E 5
6/21/99
144518

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

JUN 21 1999

REPLY TO THE ATTENTION OF

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

D. Michael Light
Manager, Remedial Projects
Solutia, Inc.
10300 Olive Boulevard
St. Louis, Missouri 63166-6760

Re: Dead Creek Culvert Replacement Project,
Sauget Area 1 Site
Unilateral Administrative Order
Sauget and Cahokia, Illinois

Dear Mr. Light:

Enclosed please find a Unilateral Administrative Order issued by the U.S. Environmental Protection Agency ("EPA") under Section 106 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986 ("CERCLA"), 42 U.S.C. Section 9601, et seq.

Please note that the Order allows an opportunity for a conference if requested within 3 business days after issuance of the Order, or if no conference is requested, an opportunity to submit comments within 7 business days of issuance of the Order.

If you have any questions regarding the Order, feel free to contact Thomas Martin, Associate Regional Counsel, at (312) 886-4273 or Kevin Turner, On-Scene Coordinator, at (618) 997-0115.

Sincerely yours,

Thomas V. Martin

for William E. Muno, Director
Superfund Division

Enclosure

cc: Gary King, Deputy Manager
Division of Land Pollution Control
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois 62706

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 50% Recycled Paper (20% Postconsumer)

bcc: Docket Analyst, ORC (C-14J)
Thomas Martin, ORC (C-14J)
Kevin Turner, OSC (SE-5J)
B. Bolen/R. Rivera (SE-5J)
Mike McAteer (SE-6J)
John Maritote, EESS (SE-5J)
Toni Lesser, Public Affairs (P-19J) w/out attachments
Kevin de la Bruere, U.S. Fish & Wildlife-Rock Island, IL
Arthur Budelier (MF-10J)
Records Center (SMR-7J)
ERB Read File

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 5

IN THE MATTER OF:	)	Docket No. V-W-'99-C-554
	)	
Sauget Area 1 Superfund Site	)	
Sauget and Cahokia, Illinois	)	ADMINISTRATIVE ORDER
	)	PURSUANT TO SECTION 106(a)
	)	OF THE COMPREHENSIVE
	)	ENVIRONMENTAL RESPONSE,
Respondents:	)	COMPENSATION, AND
	)	LIABILITY ACT OF 1980,
Monsanto Company and	)	AS AMENDED, 42 U.S.C.
Solutia, Inc.	)	SECTION 9606(a)
_____	)	

I. JURISDICTION AND GENERAL PROVISIONS

This Order is issued pursuant to the authority vested in the President of the United States by Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. § 9606(a), and delegated to the Administrator of the United States Environmental Protection Agency ("EPA") by Executive Order No. 12580, January 23, 1987, 52 Federal Register 2923, and further delegated to the Regional Administrators by EPA Delegation Nos. 14-14-A and 14-14-B, and to the Director, Superfund Division, Region 5, by Regional Delegation Nos. 14-14-A and 14-14-B.

This Order pertains to the culverts used to transmit the waters of Dead Creek located within the public roadways in Sauget and Cahokia, St. Clair County, Illinois. The culverts are specifically located beneath Judith Lane, Cahokia Street, Kinder Street, Jerome Lane, Edgar Street, Camp Jackson Road (a.k.a. Route 157), Mississippi Avenue (a.k.a. Route 3), Water Street, and Cargill Road (see attachment A). Dead Creek is a part of the Superfund Site known as Sauget Area 1 which is currently being addressed under a separate Administrative Order by Consent (AOC) signed by EPA and Solutia, Inc. and Monsanto Company on January 21, 1999. Dead Creek is approximately 3.5 miles long and flows southward through Sauget and Cahokia and empties into the Old Prairie du Pont Creek, which flows approximately 2,000 feet west into a branch of the Mississippi River known as the Cahokia Chute. For clarification purposes, Dead Creek and the associated culverts on the creek are referred to as the "Site" in this Order. This Order requires the Respondents to conduct removal activities described herein to abate a potential imminent and substantial endangerment to the public health, welfare or the environment that may be presented by the actual or threatened release of hazardous substances at or from the Site.

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

II. PARTIES BOUND

This Order applies to and is binding 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 Respondent 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 comply with this Order. Respondents shall be responsible for any noncompliance.

III. FINDINGS OF FACT

Based on available information, including the Administrative Record in this matter, EPA hereby finds that:

1. Dead Creek has historically been a repository for local area wastes. On December 21, 1928, an easement agreement between local property owners and representatives of local business, municipal and property interests was executed to "improve the drainage in that District (Dead Creek) by improving Dead Creek so as to make it suitable for the disposal of wastewater, industrial waste, seepage and storm water." Thereafter, Dead Creek systematically received direct and indirect discharges from local businesses and from the Village of Sauget for many years to come.

2. Information on the types of wastes disposed of and the types and levels of contamination found at the Sauget Area 1 Site, including wastes and contamination found in Dead Creek, have been provided to EPA from various sources including, but not exclusively from: 1) CERCLA 103(c) Submittals; 2) CERCLA 104(e) Responses; 3) Expanded Site Investigation Dead Creek Project Sites (E&E, 1988), 4) Removal Action Plan for Dead Creek Sites (Weston-SPER, 1987); 5) Description of Current Situation at the Dead Creek Project Sites (E&E, 1986); 6) Site Investigations for Dead Creek Sector B and Sites L and M (Geraghty & Miller, Inc. 1992); 7) Site Investigation/Feasibility Study for Creek Segment A (Advent Group, 1990), 8) Preliminary Ecological Risk Assessment for Sauget Area 1, Creek Segment F (E&E 1997); 9) EPA Removal Action Report for Site G (E&E 1994); 10) Area One Screening Site Inspection Report; and 11) Site Investigation Feasibility Study for Creek Segment A (Advent Group 1990).

3. Dead Creek stretches from the Alton & Southern Railroad at its northern end and flows south through Sauget and Cahokia for approximately 3.5 miles before emptying into the Old Prairie du Pont Creek, which flows approximately 2,000 feet west into a branch of the Mississippi River known as the Cahokia Chute. For sampling purposes, Dead Creek is subdivided into six separate segments labeled Creek Segment A through F (CS-A through CS-F). The segments are further described as follows:

Creek Segment CS-A is the northernmost segment of the creek and it is approximately 1,800 feet long and 100 feet wide running from the Alton & Southern Railroad to Queeny Avenue. This segment of the creek originally consisted of two holding ponds which were periodically dredged. For several years, CS-A and available downstream creek segments (e.g., ones that were not blocked off) received direct wastewater discharges from industrial sources and served as a surcharge basin for the Village of Sauget (formerly Village of Monsanto) municipal sewer collection system. When the system became backed up or overflowed, untreated wastes from industrial users of the sewer system were discharged directly into CS-A. On several occasions, CS-A was dredged and contaminated sediments were disposed of onto adjacent property (Site I of Sauget Area 1 Site). In 1968, the Queeny Avenue culvert, which allowed creek water to pass from CS-A to CS-B, was permanently blocked by the Village of Sauget. Remediation work was conducted by Cerro Copper in CS-A in 1990. Approximately 27,500 tons of contaminated sediments were removed to Resource Conservation and Recovery Act ("RCRA") and Toxic Substances Control Act ("TSCA") permitted facilities. CS-A is now filled and covered with crushed gravel and is therefore not part of this Order. Land use surround CS-A is industrial.

Creek Segment CS-B extends for approximately 1,800 feet from Queeny Avenue south to Judith Lane. Sites G, L, and M of the Sauget Area 1 Site border this creek segment. Land use surrounding CS-B is primarily commercial with a small residential area near the southern end of this segment. Agricultural land lies to the west of the creek and south of Site G. In 1965, the Judith Lane culvert, which allowed creek water to pass from CS-B to CS-C, was blocked.

Creek Segment CS-C extends for approximately 1,300 feet from Judith Lane south to Cahokia Street. Land use is primarily residential along both sides of CS-C.

Creek Segment CS-D extends for approximately 1,100 feet from Cahokia Street to Jerome Lane. Land use is primarily residential along both sides of CS-D.

Creek Segment CS-E extends approximately 4,300 feet from Jerome Lane to the intersection of Illinois Route 3 and Route 157. Land use surrounding CS-E is predominantly commercial with some mixed residential use. Dead Creek temporarily passes through corrugated pipe at the southern end of CS-E.

Creek Segment CS-F is approximately 6,500 feet long and extends from Route 157 to the Old Prairie du Pont Creek. CS-F is the widest segment of Dead Creek and a large wetland area extends several hundred feet out from the both sides of the creek.

4. Sediment and surface water samples collected by EPA and the Illinois EPA have detected a wide variety of organic and inorganic contaminants in each of the creek segments:

CREEK SEGMENT CS-B: Elevated levels of volatile organic compounds ("VOCs") and semi-volatile organic compounds ("SVOCs") were detected in sediments samples collected from CS-B such as benzene (87 parts per billion ("ppb")), toluene (810 ppb), chlorobenzene (5,200 ppb), ethylbenzene (3,600 ppb), trichlorobenzene (3,700 parts per million ("ppm")), dichlorobenzene (12,000 ppm), chloronitrobenzene (240 ppm), xylenes (540 ppm), 1,4-dichlorobenzene (220,000 ppb), 1,2-dichlorobenzene (17,000 ppb), phenanthrene (15,000 ppb), fluoranthene (11,000 ppb), pyrene (13,000 ppb). Elevated levels of PCBs exist within CS-B at levels as high as 10,000 ppm. Elevated levels of metals were also detected in sediments in CS-B including arsenic (6,000 ppm), cadmium (400 ppm), copper (44,800 ppm), lead (24,000 ppm), mercury (30 ppm), nickel (3,500 ppm), silver (100 ppm), and zinc (71,000 ppm).

Surface water samples collected from CS-B revealed elevated concentrations of VOCs such as chloroform (27 ppb), 1,1-dichloroethene (3 ppb), toluene (20 ppb), and chlorobenzene (33 ppb). SVOCs detected in surface water included phenol (28 ppb), 2-chlorophenol (14 ppb), 1,4-dichlorobenzene, 2-methylphenol (4 ppb), 4-methylphenol (35 ppb), 2,4-dichlorophenol (150 ppb), naphthalene (8 ppb), 3-nitroaniline (9 ppb), and pentachlorophenol (120 ppb). Pesticides were also detected in surface water samples including dieldrin (.18 ppb), 4,4-DDT (.24 ppb), 2,4-D (47 ppb) and silvex (3.4 ppb). An elevated level of PCBs (aroclor 1260) was also detected in the surface water of CS-B at a level of 44 ppb. Elevated levels of metals were detected in surface water such as aluminum (9,080 ppb), barium (7,130 ppb), arsenic (31 ppb), cadmium (25 ppb), chromium (99 ppb), copper (17,900 ppb), lead (1,300 ppb), mercury (8.6 ppb), nickel (1,500 ppb), and zinc (10,300 ppb).

CREEK SEGMENT CS-C: Elevated levels of VOCs and SVOCs were detected in sediments in this segment of Dead Creek including fluoranthene (4,600 ppb), pyrene (4,500 ppb), benzo(a)anthracene (3,300 ppb), chrysene (4,400 ppb), benzo(b)fluoranthene (7,500 ppb), benzo(a)pyrene (4,500 ppb), indeno(1,2,3-cd)pyrene (4,300 ppb), benzo(g,h,l)perylene (1,500 ppb), dibenzo(a,h)anthracene (4,000 ppb), and 4-methyl-2-pentanone (1,200 ppb). PCBs (total) were also detected in sediments from CS-C at a maximum concentration of 27,500 ppb. Sediment samples also revealed elevated levels of metals such as copper (17,200 ppm), lead (1,300 ppm), nickel (2,300 ppm), zinc (21,000 ppm) and mercury (2.81 ppm).

Surface water samples collected from creek segment CS-C revealed elevated levels of metals such as lead (710 ppb), mercury (1.9 ppb), and nickel (83 ppb).

CREEK SEGMENT CS-D: Elevated concentrations of VOCs and SVOCs were detected in sediment samples collected from CS-D including 4-methyl-2-pentanone (1,200 ppb), benzo(b)fluoranthene (500 ppb), indeno(1,2,3-cd)pyrene (310 ppb), and dibenzo(a,h)anthracene (360 ppb). PCBs (total) were detected in sediments at a maximum concentration of 12,000 ppb. Elevated concentrations of metals were also detected such as cadmium (42 ppm), copper (1,630 ppm), lead (480 ppm), mercury (1 ppm), and zinc (6,590 ppm).

Surface water samples collected from CS-D revealed elevated concentrations of metals such as cadmium (8.1 ppb), lead (89 ppb), and nickel (189 ppb).

CREEK SEGMENT CS-E: Elevated concentrations of VOCs and SVOCs were detected in sediment samples collected from CS-E including chlorobenzene (120 ppb), pyrene (5,300 ppb), benzo(b)fluoranthene (2,400 ppb), and chrysene (2,800 ppb). Elevated levels of PCBs (total) were also detected at a maximum concentration of 59,926 ppb. Elevated levels of metals were also detected in the sediments of CS-E including cadmium (23.1 ppm), copper (8,540 ppm), lead (1,270 ppm), mercury (1.53 ppm), nickel (2,130 ppm), and zinc (9,970 ppm).

CREEK SEGMENT CS-F: Elevated concentrations of VOCs and SVOCs were detected in the sediments of CS-F such as toluene (29 ppb), 4-methylphenol (1,100 ppb), fluoranthene (310 ppb), and pyrene (340 ppb). Pesticides were also detected in the sediments such as 4,4-DDE (97 ppb), endrin (66 ppb), endosulfan II (203 ppb), and methoxychlor (8 ppb). PCBs (total) were also detected in sediments at a maximum concentration of 5,348 ppb. Elevated levels of metals were also detected in the sediments such as arsenic (276 ppm), lead (199 ppm), mercury (.55 ppm), cadmium (23.5 ppm), copper (520 ppm), nickel (772 ppm) and zinc (4,520 ppm). Elevated concentrations of dioxins were also detected in sediments in CS-F at a maximum concentration of 211 picograms per gram.

5. On information and belief, parties which generated wastes which were disposed of, released into and/or transported wastes to the Sauget Area 1 Site (including parties whose wastes migrated from various disposal areas into other Sites or segments of Dead Creek) include but are not limited by the following:

DEAD CREEK SEGMENT A: Monsanto Company/Solutia, Incorporated; Cerro Copper Products Company; Amax Zinc Corporation; Mobil Oil Corporation; Ethyl Petroleum; the Village of Sauget; Cardinal Construction Company; and Olin Corporation.

DEAD CREEK SEGMENT B: Monsanto Company/Solutia, Incorporated; Midwest Rubber Reclaiming (Division of Empire Chemical Incorporated) and Midwest Rubber Trustees Stanley Keitman, Richard M. Cohen, and Morris Weissman; Cerro Copper Products Company; Mobil Oil Corporation; Ruan Transportation Corporation; and Waggoner & Company; Industrial Disposal, Inc.; Sauget and Company; Paul Sauget; Olin Corporation.

DEAD CREEK SEGMENTS C, D, E or F: Monsanto Company/Solutia, Incorporated; Cerro Copper Products Company; Mobil Oil Company; Amax Zinc Corporation; Midwest Rubber reclaiming (Division of Empire Chemical Incorporated) and Midwest Rubber Trustees Stanley Keitman, Richard M. Cohen, and Morris Weissman; Ruan Transportation Corporation; and Waggoner & Company; Industrial Disposal, Inc.; Sauget and Company; Paul Sauget.

6. Several of the culverts on Dead Creek are inadequately sized, blocked or partially blocked with debris and thereby cause storm water in Dead Creek to back up behind these culverts and, at times, overflow into surrounding residential areas.

7. Dead Creek and the areas surrounding the Creek are located within an area known as the American Bottoms which is the flood plain for the Mississippi River. The water table in this area is very close to the ground surface and during storm events the soils quickly become saturated. During these same storm events, water backing up behind blocked or inadequately sized culverts in Dead Creek overflows and increases the severity of flooding conditions for nearby residents in Sauget and Cahokia. Contaminants, including hazardous substances, in both surface water and sediments may migrate via the overflow and flood waters onto the properties of neighboring residents.

IV. CONCLUSIONS OF LAW AND DETERMINATIONS

Based on the Findings of Fact set forth above, and the Administrative Record supporting these removal actions, EPA determines that:

1. Dead Creek and the impacted area adjacent to Dead Creek is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

2. The substances described in Section III, paragraph 4 are "hazardous substances" as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

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

4. A thorough title search conducted by Solutia, Inc. in February, 1999, found no records indicating that title to Dead Creek had ever been deeded. Therefore, it is the assumption of EPA that Dead Creek is considered to be waters of the State of Illinois.

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 an imminent and substantial 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 C.F.R. § 300.415(b)(2). These factors include, but are not limited to, the following:

   A) Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby populations or the food chain.

   This condition exists at the Site due to the high levels of organic and inorganic contaminants found in the sediments and surface water of Dead Creek which

could potentially be released into residential areas via flood waters backing up behind blocked or inadequately sized culverts. Some of the contaminants in Dead Creek are known carcinogens or suspect carcinogens. Contaminants potentially migrating from Dead Creek via overflow and flood waters to nearby residential areas are accessible to humans, specifically the residents and children who live and play on these potentially affected properties. These individuals could potentially be exposed to the contamination by direct skin contact with the sediments and surface water released from Dead Creek.

B) Weather conditions that may cause hazardous substances or pollutants to migrate or be released.

This factor is present at the Site due to the fact that high levels of organic and inorganic contaminants are located within the sediments and surface water of Dead Creek. Blocked and/or inadequately sized culverts on Dead Creek often cause flood waters to back up behind these culverts and then overflow into nearby residential areas. This area of St. Clair County is particularly prone to flooding due to a very shallow groundwater table. Storm water backing up behind culverts exasperates the flooding conditions in this area.

C) Availability of other appropriate federal or state response mechanisms to respond to the release.

The Illinois EPA currently does not have the available funds to respond to this time-critical situation. In addition, EPA is the lead agency for enforcement actions related to the Sauget sites.

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 removal actions required by this Order are necessary to protect the public health, welfare, or the environment, and are not inconsistent with the NCP and CERCLA.

V. ORDER

Based upon the foregoing Findings of Fact, Conclusions of Law, Determinations, and the Administrative Record for this Site, EPA hereby orders that Respondents perform the following actions:

1. Notice of Intent to Comply

Respondents shall notify EPA in writing within three (3) business days after the effective date of this Order of Respondents' irrevocable intent to comply with this Order. Failure of each Respondent to provide such notification within this time period shall be a violation of this Order.

2. Designation of Contractor, Project Coordinator, and On-Scene Coordinator

Respondents shall perform the removal actions themselves or retain contractors to implement the removal actions. Respondents shall notify EPA of Respondents' qualifications or the name and qualifications of such contractors, whichever is applicable, within five (5) business days of the effective date of this Order. Respondents shall also notify EPA of the name and qualifications of any other contractors or subcontractors retained to perform work under this Order at least five (5) business days prior to commencement of such work. EPA retains the right to disapprove of the Respondents or any of the contractors and/or subcontractors retained by the Respondents. If EPA disapproves a selected contractor, Respondents shall retain a different contractor within two (2) business days following EPA's disapproval and shall notify EPA of that contractor's name and qualifications within three (3) business days of EPA's disapproval.

Within five (5) 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 and submit the designated coordinator's name, address, telephone number, and qualifications to EPA. To the greatest extent possible, the Project Coordinator shall be present on-site or readily available during site work. EPA retains the right to disapprove of any Project Coordinator named by the Respondents. If EPA disapproves a selected Project Coordinator, Respondents shall retain a different Project Coordinator within three (3) business days following EPA's disapproval and shall notify EPA of that person's name and qualifications within four (4) business days of EPA's disapproval. Receipt by Respondents' Project Coordinator of any notice or communication from EPA relating to this Order shall constitute receipt by all Respondents.

The EPA has designated Kevin Turner of the Emergency Response Branch, Region 5, as its On-Scene Coordinator ("OSC"). Respondents shall direct all submissions required by this Order to the OSC at 8588 Rt. 148, Marion, Illinois 62959, by certified or express mail. Respondents shall also send a copy of all submissions to Thomas Martin, Associate Regional Counsel, 77 West Jackson Boulevard (C-14J), Chicago, Illinois, 60604-3590. All Respondents are encouraged to make their submissions to EPA on recycled paper (which includes significant postconsumer waste paper content where possible) and using two-sided copies.

3. Work to Be Performed

Respondents shall perform, at a minimum, the following response activities:

A) Prepare a Time Critical Removal Action Plan and implement the Removal Action to assess and mitigate the threats posed by the migration of contaminants via overflow and flood waters from the Site, as described in Section III, "Findings of Fact" of this Order. This Time Critical Removal Action Work Plan ("Work Plan") shall describe the plan for replacing current culverts on Dead Creek with pre-cast concrete culverts sized to convey water from one creek segment to the next without build up under flood conditions. Removal and replacement of the culverts shall be done in a manner that minimizes the disturbance of sediments in Dead Creek and prevents the movement of sediments from one segment to the next. Also, the new culverts shall be designed to operate so as to minimize the amount sediment migration from one creek segment to the next. The Work Plan

shall also include a hydraulic study of the Dead Creek watershed to determine 100-year flood elevations and flow design requirements for the culvert replacement project. The Work Plan shall also provide for the replacement of all roadways disturbed by the culvert replacement project in accordance with the Department of Transportation ("DOT") requirements for dead and live-bearing weight. This Work Plan shall also include a Health and Safety Plan.

B) If the culvert replacement project involves the excavation of contaminated sediments or the pumping of creek water, these media must be properly disposed of at a RCRA/CERCLA or TSCA approved disposal facility in accordance with the EPA off-site disposal rule found at 40 C.F.R. § 300.440.

3.1 Work Plan and Implementation

Within ten (10) business days after the effective date of this Order, the Respondents shall submit to EPA for approval a draft Time Critical Removal Action Work Plan for performing the removal activities set forth above. The draft Work Plan shall provide a description of, and an expeditious schedule for, the activities required by this Order.

EPA may approve, disapprove, require revisions to, or modify the draft Work Plan. If EPA requires revisions, Respondents shall submit a revised draft Work Plan within seven (7) business days of notification. Respondents shall implement the Work Plan as finally approved in writing by EPA in accordance with the schedule approved by EPA. Once approved, or approved with modifications, the Work Plan, the schedule, and any subsequent modifications shall be fully enforceable under this Order. Respondents shall notify EPA at least 48 hours prior to performing any on-site work pursuant to the EPA approved Work Plan.

Respondents shall not commence or undertake any removal actions at the Site without prior EPA approval.

3.2 Health and Safety Plan

Within ten (10) business days after the effective date of this Order, the Respondents shall submit a plan for EPA review and comment 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 regulations found at 29 C.F.R. Part 1910. This plan shall also include a description of DOT requirements to be used for the disruption of vehicular traffic as a result of this action. 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.

3.3 Quality Assurance and Sampling

If sampling is to be included in the work plan, all sampling and analyses performed pursuant to this Order shall conform to 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 EPA guidance. Upon request by EPA, Respondents shall

have such a laboratory analyze samples submitted by EPA for quality assurance monitoring. Respondents shall provide to EPA the quality assurance/quality control procedures followed by all sampling teams and laboratories performing data collection and/or analysis.

Upon request by EPA, Respondents shall allow 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 EPA not less than three (3) business days in advance of any sample collection activity. EPA shall have the right to take any additional samples that it deems necessary.

3.4 Reporting

Respondents shall submit a monthly written progress report to EPA concerning activities undertaken pursuant to this Order, beginning thirty (30) calendar days after the date of EPA's approval of the Work Plan, until termination of this Order, unless otherwise directed by the OSC. 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, and any successor in title shall, at least thirty (30) days prior to the conveyance of any interest in real property at the Site, give written notice of this Order to the transferee and written notice of the proposed conveyance to EPA and the State. The notice to 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.4 (Access to Property and Information).

3.5 Final Report

Within sixty (60) calendar days after completion of all removal actions required under this Order, the Respondents shall submit for EPA review a final report summarizing the actions taken to comply with this Order. The final report shall conform to the requirements set forth in Section 300.165 of the NCP. The final report shall also include a good faith estimate of total costs incurred in complying with the Order, a listing of quantities and types of materials removed, a discussion of removal and disposal options considered for those materials, 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, invoices, bills, contracts, and permits).

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

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

4. Access to Property and Information

Respondents shall provide or obtain access as necessary to the Site and all appropriate off-site areas, and shall provide access to all records and documentation related to the conditions at the Site and the activities conducted pursuant to this Order. Such access shall be provided to EPA employees, contractors, agents, consultants, designees, representatives, and State of Illinois representatives. These individuals shall be permitted to move freely at the Site and appropriate off-site areas in order to conduct activities which EPA determines to be necessary. Respondents shall submit to EPA, upon request, 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. Respondents shall make all required notifications and obtain all necessary permits from the State and local DOT offices for conducting working within public roadways.

Where work under this Order is to be performed in areas owned by or in possession of someone other than Respondents, Respondents shall obtain all necessary access agreements within fourteen (14) calendar days after the effective date of this Order, or as otherwise specified in writing by the OSC. Respondents shall immediately notify EPA if, after using their best efforts, they are unable to obtain such agreements. Respondents shall describe in writing their efforts to obtain access. EPA may then assist Respondents in gaining access, to the extent necessary to effectuate the response activities described herein, using such means as EPA deems appropriate.

5. Record Retention, Documentation, Availability of Information

Respondents shall preserve all documents and information, in their possession or the possession of their contractors, subcontractors or representatives, 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 removal actions required by this Order. At the end of this six year period and at least sixty (60) days before any document or information is destroyed, Respondents shall notify EPA that such documents and information are available to EPA for inspection, and upon request, shall provide the originals or copies of such documents and information to EPA. In addition, Respondents shall provide documents and information retained under this Section at any time before expiration of the six year period at the written request of EPA.

6. 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 EPA, with the EPA Off-Site Rule, 40 C.F.R. § 300.440, 58 Federal Register 49215 (Sept. 22, 1993).

7. Compliance With Other Laws

All actions required pursuant to this Order shall be performed in accordance with all applicable local, state, and federal laws and regulations except as provided in CERCLA Section 121(e) and 40 C.F.R. Section 300.415(i). In accordance with 40 C.F.R. Section 300.415(i), all on-site actions required pursuant to this Order shall, to the extent practicable, as determined by EPA, considering the exigencies of the situation, attain applicable or relevant and appropriate requirements under federal environmental or state environmental or facility siting laws.

8. 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 OSC or, in the event of his/her unavailability, shall notify the Regional Duty Officer, Emergency Response Branch, Region 5 at (312) 353-2318, of the incident or Site conditions.

Respondents shall submit a written report to EPA within seven (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 CERCLA Section 103, 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 EPA ON-SCENE COORDINATOR

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

EPA and Respondents shall have the right to change their designated OSC or Project Coordinator. EPA shall notify the Respondents, and Respondents shall notify EPA, as early as possible before such a change is made, but in no case less than 24 hours before such a change. Notification may initially be made orally, but shall be followed promptly by written notice.

VII. PENALTIES FOR NONCOMPLIANCE

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, 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.

VIII. REIMBURSEMENT OF COSTS

Respondents shall reimburse EPA, upon written demand, for all response costs incurred by the United States in overseeing Respondents' implementation of the requirements of this Order.

EPA may submit to Respondents on a periodic basis a bill for all response costs incurred by the United States with respect to this Order. EPA's Itemized Cost Summary, or such other summary as certified by EPA, shall serve as the basis for payment.

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

U.S. Environmental Protection Agency
Superfund Accounting
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 - Sauget Area 1/Culvert Replacement" and shall reference the payers' names and addresses, the EPA Site identification number (054V), and the docket number of this Order.

Interest at a rate established by the Department of the Treasury pursuant to 31 U.S.C. § 3717 and 40 C.F.R. § 102.13 shall begin to accrue on the unpaid balance from the day after the expiration of the 30 day period notwithstanding any dispute or an objection to any portion of the costs.

IX. RESERVATION OF RIGHTS

Nothing herein shall limit the power and authority of EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing herein shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Order. 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.

X. OTHER CLAIMS

By issuance of this Order, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondents. The United States or EPA shall 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.

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

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).

XI. MODIFICATIONS

Modifications to any plan or schedule may be made in writing by the OSC or at the OSC's oral direction. If the OSC makes an oral modification, it will be memorialized in writing within seven (7) business days; however, the effective date of the modification shall be the date of the OSC's oral direction. The rest of the Order, or any other portion of the Order, may only be modified in writing by signature of the Director, Superfund Division, Region 5.

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

No informal advice, guidance, suggestion, or comment by EPA regarding reports, plans, specifications, schedules, or any other writing submitted by the Respondents shall 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.

XII. NOTICE OF COMPLETION

After submission of the Final Report, Respondents may request that EPA provide a Notice of Completion of the work required by this Order. If EPA determines, after 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), EPA will provide written notice to the Respondents. If EPA determines that any removal activities have not been completed in accordance with this Order, EPA will notify the Respondents, provide a list of the deficiencies, and require that Respondents modify the Work Plan to correct such deficiencies. The Respondents shall implement the modified and approved Work Plan and shall submit a modified Final Report in accordance with the EPA notice. Failure to implement the approved modified Work Plan shall be a violation of this Order.

XIII. ACCESS TO ADMINISTRATIVE RECORD

The Administrative Record supporting these removal actions is available for review during normal business hours in the EPA Record Center, Region 5, 77 W. Jackson Blvd., Seventh Floor, Chicago, Illinois. Respondents may contact Thomas Martin, Associate Regional Counsel, at (312) 886-4273 to arrange to review the Administrative Record. An index of the Administrative Record is attached to this Order.

XIV. OPPORTUNITY TO CONFER

Within three (3) business days after issuance of this Order, Respondents may request a conference with EPA. Any such conference shall be held within five (5) business days from the date of the request, unless extended by agreement of the parties. At any conference held pursuant to the request, Respondents may appear in person or be represented by an attorney or other representative.

If a conference is held, Respondents may present any information, arguments or comments regarding this Order. Regardless of whether a conference is held, Respondents may submit any information, arguments or comments (including justifications for any assertions that the Order should be withdrawn against a Respondent), in writing to EPA within two (2) business days following the conference, or within seven (7) business days of issuance of the Order if no conference is requested. This conference is not an evidentiary hearing, does not constitute a proceeding to challenge this Order, and does not give Respondents a right to seek review of this Order. Requests for a conference shall be directed to Thomas Martin, Associate Regional Counsel, at (312) 886-4273. Written submittals shall be directed as specified in Section V.2 of this Order.

XV. SEVERABILITY

If a court issues an order that invalidates any provision of this Order or finds that Respondents have sufficient cause not to comply with one or more provisions of this Order, Respondents shall remain bound to comply with all provisions of this Order not invalidated by the court's order.

XVI. EFFECTIVE DATE

This Order shall be effective ten (10) business days following issuance unless a conference is requested as provided herein. If a conference is requested, this Order shall be effective five (5) business days after the day of the conference.

IT IS SO ORDERED

BY: Thomas V. Skinner

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

DATE: 21 June 99

ATTACHMENT A

a. ATSDR Health Report dated August 24, 1994

b. Expanded Site Investigation Dead Creek Project Sites (E & E, 1988)

c. Removal Action Plan for Dead Creek Sites (Weston-SPER, 1987)

d. Description of Current Situation at the Dead Creek Project Sites (E & E, 1986)

e. Site Investigations for Dead Creek Sector B and Sites L and M (Geraghty & Miller; Inc. 1992)

f. Preliminary Ecological Risk Assessment for Sauget Area 1, Creek Segment F (E & E, 1997)

g. Sauget Area 1 and 2 Sites - Data Tables/Maps (E & E, 1998)

h. EPA Removal Action Report for Site G (E & E, 1994)

I. Area 1 Screening Site Inspection Report

j. Site Investigation/Feasibility Study for Creek Segment A (Advent Group, 1990)

STATE SUPERFUND COORDINATORS:

Illinois:

Gary King, Deputy Manager
Division of Land Pollution Control
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois 62706