FILED APR 0 1 2002

### CONFIDENTIAL-SETTLEMENT COMMUNICATIONS **SUBJECT TO RULE 408**

LARRY W. PROPES, CLERK CHARLESTON, SC

IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF SOUTH CAROLINA, CHARLESTON DIVISION

SCANNED

284.

The South Carolina Department ) of Health and Environmental Control, ) Plaintiff,	CIVIL ACTION NO. 2 97 726 12	284 FILE <b>D</b>
i idiliciii,		
<b>v.</b>		JUN 1 3 2002
Atlantic Steel Industries, Inc.; AmeriSteel Corporation (fka Florida Steel Corporation), Georgetown Steel Corporation; I Schumann &		LARRY W. PROPES, CLERK CHARLESTON, SC
& Company; Meherrin Agricultural & Chemical; Company; Mueller Brass Co.; National Metals, Inc; Nucor Corporation; Nucor-Yamato Steel Company; SMI Steel-South Carolina; Roanoke	SETTLEMENT AGREEMENT	
Electric Steel Corporation; The Federal Metals Company; The Stackpole Corp.; and Waterbury Rolling Mills, Inc.,		
Defendants.		
and		
Kerr-McGee Chemical Corporation, Lucent Technologies Inc., Macalloy Corporation, Gaston Copper Recycling Corporation, Southwire Company, and Clariant Corporation,		

Intervenor-Defendants.

JUN 19 2002

DIVISION OF SITE ASSESSMENT & REMEDIATION

The South Carolina Department of Health ) and Environmental Control, )	CIVIL ACTION NO. 2 98 0345 12	95.
Plaintiff,		
v. )		
) )		
Parkans International, Plant Roberts  Chemicals, W.J. Bullock, Inc., Macalloy  Corporation, and Roessing Bronze,		
Defendants. )		-1/1
The South Carolina Department of Health ) and Environmental Control, )	CIVIL ACTION NO. 2 98 1571 12	87.
Plaintiff,		
v. )		
Carbone of America Corp., Madison ) Industries and Old Bridge Chemicals, )		
Defendants.		
The South Carolina Department ) of Health and Environmental Control, )	CIVIL ACTION NO. 2 98 3635 12	43.
) ) Plaintiff, )		
)		
v. )		
Beta Control Systems, Inc., Cerro Metal ) Products Company, Gulf Reduction Corporation,) Michigan Standard Alloys, and E & H ) Recycling Co., )		
Defendants. )		

South Carolina Department of Health and Environmental Control,

Plaintiff,

vs.

Kerr-McGee Chemical Corporation; Lucent
Technologies, Inc.; Gaston Cooper Recycling
Corp.; Southwire Company; CP Chemicals, Inc.)
Koch Sulfur Company; Clariant Corporation;
Blackman Uhler Chemical Company;
Midcontinent Commodity Exchange, Inc.;
Amlon Metals, Inc.; Kearney Smelting &
Refining Corp.; Franklin Smelting & Refining
Corp.; Sterling Plumbing Group, Inc.; St. Mary's)
Carbon Company, Inc.; and Imperial Products,
Inc.,

Defendants.

Nucor Corporation, Nucor-Yamato Steel Company (Limited Partnership); AmeriSteel Corporation; Roanoke Electric Steel Corporation; Mueller Brass Co.; SMI-Owens Steel Company, Inc.; The Federal Metal Company; and I. Schumann & Company,

Plaintiffs,

vs.

Kerr McGee Chemical Corporation; Lucent
Technologies, Inc.; Gaston Copper Recycling
Corporation; Southwire Company; C.P.
Chemicals, Inc.; Koch Sulfur Company; Clariant)
Corporation; Blackman Uhler Chemical
Company; Amlon Metals, Inc.; Kearny Smelting)
& Refining Company; Franklin Smelting &
Refining Corporation; Sterling Faucet; St.
Mary's Carbon Company, Inc.; and Imperial
Products, Inc.,

Defendants.

CIVIL ACTION NO. 2 99 1610 12

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CIVIL ACTION NO. 2 99 2292 12

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#### INTRODUCTION

This SETTLEMENT AGREEMENT is executed by and between the following parties, which collectively will be referred to herein as the Settling Parties:

- (i) South Carolina Department of Health and Environmental Control ("DHEC");
- (ii) Atlantic Steel Industries, Inc.; AmeriSteel Corporation (f/k/a Florida Steel Corporation); Georgetown Steel Corporation; I. Schumann & Company; Meherrin Agricultural & Chemical Company; Mueller Brass Co.; National Metals, Inc.; Nucor Corporation; Nucor-Yamato Steel Company; SMI Steel-South Carolina; Roanoke Electric Steel Corporation; The Federal Metal Company; The Stackpole Corp.; and Waterbury Rolling Mills, Inc. (collectively referred to as the Stoller Jericho Working Group ("SJWG" and "Settling Defendants")).
- (iii) Kerr-McGee Chemical Corporation; Lucent Technologies Inc. (as successor in interest to and on behalf of AT&T Corporation, AT&T Nassau Metals Corporation, and Nassau Recycling Corporation, each of which shall be deemed a corporate predecessor of Lucent for purposes of this Settlement Agreement); Phibrotech, Inc. f/k/a CP Chemicals, Inc.; Gaston Copper Recycling Corporation; Southwire Company; Clariant Corporation; Koch Sulfur Products Company, LLC; Blackman-Uhler Chemical Company; Sterling Faucet, Inc. (collectively referred to as the Ravenel Site Group ("RSG" and "Settling Defendants")).

#### I. RECITALS.

A. DHEC filed Complaints against the Settling Defendants in this matter pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9601 et seq. as amended by the Superfund Amendments and Reauthorization Act of 1986 ("SARA"), Pub. L. No. 99-499

("CERCLA"), and pursuant to § 44-56-10 et seq. of the South Carolina Hazardous Waste Management Act, S. C. CODE ANN., 44-56-10 et seq. ("SCHWMA"), seeking reimbursement of costs incurred and to be incurred in response to alleged releases and alleged threatened releases of hazardous substances from a fertilizer and micronutrient manufacturing facility located in Jericho, South Carolina. The facility is part of the Site defined herein at Paragraph IV.C.

- B. DHEC alleges that releases of CERCLA hazardous substances have occurred at the Site; that the Site is a "facility" within the meaning of CERCLA Section 101 (9), 42 U.S.C. § 9601 (9); and that the Settling Defendants are among those parties liable for performance and/or reimbursement of costs of response actions pursuant to CERCLA Section 107(a), 42 U.S.C. § 9607(a) and pursuant to § 44-56-200 of SCHWMA.
- C. The fertilizer manufacturing facility at the Site was operated by Kerr-McGee Chemical Co. ("Kerr-McGee") and Kerr-McGee's predecessor-in-interest, approximately from 1962 until 1978. For a two-month period from May 13, 1978, to July 13, 1978, Kerr-McGee as owner, leased the fertilizer manufacturing facility to Stoller Chemical Company ("Stoller"), which operated the facility primarily for the manufacture of micronutrients. Approximately from 1978 until 1992, Stoller owned and operated the micronutrient manufacturing facility.
- D. Stoller filed for protection under Chapter 7 of the United States Bankruptcy Code in March, 1992, in the United States Bankruptcy Court for the Southern District of Texas, and ceased to operate. Stoller was purportedly without sufficient financial resources to conduct the cleanup activities required by Stoller's RCRA Permit. Stoller's Trustee in Bankruptcy now holds the former micronutrient manufacturing facility.
  - E. SJWG implemented clean-up activities required by a Unilateral Administrative Order issued

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by EPA on January 21, 1994, in conjunction with and after consultation with DHEC. SJWG has fully and timely cooperated in implementation of and funding the Unilateral Administrative Order and in funding certain additional clean-up actions required at the Site.

- F. On February 20, 1997, DHEC and SJWG entered into both an Administrative Consent Order ("ACO") and a Settlement Agreement subject to judicial approval ("Prior Settlement Agreement"). Thereafter, the Prior Settlement Agreement was challenged by several of the named parties herein. On August 5, 1999, this Court issued an order declining to approve the Prior Settlement Agreement between SJWG and DHEC.
- G. Thereafter, SJWG continued to provide funding for the required work set forth in the ACO and has funded DHEC's response activities to date in an amount exceeding \$8,100,000. SJWG also expended a total of more than \$1,850,000 in prior response cost activities conducted from October 1993 to February 1997.
- H. DHEC acknowledges SJWG's full and timely cooperation in funding response activities at the Site totaling in excess of \$9,950,000, with an additional time-value of the funds expended to date in excess of \$2,100,000.
- I. On October 26, 1999, this Court stayed the pending litigation in the consolidated action herein. Thereafter, global settlement negotiations took place from November 1999 through September 2001. By DHEC's letter dated October 15, 1999, all parties to the litigation were extended an opportunity to participate in these negotiations. Numerous parties did so, including each of the Settling Parties. The global settlement negotiations were, by the agreement of the Settling Parties, conducted with the assistance of Mr. David Batson, a mediator who is employed by the United States Environmental Protection Agency.
  - J. DHEC, SJWG and RSG have agreed to terms set forth in this Settlement Agreement, which

resolves the liability of the Settling Defendants to DHEC, as well as disputed matters by and between all Settling Defendants.

- K. It is agreed that, only upon final entry of this Settlement Agreement, and exhaustion of any appeals therefrom, DHEC and SJWG shall no longer be bound by the provisions of the ACO and this Settlement Agreement shall void and supersede the provisions of the ACO and the Prior Settlement Agreement.
- L. Upon judicial approval and entry of this Settlement Agreement, the Settling Defendants shall be entitled to contribution protection as provided herein.
- M. The Settling Defendants do not admit any liability to DHEC, each other, or any other person or entity arising out of the transactions or occurrences alleged in the pleadings in the captioned actions or in this Settlement Agreement. DHEC and the Settling Defendants agree that entry of this Settlement Agreement, and compliance therewith, shall not be construed as an admission of liability, or of any other allegation of fact or law, in any judicial or administrative proceeding other than in proceedings related to the validity, implementation or enforcement of this Settlement Agreement.
- N. DHEC and the Settling Defendants agree that settlement of this matter and entry of this Settlement Agreement are made in good faith in an effort to avoid further expenses and the risk of protracted litigation. This Settlement Agreement is the result of good faith, arms-length negotiations between and among representatives of the Settling Defendants and DHEC.
- O. Various factors were taken into account by DHEC in negotiating this Settlement Agreement, including: the Settling Defendants' share of responsibility for the contamination at the Site; the funds paid by the Settling Defendants for DHEC's response costs; funding of prior response costs at the Site and the time value of such funds; the risks and costs of protracted litigation; and equitable factors.

P. DHEC and the Settling Defendants recognize, and the Court by entering this Settlement Agreement finds, that this Settlement Agreement has been negotiated by the parties hereto in good faith; that implementation of this Settlement Agreement will expedite the cleanup of the Site, avoid prolonged and complicated litigation between the Settling Parties and resolve the existing claims among the Settling Parties; and that this Settlement Agreement is fair, reasonable, and in the public interest, and is expected to address the objective of protecting public health, welfare and the environment at the Site.

### II. JURISDICTION

The Court has jurisdiction over the subject matter of this action and over the signatories of this Settlement Agreement pursuant to CERCLA 107 and 113 (b), 42 U.S.C. §§9607 and 9613(b), and pursuant to 28 U.S.C. §§ 1331 and 1345. DHEC and the Settling Defendants shall not challenge the Court's jurisdiction to enter, construe and enforce this Settlement Agreement.

#### III. PARTIES

This Settlement Agreement shall apply to and be binding upon DHEC and the Settling Defendants, their successors, agents, and assigns. Any change in ownership or corporate status of a Settling Party including, but not limited to, any transfer of assets or real or personal property, shall in no way alter such Settling Party's responsibilities under the Settlement Agreement. Notice of this Settlement Agreement and the obligations contained herein shall be provided to any successors, agents and assigns. The terms of this Settlement Agreement are mutually enforceable by all signatories to this Settlement Agreement.

#### IV. DEFINITIONS

Unless otherwise expressly provided herein, terms used in this Settlement Agreement which are defined in CERCLA or in the National Contingency Plan ("NCP"), 40 C.F.R. Part 300, shall have the meaning assigned to them under such statute or regulation as of the date this Settlement Agreement is entered

by the Court. The following terms used in this Settlement Agreement are defined as follows:

A. The "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 40C.F.R. Part 300, and any amendments thereto.

B. "Settlement Agreement" shall refer to this document and shall include all exhibits incorporated herein, as well as any properly executed amendments or modifications to this document. All such exhibits incorporated herein, and any properly executed amendments and modifications hereto, shall be incorporated into and become an enforceable part of this Settlement Agreement.

C. The "Site" shall mean the former fertilizer and micronutrient manufacturing facility located near the community of Ravenel, South Carolina, at 7747 Highway 17 South, Jericho, South Carolina, and surrounding areas impacted by migration of hazardous substances from the fertilizer and micronutrient manufacturing facility, including three disposal areas located nearby along TNT Road ("Satellite Areas"); the transportation corridor between the property located at 7747 Highway 17 South and the Satellite Areas; and the Caw Caw Swamp (all as shown on the Site map attached hereto as Exhibit 1).

# V. OBLIGATIONS OF DHEC AND THE SETTLING DEFENDANTS

A. RSG shall pay up to \$7 million to DHEC, pursuant to an internal RSG allocation, to fund DHEC's Planned Future Response Activities ("PFRA") at the Site. DHEC shall deposit such funds into an identified interest-bearing account and shall use and account for such funds to implement the response activities at the Site.

- 1. Planned Future Response Activities shall include and be subject to the following:
  - a. Construction, operation and maintenance of the interim groundwater pump-and-treat system that has been implemented at the Site and related



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groundwater monitoring, as more fully described in Exhibit 2. (Those activities described herein which have already been performed are included as PFRA and costs for such are included in the \$7 million of funding described in this Paragraph V.A.).

- b. Removal and disposal of soils at Caw-Caw Swamp and related monitoring, in accordance with the Remedial Action Record of Decision ("ROD"), Summary of Remedial Alternative Selection, Caw-Caw Swamp, Operable Unit II, dated November 2000 (Caw-Caw Swamp ROD); specifically Section 9.0 and the Declaration for the Remedial Action ROD dated December 6, 2000. Section 9.0 of the Caw-Caw Swamp ROD and the Declaration of December 6, 2000, are attached hereto as Exhibit 3.
  - Implementation of *in situ* groundwater pilot studies more fully described in Exhibit 4; and further implementation of *in situ* treatment, including operation, maintenance and related monitoring, if shown to be an effective remedy for groundwater contamination at the Site when evaluated according to the criteria set forth in Exhibit 5. (Those activities described herein which have already been performed are included as PFRA and costs for such are included in funding). If implementation of *in situ* treatment is shown to be effective when evaluated as described herein, DHEC will take appropriate action to amend or modify the Remedial Action ROD to provide for use of the *in situ* remedy accordingly.
  - d. Continued operation and maintenance of the land vault and cap as set forth

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in the Operations and Maintenance Manual dated February 1999 (Project No. 200939.10960), consistent with the projected costs for such activity as described in Exhibit 6.

- The remediation goals of the PFRA shall be those set forth in Section 8.1 of the Remedial Action ROD (OU-1), Summary of Remedial Alternative Selection (Groundwater ROD), dated April 1999 (copy attached as Exhibit 7), or such revised goals as may become appropriate based upon future developments or reclassifications of the groundwater at the Site, if any. Achievement and maintenance of remediation goals will be determined using the existing site monitoring system as designated points of compliance and based on statistically verified monitoring results in accordance with applicable EPA guidance documents as more fully described in Exhibit 8 attached hereto. It is understood that substitution of monitoring wells may be required to accommodate construction activities at the Site and/or to maintain the objectives of the present monitoring system. Any substitution of monitoring wells will be in accordance with the provisions of Paragraph V.A.1.g. PFRA shall include appropriate monitoring and review of the PFRA remediation as described in Section 121(c) of CERCLA, related regulations and the NCP.
- f. Costs for PFRA shall include direct and indirect costs, including costs of oversight and administration.
- g. To facilitate the continued disclosure of relevant information to the Settling

Defendants, DHEC, or its contractors and consultants, shall:

- i. forward copies of Work plans, proposals, draft Work plans which relate to or describe PRFA and Additional Work, and all progress reports, interim data reports and underlying data describing or evaluating the performance and results of the remedial actions to the designated RSG member promptly after receipt or development thereof by DHEC;
- ii. allow the Settling Defendants to submit comments to DHEC in connection with such work plans or reports, provided that, under normal circumstances, the Settling Defendants should expect that DHEC will take any action required on its part in response to such submitted work plans or reports within twenty-one (21) days of the date such documents were transmitted by the contractors or consultants and, therefore, the Settling Defendants should expect to submit to DHEC any comments they wish to have considered prior to the expiration of such twenty-one (21) day period;
- by teleconference with the Settling Defendants to discuss the status, results, future plans and projections for the PFRA and Additional Work upon the request of the Settling Defendants, and provided the Settling Defendants make suitable arrangements for such meeting or teleconference;

- iv. Any comments submitted by the Settling Defendants pursuant to paragraph V.A.1.g.ii. above shall be submitted expeditiously and in a manner to avoid any undue delay in implementation of DHEC's necessary actions. Such comments submitted by the Settling Defendants shall be reviewed and considered by DHEC and made part of the Administrative File/Record for this matter; and any dispute shall be preserved between the Settling Parties.
- 2. The first \$3.5 million of the \$7 million referenced in Paragraph V.A. herein shall be paid within 30 days of entry of the Settlement Agreement by the United States District Court. If entry of this Settlement Agreement is ultimately reversed as a result of an appeal, the amounts paid hereunder by the Settling Defendants shall be refunded and this obligation for DHEC to refund such amounts shall survive and continue despite any other provision herein. The liability for this \$3.5 million is joint and several as to each member of RSG.
- 3. The remaining \$3.5 million shall be paid by Kerr-McGee, Lucent and CP Chemicals beginning 12 months after the date of the initial payment and continuing thereafter on a quarterly basis through cash calls based on reasonably estimated response costs and related expenses to be incurred during the next quarter in connection with the Planned Future Response Activity. The liability for payment of the remaining \$3.5 million described herein is joint and several as to Kerr-McGee, Lucent and CP Chemicals.
- 4. DHEC shall send Kerr-McGee, Lucent and CP Chemicals a notice requiring

payment of reasonably estimated response costs and related expenses 45 days prior to the beginning of each quarter for which a payment is due. Payment shall be due within 15 days after the beginning of the quarter. If payment is not received on the thirtieth day after the beginning of the quarter, DHEC shall provide Kerr-McGee, Lucent and CP Chemicals with written notice that the required payment has not been received and interest shall accrue on the unpaid amount at the rate prescribed under CERCLA. If payment is not received on the 60th day after the beginning of the quarter, the remaining amount of the \$3.5 million shall become immediately due and payable upon further notice from DHEC to Kerr-McGee, Lucent and CP Chemicals.

- The estimated response costs and related expense projections, and the actual response costs and related expenses incurred shall be subject to requirements for reasonable documentation to be made available by DHEC upon request by any of the Settling Defendants and to be subject to review and challenge by these parties for reasonableness and recoverability under applicable law and the NCP. Such review and challenge shall not delay the making of the quarterly payments but the rights to such review and challenge shall be preserved.
- B. In the manner set forth hereinafter, Kerr-McGee, Lucent and CP Chemicals shall provide financial assurance, up to an additional \$7 million of contingency funding for any reasonable Additional Costs for Planned Future Response Activities and any "Additional Work."
  - "Additional Work" shall mean response actions or activities other than the Planned
     Future Response Activity undertaken by DHEC at the Site to carry out the remedy

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and achieve and maintain the remedial goals of the Groundwater ROD (as may be modified based upon future developments or reclassifications of the groundwater at the Site, if any), in accordance with applicable law, regulations and the NCP. DHEC shall not pursue Additional Work if: (a) the Planned Future Response Activities have achieved remedial goals at the designated points of compliance as set forth in Paragraph V.A.1.e; or (b) the attainment of the remedial goals is technically impracticable. Additional Work shall include appropriate monitoring and review of Additional Work remediation as required by Section 121(c) of CERCLA, related regulations and the NCP.

- 2. "Additional Costs for PFRA" shall mean response costs, beyond \$7 million, incurred in reasonably and properly implementing the PFRA.
- 3. Kerr-McGee, Lucent and CP Chemicals agree not to dispute or contest their liability for Additional Costs for Planned Future Response Activities. However, they each reserve the right to review and challenge such additional costs as set forth in Paragraph V.A.5.
- 4. Kerr-McGee, Lucent and CP Chemicals each reserve the right to dispute, contest, and litigate the appropriateness and cost-effectiveness of any Additional Work, and the reasonableness and recoverability of all costs in accordance with applicable law, regulations, and the NCP. Costs shall include direct and indirect costs, including costs of oversight and administration.
- While Kerr-McGee reserves its right to dispute, contest and litigate the issue of its liability for such Additional Work, Lucent and CP Chemicals agree not to dispute

or contest their liability as responsible parties for Additional Work, but reserve their other rights as described in paragraphs V.B.3. and 4. above.

- 6. All Financial Assurance obligations shall terminate upon the Planned Future Response Activity having achieved remedial goals at designated points of compliance as set forth in Paragraph V.A.1.e.
- C. The Financial Assurance for the \$7 million in contingency funding shall be provided as follows:
  - Kerr-McGee shall provide a corporate guarantee in the amount of \$3.5 million,
     based upon satisfaction of a financial test, as defined under the RCRA regulations.
  - 2. Lucent shall provide either an irrevocable letter of credit, surety bond or other equivalent instrument acceptable to DHEC, in the amount of \$2 million, from an issuer that is reasonably acceptable to DHEC and Kerr-McGee and in a form and substance that is satisfactory to DHEC and Kerr-McGee. Such letter of credit, surety bond, or other equivalent instrument acceptable to DHEC shall be obtained within 60 days of the approval and entry of this Consent Decree. DHEC shall be the primary beneficiary of the letter of credit, surety bond, or other equivalent instrument acceptable to DHEC. Kerr-McGee shall be a secondary beneficiary of the letter of credit, surety bond, or other equivalent instrument acceptable to DHEC.
  - 3. CP Chemicals shall provide either an irrevocable letter of credit, a surety bond, or other equivalent instrument acceptable to DHEC in the amount of \$1 million, from an issuer that is reasonably acceptable to DHEC and Kerr-McGee and in a form and substance that is satisfactory to DHEC and Kerr-McGee. Such letter of credit,

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surety bond, or other equivalent instrument acceptable to DHEC shall be obtained within 60 days of the approval and entry of this Consent Decree. DHEC shall be the primary beneficiary of the letter of credit, surety bond, or other equivalent instrument acceptable to DHEC. Kerr-McGee shall be a secondary beneficiary of the letter of credit, surety bond, or other equivalent instrument acceptable to DHEC.

- 4. The letter of credit, surety bond, or other equivalent instrument acceptable to DHEC from Lucent and CP Chemicals shall provide that the issuer will provide 90 days advance written notice of the non-renewal or termination of the letter of credit, surety bond, or other equivalent instrument acceptable to DHEC and Kerr-McGee. Lucent and/or CP Chemicals will obtain a replacement letter of credit, surety bond, or other equivalent instrument acceptable to DHEC from an issuer reasonably satisfactory to DHEC and Kerr-McGee and in form and substance satisfactory to DHEC and Kerr-McGee within 60 days from the date such notice is issued. If satisfactory evidence of such replacement letter of credit, surety bond, or other equivalent instrument acceptable to DHEC is not provided to DHEC and Kerr-McGee within said 60 days, DHEC may present the letter of credit, surety bond, or other equivalent instrument acceptable to DHEC to the issuer for payment prior to termination.
- 5. If payment for additional costs for PFRA or Additional Work is not made for amounts claimed by DHEC or, if DHEC's claim is contested pursuant to paragraphs V.B.3.4. and 5. above, for amounts required to be paid by order of this Court, DHEC may present the letter of credit, surety bond, or other equivalent instrument

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acceptable to DHEC for immediate payment, and so notify Kerr-McGee, Lucent and CP Chemicals.

- 6. All monies received by DHEC from the issuers of the letter of credit, surety bond, or other equivalent instrument acceptable to DHEC, whether as a result of non-renewal, termination or failure to make payment, shall be credited against the obligations of Kerr-McGee, Lucent and CP Chemicals under the Settlement Agreement for additional costs for PFRA and/or Additional Work.
- 7. If Lucent and/or CP Chemicals fail to make any payment for additional costs for PFRA or Additional Work required by the separate agreement among Lucent, CP Chemicals, Kerr-McGee and other parties concerning allocation and funding of this Settlement Agreement and if Kerr-McGee has made full payment for the work in question, Kerr-McGee may present the letter of credit, surety bond, or other equivalent instrument acceptable to DHEC for immediate payment, and so notify DHEC, Lucent and CP Chemicals. Such amounts received by Kerr-McGee shall be credited as provided in the separate agreement among the parties.
- 8. If DHEC fails to take all reasonable steps to enforce against Lucent and CP Chemicals the financial assurance requirements of Paragraph V.C.2. and 3., or if DHEC fails to timely and properly present the letter of credit, surety bond, or other equivalent instrument acceptable to DHEC for payment as provided above, whether as a result of non-renewal, termination or failure to make payment, the aggregate limit on Kerr-McGee's liability for additional costs for PFRA or Additional Work shall be \$3.5 million. Any amounts actually received by Kerr-McGee by accessing

the letter of credit, surety bond or other equivalent instrument acceptable to DHEC as provided in Paragraph V.C.7. above, shall not be counted toward the \$3.5 million aggregate limit on Kerr-McGee's liability for additional costs for PFRA or Additional Work.

- 9. Kerr-McGee, Lucent and CP Chemicals agree that up to the first \$500,000 of the RSG share of net recoveries from Stoller insurance claims shall remain in the escrow account for the same duration as the other financial assurance vehicles referred to in Paragraphs V.B.5. & 6 above shall remain effective; provided, however, that Kerr-McGee, Lucent and CP Chemicals may, at their option, obtain an earlier release of these insurance proceeds from the escrow account if any one of them, or combination of them, provides a substitute collateral in the form of a \$500,000 letter of credit, surety bond, or other equivalent instrument acceptable to DHEC.
- 10. On an annual basis, Lucent and/or CP Chemicals may each separately adjust the dollar amount of their respective financial assurance by subtracting the amounts they have each paid for response costs in excess of the \$7 million for PFRA as described herein, such amounts paid by each to be certified to and agreed upon by DHEC in writing.
- D. It is agreed that the first \$3.5 million of any costs over the \$7 million for PFRA as described herein (whether for Additional Costs for Planned Future Response Activities or for Additional Work) shall apply against the amounts of financial assurance being provided in Paragraph V.C.2., 3., & 4. It is further agreed that the aggregate limit on Lucent's liability for Additional Costs for PFRA or Additional Work

herein shall be \$2.25 million, except as provided in Paragraph V.F., and the aggregate limit on CP Chemical's liability for Additional Costs for PFRA or Additional Work herein shall be \$1.25 million, except as provided in Paragraph V.F.; provided, however, each of these aggregate limits on liability is contingent upon, and shall only take effect following, the provision by Lucent and CP Chemicals, respectively, of either an irrevocable letter of credit, surety bond, or other equivalent instrument acceptable to DHEC in the amounts set forth in Paragraph V.C.2. & 3.

- E. To the extent the individual financial assurance mechanisms required above from Lucent and CP Chemicals remain in place after DHEC has collected up to the \$3.5 million referred to in the preceding paragraph, said financial assurance mechanisms shall inure to the benefit of Kerr-McGee (as provided in the internal agreements between Kerr-McGee, Lucent and CP Chemicals).
- F. Except as provided above, members of SJWG and RSG shall not be subject to any claim or demand by DHEC for the funding of the \$7 million described in Paragraph V.A. above, or any part of the additional \$7 million described in Paragraph V.B. above. However, if the Planned Future Response Activities and any Additional Work result in costs which exceed a total of \$14 million (not counting amounts previously expended in connection with soils cleanup, groundwater study, vault construction, etc.), then all members of RSG and SJWG shall be subject to the possibility of further claims for any response costs above the \$14 million for which funding or financial assurance is provided herein, while reserving their defenses to such claims.
- G. In the event any other settlement which DHEC previously entered into with another PRP (not among these Settling Defendants), for which the funds are in a trust account maintained by DHEC counsel, is approved in the future by the Court, then DHEC shall authorize and direct that counsel pay over such approved settlement funds: 50% to the designated SJWG account and 50% to the designated RSG account.

Such payment to SJWG and RSG shall be made not later than 30 days after DHEC has received the payment of the \$3.5 million described in Paragraph V.A.2. or 30 days after confirmation or approval of the settlement with the other PRP whose settlement funds are in the trust account, whichever date is later. Provided, however, if the entry of this Settlement Agreement is ultimately reversed as a result of an appeal, the amounts paid hereunder by DHEC shall be refunded and this obligation for the Settling Defendants to refund such amounts shall survive and continue despite any other provision herein.

It is agreed that DHEC shall not dismiss its pending cost recovery actions against parties H. other than the Settling Defendants until there is an approved settlement with respect to such other parties, and DHEC shall cooperate with SJWG and RSG to pursue recovery from any other Potentially Responsible Parties not participating in this settlement. DHEC agrees to assign to SJWG and RSG any recoveries and rights to proceeds in connection with claims against these other, non-settling PRPs. The participating members of SJWG shall be obligated to fund 50% of the costs associated with pursuing recoveries from these other Potentially Responsible Parties and shall be entitled to 50% of any recoveries (either by settlement or judgment and collection) from these other Potentially Responsible Parties, and the participating members of the RSG shall be obligated to fund the other 50% of such costs and shall be entitled to receive the other 50% of such recoveries. However, any amounts due to the participating members of the RSG pursuant to DHEC's assignment hereunder shall be paid into an escrow account and shall be used to fund the remaining obligations of the RSG members hereunder for payment of PFRA or Additional Work subject to the conditions and limitations otherwise set forth herein. Moreover, in the event that any participating member of the RSG files a petition under Title 11 of the United States Code, the parties agree that all funds paid into the escrow account, from whatever source derived, or any interest they may have in connection with the funds, shall not constitute property of the estate as defined in 11 U.S.C. § 541. If the entry of this

Settlement Agreement is ultimately reversed as a result of an appeal, the assignment by DHEC hereunder shall be deemed null and void and any amounts received by the Settling Defendants pursuant thereto shall be refunded to DHEC, and this obligation for the Settling Defendants to refund such amounts shall survive and continue despite any other provision herein.

DHEC assigns to SJWG and RSG any recovery and rights to proceeds in connection with the I. Stoller insurance claims, as asserted in Case No. 2:00-1582-12, pending in the United States District Court for the District of South Carolina, bearing the caption South Carolina Department of Health and Environmental Control, et al v. Commerce and Industry Ins. Co., et al. Two-thirds of the net recovery or rights to such proceeds shall belong to SJWG and one-third shall belong to RSG; however, the assignment to RSG described herein is subject to RSG's obligation to escrow up to the first \$500,000 of its share of any such net recovery or right to proceeds as part of the financial assurance mechanisms described herein. The assignments are further subject to the qualification that any such net recovery or right to proceeds decided by the court to be uniquely based upon DHEC's claim rights shall also be placed into said escrow account subject to the requirements and durations pertaining to the financial assurance mechanisms set forth above. The monies paid into the escrow account based upon DHEC's assignment to the RSG hereunder (to the extent such monies exceed \$500,000) may be used by the RSG members for payment of PFRA and Additional Work subject to the conditions and limitations otherwise set forth herein. Moreover, in the event that any party to this Settlement Agreement files a petition under Title 11 of the United States Code, the parties agree that all funds paid into the escrow account, from whatever source derived, or any interest they may have in connection with the funds, shall not constitute property of the estate as defined in 11 U.S.C. § 541. If the entry of this Settlement Agreement is ultimately reversed as a result of an appeal, the assignment by DHEC hereunder shall be deemed null and void and any amounts received by the Settling Defendants

pursuant thereto shall be refunded to DHEC, and this obligation for the Settling Defendants to refund such amounts shall survive and continue despite any other provision herein. It is agreed that SJWG and RSG shall continue to pursue and prosecute the claims against the Stoller insurers pursuant to the separate agreements between them, with the participating members of the SJWG obligated to fund two-thirds of the costs associated with pursuing recoveries from the Stoller insurers and the participating members of the RSG obligated to fund the other one-third of the costs associated with pursuing recoveries from the Stoller insurers.

- J. SJWG and DHEC agree to waive, and covenant not to sue one another on, any right or claim arising out of the ACO and Prior Settlement Agreement, which are herein declared void and superseded upon final entry of this Settlement Agreement and exhaustion of any appeals therefrom. The members of SJWG agree that they shall not seek reimbursement from DHEC of any amounts provided by SJWG to DHEC as provisional funding of DHEC's response costs or any other response cost expenditures by SJWG. SJWG shall not be obligated to pay any additional costs under this settlement except as set forth in Paragraph V.F., and in connection with its obligations under its separate agreements with RSG to prosecute further actions against non-settling PRPs and the Stoller insurers.
- K. The Settling Parties agree, and by entering this Settlement Agreement as its Order this Court finds, that the Settling Defendants and their past, present and future shareholders, owners, officers, directors, employees, assigns, insurers, partners, joint venturers, subsidiaries, parent corporations, affiliates, divisions, agents, attorneys, divested business units, acquired business units, successors and predecessors shall not be liable to each other or any other person or entity for contribution claims of whatever kind or nature relating to the Site, and are entitled, as of the effective date of this Consent Decree, to protection from contribution actions or claims as provided by CERCLA Section 113(f)(2), 42 U.S.C. § 9613(f)(2), by HWMA Section 44-

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56-10, et seq., S.C. CODE ANN. § 44-56-10, et seq., and by any other applicable federal, state or common law, for all past and future response activities and all past and future costs, including, but not limited to costs of response related to the Site incurred prior to the date of this Settlement Agreement and for the costs, up to \$14 million described herein in connection with PFRA and Additional Work. However, notwithstanding the foregoing, it is understood and agreed that the Settling Defendants reserve contribution rights against each other in connection with any future response costs claimed by the United States and with respect to any amounts in excess of the \$14 million described and provided for herein in connection with the PFRA and Additional Work.

L. DHEC and the Settling Defendants agree to take appropriate action to execute releases, orders of dismissal, or other necessary documents to effect the Settlement Agreement.

# VI. COVENANT NOT TO SUE AND RELEASE BY DHEC

- A. Except as specifically provided in Section V. or below, DHEC covenants not to sue and hereby releases the Settling Defendants and their past, present, and future shareholders, owners, officers, directors, employees, assigns, insurers, partners, joint venturers, subsidiaries, parent corporations, affiliates, divisions, agents, attorneys, divested business units, acquired business units, successors and predecessors from the following:
  - 1. Each and every claim, cause of action, matter, fact, or issue, of whatever kind or nature, whether known or unknown, whether based on statutory law, common law, or any other legal basis, relating to response actions at the Site, which DHEC now has or may hereafter have.
  - Any and all liability, costs, losses, or damages which have been or hereafter may be sustained or incurred by DHEC relating to response actions at the Site.

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- B. The Covenant Not To Sue and Release described in Paragraph VI.A. above shall take effect as to each Settling Defendant upon entry of this Settlement Agreement, subject to and conditioned upon receipt by DHEC of all payments and financial assurances herein required of that Settling Defendant.
- C. Nothing in this Settlement Agreement, including this Covenant Not to Sue and Release shall preclude the initiation by DHEC of:
  - proceedings to enforce compliance with this Settlement Agreement including reimbursement of costs to enforce such compliance from such party or parties which are the object of such enforcement proceedings;
  - claims based on liability for damage to natural resources as defined in CERCLA;
  - 3. claims based on criminal liability;
  - 4. any action or claim by DHEC against the Settling Defendants for violation of state or federal law or other conduct giving rise to an action or claim occurring after entry of this Settlement Agreement; and
  - sany action or claim by DHEC against the Settling Defendants for additional response actions or costs related to the Site if conditions at the Site, previously unknown to DHEC, are discovered, or information previously unknown to DHEC is received, in whole or in part and these previously unknown conditions or this information together with other information indicate that the remedial action is not protective of the human health and the environment in accordance with Section 122(f)(6) of CERCLA (however, any action or claim by DHEC hereunder shall be subject to the same rights, reservations, and defenses of the Settling Defendants described herein with respect to Additional Work).

- D. Nothing in this Settlement Agreement shall constitute or be construed as a release, contribution protection or a covenant not to sue regarding any claim or cause of action against any entity other than Settling Defendants and their past, present, and future shareholders, owners, officers, directors, employees, assigns, insurers, partners, joint venturers, subsidiaries, parent corporations, affiliates, divisions, agents, attorneys, divested business units, acquired business units, successors and predecessors.
- E. Nothing in this Settlement Agreement shall constitute or be construed as a release, contribution protection, or covenant not to sue any past, present or future shareholder, owner, officer, director employee, assign, insurer, partner, joint venturer, subsidiary, parent corporation, affiliate, division, agent, attorney, divested business unit, acquired business unit, successor or predecessor of a Settling Defendant if such entity has been identified as a potentially responsible party or liable party with regard to the Site unless such has been or may be identified as a potentially responsible party or liable party solely by virtue of such entity's status as a shareholder or owner, officer, director employee, assign, insurer, partner, joint venturer, subsidiary, parent corporation, affiliate, division, agent, attorney, divested business unit, acquired business unit, successor or predecessor of a Settling Defendant.
- F. Nothing in this Settlement Agreement shall constitute or be construed as a release or a covenant not to sue regarding any claim or cause of action that the United States of America or any of its agencies or departments have or may hereafter have.
- G. Nothing in this Settlement Agreement shall be deemed to limit the response or removal authority of the State under CERCLA and the SCHWMA.

## VII. COVENANT NOT TO SUE AND RELEASE BY SETTLING DEFENDANTS

The Settling Defendants hereby covenant not to sue and agree not to assert any claims or causes of action against DHEC or the State of South Carolina with respect to and including, but not limited to:

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- A. Any direct or indirect claim for reimbursement from the Hazardous Waste Contingency Fund established pursuant to S.C. Code § 44-56-160.
- B. Any claims against the State, including any department, agency or instrumentality of the State under CERCLA Sections 107 or 113 related to the Site.
- C. Any claims arising out of response activities at the Site, including claims based on DHEC's response actions and activities at the Site.
- D. Nothing in this Settlement Agreement, including this Covenant Not to Sue and Release shall preclude the Settling Defendants from asserting, initiating or maintaining claims or defenses against DHEC or the State of South Carolina with respect to:
  - liability for damage to natural resources as defined in CERCLA;
  - 2. any violation of state or federal law or other conduct giving rise to an action or claim occurring after entry of this Settlement Agreement;
  - any claim or cause of action that the United States of America or any of its agencies
     or departments have or may hereafter have; and
  - any purported response action or costs beyond the \$14 million provided for and described herein with respect to the PFRA or Additional Work relating to the Site.

### VIII. NOTIFICATION AND PAYMENT

When notification to or communication with DHEC or the Settling Defendants is required by the terms of this Settlement Agreement, it shall be in writing, postage prepaid, and sent by certified mail, return receipt requested, hand delivered, or by an overnight delivery service, and addressed as follows:

As to DHEC:

J. Keith Lindler, Director

AZT Comel.

> Site Assessment and Remediation Division South Carolina Department of Health & Environmental Control 2600 Bull Street Columbia, South Carolina 29201

> Jacquelyn S. Dickman, Esquire
> Office of General Counsel
> South Carolina Department of Health & Environmental Control
> 2600 Bull Street
> Columbia, South Carolina 29201

### As to SJWG:

Van H. Barnes, Jr. Authorized Agent 5100 West Lemon Street, Suite 312 Tampa, FL 33609

P.O. Box 30328 Tampa, Florida 33631-3328

and

Joseph A. Rhodes, Jr., Esquire Haynsworth Baldwin Johnson & Greaves LLC 918 S. Pleasantburg Drive Greenville, SC 29607-2424

P. O. Box 10888 Greenville, SC 29603-0888

#### As to RSG:

James Lynn Werner, Esquire Ellzey & Brooks, LLC Post Office Box 11612 Columbia, SC 29211

# As to Kerr-McGee Chemical Corporation:

Theodore L. Garrett, Esquire Covington & Burling 1201 Pennsylvania Avenue, NW Washington, DC 20004

As to Lucent Technologies Inc.:

> Carl H. Helmstetter, Esquire Spencer Fane Britt and Browne LLP 1000 Walnut, Suite 1400 Kansas City, MO 64106

and

Ralph McMurry, Esquire Hill, Betts & Nash LLP Suite 327 One Riverfront Plaza Newark, NJ 07102-5401

#### As to CP Chemicals:

Timothy W. Bouch, Esquire Leath, Bouch & Crawford, LLP 134 Meeting Street Post Office Box 59 Charleston, South Carolina 29402 (843) 937-8811

and

Stephen Cohen, Esquire Vice President and General Counsel Phibrotech Inc. One Parker Place Fort Lee, New Jersey 07024 (201) 944-6020

Payment shall be made to DHEC by certified or cashiers check and sent to:

Rebecca Dotterer
Site Assessment and Remediation Division
South Carolina Department of Health & Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

DHEC or the Settling Defendants may unilaterally change the person designated to receive notice on their behalf by providing written notice of the change to the other Parties no sooner than ten (10) days prior



to the time that the change is to take effect.

#### IX. PUBLIC COMMENT

Consistent with CERCLA Section 122(d), 42 U.S.C. Section 9622 (d), and SCHWMA, this Settlement Agreement shall be subject to a thirty (30) day public comment period.

# X. RETENTION OF JURISDICTION

The Court specifically retains jurisdiction over both the subject matter of and the Parties to this action for the duration of time and activities covered by this Settlement Agreement, including any future disputes, claims, and defenses contemplated herein with respect to such matters as the appropriateness and cost-effectiveness of any proposed response actions, and the reasonableness and recoverability of any alleged or proposed response costs. The Court shall retain this jurisdiction for the purpose of issuing such further orders or directions as may be necessary or appropriate to construe, implement or enforce the terms of this Settlement Agreement.

# XI. IN THE EVENT OF FAILURE TO OBTAIN COURT APPROVAL

If the United States District Court does not approve this Settlement Agreement or an appellate court reverses the Court's approval of this Settlement Agreement, it shall become null and void, and the Parties shall be relieved of all obligations, releases, or assignments made under this Settlement Agreement, except for their respective obligations to refund amounts paid hereunder as set forth elsewhere herein.

#### XII. SECTION HEADINGS

The section headings set forth in this Settlement Agreement are included for convenience of reference only and shall be disregarded in the construction and interpretation of any of the provisions of this Agreement.

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#### XIII. COUNTERPARTS

This Settlement Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which shall constitute one instrument.

#### XIV. FINAL JUDGMENT

Pursuant to Rule 54 (b) of the Federal Rules of Civil Procedure, the Court finds that there is no just reason for delay and directs that this Settlement Agreement be entered forthwith as a final judgment with respect to all claims and causes of action asserted by DHEC against the Settling Defendants and all claims and causes of action asserted by the Settling Defendants against each other.

AND IT IS SO ORDERED, this day of

The Honorable C. Weston Houck, Chief Judge

**United States District Court** 

DATE: MARCH 8, 2002

THE SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

C. Earl Hunter, Commissioner

Jacquelyn S. Diekman, Deputy General Counsel

Claron A. Robertson, III, Esq. Robertson & Hollingsworth First Union Center, Suite 300

177 Meeting Street Charleston, SC 29401

DATE: March 8, 2002

ATLANTIC STEEL INDUSTRIES, INC.

BY: JESSE J. WEBB

ITS: President & CEO

DATE: FEB. 27, 2002

AMERISTEEL CORPORATION (f/k/a FLORIDA STEEL CORPORATION)

: JAMES F. OLIVER

ITS: V.P. STRATEGIC DEVELOPMENT

DATE:_	ATE: 3/6/02		GEORGETOWN STEEL CORPORATION	
_				
			BY: Robert & Hacker	
	, See		TENNIA Distant I should Mar Os	1

DATE: 2-26-02

I. SCHUMANN & COMPANY

BY: Maschumane

ITS: PRESOCED

DATE:	MEHERRIN AGRICULTURAL & CHEMICAL COMPANY
	Wolk Bonne V
	BY: G. Dallas Barnes, Jr.
	ITS: President

DATE:	3/8/002	

MUELLER BRASS CO.

VICE PRESIDENT- LEML; SECRETARY

PAGE 02 1004

Settiment Agreement Sector Jerisho Chemical Site Page 39

DATE:\_\_\_

NATIONAL METALS, INC.

Mayne, V. F.

**NUCOR CORPORATION** 

EXECUTIVE VICE PRESIDENT 2/28/02

DATE: 2/27/02

NUCOR-YAMATO STEEL COMPANY

BY: R. J. STRATMAN

ITS: V.P. [G.M.

Date: _	February 28, 2002	<ul> <li>SMI-Owens Steel Company</li> <li>d/b/a SMI Steel - South Carolina</li> </ul>
		Stanley A. Rabin
		By: Stanley A. Rabin

Its: Vice President

DATE: February 27, 2002

ROANOKE ELECTRIC STEEL CORPORATION

BY: Thomas J. Crawford

ITS: Vice President Administration and Secretary

DATE: Q6 February 2002

THE FEDERAL METALS COMPANY

BY: DORMAN

ITS:

DATE:	W	arch	٦.	2005	<u>)                                    </u>
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THE	STACKE	OLE	CORP.

BY: Robyn Hunter
ITS: Vice President

DATE:	March 8, 2002	WATERBURY ROLLING MILLS, INC.	
		Donna S Moore	
		BY: Donna S. Moore	
		ITS:Secretary/Treasurer	

DATE:	2/27/02	KERR-McGEE CHEMICAL CORPORATION
		Sungel Christianson
		BY: Garge D. Christianson
	7782-102 2/27/02	
	2/27/02	

DATE: 2/25/2002

LUCENT TECHNOLOGIES INC.

(as successor in interest to and on behalf of AT&T Corporation, AT&T Nassau Metals Corporation, and Nassau Recycling Corporation, each of which shall be deemed a corporate predecessor of Lucent for purposes of this Settlement Agreement)

Stephen & Oberkron

BY: Stephen L. Oberkron

ITS: Project Manager Lixent Technologies

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DAIR:	February	40.	2002
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GAST	ON COPPER RECYCLING CORPORATION
BY:	John C. Stephens
/	Secretary
£	

DATE: 2/2	28/	02
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SOUTHWIRE COMPANY

Stuart W. Thorn

BY:

ITS: Chief Executive Officer

DATE:	February	28,	2002
DAIL.			

CLARIANT CORPORATION

BY: Christopher S. Barnard

ITS: Senior Vice President

DATE: FZ61 UOM	28,2002
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KOCH SULFUR PRODUCTS COMPANY, LLC

BY: James B. Hannan

ITS: Vice President

DATE: MARCH 7,2007	BLACKMAN-UHLER CHEMICAL COMPANY
•	ROEN:
	BY: Royal L. King
	ITS:

DATE: LLC

KOCH SULFUR PRODUCTS COMPANY,

BY:

ITS:

DATE: **COMPANY**  **BLACKMAN-UHLER CHEMICAL** 

BY:

ITS:

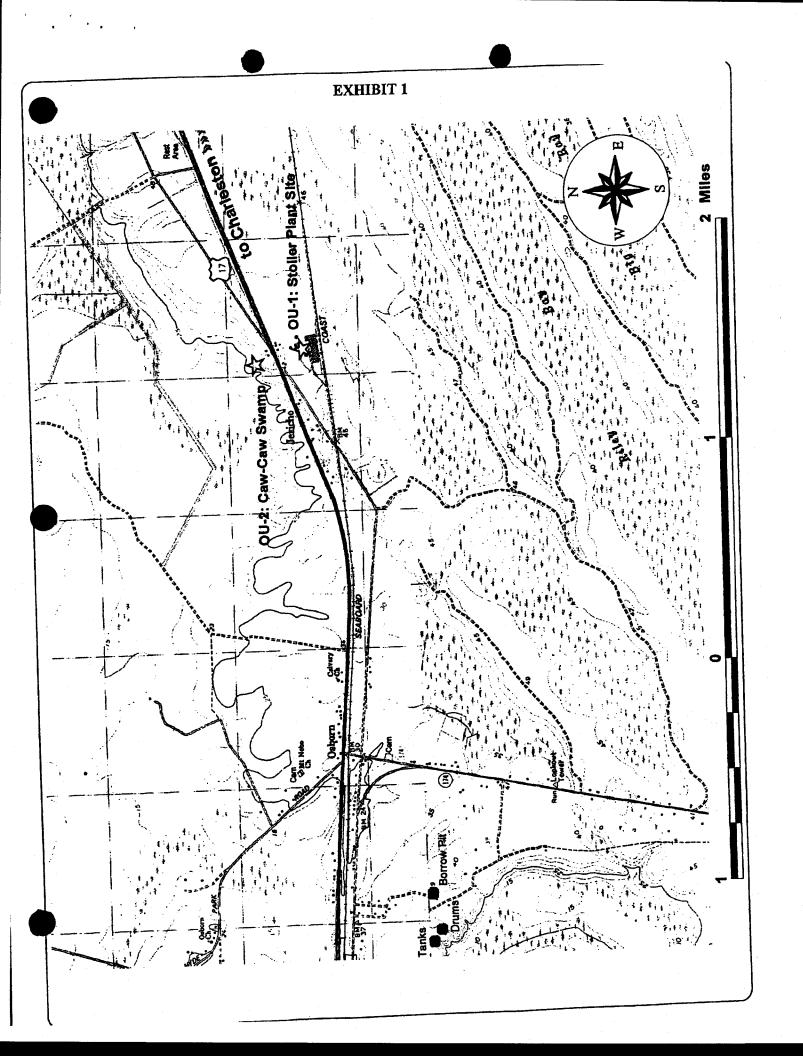
DATE: 3/1/02

STERLING FAUCET, INC.

BY: Michael Shwarter

ITS: A HORNSY

DATE: February 28, 2002	PHIBROTECH, INC. f/k/a CP CHEMICALS, INC.				
	BY: W. D. Glover				
	ITS: President				



## SUMMARY OF INTERIM GROUNDWATER EXTRACTION, TREATMENT, AND INJECTION SYSTEM

- Extraction of approximately 22 GPM or 0.032 MGD of contaminated groundwater
   through two separate extraction trenches with a total length of about 980 feet.
- Treatment of groundwater primarily for metals such as aluminum, cadmium, chromium,
   copper, iron, manganese, nickel, and zinc. This treatment will consist of equalization, pH
   adjustment, chemical addition; precipitation, membrane microfiltration, post pH
   adjustment, flow monitoring and solids dewatering.
- Injection of treated groundwater into three on site injection trenches with a total length of about 1,176 feet.
- Monitoring of both the treated groundwater and the groundwater aquifer.

# REMEDIAL ACTION RECORD OF DECISION SUMMARY OF REMEDIAL ALTERNATIVE SELECTION

**CAW-CAW SWAMP** 

**OPERABLE UNIT II** 

STOLLER CHEMICAL JERICHO SITE

**US HIGHWAY 17** 

JERICHO, CHARLESTON COUNTY, SOUTH CAROLINA

SCD987591815

# SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

BUREAU OF LAND AND WASTE MANAGEMENT

November 2000

by:

Richard A. Haynes, P.E.
Site Project Manager
Site Engineering Section
Division of Site Assessment and Remediation
Bureau of Land and Waste Management

### 8.0 COMMUNITY ACCEPTANCE

A public meeting was held on June 6, 2000 to discuss remedial alternatives and the Department's Proposed Plan for Caw-Caw Swamp, OU-II Stoller Chemical Jericho Site. A comment period, which extended from June 6, 2000 to August 6, 2000 was established for the site. A copy of all written comments received by the Department during the comment period, the Department's response to the comments, and a verbatim transcript of the Proposed Plan Public Meeting are included as Appendix B, the Responsiveness Summary.

### 9.0 SELECTED REMEDIAL ACTION

The Department selects Alternative 4, Off-Site Disposal, as the remedy for Caw-Caw Swamp, OU-II Stoller Chemical Jericho Site. This alternative involves the excavation of approximately 12,900 cubic yards of sediments from 8.0 acres of the eastern study area along with approximately 500 cubic yards of seep soils, dewatering as necessary to satisfy the paint filter test, and subsequent disposal in a Subtitle D landfill. The areas to be excavated are shown in Figure 16. The two upland exclusion areas within the swamp will be excavated as part of the remedial action.

Removal of sediments is based on a sampling location exceeding all three of the triad assessment endpoints. During the Remedial Design, the moderate risk area will be divided into transects. Samples will be taken on these transects for sediment chemistry, toxicity testing, and benthic community analysis. If a sample location exceeds all three criteria established in the triad end points, that location will be added to the area requiring remediation. The area of high-risk would only expand under this scenario and would not by reduced in size.

Sediments would first be excavated from the northern end of the eastern study area, so that excavation equipment would not have to track over clean areas. For purposes of the FS, it is assumed that 600 CY of sediments could be excavated per day. Excavated sediments would be taken to the staging area and evaluated for moisture content. Sediments passing the paint filter test would be stockpiled or loaded directly into haul vehicles. Sediments failing the paint filter test would be windrowed for drying, with cement kiln dust added as necessary to accelerate dewatering and create free space in the staging area. Costs are based on 25 percent of the sediments requiring the addition of 30 percent CKD (w/w) for drying. One long-stick trackhoe

would be used to remove sediments from the Swamp while a standard trackhoe would be used at the staging area to windrow sediments, mix in CKD, and load haul vehicles.

The specific landfill used for disposal would be determined at the time of removal based on compliance with required permits, capacity, ease of access, and cost. Costs are based on disposal at a Subtitle D. Actual quantities and disposal facilities would be determined during Remedial Design.

Once the contaminated sediments are excavated and removed, an equal volume of clean sediments would be hauled in from an off-site source, backfilled to the original grades and elevations. After backfilling with clean sediments, the high-risk area of the Caw-Caw Swamp would be replanted with vegetation similar to those present prior to contamination. Currently the high-risk area is vegetated with cattails and similar types of plants. Adjacent portions of the Caw-Caw Swamp return to more of a wooded ecosystem consisting of trees such as red maple, green ash, red cedar, wax myrtle, and swamp tupelo gum. Similar types of trees will be planted after clean sediments are backfilled. Due to the richness of the soils and the high availability of water in the wetlands, it is anticipated that recovery would begin immediately.

Following excavation, there will be long-term monitoring of surface water to confirm that concentrations are decreasing due to sediment removal and operation of the groundwater remediation system. This monitoring network will be set up in the Remedial Design Phase.

Remedial Goals Options were established in Section 6.4. However, the Department has decided that the best course of action is to use the triad approach to determining areas requiring active remediation. This approach balances the need for remediation versus the existing ecosystem.

### 10.0 REFERENCES

Ankley, G.T., D.M. Di Torro, D.J. Hansen, and W.J. Berry, 1996. Technical Basis And Proposal For Deriving Sediment Quality Criteria For Metals. *Environmental Toxicology and Chemistry* 15(12):2056-2066

Chapman, P.M., 1996. Presentation and Interpretation of Sediment Quality Triad Data. Ecotoxicology 5:327-339.

Evanko, Cynthia R. and David A. Dzombak, October 1997. Remediation of Metals Contaminated Soils and Groundwater, Ground-Water Remediation Technologies Analysis Center (GWRTAC).

Howard, P.H., et al. Handbook of Environmental Degradation Rates, 1991.

### DECLARATION FOR THE REMEDIAL ACTION RECORD OF DECISION

### SITE NAME AND LOCATION

Caw-Caw Swamp
Operable Unit II
Stoller Chemical Jericho Site
U.S. Highway 17
Jericho, Charleston County, South Carolina

### STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected remedial action for Caw-Caw Swamp, Operable Unit II, at the Stoller Chemical Jericho State Superfund site. The South Carolina Department of Health and Environmental Control (the Department) has the authority to implement and enforce the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, P.L. 96-510, as amended (CERCLA), and related regulations pursuant to the South Carolina Hazardous Waste Management Act (SCHWMA), S.C. Code Ann. §44-56-200 (Supp. 1994), and the Pollution Control Act (PCA), S.C. Code Ann. §\$48-1-10 et seq. (Supp. 1994). The SCHWMA and the PCA give the Department the authority to hold hearings, issue orders, and conduct studies and investigations to abate, control, and prevent pollution. This remedy was chosen in accordance with CERCLA, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), 42 U.S.C. §9601 et seq., and to the extent practicable, the National Oil and Hazardous Substances Contingency Plan (NCP), 40 C.F.R. Part 300 et seq. This decision is based on the administrative record file for the Stoller Chemical Jericho Site.

### ASSESSMENT OF THE SITE

Previous assessment results indicate that site-related contaminants are present in soils, surface water, and sediments in Operable Unit II at concentrations that exceed risk based cleanup goals. Releases of hazardous substances from the site, if not addressed by implementing the remedial action selected in this Remedial Action Record of Decision (ROD), may present a substantial endangerment to public health, welfare, or the environment.

### DESCRIPTION OF THE SELECTED REMEDY

This remedial action addresses soil, surface water and sediment contamination in Caw-Caw Swamp, Operable Unit II, Stoller Chemical Jericho Site. The major component of the selected remedy, as presented in the Proposed Plan and June 6, 2000 Public Meeting, is excavation of approximately 12,900 cubic yards of inorganics and pesticide contaminated sediments and 500 cubic yards of inorganics contaminated seep area soils followed by disposal as a solid waste in an off-site Subtitle D Landfill. In addition, long-term monitoring of surface water and sediments in Caw-Caw Swamp will be necessary to insure the effectiveness of the selected remedy. The estimated cost for implementation of the selected remedy is \$2,400,000.

### STATUTORY DETERMINATIONS

This remedial action is protective of human health and the environment, complies to the extent practicable with Federal and State requirements that are legally applicable or relevant and appropriate to the remedial action, and is cost effective

R. Lewis Shaw, P.E.

Deputy Commissioner

Environmental Quality Control

De. 6, 2000

Date

# OVERVIEW OF PILOT STUDY TO EVALUATE THE EFFECTIVENESS OF AN IN-SITU REMEDY FOR OPERABLE UNIT 1

Beginning in June 2001, the Department began a Pilot Study to evaluate the effectiveness of an in-situ remedy to restore the contaminated groundwater in Operable Unit 1. The first phase of the pilot study consisted of a bench-scale study designed to identify which, if any, reagents appeared most likely to restore the contaminated groundwater.

Three reagents were evaluated in the bench-scale study. The three reagents evaluated included chemical fixation using lime/calcium carbonate, chemical fixation using calcium polysulfate, and biological fixation. The results from the bench-scale study were inconclusive for treatment using biological fixation of metals. However, the bench-scale testing indicated that treatment through chemical fixation using lime/calcium carbonate and chemical fixation using calcium polysulfide appeared to yield promising results.

Based on the bench-scale study, the Department has determined that chemical fixation using calcium polysulfide and chemical fixation using lime/calcium carbonate should be evaluated in a field-scale study to evaluate if either reagent can effectively restore the contaminated groundwater at the site. To evaluate the reagents on a field-scale, the Department anticipates introducing both reagents in-situ to the contaminated groundwater via direct injection into the subsurface and application to the subsurface via a trench.

Once the reagents are applied in the field scale study, the effectiveness of the in-situ remedy will be evaluated through short-term groundwater monitoring. Following short-term groundwater monitoring, the results of the field-scale study will be summarized in a final report on the pilot study which will also include recommendations regarding the effectiveness and the applicability of an in-situ remedy to restore the contaminated groundwater at the site.

# CRITERIA FOR EVALUATING THE EFFECTIVENESS OF THE IN SITU PILOT TEST

The demonstration of the performance of the *in situ* precipitation/neutralization technology in achieving the remediation goals of the ROD will be based on the evaluation of the data collected from the field and laboratory tests with regard to the three specific objective criteria and consistency with the NCP:

- a. Applicability of the *in situ* Geochemical Fixation in the water table at a field scale. Demonstration that the concentration of metals in groundwater samples from designated monitoring wells in the treatment zone meet cleanup goals in the ROD where groundwater pH in the range of at least 6.5 to 7.0 has been achieved.
- b. Effectiveness in mixing reagent at a field scale. Demonstration of a progressive increase of the groundwater pH within the pilot test area and a mixing of reagents effectively in the Pilot Test area.
- c. The permanence of the *in situ* Geochemical Fixation. Demonstration of the ability to maintain the concentration of constituents of concern at or below MCLs once the treatment process has been completed.

Following analysis of the above-listed criteria, DHEC will accept the results of this pilot test as determinative of the efficacy of the technology for widespread use in onsite areas since DHEC considers the testing in the area it has selected to be appropriate; unless conditions are encountered in certain on-site areas which require variations in the *in situ* treatment or additional treatment alternatives for use in these limited areas.

<sup>&</sup>lt;sup>1</sup> The Settling Defendants continue to assert that "filtered" groundwater samples should be used; however, it is understood that both "filtered" and "unfiltered" samples will be taken and evaluated and a comparison can then be made to determine any significance.

### PRESENT WORTH OF OPERATIONS & MAINTENANCE COSTS YEARS 3 THROUGH 15

## Stoller Chemical Jericho Site

## South Carolina Site Assessent & Remediation Program

		Calander		Inf. Factor		Present Worth
	Inputs	Year	Year	2.00%	5.50%	O&M Cost
Inflation Factor =	2.00%	2001	1	1.0200	0.9479	\$46,110
	2.00 /0	2002	2	1.0404	0.8985	\$44,581
Present Worth Factor (PWF) =	5.50%	2003	3 *	1.0612	0.8516	\$43,099
	3.50 //	2004	4	1.0824	0.8072	\$41,668
		2005	5	1.1041	0.7651	\$40,287
		2005	6	1.1262	0.7252	\$38,950
		2007	7	1.1487	0.6874	\$37,657
	· .	2008	8	1.1717	0.6516	\$36,411
		2009	9	1.1951	0.6176	<b>\$</b> 35,200
		2010	10	1.2190	0.5854	<b>\$34,032</b>
		2011	11	1.2434	0.5549	<b>\$32,905</b>
		2012	12	1.2682	0.5260	\$31,813
		2013	13	1.2936	0.4986	\$30,760
		Dragant W	orth Vesi	s 3 through 1		\$493,474

(\*) Notes: Estimate assumes that Leachate Sampling and Disposal will not be required beyond 2002. Estimate assumes that Annual Wetland Monitoring will not be required beyond 2002.

# REMEDIAL ACTION RECORD OF DECISION (OU 1) SUMMARY OF REMEDIAL ALTERNATIVE SELECTION

STOLLER CHEMICAL JERICHO SITE
7747 HIGHWAY 17

JERICHO, CHARLESTON COUNTY, SOUTH CAROLINA SCD987591815

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

BUREAU OF LAND AND WASTE MANAGEMENT
APRIL 1999

Remedial Action Record of Decision (OU 1) Stoller Chemical Jericho Site Page 13

#### 8.1 Selected Alternative

SCDHEC has selected Alternative 5-On-Site and Off-Site Extraction of Unit 1 Groundwater Containing the Contaminants of Concern in Excess of MCLs and On-Site Extraction of Unit 3 Groundwater Followed by Treatment and Discharge; Monitored Natural Attenuation of Portions of Off-Site Groundwater for the remediation of OU1 at the Stoller Chemical Jericho Site. Based on the information currently available, SCDHEC believes this alternative provides the best balance of the evaluation criteria. SCDHEC's selected remedy is protective of human health and the environment, complies with ARARs, is cost effective, utilizes permanent solutions and resource recovery technologies to the maximum extent practicable, and satisfies the reduction in toxicity, mobility, or volume criterion by using on-site treatment as a principal element.

Additional components added to the selected remedy which differ from the proposed remedy in the October 1998 Proposed Plan include instituting five-year reviews to evaluate the effectiveness of the remedy (scheduled to take place each five years after start-up of the groundwater extraction and treatment system), the addition of the institutional controls which are applicable under state law for the areas which contain groundwater contamination at concentrations above MCLs until remedial goals are met, and establishment of an annual monitoring program for the private groundwater wells of residents that live near the site to ensure that their water supplies remain uncontaminated by site-related COCs. A conceptual layout of Alternative 5 is provided as Figure 14.

### 8.2 Remedial Goals

Cleanup goals for each pathway that exceed acceptable risk levels were developed. These cleanup goals are called Remedial Goals (RGs). RGs for groundwater are established as MCLs as set forth in the Safe Drinking Water Act, when available, or risk-based concentrations corresponding to carcinogenic risks of  $1\times10^{-6}$  or a hazard index of 1.

On-site surface water was determined to present an unacceptable risk to potential human receptors and ecological receptors. RGs for surface water are established as either the Water Quality Criteria for Protection of Aquatic Life or Water Quality Criteria for the Protection of Human Health, whichever is more stringent, as set forth in the South Carolina Water Classifications and Standards (R.61-68). Hydraulic data collected during the Supplemental Soil and Groundwater Quality Investigation indicate that the source of the contamination detected in surface water in the north ditch is the discharge of contaminated groundwater from Unit 1 to surface water. SCDHEC believes that operating the groundwater extraction component of the selected remedy will mitigate the discharge of contaminated groundwater to the surface water,

Remedial Action Record of Decision (OU 1) Stoller Chemical Jericho Site Page 14

and, in turn, eventually restore surface water quality at the site. SCDHEC will monitor the effectiveness of this approach to surface water during the implementation of the selected remedy and re-evaluate it, if necessary.

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RGOs for the sediment in the north ditch were developed for ecological risks and are presented in Table 2. SCDHEC believes that attempting to achieve RGOs for sediment in the north ditch may be premature in light of the continuing investigation being conducted for OU2. Therefore, that portion of the remedy will be addressed in the ROD for OU2.

Surface soils which exceeded industrial risk-based concentrations were addressed during the Response Action. Subsurface soils were determined not to represent a significant risk to human health or to environmental receptors.

### PROCEDURE FOR DETERMINING ACHIEVEMENT AND MAINTENANCE OF REMEDIATION GOALS (INCLUDING STATISTICAL COMPARISONS TO WATER QUALITY DATA)

The procedure for the demonstration of achievement of cleanup objectives for groundwater shall be based on the statistical comparison of constituents of concern in groundwater, measured in the wells comprising the site monitoring system, to the remediation goals for these constituents of concern identified in the ROD. Measurement and analysis of the groundwater quality will be consistent with applicable or appropriate EPA guidance. Groundwater remediation goals will not be deemed to be exceeded if any observed exceedence is caused by background concentrations, laboratory performance, or some other factor unrelated to the actual Site conditions.

At such time as the groundwater measured at the points of compliance at the downgradient property boundary reflects no verified exceedence of the remediation goals for a period of three consecutive years, the Settling Defendants may request that the analysis of groundwater samples from monitoring wells within the property boundaries, or those downgradient of the downgradient property boundary, be evaluated as may be allowed by reference to such standards as: (a) 40 CFR 264.99(i), 264.100(d), 264.100(f), or 40 CFR 141; (b) S.C. REG. 61-68 and the "mixing zone" provisions or standards therein; (c) S.C. REG. 61-79.264.94 and the provisions therein for "alternate concentration limits" (ACL), as well as USEPA guidance regarding ACL; (d) S.C. REG. 61-68 regarding reclassification of groundwater; or (e) technical impracticability guidance from USEPA. In response to such request from the Settling Defendants, DHEC will reasonably, and in good faith, evaluate one of these proposed potentially applicable or appropriate standards, or other such standards as may be

proposed for measuring the success of the response action, and shall then apply such standard to determine whether the groundwater remedial action may be deemed complete.

DATE:	2-26-02	
DINK M.		_

I. SCHUMANN & COMPANY

BY: Maschumane

ITS: PRESOCED

DATE: 26 February 2002

THE FEDERAL METALS COMPANY

BY: DoRMany
ITS:

DATE: March 8, 2002

NATIONAL METALS, INC.

Mat & Wynne, V. F.

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