

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 4

IN THE MATTER OF:
NORTHEAST CHEMICAL SITE
WILMINGTON, NEW HANOVER
COUNTY, NORTH CAROLINA

ADMINISTRATIVE ORDER ON
CONSENT FOR AN ENGINEERING
EVALUATION/COST ANALYSIS

Koch Sulfur Products, LLC
Estech, Inc.

U.S. EPA Region 4
CERCLA Docket No. CER-04-2002-3757

Respondents

Proceeding Under Sections 104, 106(a), 107
and 122 of the Comprehensive
Environmental Response, Compensation,
and Liability Act, as amended, 42 U.S.C. §§
9604, 9606(a), 9607 and 9622

04-2002-3757
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I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Order on Consent ("Order") is entered into voluntarily by the United States Environmental Protection Agency ("EPA") and Koch Sulfur Products, LLC (Koch) and Estech, Inc. (Estech) ("Respondents"). This Order provides for the performance of an Engineering Evaluation Cost Analysis (EE/CA) by Respondents and the reimbursement of certain response costs incurred by the United States at or in connection with the "Northeast Chemical Site" or the "Site" located at US Highway 421 in Wilmington, New Hanover County, North Carolina.

2. This Order is issued under the authority vested in the President of the United States by Sections 104, 106(a), 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622, as amended ("CERCLA"), and delegated to the Administrator of EPA by Executive Order No. 12580, January 23, 1987, 52 Federal Register 2923, and further delegated to the EPA Regional Administrators through the Director, Waste Management Division to the Chiefs of the Waste Program Branches.

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

4. EPA and Respondents recognize that this Order has been negotiated in good faith and that the actions undertaken by Respondents in accordance with this Order do not constitute an admission of any liability. Respondents do not admit, and retain the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this Order, the validity of the findings of fact, conclusions of law, and determinations in Sections IV and V of this Order. Respondents agree to comply with and be bound by the terms of this Order and further agree that they will not contest the basis or validity of this Order or its terms.

II. PARTIES BOUND

5. This Order applies to and is binding upon EPA and upon Respondents and their successors and assigns. Any change in ownership or corporate status of a Respondent including, but not limited to, any transfer of assets or real or personal property shall not alter such Respondent's responsibilities under this Order.

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

III. DEFINITIONS

7. Unless otherwise expressly provided herein, terms used in this Order which are

defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Order or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

- a. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, *et seq.*
- b. "Day" shall mean a calendar day unless expressly stated to be a working day. "Working day" shall mean a day other than a Saturday, Sunday, or Federal holiday. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the close of business of the next working day.
- c. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.
- d. "Future Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs in reviewing or developing plans, reports and other items pursuant to this Order, verifying the Work, or otherwise implementing, overseeing, or enforcing this Order, including but not limited to, payroll costs, contractor costs, travel costs, laboratory costs beginning on the Effective Date of this Order. Future Response Costs shall also include all Interim Response Costs.
- e. "Hazardous Substance" shall mean any substance meeting the definition provided in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).
- f. "Interim Response Costs" shall mean all costs, including direct and indirect costs, a) paid by the United States in connection with the Site between and including, January 29, 2002, and the Effective Date of this Order, or b) incurred prior to the Effective Date, but paid after that date.
- g. "Matters Addressed" shall mean the Work performed by, and payments for Future Response Costs made by Respondents as required under this Order.
- h. "National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.
- i. "Paragraph" shall mean a portion of this Order identified by an Arabic numeral.
- j. "Parties" shall mean EPA and Respondents.

k. "Pollutant or Contaminant" shall mean any substance defined in Section 101(33) of CERCLA, 42 U.S.C. §9601(33).

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

m. "Respondents" shall mean Koch Sulfur Products, LLC and Estech, Inc.

n. "Section" shall mean a portion of this Order identified by a Roman numeral.

o. "Site" shall mean the former Northeast Chemical Fertilizer facility located on US Highway 421 in Wilmington, New Hanover County, North Carolina. The Site includes the areal extent of hazardous substances contamination, and all areas in close proximity to the contamination that are necessary for implementation of the Work.

p. "State" shall mean the State of North Carolina as represented by the North Carolina Department of Environment and Natural Resources ("NCDENR").

q. "United States" shall mean the United States of America, including the Department of Justice and EPA.

r. "Work" shall mean all activities Respondents are required to perform under this Order.

IV. STATEMENT OF PURPOSE

8. In entering into this Consent Order, the mutual objectives of EPA and Respondents are to: 1) determine fully the nature and extent of the threat to the public health or welfare or the environment caused by the release or threatened release of hazardous substances, pollutants, or contaminants at or from the Site into the environment; 2) develop and evaluate alternatives for a response action to prevent, mitigate or otherwise respond to the migration or the release or threatened release of hazardous substances; 3) perform an initial non-time critical source removal action ("Source Removal Action") pursuant to Paragraph 17 of this Order; and 4) recover Future EPA Response Costs related to the Site. EPA and Respondents have agreed that, based on currently available information, use of CERCLA Non-Time Critical Removal Action authority at this Site is the most efficient mechanism to achieve the above stated objectives without compromising statutory requirements of the NCP and active public participation in the response action selected for this Site.

9. The activities conducted pursuant to this Consent Order will be consistent with the NCP, 40 C.F.R. Part 300 *et seq.*, and will be subject to the express EPA approvals as set forth below.

V. FINDINGS OF FACT

10. For the purposes of this Order, EPA finds that:

a. The Site is located in Wilmington, New Hanover County, North Carolina in an industrial area. The Site is bound to the North by the former PCS Nitrogen facility, to the South by the Royster Clark facility, to the West by US Highway 421, and to the East by the Northeast Cape Fear River. It is the former location of a fertilizer manufacturing facility operated by Swift Company (Swift). Three (3) acres of the Site are currently owned by Norris and Carolyn Flowers. Fourteen (14) acres are currently owned by Louisiana Pacific Corporation. The remaining 44.1 acres that comprise the Site are currently owned by Southern States Chemicals Inc.

b. Swift Co. purchased the property in 1906 and operated a fertilizer and/or raw materials manufacturing facility on the Site. In 1971, the property was sold to Northeast Chemical Company. Koch purchased 44.1 acres from the Northeast Chemical Company bankruptcy estate in 1982 and operated a sulfuric acid manufacturing facility on the property until it was sold to Southern States Chemicals Inc. in 2001. In 1983, a three (3) acre portion of the former Northeast Chemical Company property was purchased by Raiford and Mabel Trask, who in turn sold that portion to Norris and Carolyn Flowers in 1993. The Flowers operate a seafood restaurant on that parcel. The remaining, northern most parcel of the former Northeast Chemical Company property was sold in 1974 to Louisiana-Pacific Corporation which operates a lumber milling and distribution facility on the property.

c. Swift, through various corporate reorganizations became Estech, Inc. Estech is the corporate successor to Swift's former fertilizer and/or raw materials manufacturing activities at the Site.

d. Phosphate-based fertilizer and/or raw materials manufacturing conducted at the Site generally involved reacting phosphate ores with sulfuric acid to produce phosphoric acid. Sulfuric acid was manufactured on-site using the lead-chamber process. Sulfur was burned in the presence of oxygen to produce sulfur trioxide gas (SO_3). Prior to 1935, pyrite ores were a common source of sulfur. Elemental sulfur was later used because of the economic advantages in product purity. Sulfur trioxide gas (SO_3) was reacted with water mist (H_2O) by passing through a Glover Tower to produce sulfuric acid (H_2SO_4). The sulfuric acid was stored in lead-lined chambers for use in the production of superphosphate. The principle soil contaminants resulting from the process are lead and arsenic which are impurities often found in the pyrite and phosphate ores used in the acid, fertilizer and/or raw materials manufacturing processes.

e. Environmental impacts associated with the phosphate fertilizer, sulfuric acid and/or raw materials manufacturing processes include acidic pH conditions and elevated concentrations of lead and arsenic in soil, sediment, groundwater and surface water in close proximity to the former location of the acid chambers. Acidic pH conditions tend to increase the

solubility of some inorganic constituents facilitating the migration of contaminants which may adversely impact human health and/or the environment.

f. In April 2000, an Integrated Expanded Site Inspection/Removal Assessment (ESI/RA) on the Site was conducted to assess the immediate or potential threat posed by the Site to human health and the environment. The ESI/RA consisted of the collection of samples of inshore soil, shoreline sediment, groundwater and surface water. Background levels are those referenced in the ESI/RA and were established with samples taken off site. Benchmark levels are those referenced in the ESI/RA.

g. Shoreline sediment samples revealed the presence of lead, arsenic, chromium, copper, mercury, and zinc at levels higher than background and/or benchmark levels. Inshore soil samples revealed the same contaminants as the shoreline samples as well as thallium. Additionally, semivolatile organics were found in the shoreline sediment samples above background and/or benchmark levels including PCB 1254, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, fluoranthene, phenanthrene and pyrene.

h. Groundwater samples revealed the presence of sulfates, nitrate naphthalene, 2-methylnaphthalene, antimony, arsenic, cadmium, lead and manganese at levels above groundwater background and/or benchmark levels. The closest drinking water well was tested and arsenic, cobalt, iron, manganese, nickel and zinc were detected above background and/or benchmark levels. However, only manganese exceeded drinking water standards.

i. The Site is located on the western bank of the Northeast Cape Fear River. The Site is located within the Southern Coastal Plain Province and is relatively flat with an eastward, gentle, sloping grade toward the river at less than three feet per mile.

j. The Northeast Cape Fear River is a coastal salt water estuary, fishery and threatened species habitat. The levels of inorganic constituents including lead, arsenic and mercury in the sediment exceed EPA's Ecological Risk Assessment Sediment Screening values. Levels of lead and arsenic were identified in on-site soils in excess of EPA Region 4 Removal Action Levels. The soil at the Site is accessible to workers and recreational users although there are no signs of recreational use.

k. A January 14, 2000, Action Memorandum triggered a Removal Action by EPA Region 4 Emergency Removal and Response Branch on the portion of the Site known as the Flowers Property. Soils were stabilized to prevent further leaching of contaminants into groundwater. A retaining wall was installed to prevent further migration of contamination into the river. The removal Action was completed in August 2000.

VI. CONCLUSIONS OF LAW AND DETERMINATIONS

11. Based on the Findings of Fact set forth above supporting the need for the Work constituting the response action as required in this Order, EPA has made the following Conclusions of Law and Determinations:

a. The Northeast Chemical Site is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

b. The contamination found at the Site, as identified in the Findings of Fact above, includes "hazardous substances" as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

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

d. Respondents may be liable under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), although such liability is not admitted as set forth in Section I of this Order.

e. The conditions described in the Findings of Fact above constitute an actual or threatened "release" of a hazardous substance from the Site as defined by Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

f. The non-time critical removal action required by this Order is necessary to protect the public health, welfare, or the environment and, if carried out in compliance with the terms of this Order, will be considered consistent with the NCP, as provided in Section 300.700(c)(3)(ii) of the NCP.

VII. ORDER

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

13. Respondents shall perform the Work required by this Order themselves or retain a contractor(s) to perform the Work. Respondents shall notify EPA of Respondents' qualifications or the name(s) and qualifications of such contractor(s) within fourteen (14) days of the Effective Date of this Order. Respondents shall also notify EPA of the name(s) and qualification(s) of any other contractor(s) or subcontractor(s) retained to perform the Work at least fourteen (14) days prior to commencement of such Work. EPA retains the right to disapprove of any or all of the contractors and/or subcontractors retained by Respondents, or of Respondents choice of themselves to conduct the Work; however, EPA must set forth its reasons for disapproval in

writing. If EPA disapproves of a selected contractor, Respondents shall retain a different contractor or notify EPA that it will perform the non-time critical removal action themselves within fourteen (14) days of EPA's disapproval and shall notify EPA of that contractor's name and qualifications, or Respondents' qualifications within fourteen (14) days of EPA's disapproval.

14. Within twenty-one (21) days after the Effective Date, Respondents shall designate a Project Coordinator who shall be responsible for administration of all actions by Respondents required by this Order and shall submit to EPA the designated Project Coordinator's name, address, telephone number, and qualifications. To the greatest extent possible, the Project Coordinator shall be present on Site or readily available during Site work. EPA retains the right to disapprove of the designated Project Coordinator; however, EPA must set forth its reasons for disapproval in writing. If EPA disapproves of the designated Project Coordinator, Respondents shall retain a different Project Coordinator and shall notify EPA of that person's name, address, telephone number, and qualifications within fourteen (14) days following 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.

15. EPA has designated McKenzie Mallory of the EPA Region 4 North Site Management Branch, as its Remedial Project Manager ("RPM"). Except as otherwise provided in this Order, Respondents shall direct all submissions required by this Order to the RPM at 61 Forsyth Street, SW, Atlanta, Georgia 30303. EPA and Respondents shall have the right, subject to Paragraph 14, to change their respective designated RPM or Project Coordinator. Respondents shall notify EPA fourteen (14) days before such a change is made. The initial notification may be made orally, but shall be promptly followed by a written notice.

16. Respondents shall conduct an Engineering Evaluation/Cost Analysis (EE/CA) at the Site that is consistent with Section 300.415(b)(4) of the NCP and in accordance with reference document EPA/540-R-93-057, OSWER Directive 9360.0-32, August 1993; Guidance on Conducting Non-Time Critical Removal Actions Under CERCLA. Respondents shall also support EPA's efforts in performing those portions of a baseline risk assessment and ecological risk assessment as determined necessary by the RPM. Respondents may request that the RPM allow this work to be performed by the Respondents or their contractor(s). This request is within EPA's discretion to grant.

17. Pursuant to Section XXII of this Order, Respondents have identified the necessity of performing a Source Removal Action consistent with Section 300.415(b)(4) of the NCP and in accordance with reference document EPA/540-R-93-057, OSWER Directive 9360.0-32, August 1993; Guidance on Conducting Non-Time Critical Removal Actions Under CERCLA. As an attachment to this Order, Respondents have submitted an EPA approved Work Plan for the Source Removal Action which conforms to the applicable requirements of this Section.

18. Within 90 days of the completion of the Source Removal Action, Respondents shall submit to EPA an EE/CA Work Plan. The EE/CA Work Plan shall provide an outline of the major components of the EE/CA process which includes Site characterization, identification of non-time critical removal action objectives, identification and analysis of removal option alternatives, comparative analysis of removal action alternatives and the recommended removal action alternative. The EE/CA Work Plan shall focus on Site characterization and present a comprehensive strategy to: 1) fully determine the nature/extent of contamination present; and 2) evaluate potential current/future risks posed to human health and the environment. The EE/CA Work Plan shall also include a comprehensive project schedule for completion of each major activity required by this Order and the submission of each required deliverable. The project schedule shall reflect completion of the EE/CA process, or submittal of the Final EE/CA Report within 365 days from the Effective Date. The EPA approved schedule contained in the EE/CA Work Plan shall become an enforceable component of this Order. Modifications to the EE/CA project schedule may be made with mutual consent between the designated Project Coordinators of the Respondents and EPA.

19. The EE/CA Work Plan shall present a field sampling and analysis program designed to provide data of sufficient quality and quantity to evaluate alternatives that achieve the identified Non-Time Critical Removal Action Objectives. The sampling and analysis plan shall present a comprehensive approach for the media to be investigated (surface/subsurface soils, groundwater, sediments, surface water, etc.), propose sample locations and frequency, and delineate required sample equipment, sampling procedures, sample handling, and decontamination procedures for sampling equipment. In an effort to eliminate duplicity and to streamline Site characterization efforts, and if approved by the EPA, the proposed sampling strategy shall utilize previous data collected by EPA and Respondents, where available. All sampling and analysis conducted under this Order shall be consistent with reference document Environmental and Investigations Standard Operating Procedures and Quality Assurance Manual (EISOPQAM), U.S. EPA-Region 4, Science and Ecosystems Support Division, Enforcement and Investigations Branch, May 1996 (as revised), or explanations and rationales provided for deviations.

20. The EE/CA Work Plan shall include a Site specific Health and Safety Plan that conforms with the current applicable Occupational Safety and Health Administration ("OSHA") regulations found at 29 C.F.R. Part 1910.

21. Respondents shall implement the EPA approved EE/CA Work Plan in accordance with the schedule contained therein. Within thirty (30) days of EPA approval of the EE/CA Plan, Respondents shall mobilize to the Site for sample collection activities.

22. Following completion of the EE/CA field characterization efforts, Respondents shall submit the Draft EE/CA Report for EPA review and technical comment. The Draft EE/CA Report shall summarize available analytical data to spatially evaluate the nature/extent of contaminant(s) present in the media of concern, and to identify potential source(s) of such

contaminant(s). The Draft EE/CA Report shall include a streamlined risk assessment to evaluate potential risks posed to human health and the environment under the assumption that no response action(s) would be taken at the Site. The streamlined risk assessment should focus on the specific Non-Time Critical Removal Action Objectives and should be consistent with established EPA protocols delineated in EPA's Risk Assessment Guidance for Superfund and other appropriate supplements or addenda thereto. The results of the streamlined risk assessment will be utilized by EPA to determine whether a CERCLA response action is warranted at the Site, what exposures need to be addressed by the response action, and define appropriate cleanup goals. The Draft EE/CA Report shall identify and analyze Non-Time Critical Removal Action Alternatives based on the response action evaluation criteria of effectiveness, implementability, and cost. Subsequent to a comparative analysis of identified Non-Time Critical Removal Action Alternatives, the Draft EE/CA Report shall conclude with a refined conceptual description of the recommended Non-Time Critical Removal Action Alternative.

23. EPA may determine, based on review of the Draft EE/CA Report, that other tasks, including supplemental investigation work and/or engineering evaluation, are necessary as part of the EE/CA process that are in addition to EPA-approved tasks and deliverables, including reports which may have been completed pursuant to this Order and the Final EE/CA Work Plan. Respondents may dispute under the provisions set forth in Section XII (Dispute Resolution) of this Order, all or part of any additional tasks EPA determines are necessary. Otherwise, the Respondents shall implement any additional tasks which EPA determines are necessary to sufficiently complete the EE/CA and to select a response action that is adequately protective of human health and the environment. The additional tasks, if any, shall be completed in accordance with the standards, specifications and schedule determined or approved by EPA.

24. EPA will compile all documents generated pursuant to this Order and other Site specific information in an Administrative Record for the Site. Upon EPA approval of the Final EE/CA Report, EPA will publish a public notice of availability of the Administrative Record. Pursuant to NCP requirements, a 30-day public comment period will be held on EPA's recommended Non-Time Critical Removal Action and other supporting documentation in the Administrative Record. EPA will respond to all significant comments received during the formal comment period and include in the Administrative Record a written response to comments received. EPA will prepare the Action Memorandum for the Site which will substantiate the need, if any, for a Non-Time Critical Removal Action. Issuance of the Action Memorandum by EPA will complete the EE/CA process and fulfill the obligations of the Respondents under this Order.

25. Deliverables, including reports, plans or other correspondence to be submitted per this Order shall be sent by regular certified mail, express mail, or overnight delivery to the following addresses or to such other addresses as the EPA hereafter may designate in writing. Three (3) copies of each document or deliverable shall be submitted to the EPA Project Manager below:

McKenzie Mallary
Remedial Project Manager
U.S. EPA - Region 4
Atlanta Federal Center, 11th Floor
61 Forsyth Street, SW
Atlanta, GA 30303

Additionally, one (1) copy of each document or deliverable shall be submitted to the State contact below:

Jeanette Stanley
Environmental Chemist
North Carolina Superfund Section
NC - Department of Environment and Natural Resources
Suite 150
401 Oberlin Road
Raleigh, North Carolina 27605

26. Respondents shall submit to EPA an Initial Progress Report on the implementation of the Work required under this Order within 90 days of the Effective Date of this Order. The initial report shall: (1) describe the actions which have been taken toward achieving compliance with this Order during the period; (2) include all results of sampling and tests and any other data received by Respondents during the course of the Work; (3) include all plans and procedures completed under the Source Removal Action Work Plan during the period; (4) describe all actions, data, and plans which are scheduled, and provide other information relating to the progress of the Work as deemed necessary by EPA; and (5) include information regarding percentage of completion, unresolved delays, encountered or anticipated, that may affect the future schedule for implementation of the EE/CA Work Plan, and a description of efforts made to mitigate those delays or anticipated delays. An Interim Progress Report on the implementation of the EE/CA Work Plan shall be submitted within 45 days of the completion of the Source Removal Action. The Interim Progress Report must conform to the requirements as listed in previously in this Paragraph.

27. Respondents must cooperate with EPA in the preparation of a plan not inconsistent with the NCP for the purpose of providing public information about the response activities during the performance of the response activities conducted pursuant to this Order.

VIII. QUALITY ASSURANCE, SAMPLING AND DATA ANALYSIS

28. Respondents shall use quality assurance, quality control, and chain of custody procedures in accordance with the EPA Guidance for Quality Assurance Project Plans, EPA QA/G-5, February 1988, and the Environmental and Investigations Standard Operating Procedures and Quality Assurance Manual (EISOPQAM), U.S. EPA - Region 4, Science and

Ecosystems Support Division, Enforcement and Investigations Branch, May 1996 (as revised) and subsequent amendments to such guidelines. Included in the EE/CA Work Plan, Respondents shall submit a Quality Assurance Project Plan ("QAPP") that is consistent with applicable guidelines. Sampling data generated consistent with the QAPP(s) shall be admissible as evidence, without objection, in any proceeding under Section XII of this Order. Respondents shall assure that EPA personnel or authorized representatives are allowed access to any laboratory utilized by Respondents in implementing this Order.

29. Respondents shall make available to EPA the results of all sampling and/or tests or other data generated by Respondents with respect to the implementation of this Order and shall submit these results as described in Section VII. Paragraph 25 of this Order.

30. Respondents shall ensure that the laboratory used to perform the analyses participates in a EPA quality assurance/quality control (QA/QC) program equivalent to that which is followed by EPA and which is consistent with EPA document QAMS-005/80. In addition, EPA may require submittal of data packages equivalent to those generated in the EPA Contract Laboratory Program (CLP) and may require laboratory analysis of performance samples (blank and/or spike samples) in sufficient number to determine the capabilities of the laboratory.

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

32. Notwithstanding any provision of this Order, the EPA hereby retains all of its information gathering, inspection and enforcement authorities and rights under CERCLA, RCRA, and any other applicable statute or regulation.

IX. AUTHORITY OF REMEDIAL PROJECT MANAGER

33. The RPM shall be responsible for overseeing Respondents' implementation of this Order. The RPM shall have the authority to halt, conduct, or direct any Work required by this Order, or to direct any other non-time critical removal action undertaken at the Site. Absence of the RPM from the Site shall not be cause for stoppage of work unless specifically directed by the RPM.

X. SITE ACCESS

34. If the Site, or any other property where access is needed to implement this Order, is owned or controlled by any of the Respondents, such Respondents shall, commencing on the Effective Date, provide EPA, and its representatives, including contractors, with access at all reasonable times to the Site, or such other property, for the purpose of conducting any activity

related to this Order.

35. Where any 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 10 days after the Effective Date, 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. For purposes of this Paragraph, "best efforts" includes the payment of reasonable sums of money in consideration of access. 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 actions described herein, using such means as EPA deems appropriate. Respondents shall reimburse EPA for all costs and attorney's fees incurred by the United States in obtaining such access, in accordance with the procedures in Section XI. (Reimbursement of Costs).

36. Notwithstanding any provision of this Order, EPA retains all of its access authorities and rights, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

XI. REIMBURSEMENT OF COSTS

37. Respondents shall pay EPA all Future Response Costs as defined in Section III, Paragraph d, not inconsistent with the NCP. Future Response Costs shall also include all Interim Response Costs, including direct and indirect costs, incurred by the United States as defined in Section III, Paragraph f.

38. On a periodic basis, EPA will send Respondents a bill for Future Response Costs that includes a cost summary. Redacted Work Performed documents will be provided only upon written request within ten (10) days of receipt of the bill. Respondents shall within forty-five (45) days of receipt of the bill, or within forty-five (45) days of receipt of Work Performed documents, if requested, remit a cashier's or certified check for the amount of the bill made payable to "EPA Hazardous Substance Superfund," to the following address:

U.S. EPA, Region 4
Superfund Accounting
P.O. Box 100142
Atlanta, GA 30384
Attn.: Collection Officer of Superfund

Respondents shall simultaneously transmit a copy of the check to Ms. Paula V. Batchelor at:

U.S. EPA, Region 4
CERCLA Program Services Branch, 11th Floor
Waste Management Division
61 Forsyth Street, SW
Atlanta, GA 30303

Payments shall be designated as "Response Costs - Northeast Chemical Site" and shall reference the payor's name and address, the EPA Site/Spill ID Number A4T1, and the EPA docket number for this Order.

39. In the event that the payments for Future Response Costs are not made in accordance with the above deadlines, Respondents shall pay Interest on the unpaid balance. Interest is established at the rate specified in Section 107(a) of CERCLA. The Interest on Future Response Costs shall begin to accrue on the date of the bill and shall continue to accrue until the date of payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondents' failure to make timely payments under this Section.

40. Respondents may dispute all or part of a bill for Future Response Costs submitted under this Order, if Respondents allege that 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 shall pay the full amount of the uncontested costs to EPA as specified in Paragraph 38 on or before the due date. Within the same time period, Respondents shall pay the full amount of the contested costs into an interest-bearing escrow account. Respondents shall simultaneously transmit a copy of both checks to the persons listed in Paragraph 38 above. Respondents shall ensure that the prevailing party or parties in the dispute shall receive the amount upon which they prevailed from the escrow funds plus interest within ten (10) days after the dispute is resolved.

XII. DISPUTE RESOLUTION

41. The Parties shall attempt to resolve any disagreements concerning this Order expeditiously and informally.

42. If Respondents object to any EPA action taken pursuant to this Order, including billings for Future Response Costs, they shall notify EPA in writing of their objection(s) within fourteen (14) days of receipt of notice of such action, unless the objection(s) has/have been informally resolved. EPA and Respondents shall have ten (10) days from EPA's receipt of Respondents' written objection(s) to attempt to resolve the dispute through formal negotiations (the "Negotiation Period"). The Negotiation Period may be extended at the sole discretion of EPA. EPA's decision regarding an extension of the Negotiation Period shall not constitute an EPA action subject to dispute resolution or a final agency action giving rise to judicial review.

43. Any agreement reached by the parties pursuant to this Section shall be in writing and shall, upon signature by both parties, be deemed an amendment to, and incorporated into and become an enforceable element of, this Order. If the Parties are unable to reach an agreement within the Negotiation Period, an EPA management official at the Branch Chief level or higher will issue a written decision on the dispute to Respondents. The decision of EPA shall be deemed an amendment to, and shall be incorporated into and become an enforceable element of, this Order upon Respondents receipt of the EPA decision regarding the dispute. Respondents' obligations under this Order shall not be tolled by submission of any objection for dispute resolution under this Section, unless EPA agrees to toll the obligation pending the resolution of the dispute.

44. Following resolution of the dispute, as provided by this Section, Respondents shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with EPA's decision, whichever occurs earlier. No EPA decision made pursuant to this Section shall constitute a final agency action giving rise to judicial review prior to a judicial action brought by the United States to enforce the decision, but Respondents reserve their right to challenge the validity of any EPA decision under this Section if the United States brings an enforcement action.

XIII. FORCE MAJEURE

45. Respondents agree to perform all requirements of 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, which delays or prevents performance of any obligation under this Order despite Respondents' good faith efforts to fulfill the obligation. *Force majeure* does not include financial inability to complete the Work or increased cost of performance.

46. Respondents shall notify EPA orally within twenty-four (24) hours after the event, and in writing within three (3) days after Respondents become or should have become aware of events which constitute a *force majeure*. Such notice shall: identify the event causing the delay or anticipated delays; estimate the anticipated duration of the 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 shall take all reasonable measures to avoid and minimize the delay. Failure to comply with the notice provisions of this Section shall waive any claim of *force majeure* by the Respondents.

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

with any requirements under this Order, Respondents may seek permission from EPA under Section XXI to deviate from such requirement and propose modifications to the approved Work Plan, schedule, or Statement of Work, as appropriate.

XIV. STIPULATED AND STATUTORY PENALTIES

48. For each day, or portion thereof, that Respondents fail to perform, fully, any requirement of this Order in accordance with the schedule established pursuant to this Order after receipt of written notice from EPA of such non-compliance, Respondents shall be liable as follows:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$250	1st through 14th day
\$500	15th through 44th day
\$750	45th day and beyond

49. Upon receipt of written demand by EPA, Respondents shall make payment to EPA within thirty (30) days. Interest shall accrue on late payments as of the date the payment is due which is the date of the violation or act of non-compliance triggering the stipulated penalties.

50. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Order. Penalties accrue and are assessed per violation per day. The payment of penalties shall not alter in any way Respondents' obligations to complete the performance of the Work required under this Order. EPA may, at its sole discretion, waive payment of all or any portion of stipulated penalties that may accrue pursuant to this Order.

51. Penalties shall continue to accrue during any dispute resolution period, but need not be paid until 15 days after the dispute is resolved by agreement or by receipt of EPA's decision. Respondent may request that EPA waive stipulated penalties accrued during dispute resolution, such waiver being within the discretion of EPA.

52. Violation of any provision of this Order may subject Respondents to civil penalties of up to twenty-seven thousand, five hundred dollars (\$27,500) per violation per day, as provided in Section 106(b) of CERCLA, 42 U.S.C. § 9606(b). Respondents may also be subject to punitive damages in an amount up to three times the amount of any costs incurred by the United States as a result of such violation as provided in Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). 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, in which event, Respondents reserve their rights to challenge, and assert all defenses, to the imposition of the above-described statutory penalties and punitive damages.

XV. RESERVATIONS OF RIGHTS

53. Except as specifically provided in this Order, 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, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondents in the future to perform additional activities pursuant to CERCLA or any other applicable law. EPA reserves the right to bring an action against Respondents under Section 107 of CERCLA, 42 U.S.C. § 9607, for recovery of any response costs incurred by the United States related to this Order or Site and not reimbursed by Respondents. Except as otherwise provided in this Order, Respondents reserve all rights to assert all defenses regarding any orders, legal or equitable proceedings or other actions brought by EPA or the United States against Respondents, or their predecessors, successors, assigns, present or former officers, directors, agents, representatives, or shareholders.

XVI. OTHER CLAIMS

54. 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 and not caused or contributed to by any acts or omissions of the United States or EPA. Neither the United States nor EPA shall be deemed a party to any contract entered into by Respondents or their directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Order.

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

56. 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.

57. In the event Respondents fail to comply with this Order, EPA may proceed to list the Site on the NPL. Respondents, in entering into this Order, waive any right to challenge the listing of the Site on the NPL based on the pre-removal Hazardous Ranking Score (HRS) of the Site.

58. Upon execution of this Order, Respondents agree to enter into a reasonable tolling agreement with the Natural Resources Trustees which will toll the statute of limitations for natural resource damages claims in connections with the Site if such tolling agreement is requested by the Natural Resource Trustees.

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

XVII. COVENANT NOT TO SUE

60. Upon issuance of the notice referred to in Section XXIII, 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 non-time critical removal actions agreed to in this Order except otherwise reserved herein.

61. Except as otherwise specifically provided in this Order, in consideration and upon Respondents' payment of the response costs specified in Section XI of this Order, 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 Future Response Costs incurred by the United States in connection with the non-time critical removal action or this Order. This covenant not to sue shall take effect upon receipt by EPA of the payments required by Section XI.

62. 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 Respondents, and their predecessors, successors, and assigns and do not extend to any other person.

XVIII. CONTRIBUTION PROTECTION

63. With regard to the claims for contribution against Respondents for Matters Addressed in this Order, the Parties hereto agree that Respondents, and their predecessors, successors, and assigns are entitled, to protection from contribution actions or claims to the full extent provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4).

64. Nothing in this Order precludes the United States or Respondents from asserting any claims, causes of action, or demands against any persons not parties to this Order for indemnification, contribution, cost recovery, or other legal or equitable claims.

65. Nothing in this Order precludes the Respondents from asserting any claims, causes of action, or demands against one another under any agreement between such Respondents related to the Work or the Site.

XIX. INDEMNIFICATION

66. 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, their officers, directors, employees, agents, contractors, or subcontractors, 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 in performance of Work, on or relating to the Site, including claims on account of construction delays. In addition, Respondents agree to pay the United States all costs incurred by the United States, including litigation costs, arising from or on account of claims made against the United States based on acts or omissions referred to in this Section. The requirements of this Section do not apply to the extent that any claim or cause of action results from any act or omission of the indemnified parties.

XX. INSURANCE

67. At least seven (7) days prior to commencing any on-Site work under this Order, Respondents shall secure, and shall maintain for the duration of this Order, comprehensive general liability insurance and automobile insurance with limits of one (1) million dollars, combined single limit. Within the same time period, Respondents shall provide EPA with certificates of such insurance. If Respondents demonstrate by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then Respondents need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor or otherwise demonstrate sufficient financial responsibility by Respondents to comply with the Order.

XXI. MODIFICATIONS

68. Modifications to any plan, schedule or Statement of Work may be made in writing by the RPM or at the RPM's oral direction. Such modification shall be subject to dispute resolution. If the RPM makes an oral modification, it will be memorialized in writing within seven (7) days by the RPM, but shall have as its effective date 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.

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

70. No informal advice, guidance, suggestion, or comment by EPA regarding reports, plans, specifications, schedules, or any other writing submitted by Respondents shall relieve Respondents of their obligation to obtain any formal approval required by this Order, or to comply with all requirements of this Order, unless it is formally modified. The Respondents

shall propose a procedure in the EE/CA Work Plan for obtaining EPA's formal approval of any modifications to plans, schedules, or the Statement of Work (including, without limitation, additional work, interim response actions, and treatability studies.)

XXII. ADDITIONAL RESPONSE ACTION

71. EPA and Respondents recognize that the purpose of this Order is to conduct an EE/CA at the Site, which will determine the nature and extent of the threat to the public health, welfare, or the environment, caused by the release or threatened release of hazardous substances, pollutants, or contaminants at or from the Site into the environment; and to develop and evaluate alternatives for response actions to prevent, mitigate or otherwise respond to the migration or the release or threatened release of hazardous substances. However, the parties recognize that it may be beneficial to immediately address Site conditions discovered during the course of the investigation. To that end, and to avoid unnecessary delay, if EPA determines that a non-time critical removal action not included with the original scope of this Order may be necessary to protect public health, welfare, or the environment, EPA will notify Respondents of that determination. If Respondents agree, Respondents shall submit for approval by EPA a Work Plan for such additional non-time critical removal actions. The plan shall conform to the applicable requirements of Section VII of this Order. Upon EPA's approval of the plan, Respondents shall implement the plan for additional non-time critical removal actions in accordance with the provisions and schedule contained therein. If Respondents do not agree that such an action is necessary, the terms of the performance of any such work shall be negotiated by Respondents and EPA outside of the authority of this Order, or such action may be taken by EPA. This Section does not alter or diminish the RPM's authority to make oral modifications to any plan or schedule pursuant to Section XXI.

72. Additionally, if the release or threatened release of hazardous substances, pollutants, or contaminants at or from the Site cannot be adequately addressed through the use of non-time critical removal actions within the scope of this Order, a long term response action may be necessary to fully address contamination at the Site. In such case a long term response action shall be negotiated in a separate Order.

XXIII. NOTICE OF COMPLETION OF WORK

73. When EPA determines, after EPA's review of the Final EE/CA Report, that all Work has been fully performed in accordance with this Order, with the exception of any continuing obligations required by this Order, EPA will provide written notice to Respondents ("Notice of Completion"). If EPA determines that any such Work has not been completed in accordance with this Order, EPA will notify Respondents, provide a list of the deficiencies, and require that Respondents modify the Work Plan if appropriate in order to correct such deficiencies ("Notice of Deficiencies"). Respondents shall implement the modified and approved Work Plan and shall submit a modified Final Report in accordance with the EPA Notice of Deficiencies. Failure by Respondents to implement the approved modified Work Plan shall be a violation of this Order.

If EPA determines that Respondents have corrected the matters in the Notice of Deficiencies, EPA will provide the Notice of Completion to Respondents.

XXIV. SEVERABILITY

74. 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 or determined to be subject to a sufficient cause defense by the court's order.

XXV. EFFECTIVE DATE

75. This Order shall be effective five (5) days after the Order is signed by the Chief, North Site Management Branch of EPA, Region 4.

The undersigned representatives of Respondents certify that they are fully authorized to enter into the terms and conditions of this Order and to bind the party they represent to this document.

Agreed this 15th day of MAR, 2002 .

For Respondent Koch Sulfur Products, LLC

SR By Randy Tausch

Title PRESIDENT

For Respondent Estech, Inc.

By _____

Title _____

XXV. EFFECTIVE DATE

75. This Order shall be effective five (5) days after the Order is signed by the Chief, North Site Management Branch of EPA, Region 4.

The undersigned representatives of Respondents certify that they are fully authorized to enter into the terms and conditions of this Order and to bind the party they represent to this document.

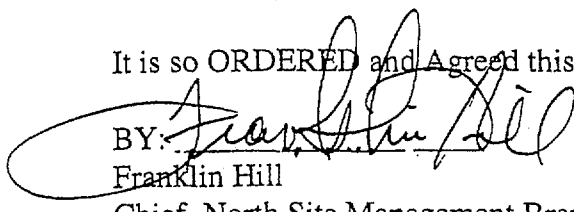
Agreed this 19th day of March, 2002 .

For Respondent Estech, Inc.

By SM Schuster

Title VICE PRESIDENT

It is so ORDERED and Agreed this 10 day of April, 2002.

BY:  DATE: April 10, 2002

Franklin Hill
Chief, North Site Management Branch
Region 4
U.S. Environmental Protection Agency

EFFECTIVE DATE: 4-15-02