North America 45 Waterview Boulevard Parsippany, New Jersey 07054-1298

Telephone: (973) 257-8445 Facsimile: (973) 257-8312

Email: james.spielberg@dsm.com

THE UNDERSIGNED PARTY enters into this Amendment to the Consent Decree in the

matter of United States v. Allied-Signal, Inc., relating to the Cortese Landfill Superfund Site.

FOR E.I. DU PONT DE NEMOURS AND COMPANY

Date:

Stephen Raham, Esq.

Corporate Counsel 1007 Market Street

Wilmington, DE 19898

302-774-8720/stephen.rahaim@dupont.com

Agent Authorized to Accept Service on Behalf of Above-Signed Party, regarding this matter:

Stephen Rahaim, Esq DuPont Legal Corporate Counsel E.I. du Pont de Nemours and Company 1007 Market Street - D-7009 Wilmington, DE 19898

Telephone: (302) 774-8720 Facsimile: (302) 774-1189

Email: stephen.rahaim@dupont.com

FOR FALSTROM COMPANY, INC.

Date: May 4, 2012

Cliff I findholm

Chief Executive Officer 118 Falstrom Court

Passaic, New Jersey 07055 Telephone: (973) 777-0013

Agent Authorized to Accept Service on Behalf of Above-Signed Party:

Francis Vucci Falstrom Company, Inc. 118 Falstrom Court Passaic, New Jersey 07055 Telephone: (973) 777-0013

Email: fvucci@falstromcompany.com

Plexabar Corporation, Inc. ,

Settling Defendant

Date

4/13

Signature

David A. Thomas, Attorney for Flexabar

Name and Title

McCarter & English, LLP

Address

100 Mulberry Street, Gateway Center Four

Newark, NJ 07102

973-622-4444

Phone Number

Agent Authorized to Accept Service on Behalf of Above-Signed Party:

Name:

Mr. Andrew Guglielmo

Title: Address: CEO/Vice President Flexabar Corporation, Inc. 1969 Rutgers University Blvd. Lakewood, NJ 08701

Telephone Number:

732-901-6500

1342109.2 04/11/2012

FOR SIEGFRIED (USA) as successor to GANES CHEMIÇALS COMPANY, INC.

Date: 12 april 12

Frank Gori

Senior Vice President and General Manager

33 Industrial Park Road

Pennsville, New Jersey 08070

Agent authorized to accept service on behalf of above-signed party regarding this matter:

Cecilia Guerrette, Director of Finance Siegfried (USA) Inc. 33 Industrial Park Road Pennsville, New Jersey 08070 Telephone: (856) 540-6313

Email: cecilia.guerrette@siegfried-usa.com

POR HALOCARBON PRODU

Date: AMN 16,2012

Peter A. Murin, C.E.O.

887 Kinderkamack Road

River Edge, NJ 07661

201-262-8899

Agent Authorized to Accept Service on Behalf of Above-Signed Party, regarding this matter:

Marc Owen Mandel Golden & Mandel LLP 122 East 42nd Street New York, NY 10168

Telephone: (212) 949-6300

Email: mmandel@goldenmandel.com

Evonik Degussa Corporation

Settling Defendant

Signature

Lee Braem Chief Compliance Officer

Name and Title

379 Interpace Parkway Parsippany, NJ 079054

Address

Date: 12 Amil 2012

12 0 XIZ

FOR ICI AMERICAS INC.

Charles Scudder
Vice President and Secretary
120 White Plains Road
Tarrytown, NY 10591-5522

Phone 914-333-7457

Email: charles.scudder@akzonobel.com

Agent authorized to accept service on behalf of above-signed party regarding this matter:

Debra J. Rubenstein Senior Regulatory Counsel Akzo Nobel Inc. 120 White Plains Road, Suite 300 Tarrytown, NY 10591-5522 Telephone: (914) 333-7488

Facsimile: (914) 366-4098

Email: debra.rubenstein@akzonobel.com

Settling Defendant
April 24, 2012
Date W.F. Leikin
Signature
William F. Leikin, Assistant General Counsel
Name and Title
United Technologies Corporation, One Financial Plaza
Address
Hartford, CT 06101
860-728-6430
Phone Number

Agent Authorized to Accept Service on Behalf of Above-Signed Party:

Name: William F. Leikin

Inmont Corporation*

Title: Assistant General Counsel

Address: United Technologies Corporation
One Financial Plaza, Hartford, CT 06101

Telephone Number: 860-728-6430

*United Technologies Corporation, on behalf of BASF Corporation, as successor to Inmont Corporation

1342108,2 04/11/2012

Agent Authorized to Accept Service on Behalf of Above-Signed Party:

Name: GREIGR. SLEDOR
Title: Chuf Legal Officer
Address: P.O. BOX 1228, Sheffield MA 0.7257

Telephone Number: 413 - 229 - 2924

Henkel Corporation, successor by measurements Defendant	eger to Indopco Inc. dba National Starch & Chemical Co.
Date Signature Surg	Date Signature
Paul R. Berry, Sr. Vice President, Chief Legal Name and Title Officer & Secretary	Christopher J. Signorello, Assistant Name and Title General Counsel
Henkel Corporation	Henkel Corporation
Address	Address
One Henkel Way, Rocky Hill, CT 06067	One Henkel Way, Rocky Hill, CT 06067
860-571-5100	860-571-5100
Phone Number	Phone Number

Agent Authorized to Accept Service on Behalf of Above-Signed Party:

Name:

Christopher J. Signorello

Title:

Assistant General Counsel - Litigation

Address: Henkel Corporation, One Henkel Way, Rocky Hill, CT 06067

Telephone Number: 860-571-5100

Henkel NA Law Dept

1342108.2 04/11/2012

THE UNDERSIGNED PARTY enters into this.	Amendment to Consent Decree in the
matter of United States v. Allied-Signal, Inc., et	al., (S.D.N.Y.) regarding the Cortese Landfill
Superfund Site.	•

Veolia ES Solid Wash of New Jersey, me. (as successor by mesopy of Nicholas Enterprises, me., 4/6/a Nicholas Settling Defendant Sanitation)

12 APRIL 2012

P.O. BOX

Agent Authorized to Accept Service on Behalf of Above-Signed Party:

Name: GREIG R. SLEDOR Title: Chief Legal Officer Address: P.O. BOX 1288, Sheffield MA OILST

Telephone Number: 413-229-2924

FOR OCCIDENTAL CHEMICAL CORPORATION, as a successor to Diamond Shampock Chemicals Company

Date: 4-16-12

Scott A. King

Vice President & General Counsel 5005 LBJ Freeway, Suite 2200

Dallas, Texas 75244 Ph: 972-404-3850 Fax: 972-404-3957

Email: Scott_King@oxy.com

Agent authorized to accept service on behalf of above-signed party regarding this matter:

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FOR THE OKONITE COMPANY, INC.

Date: April 16, 2012

Director - Safety & Environmental Programs

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Email: groome@okonite.com

Agent authorized to accept service on behalf of above-signed party regarding this matter:

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FOR ALCAN PACKAGING FOOD and TOBACCO INC. as successor to PAQUET

ONEIDA COMPANY, INC.

Date: April 23, 2012

Keith Adkins

Director of Finance-Americas

Amoor Tobacco Packaging Americas Inc.

455 Dividend Drive

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Agent Authorized to Accept Service on Behalf of Above-Signed Party, regarding this matter:

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Group Environmental Director - Amcor Ltd.
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Telephone: (905) 469-7582

Radiac Research Corp.
Settling Defendant
April 23, 2012
Date /
I de De La Maria
tellet yell
Signature /\
Arthur F.Green Secretary/Treasurer
Name and Title
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261 Kent Avenue Address
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Brooklyn , New York 11249
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718 963 2233
Phone Number
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Agent Authorized to Accept Service on Behalf of Above-Signed Party:
N
Name: Title:
Address:
Audi 055.

FOR ZENECA INC litigation agent for RHONE POULENC n/k/a BAYER CROPSCIENCE corporate successor to STAUFFER CHEMICAL COMPANY

Date: 4/23/12

De Yeoner, ESQ Ouride Beneral (oursel

Charles N. Elmendorf

Environmental Remediation Sr. Director

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(302) 885-7048

charles.elmendorf@astrazeneca.com

Agent authorized to accept service on behalf of above-signed party regarding this matter:

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Email: JYeager@McCarter.com

CWM Chemical Services, LLC
Settling Defendant
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April 26, 2012
Date
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System Tays
Signature ()
Stephen T. Joyce
Name and Title
•
4 Liberty Lane West
Address
Hampton, NH 03842
603-929-5444
Phone Number

Agent Authorized to Accept Service on Behalf of Above-Signed Party:

Name: Stephen T. Joyce

Title: Director-Closed Site Management Group

Address:

Waste Management 4 Liberty Lane West Hampton, NH 03842

Telephone Number: 603-929-5444

^{*}CWM Chemical Services, LLC on behalf of R&R Sanitation

SC Holdings, Inc.
Settling Defendant
April 26, 2012
Date
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603-929-5444
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* SC Holdings, Inc. on behalf of SCA Services, Inc.

PC

FOR STEPAN COMPANY, IN

H. Edward Wynn

Vice President-General Counsel and Secretary

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Agent authorized to accept service on behalf of above-signed party regarding this matter:

Christina Loundy Senior Attorney Stephan Company, Inc. 22 W. Frontage Road Northfield, IL 60093 cloundy@stepan.com

Date: Spail 16, 2012

THE UNDERSIGNED PARTY enters into this Amendment to the Consent Decree in the matter of United States v. Allied-Signal, Inc., relating to the Cortese Landfill Superfund Site.

Date: 5/14/12

FOR TOWN OF TUSTEN

Carol Wingert
Town Supervisor
210 Bridge Street

Narrowsburg, NY 12764

[Phone/Email]:

Agent authorized to accept service on behalf of above-signed party regarding this matter:

Jeffrey Clemente
Town Attorney
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{H1648382.1}

04/24/2012

STATEMENT OF WORK

Remedial Design/Remedial Action for Groundwater and Source Areas Cortese Landfill Site Narrowsburg, New York

I. WORK TO BE PERFORMED

This Statement of Work ("SOW") is incorporated into and an enforceable part of the Consent Decree and the Amendment to the Consent Decree, Civil Action No. 96-CV-1513, ("Consent Decree") concerning the Cortese Landfill Superfund Site ("Site"). The objectives of the Work, as defined in Section IV, Paragraph 4 of the Consent Decree, to be conducted at the Site are to:

- Reduce or eliminate the potential for the source areas to release contaminants to groundwater;
- Restore the aquifer downgradient of the landfill as a potential source of drinking water by reducing contaminant levels to the federal and State Maximum Contaminant Levels (MCLs); and
- Reduce or eliminate the potential for migration of contaminants downgradient of the landfill.

These objectives shall be met through implementation of the remedy selected in the Environmental Protection Agency's ("EPA") Record of Decision ("ROD") and ROD amendment at the Site issued on October 5, 2010 (hereinafter, "2010 ROD/ROD Amendment"). The Settling Defendants shall finance and perform the Work in accordance with the Consent Decree, the 2010 ROD/ROD Amendment, and this SOW, including all terms, conditions, and schedules set forth herein or developed and approved hereunder.

Settling Defendants shall accomplish these objectives using the principles of EPA Region 2's *Clean and Green Policy*, dated March 11, 2010. This policy may be found at: http://epa.gov/region2/superfund/green_remediation/policy.html. Settling Defendants' compliance with the Clean and Green Policy shall be ultimately reflected in the EPA-approved Remedial Design ("RD") Report.

The Work consists of design, construction, and operation and maintenance ("O&M") of the major components of the remedy selected in the 2010 ROD/ROD Amendment including:

- Air sparging (AS) of the source areas for approximately seven years to remove a significant quantity of the petroleum hydrocarbons and other volatile organic compounds;
- Collection and discharge to the atmosphere after aboveground treatment, if necessary, of the extracted vapors from the air sparge wells using soil vapor extraction (SVE) wells;

- Amendment additions, such as ozone, to the air sparging/SVE system for the final phase of the air sparge/SVE period;
- Subsurface-stabilization period for up to five years after the air-sparging program has been completed;
- Subsequent application of in-situ chemical oxidation (ISCO), if necessary, potentially including a surfactant enhancement, to address the remaining more recalcitrant source materials;
- Monitored natural attenuation of the groundwater downgradient from the landfill perimeter; and
- Long-term monitoring.

II. PERFORMANCE STANDARDS

The RD/RA shall provide for the design and construction of the remedy set forth in the 2010 ROD/ROD Amendment that, when implemented, will achieve the Performance Standards and legally applicable and relevant and appropriate requirements (ARARs) as set forth therein.

III. PROJECT SUPERVISION/MANAGEMENT: SUPERVISING CONTRACTOR AND PROJECT COORDINATOR

Supervising Contractor

The Work performed by Settling Defendants pursuant to the Consent Decree shall meet the requirements of applicable federal, state, and local laws and be performed under the direction and supervision of a qualified licensed professional engineering firm. Settling Defendants have identified, and EPA has approved, Geosyntec Consultants, Inc. as the Supervising Contractor. All plans and specifications shall be prepared under the supervision of, and signed/certified by, a licensed New York State professional engineer. Selection of a new Supervising Contractor shall be subject to approval by EPA in accordance with Section VI. of the Consent Decree.

Project Coordinator

The Project Coordinator shall be responsible for the day-to-day management of all Work to be performed pursuant to the Consent Decree. The Project Coordinator shall have adequate technical and managerial experience to manage all Work described in this Statement of Work and under the Consent Decree. The Project Coordinator shall be knowledgeable at all times about all matters relating to activities regarding the Work. The Project Coordinator shall be the primary contact for EPA on all matters relating to Work at the Site and should be available for EPA to contact during all working days. The

Project Coordinator shall not be an attorney. Settling Defendants have identified, and EPA has approved, Mark Snyder of SCA Services as the Project Coordinator. Selection of a new Project Coordinator shall be subject to approval by EPA in accordance with **Section XIII of the Consent Decree**.

IV. AS/SVE SYSTEM PILOT STUDY

Settling Defendants completed the AS/SVE system pilot study in May 2011 pursuant to the EPA-approved Pilot Test Work Plan. The existing Quality Assurance Project Plan from the 1996 Consent Decree Remedial Design Work Plan was used for the AS/SVE Pilot Test. The results of this effort have been reported in the Pre-Final RD Report (see **Section VI.C.1., below**).

V. REMEDIAL DESIGN WORK PLAN

Settling Defendants have submitted, and EPA has approved, the RD Work Plan (dated July 2011). Settling Defendants shall implement the EPA-approved RD Work Plan in accordance with the schedules contained therein.

VI. REMEDIAL DESIGNS FOR SOURCE-AREA AND GROUNDWATER REMEDIES

- A. The RD activities to be performed in the implementation of the selected remedy for the Site include, but are not limited to, the following:
 - 1. Design of the infrastructure associated with the AS/SVE system as outlined in the 2010 ROD/ROD Amendment, including aboveground treatment, as necessary, of the extracted vapors from the SVE wells.
 - 2. Design of the infrastructure associated with the amendment-addition component of the selected remedy.
 - 3. Design of the infrastructure associated with implementation of the ISCO component of the selected remedy.
 - 4. Design of a Monitored Natural Attenuation Plan.
 - 5. Development of a Green Remediation Plan ("GRP") that specifies how the RD will be implemented to satisfy EPA Region 2's *Clean and Green Policy*.
- B. The RD shall comply with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and relevant EPA guidance, including the EPA document entitled *Guidance on Oversight of Remedial Designs and Remedial Actions performed by Potentially Responsible Parties*, (OSWER directive 9355.5-01, EPA/540/g-90-001), dated April 1990 and shall be in conformance, *inter alia*, with the *Superfund Remedial Design and Remedial Action Guidance*, dated

June 1986, as well as other relevant EPA guidance documents. The RD shall include the preparation of a Pre-Final RD Report.

C. <u>Pre-Final RD Report</u>

The Pre-Final RD Report has been submitted to EPA and the New York State Department of Environmental Conservation in accordance with the schedule set forth in the approved RD Work Plan. This document is under review by EPA. The Pre-Final RD Report shall include a discussion of the design criteria and objectives, with emphasis on the capacity and ability to meet design objectives successfully. The Pre-Final RD Report shall also include the plans and specifications that have been developed at that point in time, along with a design analysis. The design analysis shall provide the rationale for the plans and specifications, including results of all sampling and testing performed during the Pilot Test, supporting calculations and documentation of how these plans and specifications will meet the requirements of the 2010 ROD/ROD Amendment. The Pre-Final RD Report shall also include the following items (to the extent that work has been performed regarding the items):

- 1. A summary of the results of the AS/SVE system pilot study.
- 2. A technical specification for photographic documentation of the remedial construction work;
- 3. A discussion of the manner in which the RD will achieve the Performance Standards through the series of remedy components detailed in **Section VI.A.**, **above**;
- 4. A draft schedule for RA activities, including sequencing of the remedy components detailed in **Section VI.A.**, **above**;
- 5. A GRP which details how the RA will satisfy the requirements of EPA Region 2's *Clean and Green Policy*, including the purchase of Renewable Energy Certificates which EPA agrees may be used by Settling Defendants to satisfy the renewable energy requirement of the Policy.
- 6. A discussion of the manner in which the design components detailed in **Section VI.A., above**, for the RA are integrated in the design, including transition of the AS/SVE system to amendment addition and subsequent implementation of the ISCO component of the selected remedy, if needed;
- 7. Table of Contents, as necessary, for the specifications, including a listing of items from the Construction Specifications Institute master format that are expected to be included in the construction specifications. This master format is presented in the Construction Specifications Institute's *Manual of Practice*,

- 1985 edition, available from the Construction Specifications Institute, 601 Madison Street, Alexandria, Virginia 22314;
- 8. Engineering plans representing an accurate identification of existing Site conditions and an illustration of the work proposed. Typical items to be provided on such drawings include, at a minimum, the following:
 - a. Title sheet including at least the title of the project, a key map, the name of the designer, date prepared, sheet index, and EPA Project identification;
 - b. All property data including owners of record for all properties within 200 feet of the Site;
 - c. A Site survey including the distance and bearing of all property lines that identify and define the project Site;
 - d. All easements, rights-of-way, and reservations;
 - e. All buildings, structures, wells, facilities, and equipment (existing and proposed) if any;
 - f. A topographic survey, including existing and proposed contours and spot elevations for all areas that will be affected by the remedial activities, based on United States Coast and Geodetic Survey data;
 - g. All utilities, existing and proposed;
 - h. Location and identification of all significant natural features including, *inter alia*, wooded areas, water courses, wetlands, flood hazard areas, and depressions;
 - i. Flood hazard data and 100-year and 500-year flood plain delineation;
 - j. North arrow, scale, sheet numbers and the person responsible for preparing each sheet;
 - k. Decontamination areas, staging areas, borrow areas, and stockpiling areas;
 - 1. Miscellaneous detail sheets;
 - m. Definitions of all symbols and abbreviations;
 - n. A specification for a sign at the Site. The sign should describe the project, the name of the contractor performing the RD/RA work or the Potentially Responsible Party (PRP) Group, state that the project is being performed under EPA oversight, and provide EPA contact for further information;

- o. Site security measures;
- p. Roadways; and
- q. Electrical, mechanical, and/or structural plans, as required.
- 9. Any value engineering proposals;
- 10. A Construction Quality Assurance Project Plan (CQAPP). The CQAPP shall detail the approach to quality assurance during construction activities at the Site and shall specify a quality assurance official (QA Official), independent of the RA Contractor, to conduct a Quality Assurance (QA) program during the construction phase of the project. The CQAPP shall address sampling, analysis, and monitoring to be performed during the remedial construction phase of the Work. Quality assurance items to be addressed include, at a minimum, the following:
 - a. Inspection and certification of the Work;
 - b. Measurement and daily logging;
 - c. Field performance and testing;
 - d. Post-construction drawings; and
 - e. Testing of the RA Work (e.g., SVE-well sampling) to establish whether the design specifications have been attained.
- 11. A description of the plan for implementation of construction and construction oversight.
- 12. A description of the method for selection of the construction contractor(s).
- D. Health and Safety/Contingency Plan (HSCP)

A HSCP or specification for a HSCP for all activities to be performed during the RA and O&M shall be developed by Settling Defendants. The HSCP shall satisfy the requirements of the *Occupational Safety and Health Guidance for Hazardous Waste Site Activities*, (June 1990, DHHS NIOSH Publication No. 90-117), and the Occupational Safety and Health Administration, U.S. Department of Labor (OSHA) requirements cited below:

1. All Site activities shall be performed in such a manner as to ensure the safety and health of personnel so engaged. All site activities shall be conducted in accordance with all pertinent general industry (29 CFR Part 1910) and

construction (29 CFR Part 1926) OSHA standards, and EPA's *Standards Operating Safety Guides* (OSWER, 1988), as well as any other applicable New York State and municipal codes or ordinances. All Site activities shall comply with those requirements set forth in OSHA's final rule entitled *Hazardous Waste Operations and Emergency Response*, 29 CFR 1910.120, Subpart H.

- 2. The HSCP or HSCP specification shall include, at a minimum, the following elements:
 - a. Plans showing the location and layout of any temporary and permanent facilities to be constructed on or near the Site;
 - b. Description of the known hazards and evaluation of the risks associated with the Site and the potential health impacts related to the Site activities;
 - c. List of key personnel and alternates responsible for site safety, response operations, and protection of the public;
 - d. Description of levels of protection (based on specified standards) to be utilized by all personnel;
 - e. Delineation of Work, decontamination, and safe zones, and definitions of the movement of zones;
 - f. Description of decontamination procedures for personnel and equipment, and handling and removal of disposable clothing or equipment;
 - g. Incidental emergency procedures that address emergency care for personnel injuries and exposure problems, and containment measures. These procedures shall include evacuation routes, internal and external communications procedures for response to fire, explosion, or other emergencies, the name of the nearest hospital and the route to that hospital. Local agencies with the capability to respond to emergencies shall be identified and their capabilities shall be described. A description of the procedures for informing the community of these measures shall be outlined.
 - h. Description of the personnel medical surveillance program in effect;
 - i. Description of monitoring for personnel safety;
 - i. Description of routine and special personnel training programs; and
 - k. Description of an air monitoring program to determine concentrations of airborne contaminants to which workers on-Site and persons near the Site

boundary may be exposed. The results of work-zone air monitoring may be used as a trigger for implementing Site-boundary air monitoring, additional control measures, and/or cessation of work.

E. Monitored Natural Attenuation Remedial Design Report

The Monitored Natural Attenuation (MNA) Remedial Design Report (MNA Plan) shall be generated in accordance with relevant EPA guidance, including the documents entitled *Performance Monitoring of MNA Remedies for VOCs in Ground Water* (EPA/600/R-04/027), dated April 2004, and *Methods for Evaluating the Attainment of Cleanup Standards, Volume 2: Ground Water* (EPA 230-R-92-014), dated July 1992. The MNA Plan should include:

- 1. A summary of the conceptual site model of the existing natural-attenuation processes occurring at the site;
- 2. Monitoring locations, parameters, and frequencies;
- 3. Statistical methods and/or other analyses to be used to evaluate the data;
- 4. Anticipated changes to the groundwater biogeochemical environment and natural-attenuation processes that might occur during implementation of the source-area remedy; and
- 5. A description of periodic reporting.

VII. APPROVAL OF REMEDIAL DESIGN REPORTS

EPA will either approve the Pre-Final RD Report and/or the MNA Plan, thereby making it the Final Report/MNA Plan, or require modifications, in accordance with the procedures set forth in **Section XII. of the Consent Decree**.

Proposed modifications to the approved MNA Plan may be submitted to EPA for consideration upon completion of construction or thereafter if Settling Defendants can demonstrate that such modifications would maintain, enhance, and/or augment the MNA component of the remedy.

EPA will approve, disapprove, or require modifications of the request for modification of the MNA Plan in accordance with the procedures set forth in **Section XII. of the Consent Decree**.

VIII. SOURCE AREA REMEDIAL ACTION

A. Selection of Construction Contractor

1. Within **sixty (60) days** of EPA's approval of the Final RD Report, Settling Defendants shall submit a list of contractors proposed to be the construction

contractor to be used in carrying out work under the Consent Decree. Settling Defendants shall include the name, title, and qualifications of the proposed construction contractors. EPA shall thereafter provide written notice of the name(s) of the contractor(s) it approves.

- 2. Within **ninety (90) days** of EPA's approval of the Final RD Report, or within seven (7) **days** of notification to the Settling Defendants of entry of the Consent Decree by the U.S. District Court, whichever is later, Settling Defendants shall award a contract to an EPA-approved construction contractor for carrying out work under the Consent Decree.
- 3. With respect to the selected construction contractor, Settling Defendants shall demonstrate that the contractor has a quality system that complies with ANSI/ASQC E4-1994, Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs (American National Standards Institute, January 5, 1995), by submitting a copy of the proposed construction contractor's Quality Management Plan (QMP). The QMP should be prepared in accordance with the specifications set forth in EPA Requirements for Quality Management Plans (QA/R-2)(EPA/240/B-01/002, March 2001) or equivalent documentation as determined by EPA.
- 4. If at any time, Settling Defendants propose to change the construction contractor, Settling Defendants shall notify EPA and, if not previously approved by EPA, shall obtain approval from EPA as provided in this paragraph before the new construction contractor performs any work under the Consent Decree. If EPA disapproves the selection of any contractor as the construction contractor, Settling Defendants shall submit a list of contractors that would be acceptable to them to EPA within **thirty (30) days** after receipt of EPA's disapproval of the contractor previously selected. EPA shall thereafter provide written notice of the name(s) of the contractor(s) it approves.

B. Remedial Action Work Plan

Within sixty (60) days of the award of the RA contract, Settling Defendants shall submit an RA Work Plan for remedial construction activities. The RA Work Plan shall comply with CERCLA and relevant EPA guidance, including, but not limited to, the EPA document entitled *Guidance on Oversight of Remedial Designs and Remedial Actions performed by Potentially Responsible Parties*, (OSWER directive 9355.5-01, EPA/540/g-90-001), dated April 1990 and shall be in conformance, *inter alia*, with the *Superfund Remedial Design and Remedial Action Guidance*, dated June 1986. The RA Work Plan shall include, at a minimum, the following items:

- 1. A Remedial Action Management Plan (RAMP) for RA activities. The RAMP shall include, at a minimum, the following items:
 - a. Tentative identification of the RA Project Team (including, but not limited to the construction contractor).
 - b. A final schedule for the construction of the RA and all major tasks therein, as well as a schedule for completion of required plans and other deliverables.
 - c. Methodology for implementation of the Construction Quality Assurance Project Plan (developed during the RD).
 - d. Procedures and plans for the decontamination of construction equipment and the disposal of contaminated materials.
 - e. Methods for satisfying any permitting requirements.
 - f. Discussion of the methods by which construction operations shall proceed. This shall include, at a minimum, the following:
 - (1) Timing of and manner in which activities shall be sequenced;
 - (2) Preparation of the Site including security, utilities, decontamination facilities, construction trailers, and equipment storage;
 - (3) Coordination of construction activities;
 - (4) Site maintenance during the RA;
 - (5) Coordination with local authorities regarding contingency planning and potential traffic obstruction;
 - (6) Entry and access to the Site during the construction period(s) and periods of inactivity, including provisions for decontamination, erosion control, and dust control; and
 - (7) Implementation of the photographic plan to record the progress of the remedial construction work.
 - g. Discussion of construction quality control, including:
 - (1) Methods of performing the quality control inspections, including when inspections should be made and what to look for;

- (2) Control-testing procedures for each specific test. This includes information which authenticates that personnel and laboratories performing the tests are qualified and the equipment and procedures to be used comply with applicable standards;
- (3) Procedures for scheduling and managing submittals, including those of subcontractors, off-Site fabricators, suppliers, and purchasing agents; and
- (4) Reporting procedures including frequency of reports and report formats.
- h. Procedures to be used to determine whether construction performance standards are being achieved, and reporting procedures and frequency for results of such testing.
- 2. A HSCP for the RA construction phase of the Work (see Section VI.D., above, for HSCP requirements). The HSCP shall address health and safety measures to be implemented and observed by construction personnel, as well as recommended health and safety measures for the adjacent community and general public. The HSCP shall include the name of the person responsible in the event of an emergency situation, as well as the necessary procedures that must be taken in the event of an emergency, as outlined in the Consent Decree.

C. Approval of Remedial Action Work Plan

EPA will either approve the RA Work Plan or require modification of it in accordance with the procedures set forth in **Section XII. of the Consent Decree**.

D. Quality Assurance Project Plan

Within sixty (60) days of the award of the RA contract, Settling Defendants shall submit a Quality Assurance Project Plan (QAPP).

1. A QAPP shall be prepared consistent 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, 2, and 3, EPA-505-B-04-900A, B and C, March 2005 or newer, and other applicable guidance documents referenced in the aforementioned guidance documents. Amended guidelines shall apply only to procedures conducted after notification of changes. The QAPP shall include a detailed description of the sampling, analysis, and monitoring that shall be

performed during the RA and operation and maintenance (O&M) phases, consistent with this SOW, the 2010 ROD/ROD Amendment, and the Consent Decree, including:

- a. A plan for the performance of air monitoring during construction and operation of the AS/SVE remedy components.
- b. A plan for the collection of chemical data for groundwater, soil, and air; and
- c. A plan for the collection of hydrological and chemical data from all relevant monitoring wells necessary for performance monitoring and O&M of the AS/SVE and, if needed, ISCO treatment systems.
- 2. All sampling, analysis, data assessment, and monitoring shall be performed in accordance with the guidance provided on the EPA Region 2 QA Homepage: http://www.epa.gov/region02/desa/hsw/sops.htm, or an alternate EPA-approved test method, and any updates thereto, and the guidelines set forth in the Consent Decree. All testing methods and procedures shall be fully documented and referenced to established methods or standards.
- 3. In order to provide quality assurance and maintain quality control with respect to all samples to be collected, Settling Defendants shall ensure the following:
 - a. QA and chain-of-custody procedures shall be performed in accordance with standard EPA protocol and guidance, as provided in the EPA Region 2 QA Homepage referred to above, and the guidelines as set forth in the Consent Decree.
 - b. Settling Defendants shall ensure that all laboratories they use for analysis of samples taken pursuant to the Consent Decree participate in an EPA or EPA-equivalent quality assurance/quality control (QA/QC) program. Settling Defendants shall only use laboratories that have a documented Quality System which complies with ANSI/ASQC E4-1994, Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs, (American National Standard, January 5, 1995), and EPA Requirements for Quality Management Plans (QA/R-2), (EPA/240/B-01/002, March 2001) or equivalent documentation as determined by EPA. EPA may consider laboratories accredited under the National Environmental Laboratory Accreditation Program (NELAP) as meeting the Quality System requirements.
 - c. The laboratory to be used must be specified and can be changed with advance notice to EPA and EPA approval. If the laboratory participates in the Contract Laboratory Program (CLP) for the analyses to be performed

for this investigation, then project specific Performance Evaluation (PE) samples will not be required. If the proposed laboratory does not participate in the CLP, then PE samples must be analyzed, if requested by EPA, to demonstrate the capability to conduct the required analysis prior to being approved for use. Once a non-CLP laboratory has been selected, the laboratory should submit a copy of their Laboratory QAPP to EPA for review and approval.

For any analytical work performed at a non-CLP laboratory, including that done in a fixed laboratory, in a mobile laboratory, or during on-Site screening analyses, Settling Defendants 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 receipt 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 EPA Region 2 Division of Environmental Science & Assessment 2890 Woodbridge Avenue, Bldg. 209, MS-215 Edison, NJ 08837

d. The laboratory utilized for analyses of samples must perform all analyses according to accepted EPA methods as documented in the *Contract Lab Program Statement of Work for Organic Analysis* (OLM04.3) or the latest revision, and the *Contract Lab Program Statement of Work for Inorganic Analysis*, (ILM05.3) or the latest revision, or other EPA approved methods. Information on the Superfund Analytical Services/Contract Laboratory Program is available at:

http://www.epa.gov/superfund/programs/clp/methods.htm

- e. Unless indicated otherwise in the approved QAPP, all data will be validated upon receipt from the laboratory.
- f. Unless indicated otherwise in the approved QAPP, submission of the validation package (checklist, report, and Form I containing the final data) to EPA shall be prepared in accordance with the provisions of **Subparagraph j., below**.
- g. Assurance that all analytical data that are validated as required by the QAPP are validated according to the procedures stated in the *EPA Region II Contract Lab Program Organics Data Review and Preliminary Review* (SOP #HW-6, Revision 12), dated March 2001, or the latest revision, and the *Evaluation of Metals Data for the Contract Laboratory Program* (SOP #HW-2, Revision 11), dated January 1992 or the latest revision, or EPA-

approved equivalent procedures. EPA Region 2 Standard Operating Procedures are available at:

http://www.epa.gov/region02/desa/hsw/sops.htm

- h. Settling Defendants shall insert a provision in its contract(s) with the laboratory utilized for analyses of samples that will require granting access to EPA personnel and authorized representatives of EPA for the purpose of ensuring the accuracy of laboratory results related to the Site.
- i. Upon request, Settling Defendants shall allow split or duplicate samples to be taken by EPA or its authorized representatives. Settling Defendants shall notify EPA not less than **fourteen (14) days** in advance of any sample collection activity unless shorter notice is agreed to by EPA. In addition, EPA shall have the right to take any additional samples that EPA deems necessary. Upon request, EPA shall allow Settling Defendants to take split or duplicate samples of any samples it takes as part of EPA's oversight of Settling Defendants implementation of the Work.
- j. On request by EPA, Settling Defendants shall submit to EPA one (1) paper copy and an electronic copy of the results of all sampling and/or tests or other data obtained or generated by or on behalf of Settling Defendants with respect to the Site and/or the implementation of the Consent Decree within **ten (10) days** of the date when those results or data become available to Settling Defendants.

E. Performance of Remedial Action

- 1. Within **sixty (60) days** of EPA's written approval of the RA Work Plan, Settling Defendants shall initiate and perform the RA in accordance with the RA Work Plan and the approved Final Design Report, which includes the approved RA schedule.
- 2. During performance of the RA, Settling Defendants may identify and request EPA approval for field changes to the approved RA Work Plan, Final Design Report, and RA schedule, as necessary, to complete the work. EPA will approve, disapprove, or require modification of any requests for field changes in accordance with the procedures set forth in Section XII. of the Consent Decree.
- 3. Prior to off-site shipment, EPA must approve all off-Site facilities to which Site-related contaminated material will be sent.

F. Operation and Maintenance Manual

1. No later than **thirty (30) days** after the pre-final inspection (see **Section IX.A., below**), Settling Defendants shall submit to EPA an O&M Manual.

The O&M Manual shall conform to the EPA guidelines contained in *Considerations for Preparation of Operation and Maintenance Manuals* (EPA 68-01-0341). The O&M Manual shall ensure that the following are addressed:

- a. O&M of all remedial components up to the stabilization period, including any monitoring necessary to assess the continued effectiveness of the remedial components and the criteria for determining when the prestabilization remedial components should be terminated;
- b. Monitoring necessary during the stabilization period to assess the effectiveness of the completed remedial components; and
- c. O&M of the ISCO remedial component (with surfactant enhancement, if necessary), including any monitoring necessary to assess the effectiveness of this remedial component and the criteria for determining when the ISCO remedial component should be terminated. The ISCO remedial component shall be implemented if performance criteria to be specified in the Pre-Final RD Report required by **Section VI.C., above**, have not been met at the conclusion of the stabilization period. In addition, the ISCO remedial component shall be implemented if Site-specific MNA performance-monitoring criteria, established consistent with *Performance Monitoring of MNA Remedies for VOCs in Ground Water* (EPA/600/R-04/027), dated April 2004, have not been met at the conclusion of the stabilization period.
- 2. The O&M Manual shall include, at a minimum, the following:
 - a. An HSCP specification for O&M activities consistent with **Section VI.D.**, **above**;
 - b. A discussion of potential problems and remedies for such problems;
 - c. A schedule for equipment replacement; and
 - d. An O&M and monitoring schedule.
- 3. EPA will either approve the O&M Manual or require modification of it, in accordance with the procedures set forth in **Section XII. of the Consent Decree**.
- 4. Proposed modifications to the approved O&M Manual may be submitted to EPA for consideration upon completion of construction or thereafter if Settling Defendants can demonstrate that such modifications would maintain,

- enhance, and/or augment the O&M-related or environmental-monitoring systems.
- 5. EPA will approve, disapprove, or require modifications of the request for modification of the O&M Manual in accordance with the procedures set forth in Section XII. of the Consent Decree.

IX. PRE-FINAL/FINAL INSPECTIONS AND INTERIM REMEDIAL ACTION REPORT FOR THE SOURCE-AREA REMEDIAL ACTION

- A. At least **fourteen (14) days** prior to the completion of the source-area remedy construction, Settling Defendants and their contractor(s) shall schedule and be available to accompany EPA personnel and/or their representatives on a pre-final inspection. The pre-final inspection shall consist of a walkover of the Site to determine the completeness of the construction and its consistency with the RD Reports, the Consent Decree, the 2010 ROD/ROD Amendment, and applicable federal and State laws, rules, and regulations.
- B. Following the pre-final inspection, EPA will either specify the necessary corrective measures to the construction phase of the Source-Area RA, or determine that construction is complete. If EPA requires corrective measures, Settling Defendants shall undertake the corrective measures according to a schedule to be proposed by Settling Defendants and approved by EPA. Within **fourteen (14) days** after completion of the construction of the corrective measures, Settling Defendants and their contractor(s) shall be available to accompany EPA personnel or their representatives on a final inspection as provided for in the preceding paragraph. EPA may direct Settling Defendants to correct any deficiencies identified during the final inspection. Settling Defendants shall implement the tasks necessary to correct any deficiencies in accordance with the specifications and schedules approved by EPA. EPA will then determine whether construction is complete.
- C. Within **ninety (90) days** of EPA's determination that construction is complete, Settling Defendants shall submit an Interim Source-Area RA Report. The Interim Source-Area RA Report shall conform with the RA Report guidance incorporated in EPA's Close Out Procedures for National Priorities List Sites (EPA 540-R-98-016, January 2000 or the latest revision) and include, at a minimum, the following sections:

1. Introduction

- a. Include a brief description of the location, size, environmental setting, and operational history of the Site.
- b. Describe the operations and waste management practices that contributed to contamination of the Site.

- c. Describe the regulatory and enforcement history of the Site.
- d. Describe the major findings and results of Site investigation activities.
- e. Describe prior removal and remedial activities at the Site.

2. Background

- a. Summarize requirements specified in the ROD/ROD Amendment. Include information on the cleanup goals, institutional controls, monitoring requirements, operation and maintenance requirements, and other parameters applicable to the design, construction, operation, and performance of the Source-Area RA.
- b. Provide additional information regarding the basis for determining the cleanup goals, including planned future land use.
- c. Summarize the RD, including any significant regulatory or technical considerations or events occurring during the preparation of the RD.
- d. Identify and briefly discuss the ROD amendment.

3. Construction Activities

- a. Provide a step-by-step summary description of the activities undertaken to construct and implement the Source-Area RA (e.g., mobilization and prep work; materials and/or equipment used; restoration activities; construction-equipment decontamination; treatment-system assembly; sampling activities; etc.).
- b. Refer the reader to the Appendices for characteristics, Site conditions, and operating parameters for the system.
- c. Provide a section to include photographs that record the progress of remedial construction including, at a minimum, the important features of the Site prior to the commencement of the work, remedial construction activities for the various tasks, and the appearance of the Site after the remedial construction has been completed.

4. Chronology of Events

- a. Provide a tabular summary that lists the major events for the Source-Area RA and associated dates of those events, starting with the 1994 ROD signature date.
- b. Include significant milestones and dates (e.g., RD submittal and approval;

ROD amendment; mobilization and construction for the remedy; monitoring and sampling events; system modifications; demobilization; initial testing and startup of post-construction O&M activities, if any; etc.).

5. Construction Performance Standards and Construction Quality Control

- a. Describe the overall performance of the construction in terms of comparison to construction performance standards.
- b. Provide an explanation of the approved construction quality assurance and construction quality control requirements or cite the appropriate reference for this material. Explain any substantial problems or deviations.
- c. Provide an assessment of the construction performance data quality, including the overall quality of the analytical data, with a brief discussion of QA/QC procedures followed and a comparison of analytical data with data quality objectives.
- d. Provide documentation that all construction performance standards have been met and an assurance that the RA construction was completed in compliance with the requirements of the ROD/ROD Amendment, final RD Report, and the Consent Decree.

6. Final Inspection and Certifications

- a. Report the results of the various Source-Area RA inspections, and identify noted deficiencies.
- b. Briefly describe adherence to health and safety requirements while implementing the RA. Explain any substantial problems or deviations.
- c. Include a certification statement, signed by a responsible corporate official of one or more of the Settling Defendants or by the Settling Defendants Project Coordinator, which states the following: "To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."
- d. A certification by a qualified professional engineer licensed by the State of New York that the source-area construction has been completed in conformance with the requirements of the final RD Report, the ROD/ROD Amendment, the SOW, the Consent Decree, and all plans, specifications,

reports, and other relevant items developed hereunder.

7. As-Built Drawings

Submit to EPA the as-built engineering drawings which depict the Source-Area RA as implemented pursuant to the Consent Decree. Remedy implementation modifications if any to the approved plans and specifications of the final RD Report shall be reported and shown on the as-built drawings. The reasons for all such modifications shall be described in detail.

The as-built drawings shall be signed and stamped by a professional engineer licensed to practice in the State of New York, and shall include a certification that the construction of the Source-Area RA has been completed in conformance with the final source-area RD Report, ROD/ROD Amendment, and the Consent Decree.

8. Observations and Lessons Learned

Provide Site-specific observations and lessons learned from the project, highlighting successes and problems encountered and how they were resolved.

9. Contact Information

Provide contact information (names, addresses, phone numbers, and contract/reference data) for the major design and remediation contractors, as applicable.

10. Appendices: Cost and Construction Performance Summary

- a. The specific parameters for documenting cost and performance information are presented in the Guide to Documenting and Managing Cost and Performance Information for Remediation Projects, EPA 542-B-98-007.
- b. Identify the matrix characteristics and Site conditions that most affected the cost and construction performance, the corresponding values measured for each characteristic or condition, and the procedures used for measuring those characteristics or conditions.
- c. Identify the parameters specified by the remediation contractor that most affected the cost and construction performance, the corresponding values measured for each parameter, and the procedures used for measuring those parameters.

- d. Provide a detailed breakout of the actual Source-Area RA capital costs.
- D. EPA will either approve the Interim Source-Area RA Report or require modification of it in accordance with the procedures set forth in **Section XII of the Consent Decree**.

X. O&M OF THE SOURCE AREA REMEDIAL ACTION

- Within nine (9) months of EPA's approval of the Final RD Report, Settling A. Defendants shall submit a list of contractors, if different than the RA contractor or the MNA Plan Implementation Contractor, proposed to be the O&M contractor. Settling Defendants shall include the name, title, and qualifications of the proposed O&M contractors. EPA shall thereafter provide written notice of the name(s) of the contractor(s) it approves. No later than thirty (30) days after the pre-final inspection (see Section IX.A., above), Settling Defendants shall award a contract to an EPA-approved O&M contractor. If at any time, Settling Defendants propose to change the O&M contractor, Settling Defendants shall notify EPA and, if not previously approved by EPA, shall obtain approval from EPA as provided in this paragraph before the new O&M contractor performs any work under the Consent Decree. If EPA disapproves the selection of any contractor as the O&M contractor, Settling Defendants shall submit a list of contractors that would be acceptable to them to EPA within thirty (30) days after receipt of EPA's disapproval of the contractor previously selected. EPA shall thereafter provide written notice of the name(s) of the contractor(s) it approves.
- B. Upon EPA's determination that construction is complete (see Section IX.B., above), Settling Defendants shall perform remedial action, O&M, and monitoring activities in accordance with the approved O&M Manual.

XI. NOTICE OF COMPLETION AND FINAL RA REPORT FOR THE SOURCE-AREA RA AND O&M

- A. Within **thirty (30) days** of the completion of the Source-Area RA and O&M, Settling Defendants shall submit to EPA a Notice of Completion for the Source-Area RA and O&M.
- B. EPA will determine whether the Source-Area RA and O&M, or any portion(s) thereof, have been completed in accordance with the standards, specifications, and reports required by this Consent Decree. If EPA determines that the Source-Area RA and O&M activities have not been so completed, EPA will notify Settling Defendants in writing of those tasks which must be performed to complete the Source Area RA and O&M. Settling Defendants shall then implement the specified activities and tasks in accordance with the specifications and schedules established by EPA. EPA will notify Settling Defendants in writing when the Source-Area RA

and O&M activities have been completed in accordance with the requirements of the Consent Decree.

- C. Within **ninety (90) days** of EPA's determination that the Source-Area RA and O&M are complete, Settling Defendants shall revise and update the Interim Source-Area RA Report and submit a Final Source-Area RA Report. The Final Source-Area RA Report shall conform with the RA Report guidance incorporated in EPA's Close Out Procedures for National Priorities List Sites (EPA 540-R-98-016, January 2000).
- D. EPA will either approve the Final Source-Area RA Report or require modification of it in accordance with the procedures set forth in **Section XII. of the Consent Decree**.

XII. <u>IMPLEMENTATION OF THE MONITORED NATURAL ATTENUATION</u> PLAN FOR GROUNDWATER

A. <u>Selection of MNA Plan Implementation Contractor</u>

Settling Defendants have identified, and EPA has approved, Geosyntec Consultants, Inc. as the MNA Plan Implementation Contractor. Selection of a new Contractor shall be subject to approval by EPA in accordance with Section XIII. of the Consent Decree.

B. MNA Plan Implementation

Upon EPA's approval of the MNA Plan, required in **Section VI.E.**, above, Settling Defendants shall commence the implementation of the MNA component of the remedy.

C. Interim Groundwater Remedial Action Report

- 1. After **nine (9) months** of implementation of the MNA Plan, Settling Defendants and their contractor(s) shall be available to accompany EPA personnel and/or their representatives on a pre-final inspection.
- 2. **One (1) year** following EPA's approval of the MNA Plan, Settling Defendants shall submit an Interim Groundwater Remedial Action Report which shall include, at a minimum:

3. Introduction

a. Include a brief description of the location, size, environmental setting, and operational history of the Site.

- b. Describe the operations and waste management practices that contributed to contamination of the Site.
- c. Describe the regulatory and enforcement history of the Site.
- d. Describe the major findings and results of Site investigation activities.
- e. Describe prior removal and remedial activities at the Site.

4. Background

- a. Summarize the requirements specified in the ROD/ROD Amendment. Include information on the cleanup goals and monitoring requirements.
- b. Provide additional information regarding the basis for determining the cleanup goals, including planned future land use.
- c. Summarize the MNA Plan.

5. Monitoring-Well Installation

- a. Summarize the installation of any additional monitoring wells.
- b. Provide well-construction diagrams and other supporting documentation of additional monitoring wells.
- c. Provide updated cross sections and groundwater-contour figures.
- d. Provide any updates to the conceptual site model for groundwater migration pathways.

6. Summary of Sampling Events

- a. Provide a summary of the sampling that was performed pursuant to the MNA Plan and a summary of the results from that sampling.
- b. Discuss contaminant trends and progress of natural attenuation.

7. Chronology of Events

Provide a tabular summary that lists the major events for the MNA and associated dates of those events, starting with the 1994 ROD signature date.

D. EPA will either approve the Interim Groundwater RA Report or require modification of it, in accordance with the procedures set forth in **Section XII.** of the Consent Decree.

E. Goal for Aquifer Restoration

- 1. The Performance Standards for aquifer restoration at the Site are included in the ROD. The ROD, attached to the Consent Decree, lists federal and State MCLs and other criteria for various constituents detected in the Site groundwater. Settling Defendants:
 - a. shall perform MNA until it has been determined that the Performance Standards have not been exceeded for a period of **two (2) consecutive** years, or a shorter period if approved by EPA in its sole discretion (see Section XIII., below); or
 - b. following the implementation of MNA for a period of at least three (3) consecutive years after the end of the stabilization period (or after implementation of ISCO, if necessary), or a shorter period if approved by EPA in its sole discretion, may perform MNA Contingency Measures, as discussed in Sections XII.E.2. through XII.E.8., below, until the Performance Standards have not been exceeded for a period of two (2) consecutive years, or a shorter period if approved by EPA in its sole discretion; or
 - c. following the implementation of the MNA Contingency Measures for a period of at least **three (3) consecutive years**, or a shorter period if approved by EPA in its sole discretion, may petition EPA for a technical impracticability (TI) waiver of one or more of the Performance Standards, as discussed in **Sections XII.E.9. through XII.E.14., below**, and consistent with EPA guidance, including, but not limited to, *Guidance for Evaluating the Technical Impracticability of Groundwater Restoration* (EPA/540-R-93-080) dated September 1993.
- 2. Settling Defendants may petition EPA in writing for authorization to amend the groundwater MNA Plan and implement MNA Contingency Measures if, based on the results of groundwater monitoring, Settling Defendants believe that some or all of the Performance Standards specified in the ROD will not be reached in the expected time period through continued implementation of the MNA Plan. Settling Defendants shall not submit such a petition until they have performed MNA for at least **three** (3) **years** from the end of the stabilization period (or after implementation of ISCO, if necessary), or a shorter period if approved by EPA in its sole discretion. EPA shall determine, in its sole discretion, whether MNA Contingency Measures should be implemented. EPA's decision shall be binding on the Settling Defendants.
- 3. Settling Defendants' petition for authorization to amend the MNA Plan through the implementation of MNA Contingency Measures shall include, at a

minimum, the following information, as well as any other information and analyses EPA requests prior to or following submission of the petition:

- a. a list identifying each Performance Standard that has not been met;
- b. a description of any changes in the conceptual model for Site contamination since issuance of the ROD/ROD Amendment, including geological, hydrogeologic, and geochemical characterizations, or identification of new/additional source areas;
- c. comprehensive groundwater monitoring data relevant to the groundwater remedy implemented;
- d. an analysis of the performance of the groundwater remedy which describes the spatial and temporal trends in groundwater contaminant concentrations within the groundwater plume (e.g., whether contaminant migration has been effectively prevented, as well as any reduction or changes in the overall size or location of the groundwater plume, or stabilized or very slow decreases in contaminant concentrations);
- e. a description of the proposed MNA Contingency Measures;
- f. a predictive analysis of the approximate time frame required to achieve the Performance Standards with both the existing groundwater remedy and that to be implemented with the proposed MNA Contingency Measures using methods appropriate for the data and Site-specific conditions. Such analysis shall also address the uncertainty, if any, inherent in these predictions; and
- g. The petition shall not be deemed complete until all information and analyses required and/or requested by EPA are submitted by Settling Defendants.
- 4. If, after having performed MNA for at least **three (3) years** from the end of the stabilization period (or after implementation of ISCO, if necessary), based on the results of groundwater monitoring, EPA believes that one or more of the Performance Standards specified in the ROD will not be reached in the expected time period through continued implementation of the MNA Plan and Settling Defendants have not petitioned EPA in writing for authorization to amend the MNA Plan, EPA may require Settling Defendants to implement MNA Contingency Measures and to submit a MNA Contingency Measures Plan (see Section XII.E.6., below).
- 5. An MNA Contingency Measures Plan shall be submitted to EPA by the Settling Defendants within **ninety (90) days** of receipt of EPA's written determination that MNA Contingency Measures are appropriate.

- 6. The MNA Contingency Measures Plan shall:
 - a. address design, construction, and O&M of the MNA Contingency Measures, as appropriate;
 - b. include an amended QAPP and HSCP for O&M activities, if necessary; and
 - c. include a schedule for the implementation of the MNA Contingency Measures.
- 7. EPA will either approve the MNA Contingency Measures Plan or disapprove and/or require modification of such plan, in accordance with the procedures set forth in **Section XII. of the Consent Decree**.
- 8. Settling Defendants shall implement the MNA Contingency Measures Plan within **thirty (30) days** of receipt of EPA's written approval of the Contingency Measures Plan.
- 9. Settling Defendants may petition EPA in writing for authorization to discontinue implementation of the MNA Contingency Measures Plan if, based on the results of performance data collected during implementation of the MNA Contingency Measures, Settling Defendants demonstrate to EPA's satisfaction that any portion of the aquifer cannot be restored. Settling Defendants may petition EPA to waive compliance with one or more of the Performance Standards based on a demonstration that it is technically impracticable, from an engineering perspective, to attain those standards. Settling Defendants shall not submit such a petition until they have implemented the MNA Contingency Measures for at least three (3) years, or a shorter period if approved by EPA in its sole discretion. A determination will be made by EPA based on Site-specific data and conditions. If a first petition is rejected, a subsequent petition will be considered by EPA only if EPA determines that it is based on significant new Site-specific data. The determination of whether attainment of a particular Performance Standard is technically impracticable will be made by EPA, and will be based on the engineering feasibility and reliability of the remedy. EPA's decision shall be binding on the Settling Defendants.
- 10. Neither the submission of a petition by Settling Defendants nor the granting of a waiver of one or more Performance Standards by EPA pursuant to this Section shall relieve Settling Defendants of their obligation to (i) continue to implement the groundwater remedy as required by the Consent Decree and this SOW unless EPA specifies otherwise, (ii) attain Performance Standards for any contaminants for which EPA has not specifically granted a waiver, and (iii) complete any other obligation under this Consent Decree.

- 11. Settling Defendants' petition for a technical impracticability (TI) waiver and/or for authorization to discontinue implementation of the MNA Contingency Measures Plan shall include, at a minimum, the information and analyses required by EPA guidance and the following Site-specific information:
 - a. a list of each Performance Standard for which a waiver is being sought, and the spatial limits for which they are sought.
 - b. a description of the conceptual model for Site contamination, including geological, hydrogeologic, and geochemical characterizations. The sources and quantities (if known), distribution, characteristics, migration potential and fate of contaminants present at the Site at the time of the petition shall be described. These descriptions shall incorporate pertinent data obtained during design, construction, and operation of groundwater remediation system, as well as other pertinent information obtained during any previous Site characterization efforts;
 - c. comprehensive groundwater monitoring data and an evaluation of the groundwater remedy implemented, along with any other remedial actions performed which enhanced or affected this remedy. The petition shall also demonstrate that the remedy has been designed, constructed, and operated in a manner which is consistent with the conceptual model of the Site and that the system has been modified or enhanced to the extent practicable by the implementation of Contingency Measures in order to improve its ability to attain Performance Standards;
 - d. a description of known or suspected groundwater contaminant sources at the Site. The petition shall also describe any additional source control and removal efforts undertaken, and the effectiveness of those efforts;
 - e. an analysis of the performance of the groundwater remedy which describes the spatial and temporal trends in groundwater contaminant concentrations within the groundwater plume. The petition shall discuss the hydro-geochemical factors which influence the remedy's ability to achieve the Performance Standards, and demonstrate how these factors inhibit the remedial system achieving the Performance Standards;
 - f. a demonstration (including appropriate engineering analysis) that all other technologies which are potentially applicable to the Site cannot attain the Performance Standards in a manner that is practicable from an engineering perspective. This demonstration shall include a prediction of the level of cleanup other technologies can attain;

- g. a predictive analysis of the approximate time frame required to achieve the Performance Standards with the existing groundwater remedy using methods appropriate for the data and the Site-specific conditions. Such analysis shall also address the uncertainty, if any, inherent in these predictions; and
- h. other information or analyses not included above but which Settling Defendants or EPA considers appropriate to making a determination on the petition.
- 12. Upon receipt of all information required by the previous Paragraph, EPA will review and consider the information in the petition and any other relevant information. After opportunity for review and comment by the State, EPA will determine (1) whether compliance with any of the Performance Standards shall be waived; (2) whether modifications to the groundwater portion of the remedial action or any additional response actions relating to groundwater contamination are required; and (3) whether revised interim milestone and completion dates are needed for attainment of Performance Standards under this Consent Decree. EPA's determination on the petition will be consistent with the National Contingency Plan (NCP), Section 121(d) of CERCLA, and any other applicable laws, regulations, and guidance in effect at the time.
- 13. If EPA, after a reasonable opportunity for review and comment by the State, grants any petition or other relief pursuant to this Section, that decision will be reflected in a post-ROD decision document, as required by the NCP.
- 14. Upon issuance of EPA's post-ROD decision document, and, if necessary, filing of a revised SOW and Consent Decree with the Court and issuance of a court order approving the modification, Settling Defendants shall implement the modifications selected by EPA to the groundwater remedy or additional response actions relating to groundwater contamination, and achieve and maintain all Performance Standards and remediation requirements established pursuant to **this Section**. Unless expressly modified by EPA's decision on the petition submitted hereunder, all requirements of this Consent Decree, including Settling Defendants' obligation to conduct long-term groundwater monitoring, shall continue in force and effect.
- 15. No action taken by EPA pursuant to this Section of the SOW, including EPA's decision on Settling Defendants' petition(s), shall be subject to dispute resolution or judicial review.

XIII. NOTICE OF COMPLETION OF MNA

A. Within forty (40) days of meeting the Performance Standards as specified in the ROD and this SOW for two (2) consecutive years (or a shorter period if approved

- by EPA in its sole discretion), Settling Defendants shall submit to EPA a Notice of Completion for MNA.
- B. EPA will determine whether the MNA (including any MNA Contingency Measures) has been completed in accordance with the standards, specifications, and reports required by the Consent Decree. If EPA determines that they have not been so completed, EPA will notify Settling Defendants in writing of those tasks which must be performed to complete the MNA (including any MNA Contingency Measures). Settling Defendants shall then implement the specified activities and tasks in accordance with the specifications and schedules approved by EPA and shall then submit a report on the specified activities and tasks and certification signed by a licensed professional engineer, within **thirty (30) days** after completion of the specified activities and tasks.
- C. Upon EPA's determination that MNA has been completed (including any MNA Contingency Measures), Settling Defendants shall continue the Remedial Action with post-remediation monitoring in accordance with the Post-Remediation Monitoring Plan, as set forth in **Section XIV.**, below.

XIV. POST-REMEDIATION MONITORING PLAN

- A. Within **forty (40) days** of the date on which EPA determines that MNA has been completed (**Section XII.C., above**) Settling Defendants shall submit to EPA a Post-Remediation Monitoring ("PRM") Plan.
- B. The PRM Plan shall include, at a minimum, the following:
 - 1. A QAPP for PRM activities, if necessary;
 - 2. An HSCP for PRM activities, if necessary;
 - 3. A description of work to be performed under PRM activities; and
 - 4. A PRM schedule, that identifies the frequency of monitoring and when these activities will commence.
- C. EPA will either approve the PRM Plan, or require modification of it, in accordance with the procedures set forth in **Section XII. of the Consent Decree**.

XV. POST-REMEDIATION MONITORING

A. Upon EPA's approval of the PRM Plan Settling Defendants shall commence with the PRM program for a period of **three (3) years**, in accordance with the PRM Plan, which includes the PRM schedule.

B. If contaminant concentrations increase above the Performance Standards (as specified in the ROD and this SOW) during post-remediation monitoring, EPA will evaluate the need, and may require Settling Defendants to, reinstate the MNA Plan. Statistical evaluation methods might be used in accordance with applicable EPA guidance, including *Methods for Evaluating the Attainment of Cleanup Standards, Volume 2: Ground Water* (EPA 230-R-92-014, July 1992).

XVI. NOTICE OF COMPLETION OF PRM AND FINAL GROUNDWATER RAREPORT

- A. Within **thirty (30) days** of the completion of the PRM, Settling Defendants shall submit to EPA a Notice of Completion for PRM.
- B. EPA will determine whether the PRM activities or any portion(s) thereof have been completed in accordance with the standards, specifications, and reports required by this Consent Decree. If EPA determines that PRM activities have not been so completed, EPA will notify Settling Defendants in writing of those tasks which must be performed to complete the post-remediation monitoring. Settling Defendants shall then implement the specified activities and tasks in accordance with the specifications and schedules established by EPA. EPA will notify Settling Defendants in writing when PRM activities have been completed in accordance with the requirements of this Consent Decree.
- C. Within **ninety** (90) **days** of EPA's determination that post-remediation monitoring is complete, Settling Defendants shall submit to EPA a Final Groundwater RA Report. The Final Groundwater RA Report shall, among other things, summarize the Work performed under the MNA and PRM Plans and the data so generated. The Final Groundwater RA Report shall conform with the RA Report guidance incorporated in EPA's Close Out Procedures for National Priorities List Sites (EPA 540-R-98-016, January 2000 or the latest revision) and include, at a minimum, the following sections:

1. Introduction

- a. Include a brief description of the location, size, environmental setting, and operational history of the Site.
- b. Describe the operations and waste management practices that contributed to contamination of the Site.
- c. Describe the regulatory and enforcement history of the Site.
- d. Describe the major findings and results of Site investigation activities.
- e. Describe prior removal and remedial activities at the Site.

2. Background

- a. Summarize the requirements specified in the ROD/ROD Amendment. Include information on the cleanup goals and monitoring requirements.
- b. Provide additional information regarding the basis for determining the cleanup goals, including planned future land use.
- c. Summarize the MNA and PRM Plans.

3. Summary of Sampling Events

- a. Provide a summary of the sampling that was performed pursuant to the MNA and PRM Plans and a summary of the results from that sampling.
- b. Discuss contaminant trends and progress of natural attenuation.

4. Chronology of Events

Provide a tabular summary that lists the major events for the MNA and PRM Plans and associated dates of those events, starting with the 1994 ROD signature date.

5. Construction Performance Standards and Construction Quality Control

- a. Provide an assessment of the performance data quality, including the overall quality of the analytical data, with a brief discussion of QA/QC procedures followed and a comparison of analytical data with data quality objectives.
- b. Provide documentation that all construction performance standards have been met in compliance with the requirements of the ROD/ROD Amendment and the Consent Decree.

6. <u>Certifications</u>

- a. Briefly describe adherence to health and safety requirements while implementing the monitoring. Explain any substantial problems or deviations.
- b. Include a certification statement, signed by a responsible corporate official of one or more of the Settling Defendants or by the Settling Defendants Project Coordinator, which states the following: "To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware that there are significant penalties for submitting

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

c. A certification by a qualified professional engineer licensed by the State of New York that the MNA and PRM Plans has been completed in conformance with the requirements of the final RD Report, the MNA and PRM Plans, the ROD/ROD Amendment, the SOW, the Consent Decree, and all plans, specifications, reports, and other relevant items developed hereunder.

7. Observations and Lessons Learned

Provide Site-specific observations and lessons learned from the project, highlighting successes and problems encountered and how they were resolved.

8. Contact Information

Provide contact information (names, addresses, phone numbers, and contract/reference data) for all relevant personnel.

9. Appendices: Cost and Construction Performance Summary

The specific parameters for documenting cost and performance information are presented in the *Guide to Documenting and Managing Cost and Performance Information for Remediation Projects*, EPA 542-B-98-007.

- D. EPA will either approve the Final Groundwater RA Report or require modification of it, in accordance with the procedures set forth in Section XII of the Consent Decree.
- E. In accordance with the procedures set forth in **Section XV. of the Consent Decree**, Settling Defendants shall schedule and conduct a pre-certification inspection to be attended by Settling Defendants and EPA within **ninety (90) days** after Settling Defendants conclude that the Remedial Action has been fully performed and the Performance Standards have been attained. If, after the pre-certification inspection, Settling Defendants still believe that the Remedial Action has been fully performed and the Performance Standards have been attained, they shall submit a written report requesting Certification of Completion to EPA for approval, with a copy to the State, within **thirty (30) days** of the inspection. This report should include documentation that the Performance Standards have been met in accordance with the Consent Decree. Each Performance Standard should be addressed by providing the standard, the results of field sampling, as appropriate, and the basis for determining that the standard was met. If, after completion of the pre-certification inspection and receipt and review of the written report, EPA, after reasonable

opportunity for review and comment by the State, determines that the Remedial Action or any portion thereof has not been completed in accordance with the Final RD Report or this Consent Decree, or that the Performance Standards have not been achieved, EPA will notify Settling Defendants in writing of the activities that must be undertaken to complete the Remedial Action or achieve the Performance Standards. EPA will set forth in the notice a schedule for performance of such activities or require the Settling Defendants to submit a schedule to EPA for approval. Settling Defendants shall perform all activities described in the notice in accordance with the specifications and schedules.

If EPA concludes, based on the initial or any subsequent report requesting Certification of Completion, and after a reasonable opportunity for review and comment by the State, that all Remedial Action has been fully performed in accordance with the Consent Decree and that the Performance Standards have been achieved, EPA will so certify in writing to Settling Defendants.