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UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 4

IN THE MATTER OF:
LCP-Holtrachem Superfund Site
Riegelwood, Columbus County,
North Carolina

Honeywell International Inc., and
International Paper Company,
Respondents

ADMINISTRATIVE SETTLEMENT
AGREEMENT AND ORDER ON
CONSENT FOR REMOVAL ACTION

U.S. EPA Region 4
Docket No.: CERCLA-04-2008-3769

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



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I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Settlement Agreement and Order on Consent ("Settlement Agreement") is entered into voluntarily by the United States Environmental Protection Agency ("EPA"), Honeywell International Inc. and International Paper Company ("Respondents"). This Settlement Agreement provides for the performance of a time critical removal action by Respondents at the LCP-Holtrachem Superfund Site (the "Site"), and the reimbursement by Respondents of all response costs incurred by the United States in connection with such removal action. Such removal action will address Wastewater Treatment Solids and other Waste Material currently located on the portion of the Site owned by International Paper at 865 John Riegel Road in Riegelwood, Columbus County, North Carolina. Wastewater Treatment Solids will be excavated from Cell No. 2 of International Paper's former North Bay Treatment Pond, and temporarily stored on the portion of the Site known as the Holtrachem Property at 636 John Riegel Road, which is adjacent to International Paper's property.

2. This Settlement Agreement 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").

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 Settlement Agreement has been negotiated in good faith and that the actions undertaken by Respondents in accordance with this Settlement Agreement 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 Settlement Agreement, the validity of the findings of facts, conclusions of law, and determinations in Sections IV and V of this Settlement Agreement. Respondents agree to comply with and be bound by the terms of this Settlement Agreement and further agree that they will not contest the basis or validity of this Settlement Agreement or its terms.

II. PARTIES BOUND

5. This Settlement Agreement 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 Settlement Agreement.

6. Respondents are jointly and severally liable for carrying out all activities required by this Settlement Agreement. If any one or more of the Respondents fail(s) to implement the requirements of this Settlement Agreement because of insolvency or for any other reason, the remaining Respondent shall complete all such requirements.

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

III. DEFINITIONS

8. Unless otherwise expressly provided in this Settlement Agreement, terms used in this Settlement Agreement 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 Settlement Agreement or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

a. Action Memorandum shall mean the EPA Action Memorandum relating to the Site signed on MAY 13, 2008, by the Director, Superfund Division, EPA Region 4, or his delegate, and all attachments thereto. The Action Memorandum is attached as Appendix 1.

b. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, *et seq.*

c. "Day" shall mean a calendar day. In computing any period of time under this Settlement Agreement, 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.

d. "Effective Date" shall be the effective date of this Settlement Agreement as provided in Section XXXII.

e. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

f. "Future Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs from and after the Effective Date in reviewing or developing plans, reports and other items pursuant to this Settlement Agreement, verifying the Work, or otherwise preparing, implementing, overseeing, or enforcing this Settlement Agreement, including but not limited to, payroll costs, contractor costs, travel costs, laboratory costs, the costs incurred pursuant to Section IX (costs and attorneys fees and any monies paid to secure access, including the amount of just compensation), Section XIII (emergency response), and Paragraph 56 (work takeover). Future Response Costs shall also include all Interest on Past Response Costs that accrues pursuant to 42 U.S.C. § 9607(a) after the Effective Date through the date of payment.

g. "Holtrachem Property" shall mean the approximately 24 acres located at 636 John Riegel Drive in Rieglewood, Columbus County, North Carolina, which encompasses the former LCP-Holtrachem chlor alkali manufacturing plant. The Holtrachem Property is adjacent

to International Paper Company's Riegelwood mill, which borders the Holtrachem Property on all sides, except the north-northeast, which is bordered by the Cape Fear River. The Holtrachem Property is depicted generally on the map attached as Appendix 2.

h. "Interest" shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.

i. "IP Property" shall mean the approximately 1,500 acres comprising International Paper Company's Riegelwood mill located at 865 John Riegel Road, approximately 0.5 miles northeast of Riegelwood, North Carolina and 20 miles west-northwest of the City of Wilmington, North Carolina. The IP Property is situated on the Cape Fear River and surrounds the Holtrachem Property on all sides, except the north-northeast. The IP Property, including the location of IP's former North Bay Treatment Pond, is depicted generally on the map attached as Appendix 2.

j. "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.

k. "Paragraph" shall mean a portion of this Settlement Agreement identified by an Arabic numeral.

l. "Parties" shall mean EPA and Respondents.

m. "Past Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurred at or in connection with the Site through the Effective Date, plus Interest on all such costs through the Effective Date. Except, "Past Response Costs" shall not include costs that Honeywell International Inc. already has agreed to pay under either the Administrative Order on Consent for Removal Action at the Site, EPA Region 4 Docket No. CER-04-2002-3771, dated July 1, 2002 or the Administrative Order on Consent for Removal Action at the Site, EPA Region 4 Docket No. CER-04-2004-3781, dated June 8, 2004. The parties intend the definition of "Past Response Costs" to include all response costs incurred by the United States in connection with this Settlement Agreement that are not already either: [1] included in the definition of "Future Response Costs;" or, [2] required to be paid by Respondent Honeywell under another Administrative Order on Consent for the Site.

n. "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).

o. "Respondents" shall mean Honeywell International Inc., a corporation organized under the laws of the State of Delaware, and doing business in North Carolina, and

International Paper Company, a corporation organized under the laws of the State of New York, and doing business in North Carolina.

p. "Settlement Agreement" shall mean this Administrative Settlement Agreement and Order on Consent and all appendices attached hereto (listed in the Table of Contents and Section XXX). In the event of conflict between this Settlement Agreement and any appendix, this Settlement Agreement shall control.

q. "Section" shall mean a portion of this Settlement Agreement identified by a Roman numeral.

r. "Site" shall mean the LCP-Holtrachem Superfund Site, encompassing the Holtrachem Property and all areas where hazardous substances, pollutants or contaminants released from the Holtrachem Property, or released as a result of operations thereon, have come to be located, including International Paper's former North Bay treatment pond, where wastewater from the Holtrachem Property was discharged pursuant to an agreement between the Respondents. The Site is depicted generally on the map attached as Appendix 2.

s. "State" shall mean the State of North Carolina.

t. "TSCA" shall mean the Toxic Substance Control Act, as amended, 15 U.S.C. §§ 2601, *et seq.*

u. "Waste Material" shall mean 1) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); 2) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); 3) any "solid waste" under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27); and 4) any "hazardous material" under a State statute or regulation.

v. "Wastewater Treatment Solids" or "WWTS" shall mean all sludge and other material located in Cell No. 2 of the former North Bay Treatment Pond on the IP Property and any other Waste Materials that are moved as a result of work under this Settlement Agreement. The former North Bay Treatment Pond is further described in paragraph 9, below, and is depicted generally on the map attached as Appendix 2.

w. "Work" shall mean all activities Respondents are required to perform under this Settlement Agreement.

IV. FINDINGS OF FACT

9. For purposes of this Settlement Agreement, EPA finds that:

a. Respondent, Honeywell International Inc., is a Delaware corporation with headquarters in Morristown, New Jersey.

b. Respondent, International Paper Company, (IP) is a New York corporation with headquarters in Memphis, Tennessee.

c. Honeywell International Inc. (Honeywell) is the successor to Honeywell, Inc. and AlliedSignal Inc. by merger of Honeywell Inc. and AlliedSignal Inc. in 1999.

d. AlliedSignal Inc, the successor to Allied Chemical Corp., owned and operated the chlor alkali manufacturing plant at the Holtrachem Property from 1963 to 1979.

e. The chlor alkali manufacturing plant that formerly operated on the Holtrachem Property produced chlorine, sodium hydroxide, sodium hypochlorite and hydrochloric acid using the mercury cell process. The plant was constructed in 1963 and operated until 2000. The plant is located on approximately 24 acres, situated in an industrial setting at 636 John Riegel Drive, Riegelwood, Columbus County, North Carolina. The Holtrachem Property is adjacent to the IP Property, which borders the Holtrachem Property on all sides except the north-northeast, which is bordered by the Cape Fear River.

f. Hurricane Floyd and associated flooding caused an overtopping/breach in one stormwater collection basin on the Holtrachem Property in September 1999. Results of surface soil performed by the North Carolina Department of Environment and Natural Resources (NC DENR) in June 2001 indicated that mercury may have been transported out of the pond on the Holtrachem Property and into surface soils adjacent to the pond.

g. After sampling events in 2001 by NC DENR indicated elevated levels of mercury, NC DENR referred the Site to the EPA Emergency Response and Removal Branch (ERRB) in January 2002.

h. NC DENR then investigated soil, sediment, surface water and groundwater during an integrated Expanded Site Inspection/Removal Assessment (iESI/RA) in April 2002.

i. Soil constituents with concentrations exceeding the lower of the two EPA residential soil exposure benchmarks, Reference Dose Screening Concentration or Cancer Risk Screening Concentration, as found in the Superfund Chemical Data Matrix-Data Manager User's Guide (EPA/540/R-96/029) in one or more samples included: mercury, hexachlorobenzene, PCB Aroclor 1254, 2,3,4,7,8-Pentachlorodibenzofuran, and 1,2,3,4,6,7,8-Heptachlorodibenzofuran. Samples were not analyzed for PCB Aroclor 1268.

ii. Analysis of one or more samples of sediment from areas adjacent to the Cape Fear River showed concentrations of the following constituents, exceeding three times background concentrations or detection limits when the background was non-detect: cadmium, mercury, sodium, calcium, 1,2,3,5,6,7,8 - Hexachlorodibenzofuran, 1,2,3,4,6,7,8 - Heptachlorodibenzofuran, and Octachlorodibenzofuran. Samples were not analyzed for PCB Aroclor 1268.

i. Removal activities were performed by Honeywell under EPA oversight pursuant to an Administrative Order on Consent for Removal Action at the Site, EPA Region 4 Docket No. CER-04-2002-3771 dated July 1, 2002. During these removal activities, containerized hazardous substances and contaminated structures were removed from the Holtrachem Property. The approximate disposal volume, segregated by waste stream, resulting from the removal action through February 28, 2008 are included in a Waste Disposal Summary located in Appendix 3.

j. At this time, Honeywell is in the process of conducting an Engineering Evaluation/Cost Analysis (EE/CA) at the Site under EPA oversight pursuant to an Administrative Order on Consent for Removal Action, EPA Region 4 Docket No. CER-04-2004-3781, dated June 8, 2004. An EE/CA is designed to provide information on the source, nature and extent of contamination, and risks presented by a site. Using this information, an EE/CA report is prepared to identify the objectives of the remaining removal activities and analyze the effectiveness, implementability, and cost of various alternatives that may satisfy the removal objectives. Once an EE/CA report is prepared, public comment is solicited in accordance with 40 C.F.R. § 300.820(a). EPA then prepares an Action Memorandum, selecting the final, non-time critical removal action for the site.

k. During the EE/CA investigation process, the primary contaminants of concern identified at the Site were mercury and PCB Aroclor 1268.

l. International Paper Company owns and operates a paperboard mill on the IP Property that has been in operation since 1951 and produces solid bleach board, bristols, and market pulp.

i. Since 1963, International Paper Company has operated and maintained industrial landfills and wastewater treatment ponds on the IP Property.

ii. In 1994, one of these wastewater treatment ponds, the North Bay Treatment Pond, was bermed off, drained, and divided into two cells for use as industrial landfills. The southern cell, called Cell No. 1, was constructed as industrial landfill in 2004 and is expected to reach capacity soon. The northern cell, Cell No. 2 has not yet been developed as a landfill.

iii. Cell No. 2 is the subject of this Settlement Agreement. Cell No.2 was investigated during the EE/CA. The investigation was performed, in part, because of reports that wastewater from operations on the Holtrachem Property had been discharged directly into the former North Bay Treatment Pond. Numerous samples from the former pond contained PCB Aroclor 1268. Before Cell No. 2 can be developed as a landfill, the Wastewater Treatment Solids containing PCB Aroclor 1268 must be properly removed.

iv. Concentrations of Aroclor 1268 exceeding removal action limits were found at depth ranges from two to twelve feet below the surface. The concentrations of Aroclor 1268 found during the 2006 investigation ranged up to 5,100 mg/kg. TSCA considers

PCB concentrations less than 1 mg/kg to be acceptable for unrestricted uses. The volume of Aroclor 1268 contaminated sludge with concentrations exceeding 1 mg/kg is estimated at approximately 40,500 cubic yards (yd³).

m. PCBs pose risks for human health and ecological receptors. EPA considers PCBs to be a probable human carcinogen.

n. The Human Health Risk Assessment (HHRA) for the Site, performed as part of the EE/CA, evaluated the human health risk posed by different exposure scenarios, and established PCB concentrations that would not be likely to have an appreciable toxic effect. In the HHRA, cleanup goals were presented based on the different exposure scenarios with hazard quotients (HQ) of 0.1, 1 and 3. An HQ value at or below 1 indicates that a receptor's dose of a single contaminant is less than the reference dose (RfD), and that toxic non-carcinogenic effects from that chemical are unlikely. In general, HQ values at or below 1 are interpreted as not likely to be associated with adverse health effects, while HQ values above 1 are interpreted as indicating the potential for adverse effects. In the HHRA for the Site, the cleanup goal associated with the most stringent soil PCB cleanup goals in an industrial setting was for a construction worker. The cleanup goal associated with an HQ of 1 for a construction worker was 11 mg/kg for soil PCB concentrations.

o. A variety of factors are considered in selecting cleanup goals, factors such as human health risk, ecological risk, and protection of groundwater. For this Site, neither the ecological risk assessment nor the site-specific risk assessment for protection of groundwater has been completed. Recently, Honeywell's consultant calculated a soil-to-groundwater screening level using EPA's Soil Screening Guidance (US EPA, 1997). The resulting soil-to-groundwater screening level was 30.9 mg/kg. In December 2005, Interstate Technology Regulatory Council published a White Paper titled "Examination of Risk-Based Screening Values and Approaches of Selected States" (<http://www.itrcweb.org/Documents/RISK-1.pdf>). Table 4 of that document presents State Screening values for PCBs from 13 states that were surveyed. Leachability values for protection of groundwater were included in the table. Only five of the 13 states surveyed had values for protection of groundwater. The soil concentrations for this category ranged from 0.13 mg/kg (Alabama) to 1,000 mg/kg (Colorado). Other values presented included 6.3 mg/kg (California), 17 mg/kg (Florida), and 53 mg/kg (Kansas).

p. A November 29, 2007 memorandum from Kevin Koporec, EPA Toxicologist, provided Interim Removal Action Levels for Arsenic, Lead and PCBs. For PCBs in an industrial setting, the memorandum recommends a removal action level of 33 mg/kg (HQ=3). However, since this value is greater than the HQ=1 concentration, the memorandum states that additional investigations and assessments would be needed under the remedial program to determine a final cleanup level.

q. A cleanup goal of an HQ=1 (11 mg/kg) is selected for the Work under this Settlement Agreement. A cleanup goal of 11 mg/kg is protective of human health in an industrial setting and falls within the range of protection of groundwater published screening values.

r. As stated above, neither the ecological risk assessment nor the site-specific risk assessment for protection of groundwater has been completed for the Site. As a result, it is unclear whether additional response actions relating to contamination in the former North Bay treatment pond will be necessary to protect groundwater and/or ecological receptors. After the Site investigation is complete, EPA may determine that additional response actions relating to the contamination in the former North Bay treatment pond are necessary.

V. CONCLUSIONS OF LAW AND DETERMINATIONS

10. Based on the Findings of Fact set forth above, and the Administrative Record supporting this removal action, EPA has determined that:

a. The 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. Each Respondent is a responsible party under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), and is jointly and severally liable for performance of the response action and for response costs incurred and to be incurred at the Site.

i. Respondents are the "owners" and "operators" of the facility, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(1) of CERCLA, 42 U.S.C. § 9607(a)(1).

ii. Respondents were the "owners" and "operators" of the facility at the time of disposal of hazardous substances at the facility, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(2) of CERCLA, 42 U.S.C. § 9607(a)(2).

iii. Respondents arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment of hazardous substances at the facility, within the meaning of Section 107(a)(3) of CERCLA, 42 U.S.C. § 9607(a)(3).

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

f. The removal action required by this Settlement Agreement is necessary to

protect the public health, welfare, or the environment and, if carried out in compliance with the terms of this Settlement Agreement, will be consistent with the NCP, as provided in Section 300.700(c)(3)(ii) of the NCP.

VI. SETTLEMENT AGREEMENT AND ORDER

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

VII. DESIGNATION OF CONTRACTOR, PROJECT COORDINATOR, AND ON-SCENE COORDINATOR

12. Respondents shall retain one or more contractors to perform the Work and shall notify EPA of the name(s) and qualifications of such contractor(s) no later than 10 days after the Effective Date. 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 10 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. If EPA disapproves of a selected contractor, Respondents shall retain a different contractor and shall notify EPA of that contractor's name and qualifications within 10 days of EPA's disapproval.

a. The proposed contractor must demonstrate compliance with ANSI/ASQC E-4-1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs" (American National Standard, January 5, 1995), by submitting a copy of the proposed contractor's Quality Management Plan ("QMP").

b. The QMP should be prepared in accordance with "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B0-1/002), or equivalent documentation as required by EPA.

13. No later than 10 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 Settlement Agreement 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. 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 10 days following EPA's disapproval. Receipt by Respondents' Project Coordinator of any notice or communication from EPA relating to this Settlement Agreement shall constitute receipt by all Respondents.

14. EPA has designated Leo Francendese of the Superfund Emergency Response and Removal Branch, Region 4 as its On-Scene Coordinator. Except as otherwise provided in this Settlement Agreement, Respondents shall direct all submissions required by this Settlement Agreement to EPA's On-Scene Coordinator, via a nationally reputable overnight delivery service as follows:

Leo Francendese
 United States Environmental Protection Agency
 Superfund Emergency Response and Removal Branch
 61 Forsyth Street, S.W.
 Atlanta, Georgia 30303-8960

A copy of all submissions required by this Settlement Agreement shall also be sent to the State's representative and to EPA's Remedial Project Manager for the Site, as follows:

David Mattison
 NC DENR Superfund Section
 401 Oberlin Road, Suite 150
 Raleigh, North Carolina 27605

Samantha Urquhart-Foster
 United States Environmental Protection Agency
 Superfund Remedial and Site Evaluation Branch
 61 Forsyth Street, S.W.
 Atlanta, Georgia 30303-8960

15. EPA and Respondents shall have the right, subject to Paragraph 13, to change their respective designated Project Coordinator and On-Scene Coordinator. Respondents shall notify EPA 10 days before such a change is made. The initial notification may be made orally, but shall be promptly followed by a written notice.

VIII. WORK TO BE PERFORMED

16. Respondents shall perform all actions necessary to implement the Action Memorandum dated MAY 13, 2008 and any additional or alternate actions deemed necessary by EPA relating to the excavation, temporary storage and permanent disposal of the Wastewater Treatment Solids. The actions to be implemented generally include, but are not limited to, the following:

- a. Construct one or more temporary stockpile cells on the HoltraChem Property in the approximate location shown in Appendix 2, which will consist of a bottom and top 40-mil high-density polyethylene (HDPE) liner with a berm system surrounding the temporary stockpile;
- b. Excavate all materials from Cell No. 2 of IP's former North Bay Treatment Pond that contain PCB concentrations greater than or equal to 11 mg/kg;
- c. Collect, treat and dispose of wastewater;

- d. Stabilize Wastewater Treatment Solids, if needed, prior to transport;
- e. Transfer Wastewater Treatment Solids with PCB concentrations of up to 49 mg/kg to IP's double-lined landfill Cell No. 1 (estimated 34,000 yd³), which is constructed to RCRA standards
- f. Transfer Wastewater Treatment Solids with PCB concentrations greater than or equal to 50 mg/kg to the temporary stockpile cell to be constructed on the HoltraChem Property (estimated 6,500 yd³);
- g. Remove the former discharge pipe;
- h. Conduct confirmation sampling;
- i. Provide for and adequately undertake the collection, treatment and or disposal of all on-Site contaminated water and Wastewater Treatment Solids including washes, rinses, rinseate and contaminated sediment generated as a result of decontamination operations;
- j. Provide for and undertake a dust suppression method to ensure that no contaminated media/dust particles migrate from the Site;
- k. Secure the contaminated areas in such a manner as to adequately prevent access from unauthorized persons on a 24 hour basis;
- l. Inspect the temporary stockpile on a routine basis, not less than once per week, and make whatever repairs may be necessary to ensure the soundness and integrity of the temporary stockpile;
- m. Continue post removal site control measures at the HoltraChem Property in accordance with Paragraph 20;
- n. As a contingency, if the volume of the WWTS exceeds the storage capacity of the temporary stockpile cell(s) to be built at the Holtrachem Property, as determined at the sole discretion of EPA's On-Scene Coordinator, Respondents shall dispose of such material off-site at a RCRA-approved and/or TSCA-approved off-site treatment/disposal facility in accordance with Paragraph 23. Without limiting EPA's authority under this subparagraph 16.n., it is understood that Respondents intend to construct the temporary stockpile cell(s) with a capacity greater than the estimated quantity of WWTS to be transferred to the Holtrachem Property;
- o. If all PCBs are not removed from the IP Property, EPA may evaluate the need for Institutional Controls (ICs). If EPA's On-Scene Coordinator determines in his sole discretion that ICs are needed, Respondents shall implement the ICs as directed by EPA's On-Scene Coordinator;

p. If any *force majeure* event (Section XVII) or non-*force majeure* event threatens to cause, or actually causes, the release or displacement of the Wastewater Treatment Solids, or of any other materials moved under, or impacted by this Settlement Agreement, then Respondents expressly agree to perform all investigation, cleanup and other response activities to address such release or threat of release, as directed by EPA's On-Scene Coordinator; and,

q. Respondents shall provide for the permanent, final disposal of the WWTS as follows:

i. If within 18 months of the issuance of EPA's decision document selecting the final response action for WWTS (i.e., an Action Memorandum or Record of Decision), one or more of the Respondents has entered into an Administrative Settlement Agreement and Order on Consent or Consent Decree to implement such final response action, then Respondents shall provide for the permanent, final response action for the WWTS in accordance with such Administrative Settlement Agreement and Order on Consent or Consent Decree;

ii. If within 18 months of the issuance of EPA's decision document selecting the final response action for the WWTS (i.e., an Action Memorandum or Record of Decision), one or more of the Respondents has not entered into an Administrative Settlement Agreement and Order on Consent or Consent Decree to implement such final response action, then Respondents shall provide for the permanent, final disposal of the WWTS at a proper off-Site disposal facility, in accordance with the provisions of Paragraph 23; or,

iii. If for any reason, the WWTS are located in the temporary stockpile cell on the Holtrachem Property more than 5 years after the Effective Date of this Settlement Agreement, then Respondents shall provide for the permanent, final disposal of the WWTS at a proper off-Site disposal facility, in accordance with the provisions of Paragraph 23. Either Respondent may request that EPA extend the time period during which the WWTS may remain in the temporary stockpile cell on the Holtrachem Property. EPA may grant an extension if it determines that the Respondent requesting an extension is working in good faith with EPA towards selection and implementation of a final cleanup for soils at the Site and that allowing the WWTS to remain in the temporary stockpile cell would not pose an unreasonable threat of release to the environment.

r. As explained above, a cleanup goal of an HQ=1 (11 mg/kg) is selected for the Work under this Settlement Agreement. Also as stated above, neither the ecological risk assessment nor the site-specific risk assessment for protection of groundwater has been completed for the Site. As a result, it is unclear whether additional response actions relating to contamination in the former North Bay treatment pond will be necessary to protect groundwater and/or ecological receptors. After the Site investigation is complete, EPA may determine that additional response actions relating to the contamination in the former North Bay treatment pond are necessary.

17. Work Plan and Implementation.

a. No later than 30 days after the Effective Date, Respondents shall submit to EPA for approval a draft Work Plan for performing the removal action generally described in Paragraph 16 above. The draft Work Plan shall provide a description of, and an expeditious schedule for, the actions required by this Settlement Agreement.

b. The Work Plan shall include a Quality Assurance Project Plan ("QAPP") as part of the Work Plan. The QAPP should be prepared in accordance with "EPA Requirements for Quality Assurance Project Plans (QA/R-5)" (EPA/240/B-01/003, March 2001), and "EPA Guidance for Quality Assurance Project Plans (QA/G-5)" (EPA/600/R-98/018, February 1998).

c. EPA may approve, disapprove, require revisions to, or modify the draft Work Plan in whole or in part. If EPA requires revisions, Respondents shall submit a revised draft Work Plan within 30 days of receipt of EPA's notification of the required revisions. Respondents shall implement the Work Plan as approved in writing by EPA in accordance with the schedule approved by EPA. Once approved, or approved with modifications, the Work Plan, the schedule, and any subsequent modifications shall be incorporated into and become fully enforceable under this Settlement Agreement.

d. Respondents shall not commence any Work except in conformance with the terms of this Settlement Agreement. Respondents shall not commence implementation of the Work Plan developed hereunder until receiving written EPA approval pursuant to this Paragraph.

18. Health and Safety Plan. No later than 30 days after the Effective Date, Respondents shall submit for EPA review and comment a plan that ensures the protection of the public health and safety during performance of on-Site work under this Settlement Agreement. This plan shall be prepared in accordance with EPA's Standard Operating Safety Guide (PUB 9285.1-03, PB 92-963414, June 1992). In addition, this plan shall comply with all currently applicable Occupational Safety and Health Administration ("OSHA") regulations found at 29 C.F.R. Part 1910. If EPA determines that it is appropriate, the plan shall also include contingency planning, including but not limited to, planning for major storms such as hurricanes or flooding. Respondents shall incorporate all changes to the plan recommended by EPA and shall implement the plan during the pendency of the removal action.

19. Quality Assurance and Sampling.

a. All sampling and analyses performed pursuant to this Settlement Agreement shall conform to EPA direction, approval, and guidance regarding sampling, quality assurance/quality control ("QA/QC"), data validation, and chain of custody procedures. Respondents shall ensure that the laboratory used to perform the analyses participates in a QA/QC program that complies with the appropriate EPA guidance. Respondents shall follow, as appropriate, "Quality Assurance/Quality Control Guidance for Removal Activities: Sampling QA/QC Plan and Data Validation Procedures" (OSWER Directive No. 9360.4-01, April 1,

1990), as guidance for QA/QC and sampling. Respondents shall only use laboratories that have a documented Quality System that complies with ANSI/ASQC E-4 1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs" (American National Standard, January 5, 1995), and "EPA Requirements for Quality Management Plans (QA/R-2) (EPA/240/B-01/002, March 2001)," or equivalent documentation as determined by EPA. EPA may consider laboratories accredited under the National Environmental Laboratory Accreditation Program ("NELAP") as meeting the Quality System requirements.

b. Upon request by EPA, Respondents shall have such a laboratory analyze samples submitted by EPA for QA monitoring. Respondents shall provide to EPA the QA/QC procedures followed by all sampling teams and laboratories performing data collection and/or analysis.

c. Upon request by EPA, Respondents shall allow EPA or its authorized representatives to take split and/or duplicate samples. Respondents shall notify EPA not less than 7 days in advance of any sample collection activity, unless shorter notice is agreed to by EPA. EPA shall have the right to take any additional samples that EPA deems necessary. Upon request, EPA shall allow Respondents to take split or duplicate samples of any samples it takes as part of its oversight of Respondents' implementation of the Work.

20. Post Removal Site Control. In accordance with the Work Plan schedule, or as otherwise directed by EPA, Respondents shall submit a proposal for post-removal site control consistent with Section 300.415(l) of the NCP and OSWER Directive No. 9360.2-02. Upon EPA approval, Respondents shall implement such controls and shall provide EPA with documentation of all post-removal site control arrangements.

21. Reporting.

a. Respondent shall submit to EPA and NC DENR written progress reports which: (1) describe the actions which have been taken toward achieving compliance with this Order during the reporting period; (2) include all results of sampling and tests and all other data received by Respondents during the course of the work; (3) include all plans and procedures completed under the Work Plan during the reporting period; (4) describe all actions, data, and plans which are scheduled for the next month, 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 Work Plans, and a description of efforts made to mitigate those delays or anticipated delays.

i. From contractor mobilization to demobilization, the progress reports shall be submitted on a weekly basis, by 11:59 p.m. on each Tuesday during this phase.

ii. Prior to mobilization and after demobilization, the progress reports shall

be submitted on a monthly basis, by the tenth day of every month following the Effective Date of this Order.

b. Respondents shall submit at least two copies of all plans, reports or other submissions required by this Settlement Agreement, or any approved work plan to EPA and one copy to NC DENR. Upon request by EPA, Respondents shall submit additional copies. All documents shall also be submitted in electronic form.

c. Respondents who own or control property at the Site shall, at least 30 days prior to the conveyance of any interest in real property at the Site, give written notice to the transferee that the property is subject to this Settlement Agreement and written notice to EPA and the State of the proposed conveyance, including the name and address of the transferee. Respondents who own or control property at the Site also agree to require that their successors comply with the immediately preceding sentence and Sections IX (Site Access) and X (Access to Information).

22. Final Report. No later than 30 days after completion of all Work required by this Settlement Agreement, except the continuing Work obligations, such as those required under subparagraphs 16.k., 16.l., 16.m., 16.o., 16.p., and 16.q., Respondents shall submit for EPA review and approval a final report summarizing the actions taken to comply with this Settlement Agreement. The final report shall conform, at a minimum, with the requirements set forth in Section 300.165 of the NCP entitled "OSC Reports, and shall be consistent with the following guidance document: "Superfund Removal Procedures: Removal Response Reporting – POLREPS and OSC Reports" (OSWER Directive No. 9360.3-03, June 1, 1994). The final report shall include a good faith estimate of total costs or a statement of actual costs incurred in complying with the Settlement Agreement, a listing of quantities and types of materials removed off-Site or handled on-Site, a discussion of removal and disposal options considered for those materials, a listing of the ultimate destination(s) of those materials, a presentation of the analytical results of all sampling and analyses performed, and accompanying appendices containing all relevant documentation generated during the removal action (e.g., photographs, manifests, invoices, bills, contracts, and permits). The final report shall be modified no later than 30 days after the WWTS are permanently disposed of in accordance with subparagraph 16.q, to include information on such disposal. The final report shall also include the following certification signed by a person who supervised or directed the preparation of that report:

"Under penalty of law, I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of the report, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

23. Off-Site Shipments.

a. Respondents shall, prior to any off-Site shipment of Waste Material from the Site to an out-of-state waste management facility, provide written notification of such

shipment of Waste Material to the appropriate state environmental official in the receiving facility's state and to EPA's On-Scene Coordinator. However, this notification requirement shall not apply to any off-Site shipments when the total volume of all such shipments will not exceed 10 cubic yards.

i. Respondents shall include in the written notification the following information: 1) the name and location of the facility to which the Waste Material is to be shipped; 2) the type and quantity of the Waste Material to be shipped; 3) the expected schedule for the shipment of the Waste Material; and 4) the method of transportation. Respondents shall notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship the Waste Material to another facility within the same state, or to a facility in another state.

ii. The identity of the receiving facility and state will be determined by Respondents following the award of the contract for the removal action. Respondents shall provide the information required by Paragraph 23(a) and 23(b) as soon as practicable after the award of the contract and before the Waste Material is actually shipped.

b. Before shipping any hazardous substances, pollutants, or contaminants from the Site to an off-site location, Respondents shall obtain EPA's certification that the proposed receiving facility is operating in compliance with the requirements of CERCLA Section 121(d)(3), 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondents shall only send hazardous substances, pollutants, or contaminants from the Site to an off-site facility that complies with the requirements of the statutory provision and regulation cited in the preceding sentence.

IX. SITE ACCESS

24. If the Site, or any other property where access is needed to implement this Settlement Agreement, is owned or controlled by any of the Respondents, such Respondents shall, commencing on the Effective Date, provide EPA, the State, and their 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 Settlement Agreement.

25. Where any action under this Settlement Agreement 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 30 days after the Effective Date, or as otherwise specified in writing by EPA's On-Scene Coordinator. 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 in this Settlement Agreement, 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 XV (Payment of Response Costs).

26. Notwithstanding any provision of this Settlement Agreement, EPA and the State retain all of their access authorities and rights, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

X. ACCESS TO INFORMATION

27. Respondents shall provide to EPA and the State, upon request, copies of all documents and information within their possession or control or that of their contractors or agents relating to activities at the Site or to the implementation of this Settlement Agreement, including, but not limited to, sampling, analysis, chain of custody records, photographs, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Work. Respondents shall also make available to EPA and the State, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

28. Respondents may assert business confidentiality claims covering part or all of the documents or information submitted to EPA or the State under this Settlement Agreement to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when they are submitted to EPA and the State, or if EPA has notified Respondents that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such documents or information without further notice to Respondents.

29. Respondents may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If the Respondents assert such a privilege in lieu of providing documents, they shall provide EPA and the State with the following: 1) the title of the document, record, or information; 2) the date of the document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a description of the contents of the document, record, or information; and 6) the privilege asserted by Respondents. However, no documents, reports or other information created or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.

30. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Site.

XI. RECORD RETENTION

31. Until 10 years after Respondents' receipt of EPA's notification pursuant to Section XXIX (Notice of Completion of Work), each Respondent shall preserve and retain all non-identical copies of records and documents (including records or documents in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work or the liability of any person under CERCLA with respect to the Site, regardless of any corporate retention policy to the contrary. Until 10 years after Respondents' receipt of EPA's notification pursuant to Section XXIX (Notice of Completion of Work), Respondents shall also instruct their contractors and agents to preserve all documents, records, and information of whatever kind, nature or description relating to performance of the Work.

32. At the conclusion of this document retention period, Respondents shall notify EPA and the State at least 90 days prior to the destruction of any such records or documents, and, upon request by EPA or the State, Respondents shall deliver any such records or documents to EPA or the State. Respondents may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondents assert such a privilege, they shall provide EPA and the State with the following: 1) the title of the document, record, or information; 2) the date of the document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a description of the subject of the document, record, or information; and 6) the privilege asserted by Respondents. However, no documents, reports or other information created or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.

33. Each Respondent hereby certifies individually that to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed or otherwise disposed of any records, documents or other information (other than identical copies) relating to its potential liability regarding the Site since the earlier of: [1] January 1, 1999; or, [2] notification of potential liability by EPA or the State, and that it has fully complied with any and all EPA requests for information pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927.

XII. COMPLIANCE WITH OTHER LAWS

34. Respondents shall perform all actions required pursuant to this Settlement Agreement in accordance with all applicable state and federal laws and regulations except as provided in Section 121(e) of CERCLA, 42 U.S.C. § 6921(e), and 40 C.F.R. §§ 300.400(e) and 300.415(j). In accordance with 40 C.F.R. § 300.415(j), all on-Site actions required pursuant to this Settlement Agreement shall, to the extent practicable, as determined by EPA, considering the exigencies of the situation, attain applicable or relevant and appropriate requirements ("ARARs") under federal environmental or state environmental or facility siting laws. Respondents shall identify ARARs in the Work Plan subject to EPA approval.

XIII. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES

35. In the event of any action or occurrence: [a] during performance of the Work; or, [b] at any time before completion of all post removal site control, which causes or threatens a release of Waste Material from the Site that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Respondents shall immediately take all appropriate action. Respondents shall take these actions in accordance with all applicable provisions of this Settlement Agreement, including, but not limited to, the Health and Safety Plan, in order to prevent, abate or minimize such release or endangerment caused or threatened by the release. Respondents shall also immediately notify EPA's On-Scene Coordinator, Leo Francendese, at (404) 562-8772, and the National Response Center at (800) 424-8802 of the incident or Site conditions. In the event that Respondents fail to take appropriate response action as required by this Paragraph, and EPA takes such action instead, Respondents shall reimburse EPA all costs of the response action incurred in a manner not inconsistent with the NCP pursuant to Section XV (Payment of Response Costs).

36. In addition, in the event of any release of a hazardous substance from the Site, Respondents shall immediately notify EPA's On-Scene Coordinator, Leo Francendese, at (404) 562-8772, and the National Response Center at (800) 424-8802. Respondents shall submit a written report to EPA within 7 days after each release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in addition to, and not in lieu of, reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004, *et seq.*

XIV. AUTHORITY OF EPA'S ON-SCENE COORDINATOR

37. EPA's On-Scene Coordinator shall be responsible for overseeing Respondents' implementation of this Settlement Agreement. EPA's On-Scene Coordinator shall have the authority vested in an On-Scene Coordinator by the NCP, including the authority to halt, conduct, or direct any Work required by this Settlement Agreement, or to direct any other removal action undertaken at the Site. Absence of EPA's On-Scene Coordinator from the Site shall not be cause for stoppage of work unless specifically directed by such On-Scene Coordinator.

XV. PAYMENT OF RESPONSE COSTS

38. Payment for Past and Future Response Costs.

a. Respondents shall pay EPA all Past Response Costs and Future Response Costs. On a periodic basis, EPA will send Respondents a bill that includes a SCORPIOS cost summary report, which includes direct and indirect costs incurred by EPA and its contractors. Respondents shall, within 45 days of receipt of the bill - which is deemed to be 7 days after the

date of the bill - remit a cashier's or certified check for the amount of the bill made payable to the "Hazardous Substance Superfund," to the following address:

U.S. Environmental Protection Agency
 Superfund Payments
 Cincinnati Finance Center
 P.O. Box 979076
 St. Louis, Missouri 63197-9000

Payments shall be designated as "(Response Costs) - LCP-Holtrachem Site" and shall reference the payor's name and address, the EPA site identification number A47J, and the docket number of this Order.

- b. Respondents shall simultaneously transmit a copy of the check to:

Ms. Paula V. Painter
 U. S. Environmental Protection Agency, Region 4
 Superfund Enforcement and Information Management Branch, 11th floor
 Superfund Division
 61 Forsyth St., S.W.
 Atlanta, GA 30303

- c. Respondents shall simultaneously send notice that such payment has been made by email to acctsreceivable.cinwd@epa.gov, and to :

EPA Cincinnati Finance Office
 26 Martin Luther King Drive
 Cincinnati, Ohio 45268

- d. The total amount to be paid by Respondents pursuant to Paragraph 38(a) shall be deposited by EPA in the EPA Hazardous Substance Superfund.

39. In the event that the payment for Past Response Costs and/or Future Response Costs is not made within forty-five (45) days of Respondents' receipt of the bill, Respondents shall pay interest on the unpaid balance. Interest is established at the rate specified in Section 107(a) of CERCLA. The Interest to be paid for Respondents' failure to make timely payments on Past Response Costs and/or Future Response Costs shall begin to accrue on the date of Respondent's receipt of the bill. Interest shall accrue at the rate specified through the date of the payment. Payments of Interest made under this paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondents' failure to make timely payments under this Section.

40. Respondents may contest payment of any Past Response Costs and/or Future Response Costs billed under Paragraph 38 if they determine that EPA has made a mathematical

error, or if they believe EPA incurred excess costs as a direct result of an EPA action that was inconsistent with the NCP. Such objection shall be made in writing within 30 days of receipt of the bill and must be sent to EPA's On-Scene Coordinator. Any such objection shall specifically identify the contested Past Response Costs and/or Future Response Costs and the basis for objection. In the event of an objection, Respondents shall within the 30-day period pay all uncontested Past Response Costs and/or Future Response Costs to EPA in the manner described in Paragraph 38. Simultaneously, Respondents shall establish an interest-bearing escrow account in a federally-insured bank duly chartered in the State of North Carolina and remit to that escrow account funds equivalent to the amount of the contested Past Response Costs and/or Future Response Costs. Respondents shall send to EPA's On-Scene Coordinator a copy of the transmittal letter and check paying the uncontested Past Response Costs and/or Future Response Costs, and a copy of the correspondence that establishes and funds the escrow account, including, but not limited to, information containing the identity of the bank and bank account under which the escrow account is established as well as a bank statement showing the initial balance of the escrow account. Simultaneously with establishment of the escrow account, Respondents shall initiate the Dispute Resolution procedures in Section XVI (Dispute Resolution). If EPA prevails in the dispute, within 7 days of the resolution of the dispute, Respondents shall pay the sums due (with accrued interest) to EPA in the manner described in Paragraph 38. If Respondents prevail concerning any aspect of the contested costs, Respondents shall pay that portion of the costs (plus associated accrued interest) for which they did not prevail to EPA in the manner described in Paragraph 38. Respondents shall be disbursed any balance of the escrow account. The dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section XVI (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding Respondents' obligation to reimburse EPA for its Past Response Costs and/or Future Response Costs.

XVI. DISPUTE RESOLUTION

41. Unless otherwise expressly provided for in this Settlement Agreement, the dispute resolution procedures of this Section shall be the exclusive mechanism for resolving disputes arising under this Settlement Agreement. The Parties shall attempt to resolve any disagreements concerning this Settlement Agreement expeditiously and informally.

a. If Respondents object to any EPA action taken pursuant to this Settlement Agreement, including billings for Past or Future Response Costs, they shall notify EPA in writing of their objection(s) within 30 days of such action, unless the objection(s) has/have been resolved informally. EPA and Respondents shall have 14 days from EPA's receipt of Respondents' written objection(s) to resolve the dispute through formal negotiations (the "Negotiation Period"). The Negotiation Period may be extended at the sole discretion of EPA.

b. Any agreement reached by the parties pursuant to this Section shall be in writing and shall, upon signature by both parties, be incorporated into and become an enforceable part of this Settlement Agreement. If the Parties are unable to reach an agreement within the Negotiation Period, an EPA management official at the Division Director level or higher will

issue a written decision on the dispute to Respondents. EPA's decision shall be incorporated into and become an enforceable part of this Settlement Agreement. Respondents' obligations under this Settlement Agreement shall not be tolled by submission of any objection for dispute resolution under this Section. Following resolution of the dispute, as provided by this Section, Respondents shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with EPA's decision, whichever occurs.

XVII. FORCE MAJEURE

42. Respondents agree to perform all requirements of this Settlement Agreement within the time limits established under this Settlement Agreement, unless the performance is delayed by a *force majeure*. For purposes of this Settlement Agreement, 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 performance of any obligation under this Settlement Agreement despite Respondents' best efforts to fulfill the obligation. *Force majeure* does not include financial inability to complete the Work, or increased cost of performance.

43. If any event occurs or has occurred that may delay the performance of any obligation under this Settlement Agreement, whether or not caused by a *force majeure* event, Respondents shall notify EPA orally within 24 hours of when Respondents first knew that the event might cause a delay. Within 3 days thereafter, Respondents shall provide to EPA in writing an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondents' rationale for attributing such delay to a *force majeure* event if they intend to assert such a claim; and a statement as to whether, in the opinion of Respondents, such event may cause or contribute to an endangerment to public health, welfare or the environment. Failure to comply with the above requirements shall preclude Respondents from asserting any claim of *force majeure* for that event for the period of time of such failure to comply and for any additional delay caused by such failure.

44. If EPA agrees that the delay or anticipated delay is attributable to a *force majeure* event, the time for performance of the obligations under this Settlement Agreement that are affected by the *force majeure* event will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the *force majeure* event shall not, of itself, extend the time for performance of any other obligation. If EPA does not agree that the delay or anticipated delay has been or will be caused by a *force majeure* event, EPA will notify Respondents in writing of its decision. If EPA agrees that the delay is attributable to a *force majeure* event, EPA will notify Respondents in writing of the length of the extension, if any, for performance of the obligations affected by the *force majeure* event.

XVIII. STIPULATED PENALTIES

45. Respondents shall be liable to EPA for stipulated penalties in the amounts set forth in below for failure to comply with the requirements of this Settlement Agreement specified below, unless excused under Section XVII (*Force Majeure*). "Compliance" by Respondents shall include completion of the activities under this Settlement Agreement or any work plan or other plan approved under this Settlement Agreement identified below in accordance with all applicable requirements of law, this Settlement Agreement, and any plans or other documents approved by EPA pursuant to this Settlement Agreement and within the specified time schedules established by and approved under this Settlement Agreement.

Stipulated Penalty Amounts

<u>Days of Non-Compliance</u>	<u>Penalty (\$/day)</u>
Days 1-7	\$500
Days 8-14	\$1,000
Days 15-45	\$3,000
Days 45 and beyond	\$7,500

46. In the event that EPA assumes performance of a portion or all of the Work pursuant to Section XX, Respondents shall be liable for a stipulated penalty in the amount of \$200,000.00.

47. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: 1) with respect to a deficient submission under Section VIII (Work to be Performed), during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies Respondents of any deficiency; and 2) with respect to a decision by the EPA Management Official at the Division Director level or higher, under Section XVI (Dispute Resolution), during the period, if any, beginning on the 21st day after the Negotiation Period begins until the date that the EPA management official issues a final decision regarding such dispute. Nothing in this Settlement Agreement shall prevent the simultaneous accrual of separate penalties for separate violations of this Settlement Agreement.

48. Following EPA's determination that Respondents have failed to comply with a requirement of this Settlement Agreement, EPA may give Respondents written notification of the failure and describe the noncompliance. EPA may send Respondents a written demand for payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether EPA has notified Respondents of a violation.

49. All penalties accruing under this Section shall be due and payable to EPA within 30 days of Respondents' receipt from EPA of a demand for payment of the penalties, unless Respondents invoke the dispute resolution procedures under Section XVI (Dispute Resolution).

a. All payments to EPA under this Section shall be paid by certified or cashier's check(s) made payable to "EPA Hazardous Substances Superfund," shall be mailed to:

U.S. Environmental Protection Agency
Fines and Penalties
Cincinnati Finance Center
P.O. Box 979077
St. Louis, Missouri 63197-9000,

Payments shall be designated as "(Stipulated Penalties) - LCP-Holtrachem Site" and shall reference the payor's name and address, the EPA site identification number A47J, and the docket number of this Order.

b. Respondents shall simultaneously transmit a copy of the check to:

Ms. Paula V. Painter
U. S. Environmental Protection Agency, Region 4
Superfund Enforcement and Information Management Branch, 11th floor
Superfund Division
61 Forsyth St., S.W.
Atlanta, GA 30303

c. Respondents shall simultaneously send notice that such payment has been made by email to acctsreceivable.cinwd@epa.gov, and to :

EPA Cincinnati Finance Office
26 Martin Luther King Drive
Cincinnati, Ohio 45268

d. The total amount to be paid by Respondents pursuant to this Paragraph shall be deposited by EPA in the EPA Hazardous Substance Superfund.

50. The payment of penalties shall not alter in any way Respondents' obligation to complete performance of the Work required under this Settlement Agreement.

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.

52. If Respondents fail to pay stipulated penalties when due, EPA may institute proceedings to collect the penalties, as well as interest. Respondents shall pay interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 48. Nothing in this Settlement Agreement shall be construed as prohibiting, altering, or in any

way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of Respondents' violation of this Settlement Agreement or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Sections 106(b) and 122(l) of CERCLA, 42 U.S.C. §§ 9606(b) and 9622(l), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Provided, however, that EPA shall not seek civil penalties pursuant to Section 106(b) or 122(l) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided in this Section, except in the case of a willful violation of this Settlement Agreement or in the event that EPA assumes performance of a portion or all of the Work pursuant to Section XX. Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Settlement Agreement.

XIX. COVENANT NOT TO SUE BY EPA

53. In consideration of the actions that will be performed and the payments that will be made by Respondents under the terms of this Settlement Agreement, and except as otherwise specifically provided in this Settlement Agreement, EPA covenants not to sue or to take administrative action against Respondents pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work agreed to in this Settlement Agreement, or for the costs paid under this Settlement Agreement. This covenant not to sue shall take effect upon receipt by EPA of the Past Response Costs due under Section XV of this Settlement Agreement and any Interest or Stipulated Penalties due for failure to pay Past Response Costs as required by Sections XV and XVIII of this Settlement Agreement. This covenant not to sue is conditioned upon the complete and satisfactory performance by Respondents of their obligations under this Settlement Agreement, including, but not limited to, payment of Future Response Costs pursuant to Section XV. This covenant not to sue extends only to Respondents and does not extend to any other person.

XX. RESERVATIONS OF RIGHTS BY EPA

54. Except as specifically provided in this Settlement Agreement, nothing in this Settlement Agreement 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 in this Settlement Agreement shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Settlement Agreement, 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.

55. The covenant not to sue set forth in Section XIX above does not pertain to any matters other than those expressly identified therein. EPA reserves, and this Settlement Agreement is without prejudice to, all rights against Respondents with respect to all other

matters, including, but not limited to:

- a. claims based on a failure by Respondent(s) to meet a requirement of this Settlement Agreement;
- b. liability for costs not included within the definitions of Past Response Costs or Future Response Costs;
- c. liability for performance of response action other than the Work;
- d. criminal liability;
- e. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
- f. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of the Site; and
- g. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry related to the Site.

56. Work Takeover. In the event EPA determines that Respondents have ceased implementation of any portion of the Work, are seriously or repeatedly deficient or late in their performance of the Work, or are implementing the Work in a manner which may cause an endangerment to human health or the environment, EPA may assume the performance of all or any portion of the Work as EPA determines necessary. Respondents may invoke the procedures set forth in Section XVI (Dispute Resolution) to dispute EPA's determination that takeover of the Work is warranted under this Paragraph. Costs incurred by the United States in performing the Work pursuant to this Paragraph shall be considered Future Response Costs that Respondents shall pay pursuant to Section XV (Payment of Response Costs). Notwithstanding any other provision of this Settlement Agreement, EPA retains all authority and reserves all rights to take any and all response actions authorized by law.

XXI. COVENANT NOT TO SUE BY RESPONDENTS

57. Respondents covenant not to sue and agree not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to the Work, Past Response Costs, Future Response Costs, or this Settlement Agreement, including, but not limited to:

- a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund established by 26 U.S.C. § 9507, based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;

b. any claim arising out of response actions at or in connection with the Site, including any claim under the United States Constitution, the State Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law; or

c. any claim against the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, relating to the Work, Past Response Costs, or Future Response Costs.

These covenants not to sue, above, shall not apply in the event the United States brings a cause of action or issues an order pursuant to the reservations set forth in Paragraphs 55 (b), (c), and (e) - (g), but only to the extent that Respondents' claims arise from the same response action, response costs, or damages that the United States is seeking pursuant to the applicable reservation.

58. Nothing in this Agreement shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

59. Respondents agree not to assert any claims and to waive all claims or causes of action that they may have for all matters relating to the Site, including for contribution, against any person where the person's liability to Respondents with respect to the Site is based solely on having arranged for disposal or treatment, or for transport for disposal or treatment, of hazardous substances at the Site, or having accepted for transport for disposal or treatment of hazardous substances at the Site, if all or part of the disposal, treatment, or transport occurred before April 1, 2001, and the total amount of material containing hazardous substances contributed by such person to the Site was less than 110 gallons of liquid materials or 200 pounds of solid materials.

60. The waiver in Paragraph 59 shall not apply with respect to any defense, claim, or cause of action that a Respondent may have against any person meeting the above criteria if such person asserts a claim or cause of action relating to the Site against such Respondent. This waiver also shall not apply to any claim or cause of action against any person meeting the above criteria if EPA determines:

a. that such person has failed to comply with any EPA requests for information or administrative subpoenas issued pursuant to Section 104(e) or 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) or 9622(e), or Section 3007 of the Solid Waste Disposal Act (also known as the Resource Conservation and Recovery Act or "RCRA"), 42 U.S.C. § 6972, or has impeded or is impeding, through action or inaction, the performance of a response action or natural resource restoration with respect to the Site, or has been convicted of a criminal violation for the conduct to which this waiver would apply and that conviction has not been vitiated on appeal or otherwise; or

b. that the materials containing hazardous substances contributed to the Site by such person have contributed significantly, or could contribute significantly, either

individually or in the aggregate, to the cost of response action or natural resource restoration at the Site.

XXII. OTHER CLAIMS

61. By issuance of this Settlement Agreement, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondents. The United States or EPA shall not be 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 Settlement Agreement.

62. Except as expressly provided in Paragraph 59, and Section XIX (Covenant Not to Sue by EPA), nothing in this Settlement Agreement constitutes a satisfaction of or release from any claim or cause of action against Respondents or any person not a party to this Settlement Agreement, 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.

63. No action or decision by EPA pursuant to this Settlement Agreement 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).

XXIII. CONTRIBUTION

64. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2), and that Respondents are entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), for "matters addressed" in this Settlement Agreement. The "matters addressed" in this Settlement Agreement are: the Work agreed to in this Settlement Agreement, and the costs agreed to be paid under this Settlement Agreement.

65. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(3)(B) of CERCLA, 42 U.S.C. § 9613(f)(3)(B), pursuant to which Respondents have, as of the Effective Date, resolved their liability to the United States for the Work agreed to in this Settlement Agreement, and the costs agreed to be paid under this Settlement Agreement.

66. Except as provided in Paragraph 59, of this Settlement Agreement (Non-exempt De Micromis), nothing in this Settlement Agreement precludes the United States or Respondents from asserting any claims, causes of action, or demands for indemnification, contribution, or cost recovery against any persons not parties to this Settlement Agreement. Nothing in this Settlement Agreement diminishes the right of the United States, pursuant to Section 113(f)(2) and (3) of CERCLA, 42 U.S.C. § 9613(f)(2)-(3), to pursue any such persons to obtain additional

response costs or response action and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2).

XXIV. INDEMNIFICATION

67. Respondents shall 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 arising from, or on account of, negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, or subcontractors, in carrying out actions pursuant to this Settlement Agreement. In addition, Respondents agree to pay the United States all costs incurred by the United States, including but not limited to attorneys fees and other expenses of litigation and settlement, arising from or on account of claims made against the United States based on negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, subcontractors and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Settlement Agreement. The United States shall not be held out as a party to any contract entered into by or on behalf of Respondents in carrying out activities pursuant to this Settlement Agreement. Neither Respondents nor any such contractor shall be considered an agent of the United States.

68. The United States shall give Respondents notice of any claim for which the United States plans to seek indemnification pursuant to this Section and shall consult with Respondents prior to settling such claim.

69. Respondents waive all claims against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between any one or more of Respondents and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays. In addition, Respondents shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between any one or more of Respondents and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays.

XXV. INSURANCE

70. At least 7 days prior to commencing any on-Site work under this Settlement Agreement, Respondents shall secure, and shall maintain for the duration of this Settlement Agreement, comprehensive general liability insurance and automobile insurance with limits of one million dollars, combined single limit, naming EPA as an additional insured. Within the same time period, Respondents shall provide EPA with certificates of such insurance and a copy of each insurance policy. Respondents shall submit such certificates and copies of policies each year on the anniversary of the Effective Date. In addition, for the duration of the Settlement Agreement, Respondents shall satisfy, or shall ensure that their contractors or subcontractors

satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Respondents in furtherance of this Settlement Agreement. 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.

XXVI. FINANCIAL ASSURANCE

71. No later than 30 days after the Effective Date, Respondents shall establish and maintain financial security for the benefit of EPA in the amount of Four Million, Five Hundred and Six Thousand, Three Hundred and Sixty-Three Dollars and Sixty-Four Cents (\$4,506,363.64) in one or more of the following forms, in order to secure the full and final completion of Work by Respondents, including but not limited to, permanent, final disposal of the WWTS in accordance with subparagraph 16.q.:

- a. a surety bond unconditionally guaranteeing payment and/or performance of the Work;
- b. one or more irrevocable letters of credit, payable to or at the direction of EPA, issued by financial institution(s) acceptable in all respects to EPA;
- c. a trust fund administered by a trustee acceptable in all respects to EPA;
- d. a policy of insurance issued by an insurance carrier acceptable in all respects to EPA, which ensures the payment and/or performance of the Work;
- e. a written guarantee to pay for or perform the Work provided by one or more parent companies of Respondents, or by one or more unrelated companies that have a substantial business relationship with at least one of Respondents; including a demonstration that any such guarantor company satisfies the financial test requirements of 40 C.F.R. Part 264.143(f); and/or
- f. a demonstration of sufficient financial resources to pay for the Work made by one or more of Respondents, which shall consist of a demonstration that any such Respondent satisfies the requirements of 40 C.F.R. Part 264.143(f).
 - i. If any Respondent(s) or guarantor(s) who seek to provide a demonstration under 40 C.F.R. § 264.143(f) have provided a similar demonstration at the Site, or any other RCRA, CERCLA, TSCA or other federally-regulated sites, the amount for which they are providing financial assurance at those sites by means of satisfying the requirements of 40 C.F.R. Part 264.143(f) shall be added to the estimated costs of the Work for purposes of determining the total dollar amount for which they must satisfy the requirements of 40 C.F.R.

Part 264.143(f) for this Settlement Agreement.

ii. If any Respondent(s) or guarantor(s) who seek to provide a demonstration under 40 C.F.R. § 264.143(f) have provided a similar demonstration at other RCRA, CERCLA, TSCA or other federally-regulated Sites, Respondents shall provide documentation of the prior demonstration.

72. No later than 30 days after the Effective Date, Respondents shall submit all executed and/or otherwise finalized instruments or other documents required in order to make the selected financial assurance legally binding to Paula Painter at the address specified in Paragraph 38.b. above. Any and all financial assurance instruments provided pursuant to this Section shall be in form and substance satisfactory to EPA, determined in EPA's sole discretion. In the event that EPA determines at any time that the financial assurances provided pursuant to this Section (including, without limitation, the instrument(s) evidencing such assurances) are inadequate, Respondents shall, within 30 days of receipt of notice of EPA's determination, obtain and present to EPA for approval one of the other forms of financial assurance listed in Paragraph 71, above. In addition, if at any time EPA notifies Respondents that the anticipated cost of completing the Work has increased, then, within 30 days of such notification, Respondents shall obtain and present to EPA for approval a revised form of financial assurance (otherwise acceptable under this Section) that reflects such cost increase. Respondents' inability to demonstrate financial ability to complete the Work shall in no way excuse performance of any activities required under this Settlement Agreement.

73. If Respondents seek to ensure completion of the Work through a guarantee pursuant to Subparagraph 71(e) or 71(f) of this Settlement Agreement, Respondents shall (i) demonstrate to EPA's satisfaction that the guarantor satisfies the requirements of 40 C.F.R. Part 264.143(f); and (ii) resubmit sworn statements conveying the information required by 40 C.F.R. Part 264.143(f) annually, on the anniversary of the Effective Date or such other date as agreed by EPA, to EPA. For the purposes of this Settlement Agreement, wherever 40 C.F.R. Part 264.143(f) references "sum of current closure and post-closure costs estimates and the current plugging and abandonment costs estimates," the dollar amount to be used in the relevant financial test calculations shall be the current cost estimate of Four Million, Five Hundred and Six Thousand, Three Hundred and Sixty-Three Dollars and Sixty-Four Cents (\$4,506,363.64) for the Work at the Site under this Settlement Agreement, plus any other RCRA, CERCLA, TSCA, or other federal environmental obligations financially assured by the relevant Respondent or guarantor to EPA by means of passing a financial test.

74. If, after the Effective Date, Respondents can show that the estimated cost to complete the remaining Work has diminished below the amount set forth in Paragraph 71 of this Section, Respondents may, on any anniversary date of the Effective Date, or at any other time agreed to by the Parties, reduce the amount of the financial security provided under this Section to the estimated cost of the remaining Work to be performed. Respondents shall submit a proposal for such reduction to EPA, in accordance with the requirements of this Section, and may reduce the amount of the security after receiving written approval from EPA. In the event of a

dispute, Respondents may seek dispute resolution pursuant to Section XVI (Dispute Resolution). Respondents may reduce the amount of security in accordance with EPA's written decision resolving the dispute. Notwithstanding any other provision of this Settlement Agreement, the parties expressly recognize and agree that the amount of financial security provided under this Section shall not be reduced to less than Three Million Six Hundred and Sixteen Thousand Three Hundred and Sixty-Three Dollars and Sixty-Four Cents (\$3,616,363.64), the estimated cost of off-site disposal.

75. Respondents may change the form of financial assurance provided under this Section at any time, upon notice to and prior written approval by EPA, provided that EPA determines that the new form of assurance meets the requirements of this Section. In the event of a dispute, Respondents may change the form of the financial assurance only in accordance with the written decision resolving the dispute.

XXVII. MODIFICATIONS

76. EPA's On-Scene Coordinator may make modifications to any plan or schedule in writing or by oral direction. Any oral modification will be memorialized in writing by EPA promptly, but shall have as its effective date the date of EPA's On-Scene Coordinator's oral direction. Any other requirements of this Settlement Agreement may be modified in writing by mutual agreement of the parties.

77. If Respondents seek permission to deviate from any approved work plan or schedule, Respondents' Project Coordinator shall submit a written request to EPA for approval outlining the proposed modification and its basis. Respondents may not proceed with the requested deviation until receiving oral or written approval from EPA's On-Scene Coordinator pursuant to Paragraph 76.

78. No informal advice, guidance, suggestion, or comment by EPA's On-Scene Coordinator or other EPA representatives 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 Settlement Agreement, or to comply with all requirements of this Settlement Agreement, unless it is formally modified.

XXVIII. ADDITIONAL REMOVAL ACTION

79. If EPA determines that additional removal actions related to the WWTS, not included in an approved plan are necessary to protect public health, welfare, or the environment, EPA will notify Respondents of that determination. Unless otherwise stated by EPA, within 30 days of receipt of notice from EPA that additional removal actions are necessary to protect public health, welfare, or the environment, Respondents shall submit for approval by EPA a Work Plan for the additional removal actions. The plan shall conform to the applicable requirements of Section VIII (Work to Be Performed) of this Settlement Agreement. Upon EPA's approval of the plan pursuant to Section VIII, Respondents shall implement the plan for additional removal

actions in accordance with the provisions and schedule contained therein. This Section does not alter or diminish EPA's On-Scene Coordinator's authority to make oral modifications to any plan or schedule pursuant to Section XXVII (Modifications).

XXIX. NOTICE OF COMPLETION OF WORK

80. When EPA determines, after EPA's review of the Final Report, that all Work has been fully performed in accordance with this Settlement Agreement, with the exception of any continuing obligations required by this Settlement Agreement, including, *e.g.*, post-removal site controls, payment of Future Response Costs, or record retention, EPA will provide written notice to Respondents. If EPA determines that any such Work has not been completed in accordance with this Settlement Agreement, 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. Respondents shall implement the modified and approved Work Plan and shall submit a modified Final Report in accordance with the EPA notice. Failure by Respondents to implement the approved modified Work Plan shall be a violation of this Settlement Agreement.

XXX. INTEGRATION/APPENDICES

81. This Settlement Agreement and its appendices constitute the final, complete and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Settlement Agreement. The parties acknowledge that there are no representations, agreements or understandings relating to the settlement other than those expressly contained in this Settlement Agreement. The following appendices are attached to and incorporated into this Settlement Agreement:

- Appendix 1 Action Memorandum
- Appendix 2 Site Map showing general location of Site, IP Property, Holtrachem Property, North Bay Treatment Pond, and Cell No. 2
- Appendix 3 Waste Disposal Summaries

XXI. SEVERABILITY

82. 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.

XXII. EFFECTIVE DATE

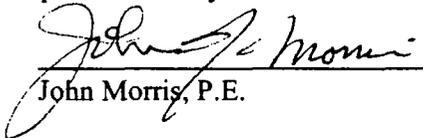
83. This Order may be executed in any number of counterparts, each of which, when executed and delivered to EPA, shall be deemed to be an original, but such counterparts shall together constitute one and the same document.

84. This Order shall be effective when the Order is signed by EPA, Region 4.

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

Agreed this 17th day of April, 2008.

For Respondent Honeywell International Inc.

By: 
John Morris, P.E.

Title: Remediation Portfolio Director

Agreed this _____ day of _____, 2008.

For Respondent International Paper Corporation

By: _____

Title: _____

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

Agreed this _____ day of _____, 2008.

For Respondent Honeywell International Inc.

By: _____
John Morris, P.E.

Title: Remediation Portfolio Director

Agreed this 19th day of May, 2008.

For Respondent International Paper Corporation

By: *Kirt J. Curyas*
Kirt J. Curyas

Title: Vice President of Manufacturing, Coated Paperboard

10 11 0038

It is so ORDERED and Agreed this 20th day of May, 2008.

BY: Matthew W. Taylor for
Shane Hitchcock
Chief, Emergency Response and Removal Branch
Superfund Division
Region 4
U.S. Environmental Protection Agency

EFFECTIVE DATE: May 20, 2008

APPENDIX 1
ACTION MEMORANDUM



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

May 13, 2008

ENFORCEMENT ACTION MEMORANDUM

SUBJECT: Request for Removal Action at the HoltraChem Site
Riegelwood, Columbus County, North Carolina

FROM: Leo Francendese, On-Scene Coordinator
Emergency Response and Removal Branch

THRU: Shane Hitchcock, Chief
Emergency Response and Removal Branch

TO: Franklin E. Hill, Director
Superfund Division

I. PURPOSE

The purpose of this Enforcement Action Memorandum is to request and document approval of the proposed Removal Action described herein for the polychlorinated biphenyl (PCB) contamination above 11 mg/kg located on International Paper's (IP) Riegelwood Mill property as a result of historical operations at the HoltraChem Site, which is located in Riegelwood, Columbus County, North Carolina. A Time-Critical Removal Action was conducted by Honeywell International, Inc. (Honeywell), under an Administrative Order on Consent (AOC), at the HoltraChem Site during 2003-2004, which addressed all containerized hazardous wastes at the Site. In mid-2004, Honeywell began an Engineering Evaluation / Cost Analysis (EE/CA) under a second AOC with the U.S. Environmental Protection Agency (EPA), Region 4, to determine the removal actions required for contaminated soil, sediment and surface water at the Site, and potential future remedial actions required for groundwater. The EE/CA is nearing completion. However, PCB contamination from the HoltraChem Site has been found on the neighboring IP's property. IP needs to expand their permitted industrial landfill as soon as possible into the area of known PCB contamination. Therefore, a removal action is required to excavate the PCB contamination from the IP property and stockpile it on the HoltraChem property until the EE/CA is completed and the final soil cleanup is selected and implemented. This Removal Action will be Enforcement-Lead and implemented by Honeywell and International Paper Company, the Potentially Responsible Parties (PRPs) for the HoltraChem Site, under a third AOC with the EPA. The Site poses a threat to public health and the environment which meets the National Oil and Hazardous Substance Contingency Plan (NCP) Section 300.415(b)(2) criteria for removal actions. This Removal Action was chosen in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and the NCP. This Removal Action is based on the Administrative Record (AR) for the Site.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID Number: NCD991278631
Site Specific ID Number: A47J
Removal Category: Time-Critical Removal Action

A. Site Description

This Section of the Action Memo provides a description of the Site conditions and relevant background information.

1. Removal Site Evaluation

The HoltraChem Site is located approximately 20 miles west-northwest of the City of Wilmington, North Carolina and includes the former 24 acre HoltraChem chlor-alkali manufacturing plant at 636 John Riegel Road in Riegelwood, North Carolina, and all areas where hazardous substances, pollutants or contaminants released from the former plant, or released as a result of operations thereon, have come to be located. The Cape Fear River borders one side of the plant. The other three sides are bounded by International Paper's Riegelwood Mill (IP) as is illustrated in **Figure 1 in Attachment A**. The former chlor-alkali plant began operations in 1963 and ceased in October 2000. The plant was originally constructed to provide chlorine gas, caustic soda, and bleach to the adjacent IP facility, using a mercury cell process. Other products were sold or were used in-house by HoltraChem. Unused products and byproducts were discharged to soil, air and wastewater.

A Time-Critical Removal Action was conducted by Honeywell International, a PRP at the HoltraChem Site from January 2003 to October 2004, under which all containerized hazardous wastes were removed from the Site. An EE/CA for a Non-Time Critical Removal Action (NTCRA) is currently being prepared for the Site as required by the AOC dated June 8, 2004. Site characterization activities have indicated that mercury and polychlorinated biphenyls (PCBs), specifically Aroclor 1268, are the primary Site contaminants.

IP is located on 1,500 acres at 865 John Riegel Road in Riegelwood, North Carolina. The Riegelwood Mill has been in operation since 1951 and produces solid bleach board, bostons and market pulp. IP has operated a permitted industrial landfill on its property since 1963. The landfill is surrounded by a series of wastewater treatment ponds used in Mill operations that ultimately discharge to the Cape Fear River.

HoltraChem discharged process wastewater generated during chlorine production to IP's wastewater treatment system. IP personnel have indicated that until the late 1970s or early 1980s, HoltraChem process wastewater was discharged to IP's North Bay treatment pond. Subsequently, HoltraChem's discharge was relocated to the head of IP's treatment works. The North Bay treatment pond served as a settling lagoon for wastewater treatment solids (WWTS) until 2002. It operated for over 20 years.

In 1994, approximately 25 acres of the North Bay treatment pond was bermed and drained for development as a permitted industrial landfill. The southern portion of the bermed area was developed as Landfill Cell No. 1 and is expected to reach its capacity in 2008. The northern portion of the bermed area is scheduled to be utilized for the expansion of the landfill (Cell No. 2) in the near future so that IP can continue operations on an uninterrupted basis. IP has indicated they desire to begin the expansion by June 2008.

Analytical results from samples collected from the planned Cell No. 2 area indicate the presence of PCB Aroclor 1268 at concentrations up to 5,100 mg/kg. The WWTS containing Aroclor 1268 concentrations above 11 mg/kg need to be properly disposed of prior to construction of IP's landfill. Areas of the IP property containing Aroclor 1268 are considered part of the HoltraChem Site under CERCLA. The scope of this Action Memorandum is to address the PCB-contaminated WWTS located on the IP property.

2. Physical Location

The Site is located directly on the Cape Fear River in Riegelwood, Columbus County, North Carolina. The location of the contaminated WWTS is surrounded by property owned and operated by IP. Access to the Site is through IP.

Riegelwood has a population of 3,194 people. Drinking water in the area is supplied by IP through an intake on the Cape Fear River, north and upstream of the Site. The nearby area includes residential, industrial and commercial uses.

3. Site Characteristics

The portion of the Site to be addressed by this Action Memorandum is a former wastewater treatment pond located on IP property. It accepted wastewater from the HoltraChem Site until the late 1970s or early 1980s. It is not currently in use. However, IP intends to utilize this portion of their property to expand their industrial landfill in the near future. This will be the first removal action for the IP property in relation to contamination caused by HoltraChem. A time-critical removal action occurred on the HoltraChem property in 2003-2004, and is described in more detail in section I.B.1.(b)(3).

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

EPA has determined that a release of the hazardous substance PCBs, as defined by Section 101(14) of CERCLA, has occurred on the IP property, caused by the HoltraChem Site. A time-critical removal action was conducted to address containerized hazardous substances at the former HoltraChem plant in 2003-2004. An EE/CA has been underway since 2004 to assess the extent of soil, sediment and surface water contamination and to evaluate removal or treatment options. The final cleanup for the Site will be defined in a future decision document (i.e. Action Memorandum or Record of Decision). During the EE/CA time-period, PCB contamination was found at the neighboring IP facility. IP plans to expand their landfill into this area of contamination by June 2008.

In September 2005, IP contracted with Premier Environmental Services, Inc. to assess the Landfill Cell No. 2 area. Six soil borings were advanced to depths ranging from 12 to 16 feet below land surface (ft bsl). A total of 11 samples were collected for laboratory analysis of PCBs, including Aroclor 1268. Three of the samples were also analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals using the Toxicity Characteristic Leaching Procedure (TCLP) to determine if WWTS in Cell No. 2 would be considered a characteristic hazardous waste. The results of the September 2005 investigation were:

- Aroclor 1268 was detected in 10 of the 11 samples analyzed for PCBs, with the reported concentrations ranging from 0.071 mg/kg to 1,200 mg/kg.
- All TCLP analyses were non-detect.
- WWTS thicknesses measured in the six borings ranged from 1 to 9 feet.

In April 2006, IP personnel met with EPA Region 4 personnel to discuss the October 2005 results, additional site characterization requirements, and potential remedial and waste disposal alternatives. The EPA recommended that IP proceed with the characterization of the site using a biased sampling grid to aid in the development of the cleanup plan.

In July 2006, ARCADIS G&M of North Carolina, Inc. conducted an additional site investigation. A total of 375 soil and sludge samples were collected and analyzed for PCB Aroclor 1268. In addition, four samples were submitted for waste characterization analysis of TCLP VOCs, TCLP SVOCs, and TCLP Resource Conservation and Recovery Act (RCRA) metals. One sample was also analyzed for TCLP pesticides. Two samples were analyzed for VOCs, SVOCs, and RCRA metals. The samples were collected along a grid pattern.

Aroclor 1268 was detected at concentrations exceeding 50 mg/kg in 14 samples collected from 9 locations (I4, H5, I5, J5, K5, I6, K6, M6, and I8) in the northwestern portion of Landfill Cell No. 2. The 14 samples were collected from elevation horizons ranging from 2 to 12 ft bsl at the 9 sample locations and ranged in concentration from 72 mg/kg in Sample SB-I4-22-20 to 5,100 mg/kg in Sample SB-I6-20-18.

Aroclor 1268 was detected at concentrations between 1 and 50 mg/kg in 65 samples and at concentrations below 1 mg/kg in the remaining 296 samples. The majority of the 65 samples exceeding 1 mg/kg were collected from locations in the northwestern portion of Landfill Cell No. 2; however, approximately 20 of these samples were collected from various locations and elevation horizons in the remaining portion of Landfill Cell No. 2. Sample results of Aroclor 1268 from the 2006 sampling event are illustrated in **Figure 2-2** and **Figure 2-3** located in **Attachment A**.

All samples submitted for TCLP analysis were below US EPA regulatory levels for all compounds. The two samples collected from the soil directly below the sludge layer at locations I5 and W10 were below regulatory levels for all compounds.

5. NPL Status

The Site is not on the National Priorities List.

6. Maps, pictures and other graphic representations

Select maps, pictures and other graphic representations are included in **Attachment A** of this Action Memorandum. They include an aerial photograph illustrating the key areas of the Site, aerial photographs with data overlain, and the stockpile design.

B. Other Actions To Date

1. Previous Actions

a. International Paper Property

No Superfund-related actions have occurred on IP's property other than investigation into the nature and extent of PCB contamination in Cell No. 2. IP manages several units on their property under RCRA.

b. HoltraChem Property

(1) RCRA

While it was operating, the HoltraChem facility was permitted under RCRA by the North Carolina Department of Environment and Natural Resources (NCDENR). Some corrective action activities occurred pursuant to that permit. Detailed information about the corrective action and other actions taken under the direction of the NCDENR are available in the site file.

(2) Hurricane Floyd Response and NCDENR Investigation

Hurricane Floyd and associated flooding caused an overtopping/breach in the rainwater collection pond in September, 1999. EPA personnel and EPA contractors assisted facility personnel in sand-bagging to raise the berm height. Surface soil sampling results in June 2001 performed by NCDENR indicated that mercury may have been transported out of the pond and into surface soils adjacent to the pond.

After sampling events in 2001 by the NCDENR indicated elevated levels of mercury, NCDENR referred the Site to the EPA Emergency Response and Removal Branch (ERRB) in January, 2002.

(3) Time-Critical Removal Action (2003-2004)

ERRB performed a removal site evaluation in January and February 2002. Airborne mercury vapor levels were in excess of EPA Regional 4 Removal Action Levels (RAL) for mercury within the cell building. Elemental mercury was dripping from structures inside the building and pooled on the lower floor. ERRB also concluded that other areas of the facility had potential for mercury contamination and posed a potential threat as defined by Sections 101(22) of CERCLA, 42 U.S.C. § 9601(22).

EPA entered into an AOC with Honeywell on July 1, 2002. An Enforcement Action Memorandum was signed by EPA on July 2, 2002. Honeywell began the removal action in January 2003. Work was shut down by the USEPA from Mid-July 2003 through September 2003. Work resumed in October 2003 and was completed in September 2004.

The removal action began by removing all asbestos containing materials in and around the Mercury Cell Building, pipe racks, products area, and wastewater area. The mercury cell building and its components were dismantled and disposed of offsite. Cracks in the mercury cell building floor and pit were sealed with a grout mixture and then they were covered with a layer of concrete.

The Retort Unit, brick mercury still and rubber lined acid bath box, and other debris found on the Retort Pad were disposed of as hazardous material. The Retort Pad sump was filled with clean fill material. The entire pad was covered with a multi-layer temporary cap consisting of a plastic liner, fill material, a 6-millimeter plastic liner, and another layer of fill.

Equipment from the Brine Mess Area, which was not needed for water treatment, was removed and the majority of the debris was disposed of as hazardous material. The concrete Brine Shack (control room) was sampled for disposal characterization. The structural steel was disposed of as scrap metal.

The majority of the debris from the Cooling and Drying area was disposed of as construction debris and scrap metal after decontamination and screening procedures. However, there were a several pieces of equipment which had to be disposed of as macro debris. This area is currently covered with a black plastic liner.

The Products area included a control room, a substation with electrical transformers and various equipment and piping. The equipment in this area had been drained prior to the plant closing in October 2000. The Products control room consisted of a concrete block building. The Substation B (concrete block) building was demolished last in this area. The electrical transformers in this area were drained.

The Bleach Plant consisted of a reinforced concrete structure (approx. 40' long x 16' wide x 18' high) with three compartments. The standing water in the vat was tested and disposed of in the wastewater treatment system. The concrete structure was demolished using a hydraulic hammer and the debris was screened with a mercury vapor analyzer (MVA). The concrete was placed in the low area near the North Rainwater Pond. The majority of the debris from this area was disposed of as construction debris and scrap metal. Portions of the Bleach Plant currently remain undisturbed.

The two cooling towers were wood structures with corrugated transite panels. The debris from the wood structures was disposed of as non-regulated waste and the equipment associated with the Cooling Towers was disposed of as scrap metal.

The former Salt Dock area and North and South Brine Saturator tanks were located on the northeast section of the plant across from the wastewater pretreatment area. The concrete portion of the former Salt Dock is still present. The South and North Brine Saturator tanks were removed from the site. Prior to removal, both saturator tanks were partially full of salt from the former operations. Some of the salt initially removed from the North Saturator was placed in macro boxes with other debris as void filler per the LDR Variance. The remaining salt was removed from both saturators and staged on the Mercury Cell Building concrete floor. Some of the salt was dissolved on the Mercury Cell Building floor, captured in the Mercury Cell Building Pit, and processed through the on-site water treatment facility. This process was not very efficient so the balance of the solidified salt was loaded into dump trailers and sent to CWM as hazardous waste.

The outer hull of both saturator tanks consisted of welded steel. The South Brine Saturator contained an original brick lining. The North Saturator lining had been previously replaced with a fiberglass lining. The brick lining from the South Saturator was sent CWM as non-regulated waste. The steel and fiberglass portions of the tanks were cut up, pressure washed, and disposed as

scrap metal. Standing water observed in the saturators was drained and treated in the wastewater treatment system.

The former #3 Caustic Storage area contained mercury contamination and residual caustic material. The lines were drained and the equipment, structural steel, and piping removed. The concrete pad and sump were cleaned and left in place. The majority of materials were disposed of as hazardous waste. Materials that could be decontaminated were disposed of as scrap.

Piping, pipe racks, pipe bridges, cable trays and cables were located throughout the facility. Piping and pipe bridge structures in Pipe Racks D, F and I were completely removed. At Pipe Racks A, B, C, E, G, and H, the pipe bridge structures remained in place and only selected piping were removed. Cable tray supports and cable located along the west side of the Mercury Cell Building were removed. Equipment and piping located in the Acid Storage Area north of the Mercury Cell Building were also removed. The majority of the piping material was disposed of as Macro and Micro materials. The majority of the structural steel materials were disposed of as scrap metal.

A disposal summary through February 2008 is included in **Attachment B**.

2. Current Actions

a. International Paper Property

International Paper is preparing to begin construction activities for their industrial Landfill Cell No. 2.

b. HoltraChem Property

From completion of removal activities under the 2002 AOC until the present, the Site has been maintained four days a week, on average. Staff supplied by Honeywell perform routine inspections, air monitoring and wastewater treatment. Occasionally, beads of mercury are found on the former mercury cell building pad and are properly disposed. A summary of waste disposed from the Site from the beginning of the removal action through February 2008 is included in **Attachment B**.

Honeywell began the EE/CA in late 2004. The draft EE/CA report was submitted to EPA in July 2007. The Ecological Risk Assessment needs to be completed and issues addressed regarding treatment/disposal options before the EE/CA can be finalized. It is hoped that EE/CA finalization will occur within the next year. Upon EE/CA completion, a Non-Time-Critical Removal Action Memorandum will be prepared to select the final response action for the entire Site.

C. State and Local Authorities' Role

1. State and Local Actions to Date

NCDENR has been very involved with the HoltraChem Site. A summary of activities leading up to the first Enforcement Action Memorandum for this Site can be found in that document. NCDENR attended monthly progress meetings at the Site during the initial Time-Critical Removal Action. NCDENR participated in negotiations with the PRP to conduct the EE/CA. NCDENR has been involved in oversight of field activities related to the EE/CA, and has actively participated in conference calls and meetings. NCDENR also provides comments on documents. NCDENR has reviewed the PRP's draft work plan for this action and concurs with the proposed approach.

2. Potential for Continued State/Local Response

It is anticipated that NCDENR will continue providing oversight assistance and input regarding the removal process at this Site.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

EPA Region 4 has determined that a release of a hazardous substance into the environment has occurred at the Site, as defined by Section 101 of CERCLA and established under Section 102 of CERCLA at 40 CFR Part 302/Table 302.4. The Site meets the criteria for the threat to public health or welfare factors considered in the determination of the appropriateness of a removal action as specified in Section 300.415(b)(2) of the NCP.

A. Threats to Public Health or Welfare

NCP Section 300.415(b)(2)(iv) - High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate

High levels of PCB Aroclor 1268 exist in subsurface soils in the WWTS located on IP's property, as is illustrated in **Figures 2-2 and 2-3 in Attachment A**. Concentrations exceeding removal action limits were found at depth ranges from two to twelve feet below the surface. The concentrations of Aroclor 1268 found during the 2006 investigation ranged up to 5,100 mg/kg. TSCA considers PCB concentrations less than 1 mg/kg to be acceptable for unrestricted uses. The volume of Aroclor 1268 contaminated sludge with concentrations exceeding 1 mg/kg is estimated at 40,500 cubic yards (yd³).

The Human Health Risk Assessment (HHRA) for the Site evaluated the human health risk posed by different exposure scenarios and established PCB concentrations that would not be likely to have an appreciable toxic effect. In the HHRA, cleanup goals were presented based on the different exposure scenarios with hazard quotients (HQ) of 0.1, 1 and 3. The cleanup goal associated with the most stringent soil PCB cleanup goals

in an industrial setting were for a construction worker. The cleanup goal associated with an HQ of 1 for a construction worker was 11 mg/kg for soil PCB concentrations.

Although much of the contamination is below the surface, IP intends to begin work in this area to construct an additional landfill cell. This activity will bring the contamination to the surface, and if not handled properly, construction personnel may be exposed to the contamination. In addition, if not handled properly, the contamination may migrate to other areas of the Site or into the adjacent Cape Fear River.

The Agency for Toxic Substances and Disease Registry's (ATSDR) Toxicological Profile on PCBs states,

The most commonly observed health effects in people exposed to large amounts of PCBs are skin conditions such as acne and rashes. Studies in exposed workers have shown changes in blood and urine that may indicate liver damage. PCB exposures in the general population are not likely to result in skin and liver effects. Most of the studies of health effects of PCBs in the general population examined children of mothers who were exposed to PCBs.

Animals that ate food containing large amounts of PCBs for short periods of time had mild liver damage and some died. Animals that ate smaller amounts of PCBs in food over several weeks or months developed various kinds of health effects, including anemia; acne-like skin conditions; and liver, stomach, and thyroid gland injuries. Other effects of PCBs in animals include changes in the immune system, behavioral alterations, and impaired reproduction. PCBs are not known to cause birth defects.

Few studies of workers indicate that PCBs were associated with certain kinds of cancer in humans, such as cancer of the liver and biliary tract. Rats that ate food containing high levels of PCBs for two years developed liver cancer. The Department of Health and Human Services (DHHS) has concluded that PCBs may reasonably be anticipated to be carcinogens. The EPA and the International Agency for Research on Cancer (IARC) have determined that PCBs are probably carcinogenic to humans.

Women who were exposed to relatively high levels of PCBs in the workplace or ate large amounts of fish contaminated with PCBs had babies that weighed slightly less than babies from women who did not have these exposures. Babies born to women who ate PCB-contaminated fish also showed abnormal responses in tests of infant behavior. Some of these behaviors, such as problems with motor skills and a decrease in short-term memory, lasted for several years. Other studies suggest that the immune system was affected in children born to and nursed by mothers exposed to increased levels of PCBs. There are no reports of structural birth defects caused by exposure to PCBs or of health effects of PCBs in older children. The most likely way infants will be exposed to PCBs is from breast milk. Transplacental transfers of PCBs were also reported. In most cases, the benefits of breast-feeding outweigh any risks from exposure to PCBs in mother's milk. (ATSDR, 2001)

B. Threats to the Environment

NCP Section 300.415(b)(2)(i) - Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants

Fish and other ecological receptors are currently being exposed to PCB contaminated sediment in the Cape Fear River adjacent to the Site. Sediment samples collected in the River near this location indicate mercury and PCB contamination at concentrations that exceed EPA Region 4 sediment screening values. Disturbance of the WWTS, if not handled properly, may lead to additional PCBs being discharged into the river.

NCP Section 300.415(b)(2)(iv) - High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate

As previously discussed, sampling has identified PCB contamination in the subsurface soils on the IP property at concentrations up to 5,100 mg/kg in locations near the Cape Fear River. Contamination has also been found in river sediments at concentrations that exceed EPA Region 4 screening values. Although the contamination planned to be addressed by this Action Memo is below the land surface, IP intends to begin work in this area to construct an additional landfill cell. This activity will bring the contamination to the surface, and if not handled properly, the contamination may migrate to other areas of the Site or into the adjacent Cape Fear River.

NCP Section 300.415(b)(2)(ii) - Actual or potential contamination of drinking water supplies or sensitive ecosystems

Mercury and PCB contamination has been documented in the Cape Fear River near the Site. The EPA Region 4 Sediment Screening Value for total PCBs is 0.033 mg/kg (EPA, 2007). As is illustrated in **Figure 2-17 in Attachment A**, Aroclor 1268 concentrations in the river sediment at IP's outfall ranged up to 0.122 mg/kg (sample # IP-3 obtained during EE/CA). Endangered species, threatened species and species of special concern are expected to be located in Columbus County. The shortnose sturgeon is an endangered species which has been observed in the Cape Fear River near the Site. PCBs have high bioconcentration factors. They accumulate in the fat of fish, birds, mammals, and humans.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances, pollutants, and contaminants from this Site, if not addressed by implementing the response action selected in this Action Memorandum, will present an imminent and substantial endangerment to the public health, or welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COST

A. Proposed Actions

1. Proposed Action Description

The following removal actions are proposed for the PCB contaminated sludge located on IP's property:

- Construct a temporary stockpile cell on the HoltraChem property which will consist of a bottom and top 40-mil high-density polyethylene (HDPE) liner with a berm system surrounding the temporary stockpile
- Excavate sludge with PCB contamination greater than 11 mg/kg
- Collect, treat and dispose of wastewater
- Stabilize sludge, if needed, prior to transport
- Transfer sludge with PCB concentrations of up to 49 mg/kg to IP's double-lined landfill cell #1 (estimated 34,000 yd³), which is constructed to RCRA standards
- Transfer sludge with PCB concentrations equal to or greater than 50 mg/kg to the temporary stockpile cell on the HoltraChem property (estimated 6,500 yd³)
- Remove former discharge pipe
- Conduct confirmation sampling
- Provide for and adequately undertake the collection, treatment and or disposal of all on-Site contaminated water and sludge including washes, rinses, rinseate and contaminated sediment generated as a result of decontamination operations
- Provide for and undertake a dust suppression method to ensure that no contaminated media/dust particles migrate from the Site
- Secure the contaminated areas in such a manner as to adequately prevent access from unauthorized persons on a 24 hour basis
- Inspect the temporary stockpile on a routine basis, not less than once per week, and make whatever repairs may be necessary to ensure the soundness and integrity of the temporary stockpile
- Continue Post Removal Site Control measures at the HoltraChem property

As a contingency, if the volume of PCB contaminated waste exceeds the storage capacity at HoltraChem, it may be disposed off-site at a TSCA-approved off-site treatment/disposal facility.

Because all PCBs are expected to be removed, Institutional Controls (ICs) are not expected to be required on this portion of IP's property that is affected by this removal action. If cleanup goals are not achieved, the need for ICs will be evaluated.

2. Contribution to Remedial Performance

The PRP is evaluating the HoltraChem Site through an EE/CA under the oversight of EPA Region 4's remedial program. The goal is to address as much of the Site as possible through the removal process. The proposed Removal Action for the IP property described in the preceding Sections of this Action Memorandum will contribute

to the abatement of immediate threats to human health and the environment posed by this portion of the Site.

As mentioned in Section III.A, in the HHRA cleanup goals were presented based on the different exposure scenarios with hazard quotients (HQ) of 0.1, 1 and 3. The cleanup goal associated with the most stringent soil PCB cleanup goals in an industrial setting were for a construction worker. The cleanup goals associated with each HQ are presented below:

	HQ = 0.1	HQ = 1	HQ = 3
Site-specific PCB cleanup goal for a construction worker:	1.1 mg/kg	11 mg/kg	33 mg/kg

An HQ less than 1 indicates that a receptor's dose of a single contaminant is less than the reference dose (RfD), and that toxic non-carcinogenic effects from that chemical are unlikely. In general, HQ values at or below 1 are interpreted as indicating acceptable risk, while HQ values above 1 are interpreted as indicating the potential for adverse effects.

The remedial process uses a variety of factors in selecting cleanup goals, such as human health risk, ecological risk, and protection of groundwater. For this Site, neither the ecological risk assessment nor the site-specific risk assessment for protection of groundwater has been completed. Recently, the PRP's consultant calculated a soil-to-groundwater screening level using US EPA's Soil Screening Guidance (US EPA, 1997). The resulting soil-to-groundwater screening level was 30.9 mg/kg. In December 2005, Interstate Technology Regulatory Council published a White Paper titled *Examination of Risk-Based Screening Values and Approaches of Selected States* (<http://www.itrcweb.org/Documents/RISK-1.pdf>). Table 4 of that document presents State Screening values for PCBs from 13 states that were surveyed. Leachability values for protection of groundwater were included in the table. Only five of the 13 states surveyed had values for protection of groundwater. The soil concentrations for this category ranged from 0.13 mg/kg (Alabama) to 1,000 mg/kg (Colorado). Other values presented included 6.3 mg/kg (California), 17 mg/kg (Florida), and 53 mg/kg (Kansas).

In a November 29, 2007 memorandum, Kevin Koporec, EPA Toxicologist, provided Interim Removal Action Levels for Arsenic, Lead and PCBs. For PCBs in an industrial setting, he recommended a removal action level of 33 mg/kg (HQ=3). However, he goes on to state that since this value is greater than the HQ=1 concentration, additional investigations and assessments would be needed under the remedial program to determine a final cleanup level. Because a landfill will be built on top of the area to be excavated, a cleanup goal of an HQ=1 (11 mg/kg) is being selected since it would be difficult to excavate more material after the landfill is constructed. A cleanup goal of 11 mg/kg is protective of human health in an industrial setting and falls within the range of protection of groundwater published screening values.

3. Description of Alternative Technologies

The use of alternate technologies is not anticipated at this time. The scope of this removal action is to store sludge contaminated with PCBs at concentrations greater than or equal to 50 mg/kg until the EE/CA is completed and the final soil cleanup is selected. Alternative technologies may be used during the ultimate treatment/disposal of the waste. If so, those treatment technologies will be described in the future EPA decision document(s).

4. Engineering Evaluation/Cost Analysis (EE/CA)

This is a time-critical removal action not requiring an EE/CA. The ultimate treatment and/or disposal of the stockpiled wastes will be addressed under the EE/CA for the HoltraChem Site, which is currently underway.

5. Applicable or Relevant and Appropriate Requirements (ARARs)

On-site removal activities conducted under CERCLA are required to attain ARARs to the extent practical considering the exigencies of the situation. To the extent practicable, the proposed Removal Action will meet the substantive requirements of the following Federal ARARs:

- a. RCRA Requirements for Identification, Management and Transportation of Hazardous Waste (40 CFR Parts 261, 262 and 263)
- b. RCRA Land Disposal Restrictions (40 CFR Part 268)
- c. Toxic Substance Control Act (TSCA) (40 CFR Part 761)
- d. Off-Site Rule (40 CFR Section 300.440)

TSCA has a storage limit of one-year (40 CFR §761.65(a)(1)). It also provides for a 1-year extension if requested from and granted by the EPA Regional Administrator (40 CFR §761.65(a)(2)). An extension may be needed for this removal action.

On June 25, 2007, NCDENR identified to EPA the ARARs that they believed were applicable to the future final cleanup at the HoltraChem Site. Recent conversations with NCDENR indicate that those same ARARs are potentially applicable to the removal action on the IP property. The proposed Removal Action will meet the substantive requirements of the State ARARs, to the extent practicable considering the scope of the time-critical removal action. The extensive list of ARARs provided by the State of North Carolina is included in **Attachment C**.

6. Project Schedule

EPA Region 4 is currently negotiating an AOC with a Honeywell to undertake the removal action. A draft Work Plan has been submitted by the PRP's consultant, as well as a revised version. Work Plan implementation is anticipated for April 2008. The time estimated to complete the field work is three months. The temporary stockpile cell will be monitored under a revised Post-Removal Site Control Plan until the final treatment/disposal remedy is selected for the HoltraChem Site.

B. ESTIMATED COSTS

The cost to complete the excavation and temporary stockpiling of the WWTS onto the HoltraChem property by the PRPs' contractor is approximately \$600,000. The cost to transport and dispose of the WWTS at an off-site facility is estimated at approximately \$3,620,000. The AOC associated with this Removal Action includes the requirement of financial assurance until the time the WWTS are either treated according to the final decision document for the Site or transported and disposed at an off-site facility.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

If this removal action is delayed or not implemented, the threats described herein will continue to exist and, in fact may worsen as IP begins landfill cell construction this fall/winter.

VII. OUTSTANDING POLICY ISSUES

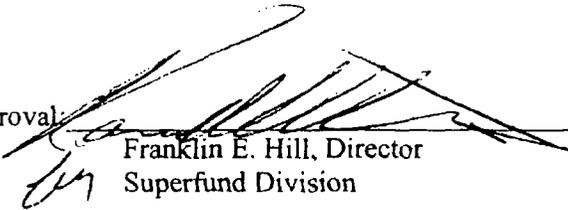
There are no outstanding policy issues at this time.

VIII. ENFORCEMENT

This action is anticipated to be undertaken by a PRP pursuant to the terms of a Removal Action AOC. Valerie Nowell, Assistant Regional Counsel, has assisted in the preparation and negotiation of the AOC. Refer to the Enforcement Addendum in **Attachment D** for enforcement confidential information.

IX. RECOMMENDATION

This decision document represents the selected Removal Action for the International Paper portion of the HoltraChem Site, Riegelwood, Columbus County, North Carolina, developed in accordance with CERCLA, as amended, and not inconsistent with the NCP. This decision is based on the Administrative Record for the Site. Conditions at this Site meet the NCP Section 300.145(b)(2) criteria for removal actions and I recommend your approval of the Removal Action described herein.

Approval: 
Franklin E. Hill, Director
Superfund Division

Date: 5/13/08

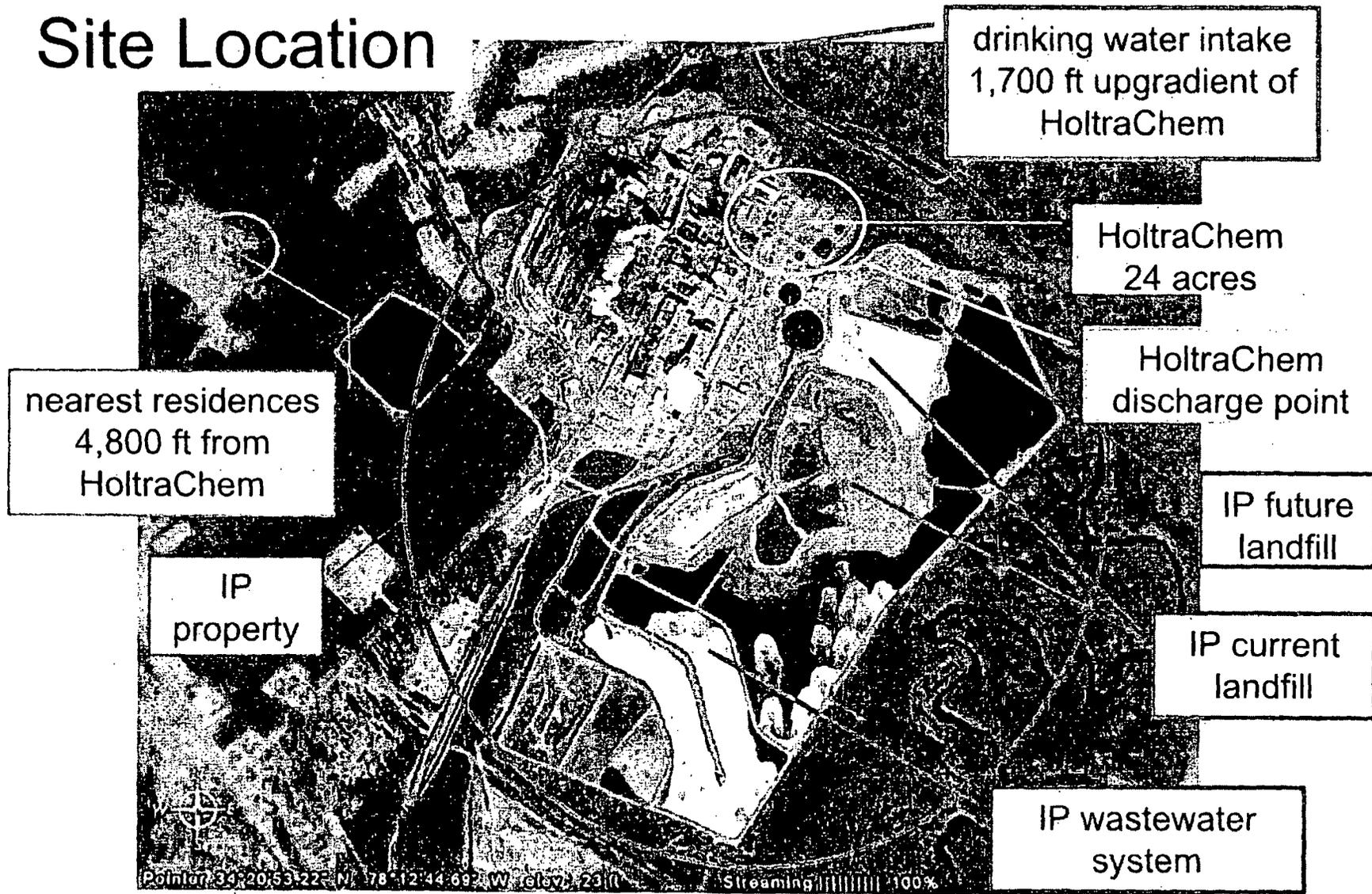
Disapproval: _____
Franklin E. Hill, Director
Superfund Division

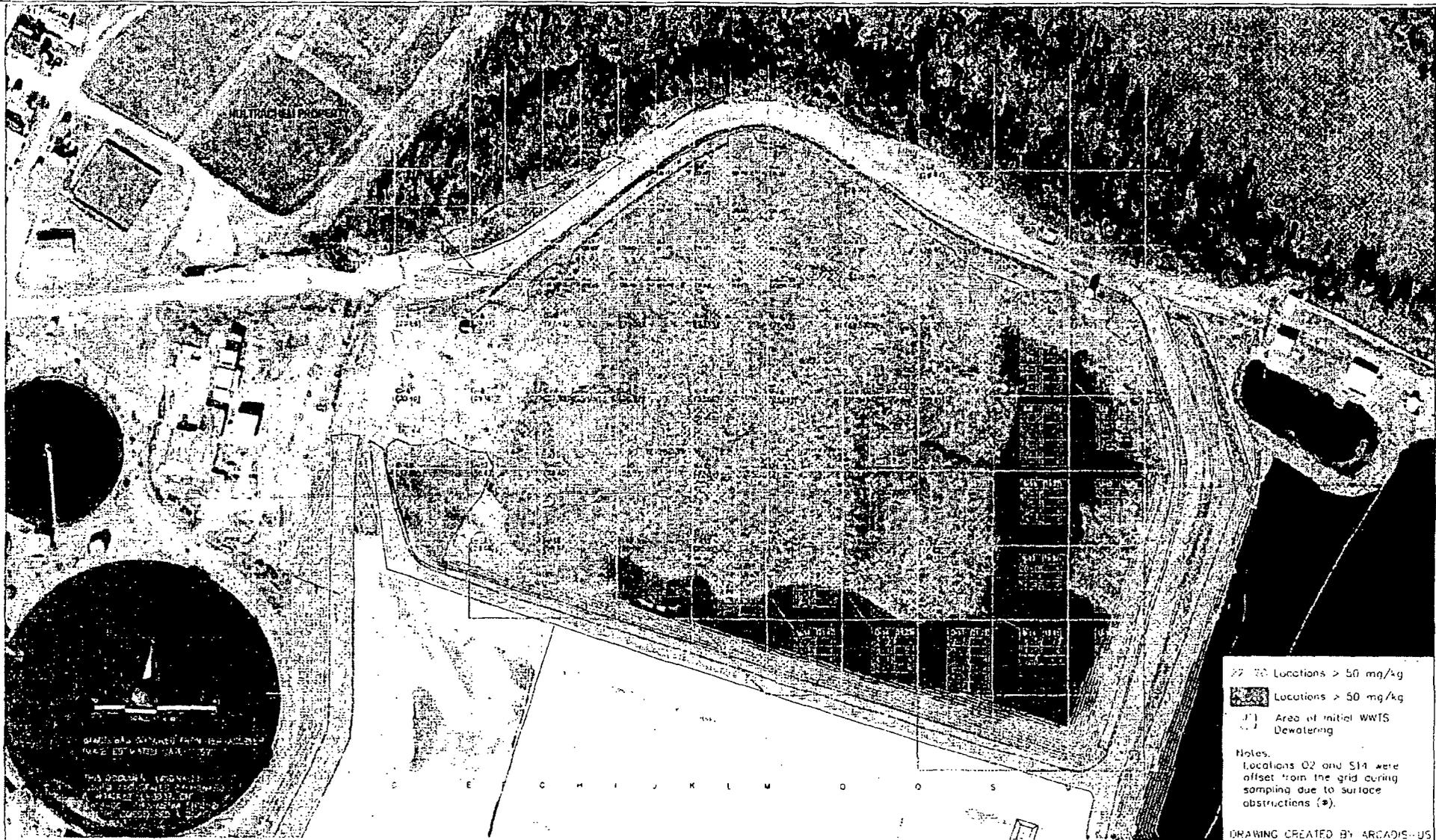
Date: _____

Attachments

ATTACHMENT A
FIGURES

Site Location





- 27 70 Locations > 50 mg/kg
- Locations > 50 mg/kg
- Area of initial WWS Dewatering

Notes:
Locations O2 and S14 were offset from the grid during sampling due to surface obstructions (*).

DRAWING CREATED BY ARCADIS-USA

DSGN	ARCADIS				
DR	OH				
CHR	KH				
APCD	CB	NO	DATE	REV.	BY
					APCD



FIGURE 3-21
AROCLOR 1268 CONCENTRATION (MG/KG) IN CELL NO. 2
 WWS MANAGEMENT WORKPLAN
 LCP-HOLTRACHEM SITE RIEGELWOOD, NC
 DATE: MAY, 2007
 327350 YW 30 30

10 11 058



() Locations > 50 mg/kg
 ■ Locations > 50 mg/kg
 Notes:
 Locations O2 and S14 were
 offset from the grid during
 sampling due to surface
 obstructions ()

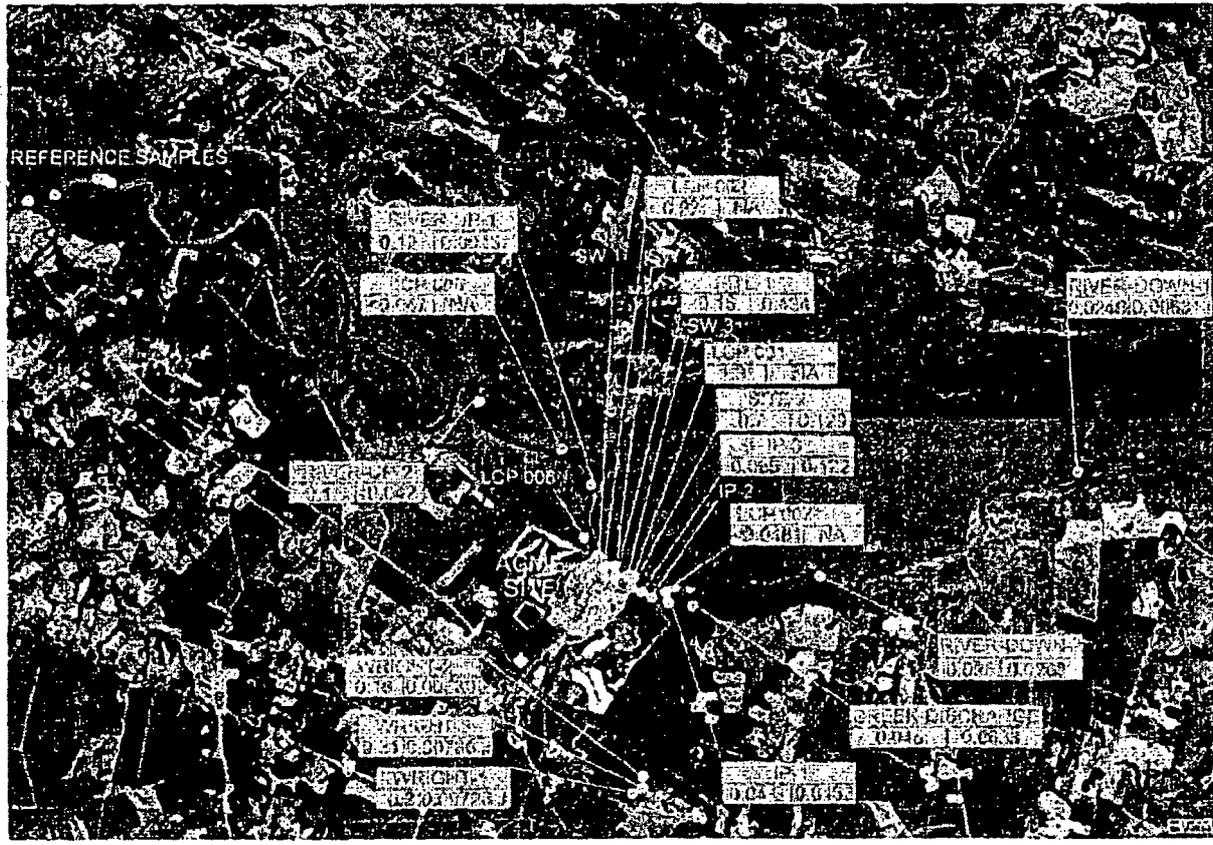
DRAWING CREA-L1 BY ARCADIS-US

ISSUE	ARCADIS						
DATE	04						
BY							
APP'D	CE	NO	DATE	REV	BY	APP'D	



FIGURE 2-1
 INSET A (SEE FIGURE 2-1) AROCLOR 1268
 CONCENTRATIONS (MG/KG) IN CELL NO. 2
 WWTS MANAGEMENT WORKPLAN
 LCP-HOLTRACHEM RIEGELWOOD, NC
 SHEET
 DATE: MAR 2007
 PGW 377350.104.XL 56

10 11 059



LEGEND

0.0930.0268 - MERCURY (AROCLOL 1268)
 UNITS ARE mg/kg
 NA = NOT ANALYZED
 NOTE: SEE SEDIMENT APPENDIX FOR REFERENCE SAMPLE DATA



DESIGN	GMH
DR	GMH
CHEK	KEM
APPD	
NO.	DATE

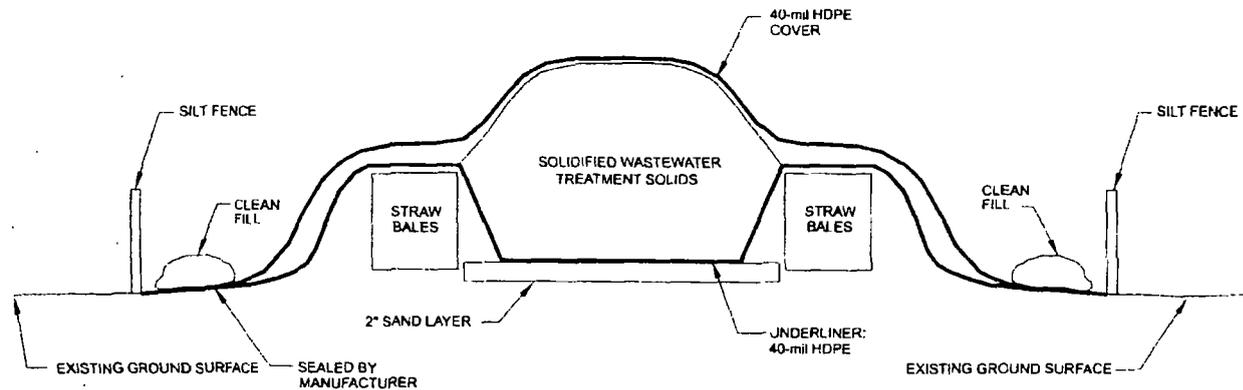
EBL:\HOME\YWELL\ACME\CADD\Figure2-17.dwg

CH2MHILL

EE/CA REPORT
 LCP-HOLTRACHEM SITE, RIEGELWOOD, NC

**RIVER SEDIMENT
 SAMPLING**

SHEET	FIGURE 2-17
DWG	FIGURE 2-17
DATE	MAY 2007
PROJ	327350 HW 20.28



NOTES:
 HDPE = HIGH DENSITY POLYETHYLENE
 STRAW BALES STAKED USING
 2 REBAR STAKES PER BALE

DESIGN	GMH
DR	GMH
CHK	KEH
APPROV	

NO DATE



FIGURE 5-2 TEMPORARY STOCKPILE CROSS SECTION WWTs MANAGEMENT WORK PLAN LCP-HOLTRACHEM SITE, RIEGELWOOD, NC	SHEET
	DATE
	DATE
	DATE

E:\Projects\2007\VECA Report\Facility Evaluation\2007\Permes. Evaluation\IP Material Work Plan\Figure 5-2.dwg

10 11 :061

10 11 3062

ATTACHMENT B
DISPOSAL SUMMARY

Prepared By: Kim Charles Smith (MACTEC) Disposal Summary updated March 10, 2008			
Waste Stream	Disposal Destination	Quantity Shipped During February 2008	Quantity Shipped To Date*
Saturator Salt	Waste Management - Emelle Treatment Facility Emelle, AL	Task Complete	(24) 25-yd (1,008,180 lbs.)
Hazardous - Variance Debris	Waste Management - Emelle Treatment Facility Emelle, AL	Task Complete	(28) flat bed trailers (761,972 lbs.)
Hazardous - Micro	Waste Management - Emelle Treatment Facility Emelle, AL	Task Complete	(4) 20-yd boxes (43) 25-yd boxes
Non-Regulated Material (Directly Land Filled)	Waste Management - Emelle Treatment Facility Emelle, AL	Task Complete	(8) 20-yd boxes (68) 25-yd boxes (4) 30-yd box
Hazardous - Macro (Including ACM Hazardous)	Waste Management - Emelle Treatment Facility Emelle, AL	Task Complete	(98) 20-yd boxes (1) 25-yd box
D009 (Wastewater Filter Cake)	EQ - Michigan Disposal Waste Treatment Belleville, MI	1 Box (13,900 lbs.)	(15) 25-yd boxes (9) 30-yd boxes
ACM (Non-Haz)	Anson Waste Management Facility Polkton, NC	Task Complete	(3) 40-yd boxes (22,040 lbs.)
Non-Haz Construction Debris	Sampson Co. Disposal Facility Roseboro, NC	None	(48) 30-yd boxes (676,260 lbs.)
Non-Haz Scrap Metal	Southern Metals Recycling Wilmington, NC	None	(77) variable size boxes (1,317,529 lbs.)
Non-Haz Scrap Titanium	Southern Metals Recycling Wilmington, NC	None	(2) 10-yd boxes (4,280 lbs.)
Non-Haz Scrap Copper	Southern Metals Recycling Wilmington, NC	None	(8) 5-yd boxes (9) 10-yd boxes (1) 30-yd box (183,177 lbs.)
Non-Haz Scrap Brass	Southern Metals Recycling Wilmington, NC	None	(1) 5-yd box (1,232 lbs.)
Non-Haz Scrap Aluminum	Southern Metals Recycling Wilmington, NC	None	(1) 5-yd box (1) 10-yd box (2) 25-yd boxes (20,520 lbs.)
Non-Haz Scrap Stainless Steel	Southern Metals Recycling Wilmington, NC	None	(1) 10-yd box (1) 20-yd box (14,650 lbs.)
Reclaimed Elemental Mercury (for Reuse)	Goldsmith Evanston, IL	None	(17.5) one-metric-ton cylinders (34,447 lbs.)

Note: This table is being modified as weight data is received.

10 11 064

ATTACHMENT C
NORTH CAROLINA ARARS

10 11 .065



North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director

Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary

June 25, 2007

Ms. Samantha Urquhart-Foster
Remedial Project Manager
Superfund Remedial & Site Evaluation Branch
Waste Management Division
US EPA Region 4
61 Forsyth Street, Southwest
Atlanta, Georgia 30303-8960

RE: Request for Additional Information Regarding
Identification of North Carolina
Applicable or Relevant and Appropriate Requirements
LCP-HoltraChem Site
Riegelwood, Columbus County, NC

Dear Ms. Urquhart-Foster:

The State of North Carolina has reviewed the request from EPA for additional information regarding the state Applicable or Relevant and Appropriate Requirements (ARARs) specific to the LCP-HoltraChem Site (Site) located in Riegelwood, Columbus County, NC. The following North Carolina ARARs are to be met at this Site:

State Action-Specific ARARs:

Standard, Requirement, Criteria, or Limitation	Citation	Requirements Synopsis	Comment
Asbestos Hazard Management Program	10A North Carolina Administrative Code (NCAC) 41C.0600	Establishes program and regulations for the management of asbestos.	Potentially Applicable
Surface Water and Wetlands Standards	15A NCAC 2B .0100 .0200 .0300 .0400 .0500	Procedures For Assignment Of Water Quality Standards Classifications And Water Quality Standards Applicable To Surface Waters And Wetlands Of North Carolina Assignment Of Stream Classifications Effluent Limitations Surface Water Monitoring: Reporting	Applicable Applicable Applicable Potentially Applicable Potentially Applicable

Well Construction Standards	15A NCAC 2C .0100	Construction and abandonment requirements for water wells.	Applicable
	.0200	Construction requirements for injection wells.	Potentially Applicable
Air Pollution Control Requirements	15A NCAC 2D .0100	Definitions And References	Potentially Applicable
	.0200	Air Pollution Sources	Potentially Applicable
	.0300	Air Pollution Emergencies	Potentially Applicable
	.0400	Ambient Air Quality Standards	Potentially Applicable
	.0500	Emission Control Standards	Potentially Applicable
	.0600	Monitoring: Recordkeeping: Reporting	Potentially Applicable
	.0900	Volatile Organic Compounds	Potentially Applicable
	.1100	Control Of Toxic Air Pollutants	Potentially Applicable
	.1200	Control Of Emissions From Incinerators	Potentially Applicable
	.1600	General Conformity	Potentially Applicable
.1700	Municipal Solid Waste Landfills	Potentially Applicable	

Procedures For Permits: Approvals	15A NCAC 2H .0100	Point Source Discharges To The Surface Waters	Potentially Applicable
	.0400	Coastal Waste Treatment Disposal	Potentially Applicable
	.0500	Water Quality Certification	Potentially Applicable
	.0900	Local Pretreatment Programs	Potentially Applicable
	.1000	Stormwater Management	Potentially Applicable
	.1300	Discharges To Isolated Wetlands And Isolated Waters	Potentially Applicable
Groundwater Classification and Standards	15A NCAC 2L .0100	General Considerations	Applicable
	.0200	Classifications And Groundwater Quality Standards	Applicable
	.0300	Assignment Of Underground Water Classifications	Applicable

Air Quality Permits Procedures	15A NCAC 2Q .0100 .0300 .0700 .0800	General Provisions Construction And Operation Permits Toxic Air Pollutant Procedures Exclusionary Rules	Potentially Applicable Potentially Applicable Potentially Applicable Potentially Applicable
Sedimentation Control	15A NCAC 4B .0100	Erosion And Sediment Control	Applicable
Hazardous Waste Management	15A NCAC 13A .0100	Establishes standards for characterization, storage, treatment, and disposal of hazardous waste.	Applicable

Solid Waste Management	15A NCAC 13B	General Provisions	Applicable
	.0100		
	.0300	Treatment And Processing Facilities	Potentially Applicable
	.0500	Disposal Sites	Applicable
	.0600	Monitoring Requirements	Applicable
	.1600	Requirements For Municipal Solid Waste Landfill Facilities (MSWLFs)	Potentially Relevant and Appropriate
Sedimentation Pollution Control Act	North Carolina General Statute (NCGS) Chapter 113A, Article 4	Provides for the creation, administration, and enforcement of a program and for the adoption of minimal mandatory standards which will permit development of this State to continue with the least detrimental effects from pollution by sedimentation.	Applicable

NC Solid Waste Management Act	NCGS 130A, Article 9	Definitions	Applicable
	Part 1		
	Part 2	Solid and Hazardous Waste Management	Applicable
	NCGS 130A-294(c)(17)	The bottom of a hazardous waste disposal facility shall be at least 10 feet above the seasonal high water table and more when necessary to protect the public health and the environment	Potentially Applicable
	NCGS 130A-294(h)(6)	Prohibits disposal in a hazardous waste disposal facility of ignitables as defined in the RCRA, polyhalogenated biphenyls of 50 ppm or greater concentration, and free liquids whether or not containerized.	Applicable
	Part 2A	Nonhazardous Solid Waste Management	Applicable
	Part 3	Inactive Hazardous Sites	Relevant and Appropriate
	Part 4	Superfund Program	Applicable
Asbestos Hazard Management	NCGS 130A, Article 19	Establishes program and regulations for the management of asbestos	Potentially Applicable

Water and Air Resources statute	NCGS Chapter 143, Article 21	Public policies of the State to maintain, protect, and enhance water quality with North Carolina.	Applicable
	Part 1	Organization and Powers Generally; Control of Pollution	Applicable
	Part 6	Floodway Regulation	Applicable
	NCGS 143-215.54(c)	New solid waste disposal facilities, hazardous waste management facilities, salvage yards, and chemical storage facilities are prohibited in the 100-year floodplain.	Potentially Applicable
	Part 7	Water and Air Quality Reporting	Potentially Applicable
Oil Pollution and Hazardous Substances Control Act of 1978	NCGS Chapter 143, Article 21A	Establishes criteria for protecting the land and the waters over which this State has jurisdiction from pollution by oil, oil products, oil by-products, and other hazardous substances.	Applicable
	Part 1	General Provisions	Applicable
	Part 2	Oil Discharge Controls	Applicable

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Air Pollution Control	NCGS Chapter 143, Article 21B	Public policies of the State to maintain, protect, and enhance air quality with North Carolina.	Applicable
NC Division of Waste Management, Solid Waste Section	<i>Procedure and Criteria for Waste Determination</i>	PCB wastes of 50 ppm or greater content are excluded from NC landfills through waste determination and rule	To Be Considered
Inactive Hazardous Sites Program	<i>Guidelines for Assessment and Cleanup</i>	Guidance document for the assessment and cleanup of hazardous sites, including the protection of groundwater.	To Be Considered

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State Location-Specific ARARs:

Standard, Requirement, Criteria, or Limitation	Citation	Requirements Synopsis	Comment
Discharges to Isolated Wetlands and Isolated Waters	15A NCAC 2H .1300	Discharges To Isolated Wetlands And Isolated Waters	Potentially Applicable
Coastal Management	15A NCAC 7	Protects natural resources and manages development in high hazard areas to achieve quality coastal waters. Provides public access for recreation and redevelopment of urban waterfronts. Assures that the public and local governments have a say in coastal decision making and assist in developing a plan for and managing living marine resources.	Relevant and Appropriate
NC Hazardous Waste Management Rules	15A NCAC 13A .0100	Establishes standards for characterization, storage, treatment, and disposal of hazardous waste.	Applicable

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Solid Waste Management	15A NCAC 13B	General Provisions Treatment And Processing Facilities Disposal Sites Monitoring Requirements Requirements For Municipal Solid Waste Landfill Facilities (MSWLFs)	Applicable
	.0100		Potentially Applicable
	.0300		Applicable
	.0500		Applicable
	.0600		Potentially Relevant and Appropriate
.1600			
Coastal Area Management Act of 1974	NCGS 113A Article 7	Protects natural resources and manages development in high hazard areas to achieve quality coastal waters. Provides public access for recreation and redevelopment of urban waterfronts. Assures that the public and local governments have a say in coastal decision making and assist in developing a plan for and managing living marine resources.	Relevant and Appropriate
NC Recordation of Inactive Hazardous Substance or Waste Disposal Sites Statute	NCGS 130A-310.8	State requirement for recordation of inactive hazardous sites.	Applicable

State Chemical-Specific ARARs:

Standard, Requirement, Criteria, or Limitation	Citation	Requirements Synopsis	Comment
Surface Water and Wetlands Standards	15A NCAC 2B .0100	Procedures For Assignment Of Water Quality Standards	Applicable
	.0200	Classifications And Water Quality Standards Applicable To Surface Waters And Wetlands Of North Carolina	Applicable
	.0300	Assignment Of Stream Classifications	Applicable
	.0400	Effluent Limitations	Potentially Applicable
	.0500	Surface Water Monitoring: Reporting	Potentially Applicable
Air Pollution Control Requirements	15A NCAC 2D .0100	Definitions And References	Potentially Applicable
	.0200	Air Pollution Sources	Potentially Applicable
	.0300	Air Pollution Emergencies	Potentially Applicable

	.0400	Ambient Air Quality Standards	Potentially Applicable
	.0500	Emission Control Standards	Potentially Applicable
	.0600	Monitoring: Recordkeeping: Reporting	Potentially Applicable
	.0900	Volatile Organic Compounds	Potentially Applicable
	.1100	Control Of Toxic Air Pollutants	Potentially Applicable
	.1200	Control Of Emissions From Incinerators	Potentially Applicable
	.1600	General Conformity	Potentially Applicable
	.1700	Municipal Solid Waste Landfills	Potentially Applicable
Groundwater Classification and Standards	15A NCAC 2L		
	.0100	General Considerations	Applicable
	.0200	Classifications And Groundwater Quality Standards	Applicable
	.0300	Assignment Of Underground Water Classifications	Applicable

Air Quality Permits Procedures	15A NCAC 02Q .0703 & .0711	Allowable PCB and Mercury Emission Rates	Potentially Applicable
Solid Waste Management	15A NCAC 13B .0542(e)	PCBs are prohibited in Construction and Demolition Debris Landfills	Applicable
	15A NCAC 13B .1626(1)(b)(ii)	PCBs are prohibited in Municipal Solid Waste Landfills	Applicable
NC Drinking Water Act	NCGS.130A 311-327	Regulates water systems within the state that supply drinking water that may affect the public health. Provides the state with the authority needed to assume primary enforcement responsibility under the federal act.	Applicable
Inactive Hazardous Sites Program	<i>Guidelines for Assessment and Cleanup</i> Health-Based Soil Remediation Goals	Provides numerical standards, based in part on EPA guidance, for allowable levels of contaminants in soil, for both direct contact exposure to soils as well as the protection of groundwater.	To Be Considered
NC Division of Waste Management, Solid Waste Section	<i>Procedure and Criteria for Waste Determination</i>	PCB wastes of 50 ppm or greater content are excluded from NC landfills through waste determination and rule	To Be Considered

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NC DENR – Department of Health and Human Services (DHHS)	Fish Consumption Advisory For Mercury	Provides advisory for the consumption of fish due to the presence of elevated levels of mercury in fish tissue.	To Be Considered
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The NC DENR Superfund Section appreciates the opportunity to participate in the remediation of this site. If you have any questions or comments, please feel free to contact me at (919) 508-8466.

Sincerely,

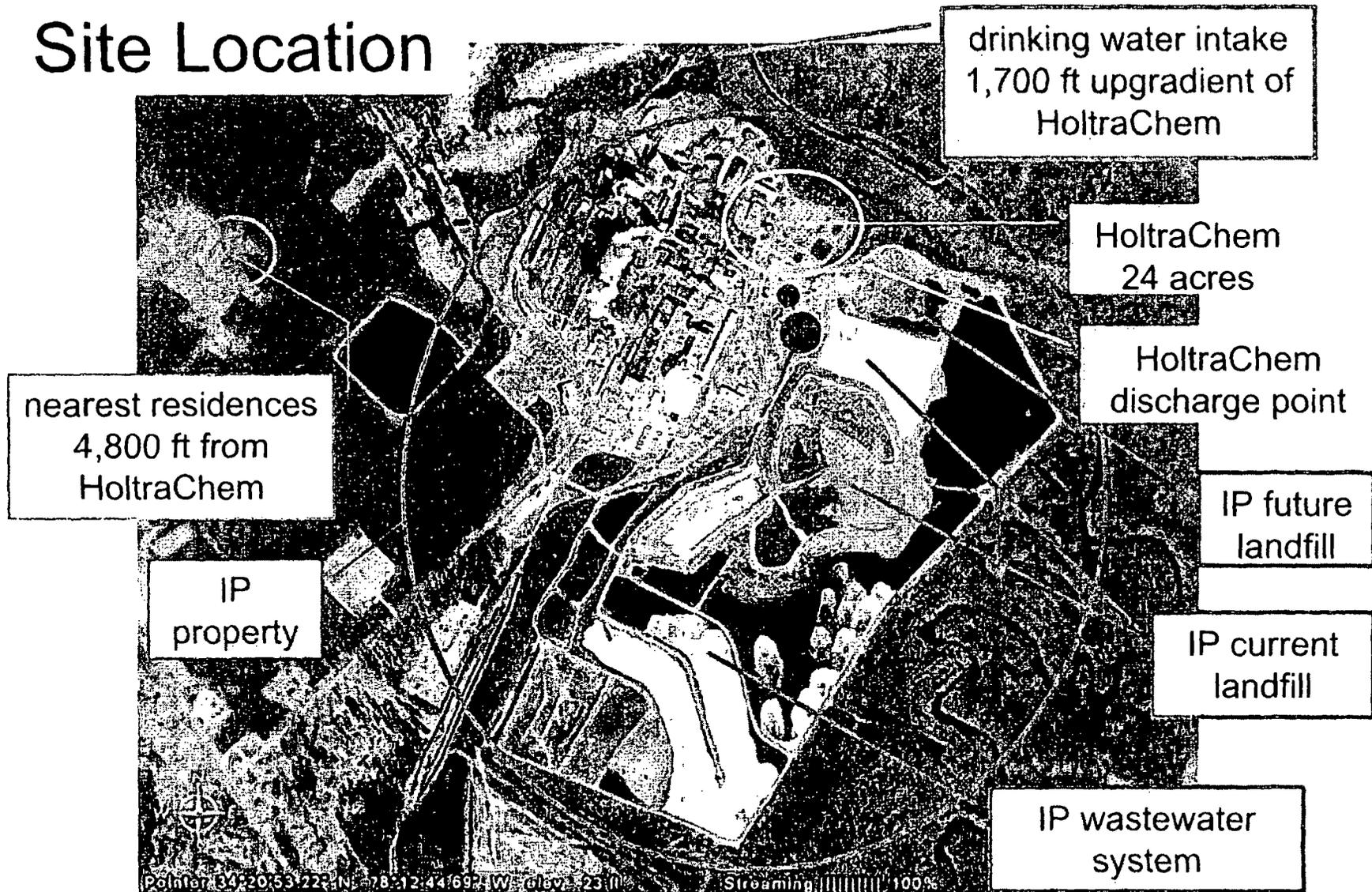
David B. Mattison/dg

David B. Mattison
Environmental Engineer
NC DENR Superfund Section

cc: Jack Butler, NC DENR Superfund Section
Wallace Finlator, NC DENR Superfund Section

APPENDIX 2
SITE MAP

Site Location



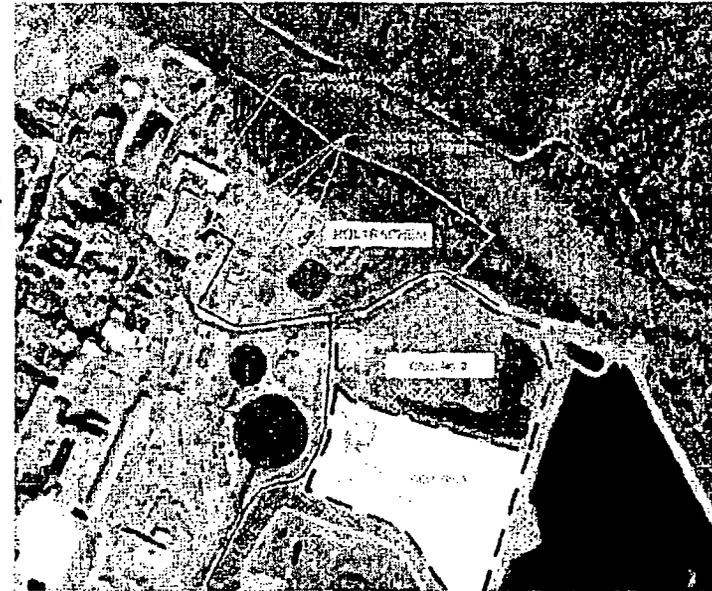


INTERNATIONAL PAPER PROPERTY BOUNDARIES

AERIAL PHOTO TAKEN FROM GOOGLE EARTH
SCALE APPROXIMATELY 1" = 2000'

LEGEND

- - - - - INTERNATIONAL PAPER BOUNDARY
- HOLTRACHEM BOUNDARY
- - - - - INTERNATIONAL PAPER LANDFILL CELLS



INSET A

AERIAL PHOTO TAKEN FROM GOOGLE EARTH
SCALE APPROXIMATELY 1" = 800'

BOUNDARIES BASED ON COLUMBUS COUNTY OS 11-1-2007

DESIGN	CMH		
DRAWN	CMH		
CHECKED	REH		
APPROVED		NO.	DATE

CH2MHILL

WWTS MANAGEMENT WORK PLAN
LCP-HOLTRACHEM SITE, RIEGELWOOD, NC

PROPERTY BOUNDARIES

SHEET	FIGURE 1-2
DWG	FIGURE 1-2
DATE	NOV. 2007
PROJ	365628.HW.50.51

EBL\Honeywell\Acme\WWTS\ Mgmt Plan\IP Material Work Plan\CADD\Figure1-2.dwg

APPENDIX 3
WASTE DISPOSAL SUMMARIES

Prepared By: Kim Charles Smith (MACTEC) Disposal Summary updated March 10, 2008			
Waste Stream	Disposal Destination	Quantity Shipped During February 2008	Quantity Shipped To Date*
Saturator Salt	Waste Management - Emelle Treatment Facility Emelle, AL	Task Complete	(24) 25-yd (1,008,180 lbs.)
Hazardous - Variance Debris	Waste Management - Emelle Treatment Facility Emelle, AL	Task Complete	(28) flat bed trailers (761,972 lbs.)
Hazardous - Micro	Waste Management - Emelle Treatment Facility Emelle, AL	Task Complete	(4) 20-yd boxes (43) 25-yd boxes
Non-Regulated Material (Directly Land Filled)	Waste Management - Emelle Treatment Facility Emelle, AL	Task Complete	(8) 20-yd boxes (68) 25-yd boxes (4) 30-yd box
Hazardous - Macro (Including ACM Hazardous)	Waste Management - Emelle Treatment Facility Emelle, AL	Task Complete	(98) 20-yd boxes (1) 25-yd box
D009 (Wastewater Filter Cake)	EQ - Michigan Disposal Waste Treatment Belleville, MI	1 Box (13,900 lbs.)	(15) 25-yd boxes (9) 30-yd boxes
ACM (Non-Haz)	Anson Waste Management Facility Polkton, NC	Task Complete	(3) 40-yd boxes (22,040 lbs.)
Non-Haz Construction Debris	Sampson Co. Disposal Facility Roseboro, NC	None	(48) 30-yd boxes (676,260 lbs.)
Non-Haz Scrap Metal	Southern Metals Recycling Wilmington, NC	None	(77) variable size boxes (1,317,529 lbs.)
Non-Haz Scrap Titanium	Southern Metals Recycling Wilmington, NC	None	(2) 10-yd boxes (4,280 lbs.)
Non-Haz Scrap Copper	Southern Metals Recycling Wilmington, NC	None	(8) 5-yd boxes (9) 10-yd boxes (1) 30-yd box (183,177 lbs.)
Non-Haz Scrap Brass	Southern Metals Recycling Wilmington, NC	None	(1) 5-yd box (1,232 lbs.)
Non-Haz Scrap Aluminum	Southern Metals Recycling Wilmington, NC	None	(1) 5-yd box (1) 10-yd box (2) 25-yd boxes (20,520 lbs.)
Non-Haz Scrap Stainless Steel	Southern Metals Recycling Wilmington, NC	None	(1) 10-yd box (1) 20-yd box (14,650 lbs.)
Reclaimed Elemental Mercury (for Reuse)	Goldsmith Evanston, IL	None	(17.5) one-metric-ton cylinders (34,447 lbs.)

Note: This table is being modified as weight data is received.