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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5

IN THE MATTER OF:	)	Docket No.	V-W-88-C-736
	)		
	)	ADMINISTRATIVE ORDER BY	
The Boerke Site	)	CONSENT PURSUANT TO	
Oak Creek, Wisconsin	)	SECTION 106 OF THE	
	)	COMPREHENSIVE	
	)	ENVIRONMENTAL RESPONSE,	
Respondents:	)	COMPENSATION, AND	
	)	LIABILITY ACT OF 1980,	
E.I. DuPont de Nemours	)	as amended, 42 U.S.C.	
and Company	)	\$9606(a)	
EPEC Polymers, Inc.	)		

I. JURISDICTION AND GENERAL PROVISIONS

This Administrative Order by Consent ("the Order") is entered into voluntarily by the United States Environmental Protection Agency ("U.S. EPA") and the Respondents. The Order is issued pursuant to the authority vested in the President of the United States by Sections 104, 106(a), 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. §§9604, 9606(a), 9607 and 9622. This authority has been delegated to the Administrator of the U.S. EPA by Executive Order No. 12580, January 23, 1987, 52 Federal Register 2923, and further delegated to the Regional Administrators by U.S. EPA Delegation Nos. 14-14-A, 14-14-C and 14-14-D, and to the Director, Superfund Division, Region 5, by Regional Delegation Nos. 14-14-A, 14-14-C and 14-14-D.

This Order requires, among other things, the Respondents to perform response actions to address the environmental concerns in connection with property located at Ryan Road, in Oak Creek, Wisconsin. The area of contamination is known as the Boerke site (or the "Site") and is generally depicted in Figure 1.

A copy of this Order will also be provided to the State of Wisconsin, which has been notified of the issuance of this Order pursuant to Section 106(a) of CERCLA, 42 U.S.C. §9606(a). U.S. EPA has notified the federal and state natural resources trustees of negotiations, in accordance with Section 122(j) of CERCLA, 42 U.S.C. §9622(j)(1), concerning this site.

Respondents agree to comply with and be bound by the terms of this Order and agree that they will not contest the basis or validity of this Order. Respondents' participation in this Order shall not constitute an admission of liability or of U.S. EPA's findings or determinations contained in this Order except in a proceeding to enforce the terms of this Order.

## II. PARTIES BOUND

This Order applies to and is binding upon U.S. EPA, and upon Respondents and Respondents' heirs, receivers, trustees, successors and assigns. Any change in ownership or corporate status of Respondents including, but not limited to, any transfer of assets or real or personal property shall not alter such Respondents' responsibilities under this Order. Respondents are jointly and severally liable for carrying out all activities required by this Order. Compliance or noncompliance by one or more Respondents with any provision of this Order shall not excuse or justify noncompliance by any other Respondent.

Respondents shall ensure that their contractors, subcontractors, and representatives receive a copy of this Order, and comply with this Order. Respondents shall be responsible for any noncompliance with this Order.

## III. FINDINGS OF FACT

Based on available information, including the Administrative Record in this matter, U.S. EPA hereby finds, and, for purposes of enforceability of this Order, the Respondents stipulate that the factual statutory prerequisites under CERCLA necessary for issuance of this Order only have been met. U.S. EPA's findings and this stipulation include the following:

1. The Boerke Site is an abandoned, unlined industrial waste disposal area that received arsenic waste from a dye manufacturing plant that operated from approximately 1915 until 1939 next to the Site. The Site includes an adjacent wetland area that receives runoff from the waste disposal area and an intermittent stream that carries drainage from the wetland to Lake Michigan, approximately 1/8 of a mile northeast of the Site. The waste disposal area covers approximately 30,000 square feet. The surface is black in color and sparsely vegetated; some areas are covered with black globules resembling coal tar. Napthalene, which is indicative of coal tar, and total mercury were detected in

samples taken from the waste disposal area, wetland and stream.

2. The actual date of disposal activities is poorly documented but appears to have taken place concurrently with the production activities of the adjacent Carrolville Dye Plant (the Plant). The Plant was located on property currently owned by Respondent E.I. du Pont de Nemours & Company (DuPont). Auxiliary facilities, including the waste disposal area and lagoons, were located on adjacent property currently owned by Respondent EPEC Polymers, Inc. (EPEC) and previously owned by the Edison M. Boerke Family Trust (Boerke). EPEC acquired title to the property from Boerke in 1999. The Plant was owned and operated by the Newport Company from 1915 until 1930, as a manufacturer of phenols and later of intermediates and dyes. Arsenic wastes, a by-product of the dye manufacturing process, were disposed of at the waste disposal area located on property now owned by EPEC. From 1930-1931, the Plant, and the processes used therein and the property, including the Site, was owned and operated by Newport Chemical Corporation, the successor of the Newport Company. In August of 1931, DuPont acquired the Newport Chemical Corporation. DuPont owned the Site until 1939. DuPont reacquired the property on which the plant was located in 1999.
3. On June 1, 1994, Boerke, the previous owner of the Site, filed a complaint against DuPont in the United States District Court for the Eastern District of Wisconsin, Case No. 94-C-574 (the Federal Case), alleging claims under CERCLA and Wisconsin state law.
4. DuPont asserted claims in the Federal Case that Tenneco Polymers, Inc. succeeded to the liabilities of the Newport Company. Tenneco Polymers, Inc. is now known as EPEC Polymers, Inc.
5. The waste disposal area is in a low-lying marshy area. The area immediately adjacent to the waste disposal area is a wetland; the wetland is drained by an intermittent stream that flows directly into Lake Michigan 1/8 of a mile away.
6. Approximately 17,000 people live in and around Oak Creek, 30 within one mile of the Site; the nearest residence is located .2 miles west of the Site. Sampling from the well at this residence showed no arsenic contamination. Bender Park, a large wooded public park with a network of multi-use access trails and marina, lies directly south of the Site

and borders Lake Michigan.

7. In September 1995, U.S. EPA and DuPont signed an Administrative Order by Consent (Order) that required DuPont to conduct a Engineering Evaluation/Cost Analysis (EE/CA). In August 1999, the Order was amended to add EPEC as a respondent. The EE/CA entailed extensive field investigations to evaluate the nature and extent of arsenic contamination in the surrounding soil, sediment, surface water and groundwater. These field investigations were completed in October 1999.
8. In September 2000, U.S. EPA published its Proposed Plan for Cleanup of the Boerke Site, and sought public comment for thirty days. A Public Hearing was held at the Oak Creek City Hall on October 10, 2000. The Proposed Plan recommended Off-Site Stabilization with Off-Site Disposal of approximately 17,000 cubic yards of contaminated disposal area fill material, surrounding soil, and sediment.
9. On April 12, 2002, U.S. EPA signed the Action Memorandum for the Site, which selected the recommended clean-up alternative proposed in the September 2000 Proposed Plan. Specifically, the action memorandum requires excavation, transport, off-site stabilization, and off-site disposal of approximately 17,000 cubic yards of arsenic-contaminated material in the waste disposal area and adjacent areas, wetland area, and the drainage swale.

#### IV. CONCLUSIONS OF LAW AND DETERMINATIONS

Based on the Findings of Fact set forth above, and the Administrative Record in this matter, U.S. EPA has determined that:

1. The Boerke Site is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. §9601(9).
2. The arsenic waste disposed of at the Site is a "hazardous substance" as defined by Section 101(14) of CERCLA, 42 U.S.C. §9601(14).
3. Respondents DuPont and EPEC are "persons" as defined by Section 101(21) of CERCLA, 42 U.S.C. §9601(21).
4. Respondent EPEC is the present "owner" of the Site, as defined by Section 101(20) of CERCLA, 42 U.S.C. §9601(20).

Respondent DuPont is a person who at the time of disposal of any hazardous substances owned or operated the Boerke Site. Each Respondent therefore may be liable under Section 107(a) of CERCLA, 42 U.S.C. §9607(a).

5. The conditions described in the Findings of Fact above constitute an actual or threatened "release" of a hazardous substance from the facility into the "environment" as defined by Sections 101(8) and (22) of CERCLA, 42 U.S.C. §§9601(8) and (22).

6. The conditions present at the Site constitute a threat to public health, welfare, or the environment based upon the factors set forth in Section 300.415(b)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan, as amended ("NCP"), 40 CFR §300.415(b)(2). These factors include, but are not limited to, the following:

a. actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, pollutants or contaminants; this factor is present at the Site due to the existence of arsenic. Analysis of soil and sediment collected from the Boerke Site indicates the presence of TCLP arsenic in concentrations ranging from 23 to 108 mg/L. The primary route of arsenic exposure for both humans and animals is through ingestion of food (such as plants that accumulate arsenic), or water containing arsenic, or through inhalation of fine particles (dust) containing arsenic. Arsenic could enter the food chain through direct contact with contaminated water and sediment and/or ingestion of plants. The potential for waterfowl or other animals to come in contact with arsenic contaminated sediment or water is high. The potential for human exposure is present at the Site. The nearest residence is within .2 miles of the Site and a public park and boat launch and trail system borders the Site to the south. The potential exists for trespassers such as neighborhood children, hikers, and hunters, to come in contact with high levels or arsenic.

Animal tracks have been observed in the arsenic contaminated waste in the waste disposal area/marsh area. The area around and adjacent to the waste disposal area, which is mostly non-vegetated with a few stressed plants, is heavily vegetated and supports a wide variety of wildlife, including waterfowl, small mammals, large mammals such as deer, and reptiles. The concentrations of arsenic at the Site are orders of magnitude above risk-based screening levels that have been published by U.S. EPA for the protection of

ecological health.

b. Actual or potential contamination of drinking water supplies or sensitive ecosystems; this factor is present at the Site due to the presence of arsenic in the wetland and drainage swale. The waste disposal area is situated in an environmentally sensitive area adjacent to a wetland and heavily wooded public park.

c. High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate; this factor is present at the Site due to the existence of the arsenic disposal area. Sampling at the Site shows that contaminants from the open, unlined waste disposal area have already migrated to the wetland and into the swale, resulting in levels of total arsenic in excess of 4,900 mg/kg in sediment samples taken from the wetland, and as high as 2620 mg/kg in sediment samples taken from the drainage swale. The drainage swale flows into Lake Michigan 1/4 of a mile northeast of the disposal area on the Site.

d. weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released; this factor is present at the Site due to the existence of arsenic. The waste disposal area at the Boerke Site is currently unlined and uncovered. Rain water and snow melt can accumulate and flow off the waste disposal area. This results in a release to the wetland area (where high levels of arsenic are now found). When levels of contaminated water rise in the wetland area, the excess overflows into the drainage swale and eventually flows into nearby Lake Michigan. Flood events can also cause the contaminated soil and sediment to migrate into the wetland and drainage swale.

e. the unavailability of other appropriate federal or state response mechanisms to respond to the release; this factor supports the actions required by this Order at the Site because the WDNR does not have adequate funding to conduct the removal action at the Boerke Site.

7. The actual or threatened release of hazardous substances from the Site may present an imminent and substantial endangerment to the public health, welfare, or the environment within the meaning of Section 106(a) of CERCLA, 42 U.S.C. §9606(a).

8. The actions required by this Order, if properly performed, are consistent with the NCP, 40 CFR Part 300, as amended, and

with CERCLA, and are reasonable and necessary to protect the public health, welfare, and the environment.

#### V. ORDER

Based upon the foregoing Findings of Fact, Conclusions of Law and Determinations, and the Administrative Record for this Site, it is hereby ordered and agreed that Respondents shall comply with the following provisions, including but not limited to all attachments to this Order, and all documents incorporated by reference into this Order, and perform the following actions:

1. Designation of Contractor, Project Coordinator, On-Scene Coordinator or Remedial Project Manager

Respondents shall perform the actions required by this Order themselves or retain (a) contractor(s) to undertake and complete the requirements of this Order. Respondents shall notify U.S. EPA of Respondents' qualifications or the name and qualifications of such contractor(s), whichever is applicable, within 15 calendar days of the effective date of this Order. Respondents shall also notify U.S. EPA of the name and qualifications of any other contractors or subcontractors retained to perform work under this Order at least 5 business days prior to commencement of such work. U.S. EPA retains the right to disapprove of the Respondents or any of the contractors and/or subcontractors retained by the Respondents. If U.S. EPA disapproves a selected contractor, Respondents shall retain a different contractor within 10 calendar days following U.S. EPA's disapproval, and shall notify U.S. EPA of that contractor's name and qualifications within 15 calendar days of U.S. EPA's disapproval.

Within 10 business days after the effective date of this Order, the Respondents shall designate a Project Coordinator who shall be responsible for administration of all the Respondents' actions required by the Order. Respondents shall submit the designated coordinator's name, address, telephone number, and qualifications to U.S. EPA. U.S. EPA retains the right to disapprove of any Project Coordinator named by the Respondents. If U.S. EPA disapproves a selected Project Coordinator, Respondents shall retain a different Project Coordinator within 10 business days following U.S. EPA's disapproval and shall notify U.S. EPA of that person's name and qualifications within 11 business days of U.S. EPA's disapproval. Receipt by Respondents' Project Coordinator of any notice or communication from U.S. EPA relating to this Order shall constitute receipt by all Respondents.

The U.S. EPA has designated Brad Bradley of the Remedial Response Branch, Region 5, as Remedial Project Manager ("RPM"). Respondents shall direct all submissions required by this Order to the RPM at 77 West Jackson Boulevard, (SE-6J), Chicago, Illinois 60604-3590, by certified or express mail. Respondents shall also send a copy of all submissions to Susan Prout, Associate Regional Counsel, 77 West Jackson Blvd. Mail Code C-14J, Chicago, Illinois, 60604. All Respondents are encouraged to make their submissions to U.S. EPA on recycled paper (which includes significant post-consumer waste paper content where possible) and using two-sided copies.

U.S. EPA and Respondents shall have the right, subject to the immediately preceding paragraph, to change their designated RPM or Project Coordinator. U.S. EPA shall notify the Respondents, and Respondents shall notify U.S. EPA, as early as possible before such a change is made, but in no case less than 24 hours before such a change. The initial notification may be made orally but it shall be promptly followed by a written notice within two business days of oral notification.

## 2. Work to Be Performed

Within 60 calendar days of the effective date of this Order, Respondents will submit for approval a draft Work Plan for performing the following removal actions:

- a. Provide and maintain site security around contaminated areas during the pendency of removal actions performed at the Site;
- b. Post warning signs during the performance of removal actions around the contaminated areas;
- c. Excavate arsenic-contaminated waste materials, sediments, and soils in the waste disposal area, adjacent contaminated soils area, and wetland area as shown in Revised Figure 1;
- d. Excavate sediment/soil in the drainage swale with surface soil concentrations in excess of 40 ppm arsenic to depths specified in Figure 1. Depths of excavation in areas surrounding sample locations GS-15C, GS-4A/GS-4B, and GS-2C may be slightly revised based on samples to be collected and analyzed immediately prior to the Removal Action. Depths for these areas will be agreed upon with U.S. EPA prior to beginning the excavation portion of the Removal Action;

- e. Implement off-site disposal of all impacted excavated waste materials, sediments, and soils and implement off-site stabilization and disposal for excavated waste materials, sediments, and soils that exceed the applicable Toxicity Characteristic Leaching procedure (TCLP) limit for arsenic;
- f. Place a suitable, permanent barrier (e.g. orange snow fence) over portions of the waste disposal area, adjacent contaminated soil area, and wetland area where waste materials, sediments, and/or soils with arsenic concentrations exceeding 40 ppm are left in place;
- g. Place suitable, contaminant-free backfill in excavated areas and grade such backfill to a smooth, level surface, with proper drainage;
- h. Establish a vegetative layer over the backfilled areas, including appropriate wetland vegetation to restore the wetland area;
- i. Within 90 calendar days of completion of the removal action, prepare and submit to U.S. EPA a summary report of the removal action detailing all actions taken, sampling data collected, and quantities of material excavated/disposed;
- j. Within 90 calendar days of completion of the removal action, prepare and submit to U.S. EPA an Operation and Maintenance (O&M) Plan detailing all inspection and maintenance activities to be conducted to ensure the continued protectiveness of the remedy;
- k. Within 90 calendar days of completion of the removal action commence implementation the O&M Plan; and
- l. Prepare and record in the appropriate state, county or municipal office institutional controls enforceable by EPA that limit use of the property as required by the SOW and Action Memorandum.

## 2.1 Work Plan and Implementation

Attached to this Order for the Respondents to follow is a Statement of Work.

Within sixty calendar days after the effective date of this

Order, the Respondents will submit to U.S. EPA for approval the draft Work Plan for performing the removal activities set forth above. The draft Work Plan will provide a description of, and an expeditious schedule for, the actions required by this Order.

U.S. EPA may approve, disapprove, require revisions to, or modify the draft Work Plan. If U.S. EPA requires revisions, Respondents will submit a revised draft Work Plan within twenty-one calendar days of receipt of U.S. EPA's notification of required revisions. Respondents will implement the Work Plan as finally approved in writing by U.S. EPA in accordance with the schedule approved by U.S. EPA. Once approved, or approved with modifications, the Work Plan, the schedule, and any subsequent modifications will be fully enforceable under this Order. Respondents will notify U.S. EPA at least forty-eight hours prior to performing any on-site work pursuant to the U.S. EPA approved Work Plan. Respondents will not commence or undertake any removal actions at the Site without prior U.S. EPA approval.

## 2.2 Health and Safety Plan

Within 10 business days after the effective date of this Order, the Respondents shall submit for EPA review and comment a plan that ensures the protection of the public health and safety during performance of on-site work under this Order. This plan shall comply with applicable Occupational Safety and Health Administration ("OSHA") regulations found at 29 CFR Part 1910. If EPA determines it is appropriate, the plan shall also include contingency planning. Respondents shall incorporate all changes to the plan recommended by EPA, and implement the plan during the pendency of the removal action.

## 2.3 Quality Assurance and Sampling

All sampling and analyses performed pursuant to this Order shall conform to U.S. EPA direction, approval, and guidance regarding sampling, quality assurance/quality control ("QA/QC"), data validation, and chain of custody procedures. Respondents shall ensure that the laboratory used to perform the analyses participates in a QA/QC program that complies with U.S. EPA guidance.

Upon request by U.S. EPA, Respondents shall have such a laboratory analyze samples submitted by U.S. EPA for quality assurance monitoring. Respondents shall provide to U.S. EPA the quality assurance/quality control procedures followed by all sampling teams and laboratories performing data collection and/or analysis. Respondents shall also ensure provision of analytical

tracking information consistent with, at a minimum, OSWER Directive No. 9240.0-2B, "Extending the Tracking of Analytical Services to PRP-Lead Superfund Sites."

Upon request by U.S. EPA, Respondents shall allow U.S. EPA or its authorized representatives to take split and/or duplicate samples of any samples collected by Respondents or their contractors or agents while performing work under this Order. Respondents shall notify U.S. EPA not less than 5 business days in advance of any sample collection activity. U.S. EPA shall have the right to take any additional samples that it deems necessary.

#### 2.4 Reporting

Respondents shall submit a monthly written progress report to U.S. EPA concerning actions undertaken pursuant to this Order, beginning 30 calendar days after the effective date of this Order, until termination of this Order, unless otherwise directed in writing by the RPM. These reports shall describe all significant developments during the preceding period, including the work performed and any problems encountered, analytical data received during the reporting period, and developments anticipated during the next reporting period, including a schedule of work to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

Any Respondent that owns any portion of the Site shall, at least 30 days prior to the conveyance of any interest in real property at the Site, during the pendency of the Work under this Order give written notice of this Order to the transferee and written notice of the proposed conveyance to U.S. EPA and the State. The notice to U.S. EPA and the State shall include the name and address of the transferee. The party conveying such an interest shall require that the transferee will provide access as described in Section V.3 (Access to Property and Information).

#### 2.5 Additional Work

In the event that the U.S. EPA or the Respondents determine that additional work, including EE/CA support sampling and/or an engineering evaluation, is necessary to accomplish the objectives of the EE/CA Report, notification of such additional work shall be provided to the other parties in writing. Any additional work which Respondents determine to be necessary shall be subject to U.S. EPA's written approval prior to commencement of the additional work. Respondents shall complete, in accordance with standards, specifications, and schedules U.S. EPA has approved, any additional work Respondents have proposed, and which U.S. EPA

has approved in writing or that U.S. EPA has determined to be necessary, and have provided written notice of pursuant to this paragraph.

### 3. Access to Property and Information

Respondents shall provide or obtain access to the Site and off-site areas to which access is necessary to implement this Order, and shall provide access to all records and documentation related to the conditions at the Site and the actions conducted pursuant to this Order. Subject to the Health and Safety plan, such access shall be provided to U.S. EPA employees, contractors, agents, consultants, designees, representatives, and State of Wisconsin representatives. These individuals shall be permitted to move freely at the Site and appropriate off-site areas to which Respondents have access in order to conduct actions which U.S. EPA determines to be necessary. Respondents shall submit to U.S. EPA, upon request/receipt, the results of all sampling or tests and all other data generated by Respondents or their contractors, or on the Respondents' behalf during implementation of this Order.

Where work/action under this Order is to be performed in areas owned by or in possession of someone other than Respondents, Respondents shall use their best efforts to obtain all necessary access agreements within 14 calendar days after the effective date of this Order, or as otherwise specified in writing by the RPM. Respondents shall notify U.S. EPA within 2 business days if, after using their best efforts, they are unable to obtain such agreements. Respondents shall describe in writing their efforts to obtain access. U.S. EPA may, in its discretion, then assist Respondent in gaining access, to the extent necessary to effectuate the actions described herein, using such means as U.S. EPA deems appropriate. Respondents shall reimburse U.S. EPA for all costs and attorneys fees incurred by the United States in obtaining such access.

### 4. Record Retention, Documentation, Availability of Information

Respondents shall preserve all documents and information in their possession relating to work performed under this Order, or relating to the hazardous substances found on or released from the Site, for six years following completion of the actions required by this Order. At the end of this six year period and at least 60 calendar days before any document or information is destroyed, Respondents shall notify U.S. EPA that such documents and information are available to U.S. EPA for inspection, and upon request, shall provide the originals or copies of such

documents and information to U.S. EPA. In addition, Respondents shall provide copies of any such non-privileged documents and information retained under this Section at any time before expiration of the six year period at the written request of U.S. EPA. Any information that Respondents are required to provide or maintain pursuant to this Order is not subject to the Paperwork Reduction Act of 1995, 44 U.S.C. §3501 et seq.

If Respondents assert a privilege in lieu of providing documents, they shall provide U.S. EPA with the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of the author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the contents of the document, record, or information; and (6) the privilege asserted by Respondents. However, no documents, reports, or other information created or generated pursuant to the requirements of this Order shall be withheld on the grounds that they are privileged.

#### 5. Off-Site Shipments

All hazardous substances, pollutants or contaminants removed off-site pursuant to this Order for treatment, storage or disposal shall be treated, stored, or disposed of at a facility in compliance, as determined by U.S. EPA, with the U.S. EPA Revised Off-Site Rule, 40 CFR §300.440, 58 Fed. Reg. 49215 (Sept. 22, 1993).

#### 6. Compliance With Other Laws

Respondents shall perform all activities required pursuant to this Order in accordance with all the requirements of all federal and state laws and regulations. U.S. EPA has determined that the activities contemplated by this Order are consistent with the National Contingency Plan ("NCP").

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

This Order is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

## 7. Emergency Response and Notification of Releases

If any incident, or change in Site conditions, during the activities conducted pursuant to this Order causes or threatens to cause an additional release of hazardous substances from the Site or an endangerment to the public health, welfare, or the environment, the Respondents shall immediately take all appropriate action to prevent, abate or minimize such release or endangerment caused or threatened by the release. Respondents shall also immediately notify the RPM or, in the event of his unavailability, shall notify the Regional Duty Officer, Emergency Response Branch, Region 5 at (312) 353-2318, of the incident or Site conditions. If Respondents fail to respond, U.S. EPA may respond to the release or endangerment and reserve the right to recover costs associated with that response.

Respondents shall submit a written report to U.S. EPA within 7 business days after each release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. Respondents shall also comply with any other notification requirements, including those in Section 103 of CERCLA, 42 U.S.C. §9603, and Section 304 of the Emergency Planning and Community Right-To-Know Act, 42 U.S.C. §11004.

## VI. AUTHORITY OF THE U.S. EPA ON-SCENE COORDINATOR OR REMEDIAL PROJECT MANAGER

The RPM shall be responsible for overseeing the implementation of this Order. The RPM shall have the authority vested in a RPM by the NCP, including the authority to halt, conduct, or direct any activities required by this Order, or to direct any other response action undertaken by U.S. EPA or Respondents at the Site. Absence of the RPM from the Site shall not be cause for stoppage of work unless specifically directed by the RPM.

## VII. REIMBURSEMENT OF COSTS

Respondents shall pay all past response costs, and oversight costs, of the United States related to the Site that are not inconsistent with the NCP. As soon as practicable after the effective date of this Order, U.S. EPA will send Respondents a bill for "oversight costs" on an annual basis, beginning approximately one year after the Effective Date of the Order. "Oversight costs" are all costs, including, but not limited to,

direct and indirect costs, that the United States incurs in reviewing or developing plans, reports and other items pursuant to this AOC. "Oversight costs" shall also include all costs, including direct and indirect costs, paid by the United States in connection with the Site after March 31, 2002, the date through which the U.S. EPA's Itemized Cost Summary sent to Respondents on May 8, 2002, ran and the effective date of this AOC.

Respondents shall, within 30 calendar days of receipt of a bill, remit a cashier's or certified check for the amount of the bill made payable to the "Hazardous Substance Superfund," to the following address:

U.S. Environmental Protection Agency  
Program Accounting & Analysis Section  
P.O. Box 70753  
Chicago, Illinois 60673

Respondents shall simultaneously transmit a copy of the check to the Director, Superfund Division, U.S. EPA Region 5, 77 West Jackson Blvd., Chicago, Illinois, 60604-3590. Payments shall be designated as "Response Costs - Boerke Site" and shall reference the payers' name and address, the EPA site identification number (05Q0), and the docket number of this Order.

In the event that any payment is not made within the deadlines described above, Respondents shall pay interest on the unpaid balance. Interest is established at the rate specified in Section 107(a) of CERCLA, 42 U.S.C. §9607(a). The interest shall begin to accrue on the date of the Respondents' receipt of the bill. Interest shall accrue at the rate specified through the date of the payment. Payments of interest made under this paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondents' failure to make timely payments under this Section.

Respondents may dispute all or part of a bill for Oversight costs submitted under this Order, if Respondents allege that U.S. EPA has made an accounting error, or if Respondents allege that a cost item is inconsistent with the NCP.

If any dispute over costs is resolved before payment is due, the amount due will be adjusted as necessary. If the dispute is not resolved before payment is due, Respondents will pay the full amount of the uncontested costs into the Hazardous Substance Fund as specified above on or before the due date. Within the same time period, Respondents will pay the full amount of the contested costs into an interest-bearing escrow account.

Respondents will simultaneously transmit a copy of both checks to the RPM. Respondents will ensure that the prevailing party or parties in the dispute will receive the amount upon which they prevailed from the escrow funds plus interest within twenty calendar days after the dispute is resolved.

### **VIII. DISPUTE RESOLUTION**

The parties to this Order will attempt to resolve, expeditiously and informally, any disagreements concerning this Order.

If the Respondents object to any U.S. EPA action taken pursuant to this Order, including but not limited to, billings for oversight costs, and any modifications made by the RPM under Paragraph XVI, "Modifications" the Respondents will notify U.S. EPA in writing of their objections within ten calendar days of such action, unless the objections have been informally resolved. This written notice will include a statement of the issues in dispute, the relevant facts upon which the dispute is based, all factual data, analysis or opinion supporting Respondents' position, and all supporting documentation on which such party relies. U.S. EPA will submit its Statement of Position, including supporting documentation, no later than ten calendar days after receipt of the written notice of dispute. In the event that these ten-day time periods for exchange of written documents may cause a delay in the work, they will be shortened upon, and in accordance with, notice by U.S. EPA. The time periods for exchange of written documents relating to disputes over billings for oversight costs may be extended at the sole discretion of U.S. EPA.

An administrative record of any dispute under this Section will be maintained by U.S. EPA. The record will include the written notification of such dispute, and the Statement of Position served pursuant to the preceding paragraph. Upon review of the administrative record, the Director of the Superfund Division, U.S. EPA Region V, will resolve the dispute consistent with the NCP and the terms of this Order.

Respondents' obligations under this Order will not be tolled by submission of any objection for dispute resolution under this Section. Following resolution of the dispute, as provided by this Section, Respondents will fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with U.S. EPA's decision, whichever occurs.

**IX. FORCE MAJEURE**

Respondents agree to perform all requirements under this Order within the time limits established under this Order, unless the performance is delayed by a force majeure. For purposes of this Order, a force majeure is defined as any event arising from causes beyond the control of Respondents or of any entity controlled by Respondents, including but not limited to their contractors and subcontractors, that delays or prevents performance of any obligation under this Order despite Respondents' best efforts to fulfill the obligation. Force majeure does not include financial inability to complete the work or increased cost of performance.

Respondents will notify U.S. EPA orally within twenty-four hours after Respondents become aware of any event that Respondents contend constitutes a force majeure, and in writing within seven calendar days after the event. Such notice will: identify the event causing the delay or anticipated delay; estimate the anticipated length of delay, including necessary demobilization and re-mobilization; state the measures taken or to be taken to minimize the delay; and estimate the timetable for implementation of the measures. Respondents will take all reasonable measures to avoid and minimize the delay. Failure to comply with the notice provision of this Section will be grounds for U.S. EPA to deny Respondents an extension of time for performance. Respondents will have the burden of demonstrating by a preponderance of the evidence that the event is a force majeure, that the delay is warranted under the circumstances, and that best efforts were exercised to avoid and mitigate the effects of the delay.

If U.S. EPA determines a delay in performance of a requirement under this Order is or was attributable to a force majeure, the time period for performance of that requirement will be extended as deemed necessary by U.S. EPA. Such an extension will not alter Respondents' obligation to perform or complete other tasks required by the Order which are not directly affected by the force majeure.

**X. STIPULATED AND STATUTORY PENALTIES**

For each day, or portion thereof, that Respondents fail to fully perform any requirement of this Order in accordance with the schedule established pursuant to this Order, Respondents will be liable as follows:

<u>Deliverable/Activity</u>	<u>Penalty For Days 1-7</u>	<u>Penalty For More Than 7 Days</u>
Failure to Submit a Draft or Revised Work Plan	\$750/Day	\$2,000/Day
Late Submittal of Progress Reports or Other Miscellaneous Reports/Submittals	\$200/Day	\$500/Day
Failure to Meet any Scheduled Deadline in the Order	\$200/Day	\$500/Day
Failure to Meet of the Operation and Maintenance Requirements	\$200/Day	\$500/Day

Upon receipt of written demand by U.S. EPA, Respondents will make payment to U.S. EPA within twenty days and interest will accrue on late payments in accordance with Section VII of this Order (Reimbursement of Costs).

Even if violations are simultaneous, separate penalties will accrue for separate violations of this Order. Penalties accrue and are assessed per violation per day. Penalties will accrue regardless of whether EPA has notified Respondents of a violation or act of noncompliance. The payment of penalties will not alter in any way Respondents' obligations to complete the performance of the work required under this Order. Stipulated penalties will accrue, but need not be paid, during any dispute resolution period concerning the particular penalties at issue. If Respondents prevail upon resolution, Respondents will pay only such penalties as the resolution requires. In its unreviewable discretion, U.S. EPA may waive its rights to demand all or a portion of the stipulated penalties due under this Section. Such a waiver must be made in writing.

Violation of any provision of this Order may subject Respondents to civil penalties of up to \$27,500 per violation per day, as provided in Section 106(b)(1) of CERCLA, 42 U.S.C. §9606(b)(1). Respondents may also be subject to punitive damages in an amount up to three times the amount of any cost incurred by the United States as a result of such violation, as provided in Section 107(c)(3) of CERCLA, 42 U.S.C. §9607(c)(3). Should

Respondents violate this Order or any portion hereof, U.S. EPA may carry out the required actions unilaterally, pursuant to Section 104 of CERCLA, 42 U.S.C. §9604, and/or may seek judicial enforcement of this Order pursuant to Section 106 of CERCLA, 42 U.S.C. §9606.

#### **XI. RESERVATION OF RIGHTS**

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

#### **XII. OTHER CLAIMS**

By issuance of this Order, the United States and U.S. EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondents. The United States or U.S. EPA will not be a party or be held out as a party to any contract entered into by the Respondents or their directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out activities pursuant to this Order. Each party will bear its own costs and attorneys' fees in connection with the action resolved by this Order.

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

This Order does not constitute a preauthorization of funds under Section 111(a)(2) of CERCLA, 42 U.S.C. §9611(a)(2). The

Respondents waive any claim to payment under Sections 106(b), 111, and 112 of CERCLA, 42 U.S.C. §§9606(b), 9611, and 9612, against the United States or the Hazardous Substance Superfund arising out of any action performed under this Order. No action or decision by U.S. EPA pursuant to this Order will give rise to any right to judicial review except as set forth in Section 113(h) of CERCLA, 42 U.S.C. §9613(h).

#### **XIII. COVENANT NOT TO SUE**

Except as otherwise specifically provided in this Order, upon issuance of the U.S. EPA notice referred to in Section XVII (Notice of Completion), U.S. EPA covenants not to sue Respondents for judicial imposition of damages or civil penalties or to take administrative action against Respondents for any failure to perform removal actions agreed to in this Order except as otherwise reserved herein.

Except as otherwise specifically provided in this Order, in consideration and upon Respondents' payment of the response costs specified in Section VII of this Order, U.S. EPA covenants not to sue or to take administrative action against Respondents under Section 107(a) of CERCLA, 42 U.S.C. §9607(a), for recovery of past and oversight costs incurred by the United States in connection with this removal action and this Order. This covenant not to sue will take effect upon the receipt by U.S. EPA of the payments required by Section VII (Reimbursement of Costs).

These covenants not to sue are conditioned upon the complete and satisfactory performance by Respondents of their obligations under this Order. These covenants not to sue extend only to the Respondents and do not extend to any other person.

#### **XIV. CONTRIBUTION PROTECTION**

With regard to claims for contribution against Respondents for matters addressed in this Order, the Parties hereto agree that the Respondents are entitled to protection from contribution actions or claims to the extent provided by Section 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§9613(f)(2) and 9622(h)(4).

Nothing in this Order precludes Parties from asserting any claims, causes of action or demands against any persons not parties to this Order for indemnification, contribution, or cost recovery.

**XV. INDEMNIFICATION**

Respondents agree to indemnify, save and hold harmless the United States, its officials, agents, contractors, subcontractors, employees and representatives from any and all claims or causes of action: (A) arising from, or on account of, acts or omissions of Respondents and Respondents' officers, heirs, directors, employees, agents, contractors, subcontractors, receivers, trustees, successors or assigns, in carrying out actions pursuant to this Order; and (B) for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between Respondents, and any persons for performance of work on or relating to the Site, including claims on account of construction delays. Nothing in this Order, however, requires indemnification by Respondents for any claim or cause of action against the United States based on negligent action taken solely and directly by U.S. EPA (not including oversight or approval of plans or activities of the Respondents).

**XVI. MODIFICATIONS**

Modifications to any plan or schedule may be made in writing by the RPM or at the RPM's oral direction. If the RPM makes an oral modification, it will be memorialized in writing within 7 business days; however, the effective date of the modification will be the date of the RPM's oral direction. Any other requirements of this Order may be modified in writing by mutual agreement of the parties.

If Respondents seek permission to deviate from any approved plan or schedule, Respondents' Project Coordinator will submit a written request to U.S. EPA for approval outlining the proposed modification and its basis.

No informal advice, guidance, suggestion, or comment by U.S. EPA regarding reports, plans, specifications, schedules, or any other writing submitted by the Respondents will relieve Respondents of their obligations to obtain such formal approval as may be required by this Order, and to comply with all requirements of this Order unless it is formally modified.

**XVII. NOTICE OF COMPLETION**

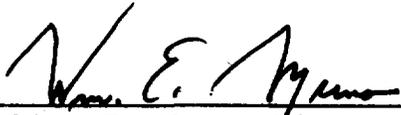
When U.S. EPA determines, after U.S. EPA's review of the Final Report, that all work has been fully performed in accordance with this Order, except for certain continuing obligations required by this Order (e.g., record retention, payment of costs), U.S. EPA will provide written notice to the

IN THE MATTER OF:

Boerke Superfund Site  
Oak Creek Wisconsin

IT IS SO ORDERED AND AGREED

BY:

  
\_\_\_\_\_  
William E. Muno, Director  
Superfund Division  
United States  
Environmental Protection Agency  
Region 5

DATE:

2/26/03

IN THE MATTER OF:

Boerke Superfund Site  
Oak Creek Wisconsin

**SIGNATORIES**

Each undersigned representative of a signatory to this Administrative Order on Consent certifies that he or she is fully authorized to enter into the terms and conditions of this Order and to bind such signatory, its directors, officers, employees, agents, successors and assigns, to this document.

Agreed this 14 day of FEBRUARY, 2003.

By: Michael J. Lukas  
(Signature)  
Name: MICHAEL J. LUKAS  
Position: BUSINESS TEAM MANAGER  
Signatory: E.I. DUPONT de Nemours and Company

IN THE MATTER OF:

Boerke Superfund Site  
Oak Creek Wisconsin

**SIGNATORIES**

Each undersigned representative of a signatory to this Administrative Order on Consent certifies that he or she is fully authorized to enter into the terms and conditions of this Order and to bind such signatory, its directors, officers, employees, agents, successors and assigns, to this document.

Agreed this 14th day of February, 2003.

By:

(Signature)

Name:



Position:

Vice President, Associate General Counsel  
and Corporate Secretary of EPEC Polymers, Inc.

Signatory:

David L. Siddall

**STATEMENT OF WORK  
FOR THE REMOVAL ACTION  
AT THE  
BOERKE SITE  
MILWAUKEE COUNTY, OAK CREEK, WISCONSIN**

**I. PURPOSE**

The purpose of this Statement of Work (SOW) is to set forth requirements for implementation of the Removal Action set forth in the Administrative Order on Consent (AOC) and the Enforcement Action Memorandum (EAM), which was signed by the Superfund Division Director of U.S. EPA Region 5 on April 12, 2002 for the Boerke Site (Site). The Respondents shall follow the Order, EAM, the SOW, the approved Removal Work Plan, U.S. EPA Superfund Guidance and any additional guidance provided by U.S. EPA in submitting deliverables for designing and implementing the Removal Action activities at the Site.

**II. DESCRIPTION OF THE REMOVAL ACTION ACTIVITIES/PERFORMANCE STANDARDS**

Respondents shall design and implement the Removal Action to meet the performance standards and specifications set forth in the EAM and this SOW. Performance standards shall include clean-up standards, standards of control, quality criteria and other substantive requirements, criteria or limitations including all identified Applicable or Relevant and Appropriate Requirements (ARARs) set forth in the EAM, SOW and/or Administrative Order on Consent (AOC).

The removal action selected to mitigate threats associated with the Boerke Site that shall be designed and implemented by the Respondents is:

- a. Provide and maintain site security around contaminated areas during the pendency of removal actions performed at the Site;
- b. Post warning signs around the contaminated areas;
- c. Excavate arsenic-contaminated waste materials, sediments, and soils in the waste disposal area, adjacent contaminated soils area, and wetland area as shown in Revised Figure 1;
- d. Excavate sediment/soil in the drainage swale with surface soil concentrations in excess of 40 ppm arsenic to depths specified in Figure 1. Depths of excavation in areas surrounding sample locations GS-15C, GS-4A/GS-4B, and GS-2C may be slightly revised based on samples to be collected and analyzed immediately prior to the Removal Action. Depths for these areas will be agreed upon with U.S. EPA prior to beginning the excavation portion of the Removal Action;

- e. Implement off-site disposal of all impacted excavated waste materials, sediments, and soils and implement off-site stabilization for excavated waste materials, sediments, and soils that exceed the applicable Toxicity Characteristic Leaching procedure (TCLP) limit for arsenic;-
- f. Place a suitable, permanent barrier (e.g. orange snow fence) over portions of the waste disposal area, adjacent contaminated soil area, and wetland area where waste materials, sediments, and/or soils with arsenic concentrations exceeding 40 ppm are left in place;
- g. Place suitable, contaminant-free backfill in excavated areas and grade such backfill to a smooth, level surface, with proper drainage;
- h. Establish a vegetative layer over the backfilled areas, including appropriate wetland vegetation to restore the wetland area;
- i. Within 90 calendar days of completion of the removal action, prepare and submit to U.S. EPA a summary report of the removal action detailing all actions taken, sampling data collected, and quantities of material excavated/disposed;
- j. Within 90 calendar days of completion of the removal action, prepare and submit to U.S. EPA an Operation and Maintenance (O&M) Plan detailing all inspection and maintenance activities to be conducted to ensure the continued protectiveness of the remedy;
- k. Within 90 calendar days of completion of removal action commence implementation of the O&M Plan; and
- l. Obtain institutional controls that limit the Site to industrial usage.

### **III. SCOPE OF DESIGN AND RESPONSE ACTION**

The Removal Action shall consist of four tasks. Each plan requiring approval is identified accordingly. U.S. EPA will review plans requiring U.S. EPA approval in accordance with Section V.2.1 of the AOC.

#### **Task 1: Removal Work Plan**

##### **A. Removal Work Plan**

Within sixty (60) calendar days after the effective date of the AOC, the Respondents shall submit a Removal Work Plan for the action to be taken at the Site. The content of

the Removal Work Plan shall include the overall management strategy, a plan for execution of the work, an estimate of the resources required, and a schedule for the planned work. The Removal Work Plan shall also include a schedule with deadlines, in terms of calendar days, for delivery or execution of the milestones stated in the AOC and SOW. The plan shall document the responsibility and authority of all organizations and key personnel involved with the implementation and shall include a description of qualifications of key personnel directing the Removal Action, including contractor personnel. These plans and schedules must be approved by U.S. EPA.

#### **B. Field Sampling Plan**

Prior to initiating field work, the Respondents shall develop a Field Sampling Plan. The Field Sampling Plan should supplement the QAPP and address all sample collection activities. The Field Sampling Plan must be approved by U.S. EPA.

#### **C. Quality Assurance Project Plans**

The Respondents shall develop a Site-specific Quality Assurance Project Plan (QAPP) based upon U.S. EPA's Region 5 model QAPP. The QAPP shall cover chemical analysis and data handling for samples collected during pre-design work, response action construction and Post-Removal Site Control (PRSC). The QAPP and the laboratory chosen to perform analysis shall be consistent with the requirements of the U.S. EPA Contract Lab Program (CLP). The QAPP shall be submitted to and approved by U.S. EPA before the sampling occurs and at a minimum must include:

##### **Project Description**

- Facility Location and History
- Project Scope
- Sample Network Design
- Parameters to be Tested and Frequency
- Project Schedule

##### **Project Organization and Responsibility**

##### **Quality Assurance Objective for Measurement Data**

- Level of Quality Control Effort
- Accuracy, Precision and Sensitivity of

##### **Analysis**

- Completeness, Representativeness and Comparability

##### **Sampling Procedures**

##### **Sample Custody**

- Field Specific Custody Procedures
- Laboratory Chain of Custody Procedures

**Calibration Procedures and Frequency**

- **Field Instruments/Equipment**
- **Laboratory Instruments**

**Analytical Procedures**

- **Non Contract Lab Program Analytical Methods**
- **Field Screening and Analytical Protocol**
- **Laboratory Procedures**

**Internal Quality Control Checks**

- **Field Measurements**
- **Laboratory Analysis**

**Data Reduction, Validation, and Reporting**

- **Data Reduction**
- **Data Validation**
- **Data Reporting**

**Performance and System Audits**

- **Internal Audits of Field Activity**
- **Internal Laboratory Audit**
- **External Field Audit**
- **External Laboratory Audit**

**Preventive Maintenance**

- **Routine Preventative Maintenance Procedures and Schedules**
- **Field Instruments/Equipment**
- **Laboratory Instruments**

**Specific Routine Procedures to Assess Data Precision, Accuracy, and Completeness**

- **Field Measurement Data**
- **Laboratory Data**

**Corrective Action**

- **Sample Collection/Field Measurement**
- **Laboratory Analysis**

**Quality Assurance Reports to Management**

**D. Health and Safety Plan (HASP)**

The Respondents shall develop a health and safety plan which is designed to protect on-site personnel and area residents from physical, chemical and all other hazards posed by this Response Action. The safety plan shall meet the applicable requirements

set forth at 29 CFR 1910.120 and 1926.

**E. Contingency Plans [Stand alone or in HASP]**

Respondents shall submit a Contingency Plan describing procedures to be used in the event of an accident or emergency at the site resulting from on-site activities. The Contingency Plan shall be submitted with the HASP. The Contingency Plan shall include, at a minimum, the following:

1. Name of the person or entity responsible for responding in the event of an emergency incident.
2. Requirements for meeting(s) with the local community, including local, State and Federal agencies involved in the cleanup, as well as local emergency squads and hospitals.
3. First aid medical information.
4. Air Monitoring Plan (if applicable).
5. Spill Prevention, Control, and Countermeasures (SPCC) Plan (if applicable), as specified in 40 CFR Part 109 describing measures to prevent and contingency plans for potential spills and discharges from materials handling and transportation.

**F. Draft Construction Quality Assurance Plan (CQAP) and Draft Performance Standard Verification Plan;**

Respondents shall submit a Construction Quality Assurance Plan (CQAP) which describes the Site specific components of the quality assurance program which shall ensure that the completed project meets or exceeds all design criteria, plans, and specifications. The CQAP shall contain, at a minimum, the following elements:

1. Responsibilities and authorities of all organizations and key personnel involved in the design and construction of the Response Action.
2. Qualifications of the Quality Assurance Official to demonstrate she or he possess the training and experience necessary to fulfill the identified responsibilities.
3. Protocols for sampling and testing used to monitor construction.
4. Identification of proposed quality assurance sampling activities including the sample size, locations, frequency of testing, acceptance and rejection of data sheets, problem identification and corrective measures reports,

evaluation reports, acceptance reports, and final documentation. A description of the provisions for final storage of all records consistent with the requirements of the AOC shall be included.

5. Reporting requirements for CQA activities shall be described in detail in the CQA plan. This shall include such items as daily summary reports, inspection data sheets, problem identification and corrective measures reports, design acceptance reports, and final documentation. Provisions for the final storage of all records shall be presented in the CQA plan.

G. Draft Post Removal Site Control Plan; and

H. Draft construction schedule, including contracting strategy.

### **Task 2: Removal Action/Construction**

The Respondents shall implement the Removal Action as detailed in the Removal Work Plan. The following activities shall be performed as part of constructing the Removal Action.

A. Preconstruction inspection and meeting:

The Respondents shall participate with the U.S. EPA in a preconstruction inspection and meeting to:

1. Review work area security and safety protocol;
2. Discuss any appropriate modifications of the construction quality assurance plan to ensure that site-specific considerations are addressed; and,
3. Conduct a Site walk-around to verify that the plans and specifications are understood and to review material and equipment storage locations.

The preconstruction inspection and meeting shall be documented by the Respondents and minutes shall be transmitted to all parties.

B. Construction

The Respondents shall undertake the construction described in the U.S. EPA-approved Removal Work Plan.

**C. Prefinal Inspection and Report:**

After Respondents make a preliminary determination that construction is complete, the Respondents shall notify the U.S. EPA for the purposes of conducting a prefinal inspection. The prefinal inspection shall consist of a walk-through inspection with U.S. EPA of the entire Facility affected by the Removal Action. The purpose of the inspection is to determine if the project is complete and consistent with the contract documents and the Removal Action. Any outstanding construction items discovered during the inspection shall be identified and noted in a prefinal inspection report. Retesting shall be completed where deficiencies are revealed. The prefinal inspection report shall outline the outstanding construction items, actions required to resolve items, completion date for these items, and a proposed date for final inspection. The Prefinal Inspection Report can be in the form of a punch list or letter.

**D. Final inspection:**

After completion of all outstanding work identified in the prefinal inspection report, the Respondents shall notify the U.S. EPA for the purposes of conducting a final inspection. The final inspection shall consist of a walk-through inspection with U.S. EPA and the Respondents of the entire Facility affected by the Removal Action. The prefinal inspection report shall be used as a checklist with the final inspection focusing on the outstanding construction items identified in the prefinal inspection. Confirmation shall be made that outstanding items have been resolved. The Respondents shall certify that the removal action performance meets the project design objectives.

**E. Reports**

**1. Construction Completion Report**

After a successful final inspection of construction, the Respondents shall submit a written report by a registered professional engineer stating that the action has been completed in full satisfaction of the requirements of the AOC. In the report, a registered professional engineer and the Respondents' Project Coordinator shall state that the Removal Action has been constructed in accordance with the specifications and performance standards. The written report shall include as-built drawings signed and stamped by a professional engineer. The report, titled "Construction Completion Report for the Boerke Site" shall contain the following statement, signed by a responsible corporate official of the Respondents or the Respondents' Project Coordinator:

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

This report shall include a good faith estimate of total costs incurred in complying with the Order, a listing of quantities and types of materials removed off-site or handled on-site, a listing of the ultimate destinations of those materials, a presentation of the analytical results of all sampling and analyses performed, and accompanying appendices containing all relevant documentation generated during the removal action (e.g., manifests and permits).

If U.S. EPA concludes that the Work has been performed in accordance with the AOC, U.S. EPA will so notify the Respondents in writing.

## **2. Final Report**

Within 30 calendar days after Respondents conclude all Work required under the Order has been fully performed, the Respondents shall submit for U.S. EPA review a final report summarizing the actions taken to comply with this Order and demonstrating that all Performance Standards have been met.

The final report shall also include the following certification signed by a person who supervised or directed the preparation of that report:

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

### **Task 3: Post-Removal Site Control**

The Respondents shall prepare an Post-Removal Site Control (PRSC) Plan for the Response Actions. A draft PRSC Plan shall be submitted with the Removal Work Plan. The final PRSC Plan shall be submitted to U.S. EPA prior to the pre-final construction inspection, in accordance with the approved construction schedule. The PRSC Plan will require U.S. EPA approval. The plan shall be composed of the following elements:

1. Description of normal post-removal site control;
  - a. Description of tasks for operation;
  - b. Description of tasks for maintenance;
  - c. Description of prescribed treatment or operation conditions; and
  - d. Schedule showing frequency of each PRSC task.
  
2. Description of routine monitoring and laboratory testing;
  - a. Description of monitoring tasks;
  - b. Description of required data collection, laboratory tests and their interpretation;

- c. Required quality assurance, and quality control;
  - d. Schedule of monitoring frequency and procedures for a petition to U.S. EPA to reduce the frequency of or discontinue monitoring; and
  - e. Description of verification sampling procedures if Cleanup or Performance Standards are exceeded in routine monitoring.
3. Description of alternate PRSC;
- a. Should systems fail, alternate procedures to prevent release or threatened releases of hazardous substances, pollutants or contaminants which may endanger public health and the environment or exceed performance standards; and
  - b. Analysis of vulnerability and additional resource requirement should a failure occur.
4. Corrective Action;
- a. Description of corrective action to be implemented in the event that cleanup or performance standards are exceeded; and
  - b. Schedule for implementing these corrective actions.
5. Safety plan;
- a. Description of precautions, of necessary equipment, etc., for Site personnel; and
  - b. Safety tasks required in event of systems failure.
6. Records and reporting mechanisms required.
- a. Daily operating logs;
  - b. Laboratory records;
  - c. Mechanism for reporting emergencies;
  - d. Maintenance records; and
  - e. Monthly/annual reports to State agencies.
  - f. 5 year periodic evaluations

**Task 4: Performance Monitoring**

Performance monitoring shall be conducted to ensure that all Performance Standards are met.

**A. Performance Standard Verification Plan**

The purpose of Performance Standard Verification is to ensure that both short-term and

long-term Performance Standards for the Response Actions are met. The Draft Performance Standards Verification Plan shall be submitted with the Removal Work Plan. Once approved, the Performance Standards Verification Plan shall be implemented on the approved schedule. The Performance Standards Verification Plan shall include:

1. Quality Assurance Project Plan
2. Health and Safety Plan
3. Field Sampling Plan

If the above plans already exist due to requirements stated previously in this SOW, and can be used for the Performance Standard Verification Plan, then referencing these documents is acceptable.

#### **IV. SUMMARY OF MAJOR DELIVERABLES/SCHEDULE**

Sixty (60) calendar days after the effective date of the AOC, the Respondents shall submit the Removal Work Plan to U.S. EPA. The schedule for the submissions and milestones is outlined below and shall be detailed in the Removal Work Plan. This schedule requires U.S. EPA approval.

##### **Submission or Milestone**

##### **Task 1: Removal Work Plan**

- 1A: Removal Work Plan (a.k.a. Master Plan)(U.S. EPA Approves)
- 1B: Field Sampling Plans (U.S. EPA Approves)
- 1C: Quality Assurance Project Plans (QAPP) (U.S. EPA Approves)
- 1D: Health and Safety Plan
- 1E: Contingency Plan
- 1F: Construction Quality Assurance Plan and Performance Standard Verification Plan (U.S. EPA Approves)
- 1G: Post Removal Site Control Plan
- 1H: Construction Schedule U.S. EPA Approves)

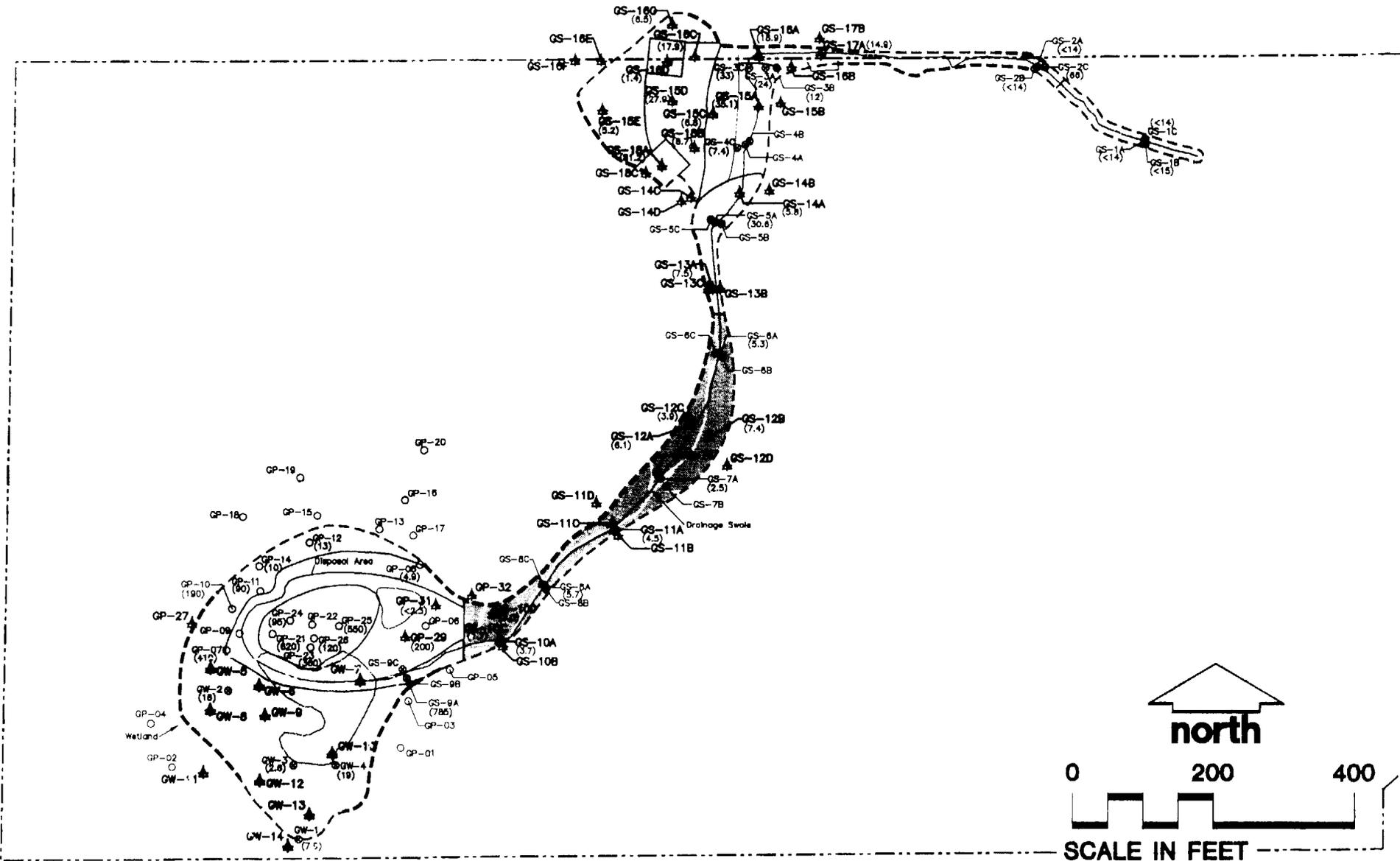
##### **Task 2: Response Action/Construction Award Response Action Construction Contract**

- 2A: Preconstruction Meeting
- 2B: Construction
- 2C: Prefinal Inspection
- 2D: Final Inspection
- 2E: Reports
- 2E1: Construction Completion Reports (U.S. EPA Approves)
- 2E2: Final Report (U.S. EPA Approves)

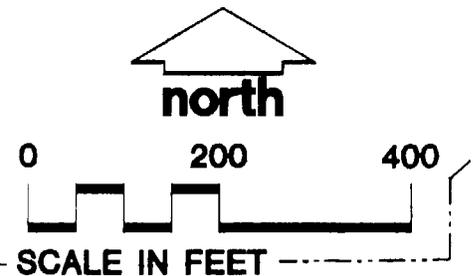
### **Task 3: Post Removal Site Control Plan (U.S. EPA Approves)**

**Respondents shall complete the Work through Task 3D within the time-frame approved in the Removal Work Plan. The project schedule will include an allowance of 30 days for U.S. EPA review and approval of those documents submitted for approval. The actual time necessary for approval of documents will be dependent upon the required number of revisions to the draft and final versions of the documents. The completion date for Task 3D will be extended by the amount of agency review and approval time actually incurred.**

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----- Proposed Extent of Excavation					
[Shaded Box]	Area to be Excavated to 1-Foot BGS Wetland 46,960 Sq Ft Surrounding Soils 14,998 Sq Ft Drainage Swale 26,684 Sq Ft	[Shaded Box]	Area to be Excavated to 4-Foot BGS Drainage Swale 7,918 Sq Ft	[Shaded Box]	Area to be Excavated to 9-Foot BGS Drainage Swale 10,168 Sq Ft
[Shaded Box]	Area to be Excavated to 3-Foot BGS Surrounding Soils 14,338 Sq Ft Drainage Swale 22,968 Sq Ft	[Shaded Box]	Area to be Excavated to 5-Foot BGS Surrounding Soils 22,733 Sq Ft	[Shaded Box]	Area to be Excavated to 10-Foot BGS Disposal Area 14,788 Sq Ft Drainage Swale 2,595 Sq Ft
[Shaded Box]	Area to be Excavated to 7-Foot BGS Drainage Swale 28,747 Sq Ft				



**Excavation Areas and Depths**  
Boerke Site - Oak Creek, Wisconsin

**Figure 1**