Execution Copy

ASSET PURCHASE AND PROCESSING AGREEMENT

THIS ASSET PURCHASE AND PROCESSING AGREEMENT (this "Agreement") is dated as of July 29, 2009, by and between the Bankruptcy Estate of Chemetco, Inc., 3574 Chemetco Lane, Hartford, IL 62048 ("Seller"), and Industrial Asset Disposition, LLC, a California limited liability company.

BACKGROUND

On November 13, 2001, Chemetco, Inc., an Illinois corporation, filed a Voluntary Petition under Chapter 7 of the United States Bankruptcy Code. The Bankruptcy Court of Southern District of Illinois ("Bankruptcy Court") has appointed Laura K. Grandy as Trustee ("Trustee") of the bankruptcy estate. Prior to filing for bankruptcy, Chemetco, Inc. engaged in the ownership and operation of a copper processing plant located in Hartford, Illinois. Pursuant to Section 363 of the Bankruptcy Code, 11 U.S.C. Section 363, the Trustee has determined it is in the best interest of the bankruptcy estate to offer for sale certain assets related to the copper processing plant and the Buyer desires to purchase said assets pursuant to the terms and conditions herein contained.

As used in this Agreement, the terms set forth in Exhibit A shall have the meanings ascribed to them in that Exhibit unless the context otherwise requires.

NOW THEREFORE, IN CONSIDERATION OF THE PREMISES AND MUTUAL REPRESENTATIONS, WARRANTIES, COVENANTS, AND AGREEMENTS HEREIN CONTAINED, THE PARTIES HERETO, INTENDING TO BE LEGALLY BOUND, AGREE AS FOLLOWS:

SECTION 1.
PURCHASE AND SALE OF ASSETS

1.1 Purchased Assets.

(a) Subject to the terms and conditions hereof Seller shall assign, sell and transfer, to Buyer, and Buyer shall purchase, all of Seller's right, title and interest in, those assets set forth below:

i. miscellaneous stainless steel, iron and other metal bearing materials located on the Smelter Site, including the metal contained in or comprising part of the buildings on the Smelter Site, to the extent not already sold by Seller ("Scrap Assets"); and

ii. the real property commonly known as 3574 Chemetco Lane, Hartford, IL, comprised of *approximately 41.1 acres*, and the real property adjacent thereto lying west of Old Alton Road, comprised of approximately 162.79 acres together with all buildings, facilities and other improvements thereon and all easements, privileges and all appurtenances pertaining thereto, legally described on the attached Schedule 1.1 (collectively, the "Smelter Site"); and

iii. the real property lying east of Old Alton Road and both north and south of New Poag Road, comprised of approximately 143.76 acres, together with all buildings, facilities and other improvements thereon and all easements, privileges and all appurtenances pertaining thereto, legally described on the attached Schedule 1.1 ("NPR Property").

(b) All of the assets to be sold, assigned and transferred hereunder by Seller to Buyer as more fully described in Section 1.1(a) above, are hereinafter called the "Assets."

1.2 Assets Excluded from Purchase. The Excluded Assets are not included in the sale to Buyer and are specifically excluded from the terms of this Agreement. Notwithstanding anything herein to the contrary, Seller retains the right to access the Smelter Site following the Smelter Transfer Date and the NPR Property following the NPR Transfer Date upon reasonable notice to Buyer to retrieve the Excluded Assets and finalize the administration of the Seller's bankruptcy estate.

1.3 Rights of Tenant Farmer. The parties hereto acknowledge that Seller shall have the right to contract, in writing or otherwise, with a tenant farmer for purposes of farming all or any part of the Smelter Site and NPR Property so long as Seller has legal title to the Smelter Site and NPR Property.

(a) Any such tenant farmer shall be permitted to continue farming the Smelter Site through the end of the crop year containing the Smelter Transfer Date. Seller shall be entitled to all proceeds from the sale of crops by a tenant farmer during the crop year containing the Smelter Transfer Date and all years prior thereto.

(b) Any such tenant farmer shall be permitted to continue farming the NPR Property through the end of the crop year containing the NPR Transfer Date. Seller shall be entitled to all proceeds from the sale of crops by a tenant farmer during the crop year containing the NPR Transfer Date and all years prior thereto.

SECTION 2.
PURCHASE PRICE AND PAYMENT; ASSUMED LIABILITIES

2.1 Deposit; Financial Information.

(a) As of the date hereof, Buyer has paid to Seller the sum of $100,000.00. Buyer shall within ninety (90) days of the Court Approval (unless such time period is extended by the Trustee) pay to Seller an additional sum of $400,000.00 (which amount together with the $100,000.00 already paid shall be the "Deposit") to be held by Seller in an interest bearing account for the benefit of Seller which amount shall be applied to the Smelter Purchase Price.

(b) Buyer shall provide Seller with written evidence that demonstrates Buyer has the necessary financial ability to close the contemplated transaction and provide adequate assurance of future performance under this Agreement, such information should include, without limitation, the

following: (i) Buyer's current financial statements (audited, if any); (ii) contact names and numbers for verification of financing sources; (iii) evidence of internal resources and proof of any debt or equity funding commitments that are needed to close the contemplated transaction; and (iv) any such other form of financial disclosure or credit-quality support information or enhancement acceptable to Seller, in Seller's discretion, demonstrating Buyer has the ability to close the contemplated transaction ("Financial Information"). Seller, in Seller's sole and absolute discretion shall determine whether the Financial Information adequately demonstrates Buyer's financial ability to close the contemplated transaction and assures Buyer's future performance under this Agreement.

2.2 Purchase Price. The purchase price for the Assets shall be as follows:

(a) *Scrap Assets.* The purchase price for the Scrap Assets shall equal eighty percent (80%) of the Scrap Revenue ("Scrap Purchase Price") and shall be paid in accordance with Section 3 below.

(b) *Smelter Site.* The purchase price for the Smelter Site shall equal Seven Million Dollars ($7,000,000.00) ("Smelter Purchase Price") and shall be paid from the Processing Revenue in accordance with Sections 4.4(a)(iii) and (iv) below.

(c) *NPR Property.* The purchase price for the NPR Property shall equal Five Million Thirty One Thousand Six Hundred Dollars ($5,031,600.00) ("NPR Purchase Price") and shall be paid from the Processing Revenue in accordance with Section 4.4(b)(iii) below.

2.3 Excluded Liabilities. **EXCEPT AS OTHERWISE EXPRESSLY PROVIDED HEREIN, BUYER SHALL NOT, BY VIRTUE OF BUYER'S PURCHASE OF THE ASSETS OR OTHERWISE, DIRECTLY OR INDIRECTLY ASSUME OR BE RESPONSIBLE FOR ANY LIABILITIES OR OBLIGATIONS OF SELLER, OR ANY OF SELLER'S RESPECTIVE AFFILIATES OR PREDECESSORS OF ANY NATURE WHATSOEVER (THE "EXCLUDED LIABILITIES") WHETHER LIQUIDATED OR UNLIQUIDATED, KNOWN OR UNKNOWN, ACTUAL OR INCHOATE, ACCRUED, CONTINGENT OR OTHERWISE, AND WHETHER ARISING FROM FACTS EXISTING OR EVENTS OCCURRING PRIOR TO, ON OR AFTER THE DATE OF THIS AGREEMENT.**

2.4 Compliance with Internal Revenue Code Section 1060. Seller shall provide to Buyer and Buyer shall provide to Seller all information for Part I of U.S. Treasury Department Form 8594 which will enable Buyer and Seller to make, in a timely manner, all filings (including supplemental filings) deemed appropriate by either Seller or Buyer pursuant to Section 1060 of the Code. All information provided by Seller and Buyer in compliance with this Section 2.3 shall be complete and accurate in all respects. Seller shall provide to Buyer and Buyer shall provide to Seller any filing made by such party pursuant to Section 1060 of the Code within ten (10) days of such filing. Seller or Buyer, upon written request of the other (made upon advice of counsel for the requesting party), shall, within twenty (20) days of the making of such request, file an initial filing (or a supplemental filing) on U.S. Treasury Department Form 8594 pursuant to the requirements of Section 1060 of the Code.

2.5 Title to Assets. Subject to terms and conditions herein contained, Seller shall transfer the Assets to Buyer, free and clear of any right, or interest, that subsists in a third-party and that constitutes a claim, lien, charge or liability attached to and binding upon any Asset being transferred, including, but not limited to, a mortgage, judgment lien, mechanic's lien, lease, or security interest pursuant to 11 U.S.C. § 363 (f).

SECTION 3
REMOVAL AND SALE OF SCRAP ASSETS

3.1 Within thirty (30) days of Court Approval and approval of all applicable Regulatory Agencies, Buyer shall begin to demolish and market the Scrap Assets, including by-products from the demolition of the buildings, including steel I beams, copper wire, old breakers, transformers and motors; provided, however, the motors and equipment necessary to operate and maintain the water systems on the Smelter Site shall not be removed or sold without the Seller's express written approval; provided further, until such time as Seller has granted said approval Buyer shall maintain the operational status of the motors and equipment necessary to operate and maintain the water systems. Seller shall approve all sales of Scrap Assets. Notwithstanding the foregoing, the structure supporting the Furnaces shall be kept in place until the Furnaces have been removed unless Seller otherwise authorizes the removal of the supporting structure. Following removal of the Furnaces or as otherwise authorized by the Seller, the structure supporting the Furnaces shall be torn down and sold in accordance with above.

3.2 Any additional funds required to satisfy any Regulatory Agency shall be the responsibility of Buyer.

3.3 The Scrap Revenue shall be distributed by the Seller as follows: (a) 20% to Buyer; and (b) 80% to Seller.

3.4 All demolition and sale of Scrap Assets shall be completed within 120 days of Court Approval unless mutually extended by the parties hereto.

SECTION 4.
PROCESSING AND SALE OF SCRUBBER SLUDGE AND SLAG

4.1 Although not being purchased by Buyer hereunder, Seller hereby grants to Buyer the exclusive right to process and/or sell the Scrubber Sludge and Slag pursuant to the terms herein and subject to the final approval of the Seller.

4.2 Buyer shall be responsible for the construction and installation of a facility to process the Slag and Scrubber Sludge on the Smelter Site ("Processing Facility") for purposes of recovering copper, zinc, lead, tin, nickel and other materials ("Recovered Materials") from the Slag and Scrubber Sludge.

(a) The Processing Facility shall be built and the Slag and Scrubber Sludge shall be processed in accordance with all Regulatory Agency guidelines, the Work Plans, and the covenants

of Buyer and Seller herein contained, including without limitation the provisions of Section 4.6 below.

(b) Buyer shall bear all costs of construction, labor, equipment, marketing, and logistics of the construction of the Processing Facility, the sale of Recovered Materials, the sale of unprocessed Slag and Scrubber Sludge, the development of the Work Plans and any compliance with any Regulatory Agency in exchange for a portion of the Processing Revenue as provided herein.

4.3 Buyer may sell the Scrubber Sludge and Slag in an unprocessed or processed form subject to Seller's prior approval.

4.4 The Processing Revenue shall be distributed by Seller as follows:

(a) So long as there remains a balance due on the Smelter Purchase Price, the Processing Revenue shall be distributed by the Seller as follows: (i) 5% to Trustee to be held by Trustee pursuant to Section 5.2 below; (ii) 25% to Buyer; (iii) 35% to Seller to be applied to the Smelter Purchase Price; and (iv) 35% to Commerce Bank, N.A. to satisfy its lien against the Slag, which amount shall be applied to the Smelter Purchase Price. Notwithstanding the foregoing, Buyer shall pay to Seller any remaining balance on the Smelter Purchase Price, including any amounts due to Commerce Bank, as of the fifth anniversary of the Court Approval.

(b) Following payment in full of the Smelter Purchase Price, so long as there remains a balance due on the NPR Purchase Price, the Processing Revenue shall be distributed by the Seller as follows: (i) 5% to Trustee to be held by Trustee pursuant to Section 5.2 below; (ii) 25% to Buyer; (iii) 20% to Seller to be applied to the NPR Purchase Price; and (iv) 50% to Seller, which amount shall not be applied to the NPR Purchase Price. Notwithstanding the foregoing, Buyer shall pay to Seller any remaining balance on the NPR Purchase Price as of the sixth anniversary of the Court Approval.

(c) At such time as the Smelter Purchase Price and the NPR Purchase Price have been paid in full, the Processing Revenue shall be distributed by the Seller as follows: (i) 50% to Buyer; and (ii) 50% to Seller.

4.5 Notwithstanding anything herein to the contrary, all processing shall be completed as of the seventh anniversary of the Court Approval.

4.6 Any alterations, additions or further improvements to the Smelter Site, including the Processing Facility, shall be the exclusive property of the Seller, shall be approved in advance by Seller and shall be made upon the following conditions:

(a) Buyer shall protect, indemnify, hold harmless and defend Seller and the Smelter Site from and against any and all claims, damages, liabilities, costs and expenses, including attorney's fees, imposed upon, incurred by or asserted against Seller by reason of any accident, injury to or death of persons, or loss of or damage to property occurring on or about the Smelter Site in the

process of, or in connection with, such construction. The foregoing indemnity shall specifically apply to those claims asserting negligence on the part of Seller.

(b) Buyer shall pay all costs for construction done or caused to be done by Buyer on the Smelter Site, and shall protect, indemnify, hold harmless and defend Seller and the Smelter Site from and against (i) any and all claims, damages, liabilities, costs and expenses, including attorney's fees, imposed upon, incurred by or asserted against Seller with respect to such costs and (ii) all mechanic's liens, materialman's liens and laborer's liens arising from such construction and all attorney's fees and expenses which may be incurred by Seller in connection with the removal of such liens.

(c) Buyer shall require Buyer's contractor or contractors to furnish a performance and payment bond or bonds covering the faithful performance and completion of all construction work on the Smelter Site and the payment of all obligations arising in connection therewith. Such bond or bonds shall be in such form and written by such insurance companies as are acceptable to Seller in Seller's sole discretion, and shall name Seller and Buyer as co-obligees thereunder. Buyer shall furnish Seller with such bond or bonds prior to the commencement of any construction on the Smelter Site. In addition, Buyer shall require Buyer's contractor or contractors to pay any subcontractors or suppliers only in exchange for valid lien waivers.

(d) Buyer or Buyer's contractors shall perform such construction work in a good and workmanlike manner in accordance with the Work Plans.

(e) Buyer or Buyer's contractors shall complete all construction within a reasonable time after Seller gives its consent to same.

(f) Buyer shall ensure that the construction and operation of the Processing Facility shall meet all Legal Requirements and Insurance Requirements.

(g) At all times during construction of the Processing Facility, Buyer or Buyer's contractors shall keep all portions of the Smelter Site free from dust, loose dirt, debris and equipment as is reasonable.

SECTION 5.
ENVIRONMENTAL ISSUES

5.1 Buyer shall, in cooperation with Seller, develop and carry out work plans to govern the clean-up of the Smelter Site, construction of the Processing Facility and processing of the Slag, addressing environmental, health and safety, and transportation issues related thereto, to include without limitation, each of the following components; (i) Health and Safety Plan, (ii) Confined Space Plan, (iii) Industrial Hygiene Plan, (iv) Air Monitoring Plan (v) Waste Management Plan, and (vi) Contingency Plan and Emergency Procedures, as required by any Regulatory Agency (collectively the "Work Plans"). The Work Plans shall comply with the Seal Order, the Interim Order and shall meet all regulatory requirements of all Regulatory Agencies. The Work Plans shall be approved by

all appropriate Regulatory Agencies, if required by such Regulatory Agency, prior to the sale of any Assets or processing of any Slag and Scrubber Sludge from the Smelter Site.

5.2 Any amounts directed to be held by Trustee pursuant to Sections 4.4(a)(i) and 4.4(b)(i) hereof, shall be held by Trustee in an interest bearing account for the benefit of Seller and Buyer ("Escrowed Funds"); provided, however, in no event shall the aggregate amount of the Escrowed Funds exceed $10,000,000.00. Any costs and expenses associated with any remediation issues raised by any Regulatory Agency during the term hereof shall be paid from the Escrowed Funds. At such time as the EPA has issued all appropriate "no further remediation" letters and said letters have been received by Seller, any remaining Escrowed Funds shall be paid to equally to Buyer and Seller.

SECTION 6.
PARTIES' RESPONSIBILITIES

6.1 Seller, shall, at all times during the term of this Agreement, take all commercially reasonable steps to:

(a) Grant access to the parties and the parties' representatives and agents to the parts of the Smelter Site and NPR Property which are necessary for the efficient operation of the Processing Facility;

(b) Support the reasonable actions of Buyer to realize the goals of this Agreement on behalf of, and to the mutual benefit of, both parties;

(c) Advise Buyer in a timely fashion about the reasonable or legally required steps Seller must take to ensure the safe and secure operation of the Processing Facility and to meet other requirements of any Regulatory Agency;

(d) Provide management, purchasing, sales, personnel, maintenance or any other support as required for the safe and efficient operation of the Processing Facility;

(e) Collect all Scrap Revenue, Processing Revenue, and any other revenue generated hereunder in a timely fashion;

(f) To the extent funds are available, make monthly distributions of all Scrap Revenue, Processing Revenue, and any other revenue generated hereunder in accordance with the terms hereof, provided, that Seller may maintain a minimum amount of Scrap Revenue or Processing Revenue to meet the on-going Operating Expenses of the Processing Facility as determined from time to time by Seller;

(g) Maintain complete and accurate books, records and accounts of all transactions relating to the sales of and revenues from all the Scrap Assets, Recovered Materials, Scrubber Sludge and Slag, all of which shall be open for inspection and audit by the parties.

6.2 Buyer, on its own behalf and on behalf of all its representative and agents, shall, at all times during the term of this Agreement, take all commercially reasonable steps to:

(a) Maintain that portion of the Smelter Site required to maintain the Processing Facility as a safe and secure workplace;

(b) Raise the required financing to fund the construction and maintenance of the Processing Facility;

(c) Design, purchase and construct the Processing Facility, and ensure the Processing Facility is implemented in an efficient manner and in accordance with programs and budgets approved by the parties, including the Work Plans;

(d) Evaluate the start up, operation and maintenance of the Processing Facility and make recommendations to Seller regarding the on-going operations to ensure that each the Processing Facility produces the highest and best end product value;

(e) Provide information related to Operating Expenses along with supporting documentation to Seller in a timely manner;

(f) Provide/employ a full-time representative ("Buyer Representative") to be present at the Smelter Site during all reasonable hours of operation with all reasonable costs of the Buyer Representative to be borne by Buyer and not considered Operating Expenses;

(g) Provide regulatory compliance for the Processing Facility with all applicable Regulatory Agency;

(h) To the extent that revenue from operations is insufficient to cover Operating Expenses, finance all Operating Expenses for the first six (6) months of operation of the processing hereunder;

(i) Not exceed any approved budget by more than ten percent (10%) without the prior consent of Seller, except in relation to an emergency expenditure;

(j) Provide recommendations regarding management, purchasing, sales, personnel, maintenance and other support as required for the safe and efficient operation of the Processing Facility, as may be requested by Seller;

(k) Make recommendations regarding regulatory compliance for the Processing Facility and maintenance of the Smelter Site required for the Processing Facility as a safe and secure workplace.

SECTION 7.
FURTHER COVENANTS AND RESPONSIBILITIES

7.1 Subject to the approval of Seller, Buyer shall, at all times during the term of this Agreement, take all commercially reasonable steps to:

(a) Manage all the day-to-day operations of the Processing Facility which shall include managing and supervising all personnel and all approved programs and budgets;

(b) Manage the on-going operations of the Processing Facility to ensure that it produces the highest and best end product value;

(c) Carry out all activities required hereunder in accordance with good industry practice, with reasonable care, skill and diligence and in accordance with all applicable laws and regulations;

(d) Maintain complete and accurate books, records and accounts of all transactions relating to the operations of the Processing Facility, which shall be open for inspection and audit by the parties.

(e) Establish a minimum amount of retained earnings to be held by Seller to meet the on-going Operating Expenses associated with the Processing Facility.

7.2 Seller and Buyer Representative shall meet and/or communicate with each other as often as necessary, to review and approve the daily operations of the Processing Facility and allocation of Operating Expenses.

7.3 As often as necessary, but in no event less often than once a calendar quarter, Seller and Buyer shall meet to review and approve the nature and content of the programs and budgets related the Processing Facility.

7.4 The Buyer Representative serves at the pleasure of Buyer and may be removed or replaced by Buyer as determined in Buyer's sole discretion; provided notice of the removal or replacement of the Buyer Representative by Buyer shall be made in writing to the Seller; provided, further, any concerns with the performance of the Buyer Representative by the Seller shall be promptly reported to Buyer. Buyer and the Seller will work together to resolve such concerns to the mutual benefit of both parties.

SECTION 8.
FURTHER OBLIGATIONS OF THE PARTIES

8.1 Bankruptcy Court Approval. Within ten (10) days of the receipt of the Deposit and Financial Information satisfactory to Seller, in Seller's sole discretion, Trustee shall submit to the Bankruptcy Court a Notice of Intent to Sell requesting the approval of the Bankruptcy Court for the sale of the Assets to Buyer pursuant to the terms herein contained. Upon receipt of The Bankruptcy Court order approving this Agreement which is final and now applicable, ("Court Approval"),

Trustee shall provide notice of the Court Approval to Buyer. The consummation of the transaction contemplated herein is expressly subject to receipt of the Court Approval.

8.2 Authorizing Action. At the time of execution of this Agreement by Buyer, Buyer shall deliver to Seller a copy of resolutions duly passed by the shareholders, officers, directors, members and managers, if any, of Buyer authorizing the execution, delivery and performance by Buyer of this Agreement and any other agreements or instruments referred to herein or required in connection herewith.

8.3 Access to Information: Confidentiality. Seller shall give Buyer and its authorized representatives reasonable access to the books, records, offices and properties related to the Assets and permit Buyer to make such inspections thereof as Buyer may reasonably request. Buyer acknowledges that certain of the information which may be made available to it is proprietary and includes confidential information. Buyer shall hold all such information in confidence and shall not disclose it to any person without the approval of Seller; provided, however, that the foregoing restriction shall not apply to any information which is or becomes publicly known or which is lawfully obtained from a third party, or to any disclosure required by law or in connection with the enforcement of Buyer's rights under this Agreement. If the transactions contemplated hereby are not consummated, Buyer shall return to Seller all documents containing proprietary information and continue to hold such information in confidence.

8.4 Best Efforts. Each party hereto shall use best efforts to cause to occur the transactions contemplated hereby and to cause all conditions to the performance of the parties hereto that are within its control to be satisfied. Each party agrees to cooperate fully to manage the operations of and the maintenance of the Processing Facility in a professional manner, in compliance with all Regulatory Agencies and in a manner that maximizes the economic returns to both parties.

8.5 Use of Office Space. Until the Smelter Transfer Date, Seller shall provide Buyer with the use of an office and a locker room with restroom and showers for Buyer's personnel upon the Smelter Site. Buyer shall pay for any additional expenses, e.g., towels, soap, uniforms, and office supplies required by Buyer or its personnel. Buyer shall also be responsible for any improvements to the buildings on the Smelter Site subject to Section 4.6 above.

8.6 Equipment Lease. Buyer shall lease from Seller the Equipment, except for such Equipment that the parties agree to scrap and sell. As consideration for the lease of the Equipment, Buyer shall pay to Seller the sum of Five Hundred Dollars ($500.00) per month or part thereof. Upon payment in full of the Smelter Purchase Price and the NPR Purchase Price and the sale of all Slag and Scrubber Sludge and so long as Buyer is not in default under the terms hereof, Buyer may at Buyer's option, purchase the Equipment for a single payment of One Dollar ($1.00).

SECTION 9.
REPRESENTATIONS AND WARRANTIES REGARDING SELLER

Seller represents and warrants to Buyer as of the date of this Agreement and during the term hereof:

9.1 Organization and Good Standing. Seller is the debtor in a Chapter 7 bankruptcy proceeding filed in the United States Bankruptcy Court for the Southern District of Illinois, Case Number 01-34066.

9.2 Power and Authorization. This sale is made pursuant to Section 363 of the Bankruptcy Code, 11 U.S.C. 363. Upon receipt of the Court Approval, the Trustee will be authorized pursuant to Section 363 of the United States Bankruptcy Code to sell the Assets and sign all necessary documents on behalf of the Seller to accomplish said sale.

9.3 Performance of Covenants. Seller shall have performed or complied in all material respects with all of the agreements, covenants and conditions required by this Agreement to be performed or complied with by Seller.

9.4 Approvals. The Court Approval and approval of all applicable Regulatory Agencies necessary for the consummation of the transactions contemplated hereby shall have been obtained.

9.5 Legal Matters. The transfer shall not violate any order or decree of any court or governmental body of competent jurisdiction. No suit, action, proceeding or investigation, or legal or administrative proceeding shall have been brought or threatened by any person (other than the Buyer or an affiliate of Buyer) that questions the validity or legality of this Agreement or the transactions contemplated hereby.

SECTION 10.
REPRESENTATIONS AND WARRANTIES OF BUYER

Buyer hereby represents and warrants to Seller as of the date of this Agreement and during the terms hereof:

10.1 Organization and Good Standing. Buyer is a limited liability company duly organized, validly existing and in good standing under the laws of the State of California, and has all necessary power and authority to carry on its business as presently conducted, to own and lease the assets which it owns and leases and to perform all its obligations under each agreement and instrument by which it is bound.

10.2 Power and Authorization. Buyer has full legal right, power and authority to enter into and perform its obligations under this Agreement and under any other agreements and documents required to be delivered by Buyer hereunder. The execution, delivery and performance by Buyer of this Agreement and the Transaction Documents have been duly authorized by all necessary action. This Agreement has been duly and validly executed and delivered by Buyer and constitutes Buyer's

legal, valid and binding obligation, enforceable against Buyer in accordance with the terms herein. When executed and delivered as contemplated herein, each of the Transaction Documents shall constitute the legal, valid and binding obligation of Buyer, enforceable against Buyer in accordance with the terms therein.

10.3 Performance of Covenants. Buyer shall have performed or complied in all material respects with all of the agreements, covenants and conditions required by this Agreement to be performed or complied with by Buyer.

10.4 Approvals. The Court Approval and approval of such other appropriate governmental agencies necessary for the consummation of the transactions contemplated hereby shall have been obtained.

10.5 Legal Matters. The transfer shall not violate any order or decree of any court or governmental body of competent jurisdiction. No suit, action, proceeding or investigation, or legal or administrative proceeding shall have been brought or threatened by any person (other than the Seller or an affiliate of Seller) that questions the validity or legality of this Agreement or the transactions contemplated hereby.

10.6. Interim Order; Seal Order. Buyer has received, reviewed and agrees to be bound by the terms of the Interim Order and the Seal Order.

10.7. Financial Information. The Financial Information provided by Buyer is true, complete and correct in all respects.

10.8. AS IS, WHERE IS. BUYER ACKNOWLEDGES AND AGREES THAT THE ASSETS ARE BEING SOLD "AS IS, WHERE IS" AND "WITH ALL FAULTS", THAT SELLER HAS NOT MADE AND SHALL NOT BE DEEMED TO HAVE MADE ANY ORAL OR WRITTEN REPRESENTATION OR WARRANTY CONCERNING ANY MATTER RELATING TO THE ASSETS SOLD AND CONVEYED TO BUYER HEREUNDER.

SECTION 11.
TRANSFER DATE/CLOSING COSTS

11.1 Time and Place of Transfer.

(a) Title to the Smelter Site will remain with Seller until the Smelter Transfer Date. Upon payment in full of the Smelter Purchase Price, Trustee shall execute a trustee's deed transferring title to the Smelter Site to Buyer, which deed shall be held in escrow by Trustee until the all the Scrubber Sludge and Slag (whether processed or unprocessed) has been sold. Upon completion of the final sale of the Scrubber Sludge and Slag the trustee's deed shall be delivered to Buyer.

(b) Title to the NPR Property will remain with Seller until the NPR Transfer Date. Upon payment in full of the NPR Purchase Price, Trustee shall execute and deliver to Buyer a trustee's deed transferring title to the NPR Property to Buyer.

11.2 Title/Real Estate Taxes.

(a) Seller shall, within fifteen (15) days of Court Approval, furnish Buyer with a commitment for title insurance prepared by Chicago Title Insurance Company, showing fee simple, marketable title in the Smelter Site vested in Seller. To the extent Buyer desires to obtain a title policy for the Smelter Site as of the Smelter Transfer Date, Buyer shall be responsible for all costs associated with said policy. Seller and Buyer shall prorate real estate taxes on the Smelter Site as of the Smelter Transfer Date.

(b) Seller shall, within fifteen (15) days of Court Approval, furnish Buyer with a commitment for title insurance prepared by Chicago Title Insurance Company, showing fee simple, marketable title in the NPR Property vested in Seller. To the extent Buyer desires to obtain a title policy for the NPR Property as of the NPR Transfer Date, Buyer shall be responsible for all costs associated with said policy. Seller and Buyer shall prorate real estate taxes on the NPR Property as of the NPR Transfer Date.

11.3 Expenses of Seller. Seller shall pay the following expenses related to the transfer of the Smelter Site and the NPR Property:

(a) The cost of the title commitment provided by Seller to Buyer with respect to the Smelter Site and the NPR Property; and

(b) All other expenses incurred by Seller in the course of performing its obligations under Section 11.

11.4 Expenses of Buyer. Buyer shall pay the following expenses related to the transfer of the Smelter Site and the NPR Property:

(a) All real estate transfer fees and transfer taxes;

(b) The fees for filing and recording the deeds;

(c) The costs of any title policy or lenders policy ordered by or on behalf of Buyer with respect to the Smelter Site and the NPR Property; and

(d) All other expenses incurred by Buyer in the course of performing its obligations under Section 11.

SECTION 12.
TERMINATION AND ABANDONMENT

12.1 Termination. This Agreement may be terminated and the transactions contemplated herein may be abandoned at any time as follows:

(a) by the Bankruptcy Court or such court having jurisdiction over the Seller's bankruptcy estate;

(b) by the Seller due to Buyer's failure to satisfy the provisions of 2.1(b);

(c) by mutual consent of the parties hereto;

(d) by Seller, if (i) any representation or warranty of Buyer made in or pursuant to this Agreement is untrue or incorrect in any respect, (ii) Buyer breaches the covenants or other terms of this Agreement or (iii) Buyer fails to pay the Smelter Purchase Price in full by the fifth anniversary of the Court Approval or the NPR Purchase Price by the sixth anniversary of the Court Approval.

12.2 Procedure for Termination. A party terminating this Agreement pursuant to Section 12.1 shall give written notice thereof to the other party hereto, and the Deposit shall be applied as provided in Section 12.3, whereupon this Agreement shall terminate and the transactions contemplated hereby shall be abandoned without further action by any party.

12.3 Application of Deposit, Smelter Purchase Price and NPR Purchase Price.

(a) Seller shall return the Deposit to Buyer if this Agreement is terminated prior to Court Approval by mutual consent of Buyer and Seller or if the Bankruptcy Court does not approve the Agreement. Notwithstanding the foregoing, in the event the Bankruptcy Court does not approve the Agreement as a result of any action or omission by Buyer, then the Deposit shall be retained by the Seller.

(b) Seller shall retain the Deposit in all other cases where this Agreement is terminated under Section 12.1.

(c) In the event that this Agreement is terminated after Court Approval but prior to the Smelter Transfer Date or the NPR Transfer Date, any and all portions of the Smelter Purchase Price and the NPR Purchase Price paid by Buyer or deemed to have been paid by Buyer shall be retained by Seller.

12.4 Processing Facility. At any time the Agreement is terminated, the Processing Facility and any other improvements on the Smelter Site or NPR Property shall be the sole property of Seller; provided, however, the extent Buyer desires to purchase the Processing Facility, Buyer may elect to do so. The purchase price of the Processing Facility shall be one-half of the construction costs of the Processing Facility treated as Operating Expenses hereunder.

12.5 Limitation on Termination. In the event the Buyer fails to close in violation of this Agreement, the Buyer shall be liable to the Seller for any and all damages, expenses and losses sustained by the Seller as a direct or indirect consequence of the Buyer's breach. Notwithstanding anything contrary in this Agreement, in the event the Seller is unable, for any reason, to consummate the sale to the Buyer or to execute and deliver any and all closing documents, the Seller's sole liability to the Buyer shall be limited to the return of the Buyer's Deposit.

SECTION 13.
MISCELLANEOUS

13.1 Acknowledgment. The parties acknowledge that this sale is undertaken pursuant to Section 363 of the Bankruptcy Code, 11 U.S.C. 363.

13.2 Survival of Representations and Warranties. The representations and warranties made by the parties in this Agreement and in the certificates, documents and schedules delivered pursuant hereto shall survive the consummation of the transactions herein contemplated for a period of two (2) years following the latter of the Smelter Transfer Date and the NPR Transfer Date.

13.3 Costs and Expenses. Except as otherwise expressly provided herein, each party shall bear its own expenses in connection herewith, including without limitation, any and all legal and accounting fees, transfer, sales, use, documentary and similar taxes, and recording and filing fees, incurred in connection with the transactions contemplated herein.

13.4 Public Announcements. Neither Seller nor Buyer shall make any public announcement or disclosure relating to the transactions contemplated herein without the prior agreement of each other party hereto, provided that each party shall use best efforts to consult with the other in advance of any disclosure required by law, but the agreement of the other parties hereto shall not be required.

13.5 Notices. All notices or other communications permitted or required under this Agreement shall be in writing and shall be sufficiently given if and when hand delivered to the persons set forth below or if sent by documented overnight delivery service or registered or certified mail, postage prepaid, return receipt requested, or by facsimile receipt acknowledged, addressed as set forth below or to such other person or persons and/or at such other address or addresses as shall be furnished in writing by any party hereto to the others. Any such notice or communication shall be deemed to have been given as of the date received, in the case of personal delivery, or on the date shown on the receipt or confirmation therefor in all other cases.

To Buyer:

Industrial Asset Disposition, LLC
c/o Gabriel G. Green
Reeder Lu Green, LLP
2121 Avenue of the Stars, Suite 950
Los Angeles, CA 90067

With a copy to:

Gabriel G. Green
Reeder Lu Green, LLP
2121 Avenue of the Stars, Suite 950
Los Angeles, CA 90067

To Seller:

The Bankruptcy Estate of Chemetco, Inc.
c/o Laura K. Grandy, Trustee
3574 Chemetco Lane
Hartford, Illinois 62048

With a copy to:

Laura Grandy
Mathis, Marifian, Richter & Grandy, Ltd.
23 Public Square
Suite 300
Belleville, IL 62220

13.6 Assignment and Benefit.

(a) Neither Seller nor Buyer shall assign this Agreement or any rights hereunder, or delegate any obligations hereunder, without prior written consent of the other party. Subject to the foregoing, this Agreement and the rights and obligations set forth herein shall inure to the benefit of, and be binding upon, the parties hereto, and each of their respective permitted successors, heirs and assigns.

(b) This Agreement shall not be construed as giving any person, other than the parties hereto and their permitted successors, heirs and assigns, any legal or equitable right, remedy or claim under or in respect of this Agreement or any of the provisions herein contained, this Agreement and all provisions and conditions hereof being intended to be, and being, for the sole and exclusive benefit of such parties, and permitted successors, heirs and assigns and for the benefit of no other person or entity.

13.7 Bankruptcy Court. All disputes arising out of or relating to this Agreement or any related documents which cannot be settled by the parties shall promptly be submitted to and determined by the Bankruptcy Court having jurisdiction over this transaction.

13.8 Amendment, Modification and Waiver. The parties may amend or modify this Agreement in any respect with approval of the Bankruptcy Court. Any such amendment, modification, extension or waiver shall be in writing. The waiver by a party of any breach of any

provision of this Agreement shall not constitute or operate as a waiver of any other breach of such provision or of any other provision hereof, nor shall any failure to enforce any provision hereof operate as a waiver of such provision or of any other provision hereof.

13.9 Governing Law. This Agreement is made pursuant to, and shall be construed and enforced in accordance with, the laws of the State of Illinois (and United States federal law, to the extent applicable), irrespective of the principal place of business, residence or domicile of the parties hereto, and without giving effect to otherwise applicable principles of conflicts of law.

13.10 Section Headings and Defined Terms. The section headings contained herein are for reference purposes only and shall not in any way affect the meaning and interpretation of this Agreement. The terms defined herein and in any agreement executed in connection herewith include the plural as well as the singular and the singular as well as the plural, and the use of masculine pronouns shall include the feminine and neuter. Except as otherwise indicated, all agreements defined herein refer to the same as from time to time amended or supplemented or the terms thereof waived or modified in accordance herewith and therewith.

13.11 Severability. The invalidity or unenforceability of any particular provision, or part of any provision, of this Agreement shall not affect the other provisions or parts hereof, and this Agreement shall be construed in all respects as if such invalid or unenforceable provisions or parts were omitted.

13.12 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original; and any person may become a party hereto by executing a counterpart hereof, but all of such counterparts together shall be deemed to be one and the same instrument.

13.13 Entire Agreement. This Agreement, and the agreements, exhibits, schedules and certificates referred to herein or delivered pursuant hereto, constitute the entire agreement between the parties hereto with respect to the purchase and sale of the Assets and supersede all prior agreements and understandings. The submission of a draft of this Agreement or portions or summaries thereof does not constitute an offer to purchase or sell the Assets, it being understood and agreed that neither Buyer nor Seller shall be legally obligated with respect to such a purchase or sale or to any other terms or conditions set forth in such draft or portion or summary unless and until this Agreement has been duly executed and delivered by all parties.

13.14 Trustee. It is hereby acknowledged and agreed that any provision herein applicable to the Trustee shall apply to the Trustee, not individually but solely in her representative capacity as Trustee of the Bankruptcy Estate of Chemetco, Inc.

13.15 Interpretation. This Agreement shall be construed as jointly drafted by the parties and according to their fair intent of the language as a whole and not for or against any one party.

[signature page to follow]

IN WITNESS WHEREOF, each of the parties hereto has duly executed this Agreement, under seal, all as of the date first above written.

SELLER:

CHEMETCO, INC.

By: _____ Trustee
Laura K. Grandy, Trustee of the Bankruptcy Estate,
Case No. 01-34066, duly authorized

BUYER:

INDUSTRIAL ASSET DISPOSITION, LLC

By: _____
Name: Elliott G. Stegin
Its: Managing Member

Schedule 1.1
Legal Description

Smelter Site: Title commitment to govern.

NPR Property: Title commitment to govern.

Schedule 1.2
Excluded Assets

i. all Scrubber Sludge and Slag located on the Smelter Site, consisting of approximately thirty thousand (30,000) to fifty thousand (50,000) tons of Scrubber Sludge and approximately nine hundred thousand (900,000) tons of Slag, various and sundry feed stocks, "in-process" materials (i.e. materials contained within or around the existing processing equipment) and sediments and dusts associated with environmental clean-ups; and

ii. Cupro, pot slag and furnace dust; and

iii. The Furnaces to be sold to a third party by separate contract ("Furnace Purchaser"); provided, however; in the event the Furnace Purchaser fails to purchase the Furnaces, Buyer is hereby granted an option to purchase the Furnaces from Seller upon at least the same terms as Furnace Purchaser; and

iv. Books and records (and filing cabinets containing same) of Seller located throughout the site and computer systems, including the Wang computer system and AS computer system, and office equipment related to said records.

Schedule 8.6
Leased Equipment

See attached.

Schedule 8.6

Building	Sq. Ft.	Original Built	Original Cost	Equipment in Building
Main Office Building	9,600 sq. ft	1970 Addition 1975 Addition 1986 Total original cost $524,363.00	$276,934.00 $133,560.00 $113,869.00	Office furniture consisting of desks, file cabinets, conference tables, chairs, credenza, computers, refrigerators shelf units 3 - locker rooms w/lockers security cameras & alarm system telephone system (for offices and thru out plant)
Plant Office Building	4,600 sq. ft.	1987	$328,568.00	Office furniture consisting of desks, file cabinets, conference tables, chairs, copier, fax machine printers, computers, safe, engineer tables, blue print files refrigerator
Truck Scale		Last repaired 2007	$5,000.00	
Scale Office	195 sq. ft		$3,500.00	
Receiving Building & Lab	5,400 sq. ft	1974 Morgan building	$276,044.00 $1,800.00	spectrometer
Mobile Shop Building	4,400 sq. ft	1995	$102,000.00	Equipment consisting of Air compressor Lubrication system Shelving Tool Crib Diesel fuel tanks gas tank used oil tank portable diesel fuel tank welders

Schedule 8.6

				pressure washer gas heaters cutting torch cutting torch and cart portable scale
Storeroom Building	5,000 sq. ft	1973	$112,000.00	Shelving & subflooring
Brick Shop Building	3,600 sq. ft	1995	$164,593.00	Alarm system
laintenance/Zinc Buildin	59,000 sq. ft	1972	$2,000,000.00	Equipment consisting of
				2 zinc presses
				2 supersac loaders
				1-10 ton Crane Mfg. S/N 623
				1-10 ton Crane Mfg. S/N 624
				60 gallon air compressor
Mobile Equipment				863 bobcat
				Hyundai 290 Excavator
				Cat 966F Wheel loader
				Hyster 50 forklift
				Clark forklift
				Tennant sweeper
Shower trailer w/lockers				
Norweco septic system				2 sytems
Yard Scale				

EXHIBIT A
DEFINITIONS

As used in the Asset Purchase and Processing Agreement the following terms shall have the following meanings unless the context otherwise requires:

Agreement" shall have the meaning ascribed to such term in the Background paragraphs.

"Assets" shall have the meaning ascribed to such term in Section 1.1(b).

"Bankruptcy Court" shall have the meaning ascribed to such term in the Background paragraphs.

"Buyer Representative" shall have the meaning ascribed to such term in Section 6.2(f).

"Buyer" shall have the meaning ascribed to such term in the Background paragraphs.

"Code" shall mean the Internal Revenue Code of 1986, as amended.

"Court Approval" shall have the meaning ascribed to such term in Section 8.1.

"Deposit" shall have the meaning ascribed to such term in Section 2.1(a).

"Equipment" shall mean that certain machinery and equipment owned by Seller, physically located on the Smelter Site, and described on Schedule 8.6.

"Escrowed Funds" shall have the meaning ascribed to such term in Section 5.2.

"Excluded Assets" shall mean all other assets of Seller not otherwise identified herein as an Asset, including, specifically, but without limitation, those assets on Schedule 1.2.

"Financial Information" shall have the meaning ascribed to such term in Section 2.1(b).

"Furnace Purchaser" shall have the meaning ascribed to such term in Schedule 1.2.

"Furnaces" shall mean three (3) Metallo-70 ton gas top blown rotary converters (TBRC's), including the tilt gear boxes, the support rings, the connection rings, the Rothe Erde bearings, the tilt bearings, the Rollstar tilt gear boxes, the pedestals, and the Montan oil feed associated with each TBRC, an additional spare part connection ring and any scrap steel cut therefrom.

"GAAP" shall mean Generally Accepted Accounting Principles.

"Insurance Requirements" shall mean the provisions of any insurance policy covering or applicable to the Assets, including the Smelter Site and the NPR Property, and the Processing Facility, or any part thereof, and all requirements of the issuer of any such policy.

"Interim Order" shall mean that certain order entered into between the Trustee, the Illinois Environmental Protection Agency, the State of Illinois, the United States Environmental Protection Agency and the United States of America in the Federal District Court of Southern Illinois, Case Nos. 00-670-DRH and 00-677-DRH (consolidated) CJRA Track C on September 16, 2008, a copy of which is attached hereto as Exhibit B.

"Legal Requirements" shall mean (i) the provisions of this Asset Purchase and Processing Agreement and all other agreements entered into by Buyer with respect to the Assets and (ii) any law, statute, code, act, zoning requirement, ordinance, order, rule, regulation or other requirement of any governmental authority having jurisdiction, which now or at any time may be applicable to the Assets, including the Smelter Site and the NPR Property.

"NPR Property" shall have the meaning ascribed to such term in Section 1.1(a)(iii).

"NPR Purchase Price" shall have the meaning ascribed to such term in Section 2.2(c).

"NPR Transfer Date" shall mean the date upon which title to the NPR Property shall pass from Seller to Buyer, which date shall be the date the NPR Purchase Price has been paid in full.

"Operating Expenses" shall mean operating expenses incurred by Seller and Buyer from and after Court Approval that are directly related to (i) demolition, removal and sale of Scrap Assets; (ii) the operation and maintenance of the Processing Facility; (iii) the processing of the Scrubber Sludge and Slag, including, but not limited to loading, hauling, conveying, crushing, screening, grinding, physical separation, chemical separation, solid-liquid separation, power, consumables (reagents), drying and packaging and all other expenses, including waste disposal costs, as determined under GAAP; (iv) Smelter Site costs, including without limitation, real estate taxes, insurance coverage, maintenance and upkeep; (v) personnel and administration costs, including trustee's fees and any applicable tax excluding income tax; (vi) the marketing and selling of the Recovered Materials, including, but not limited to shipping, insurance, and all other selling expenses as determined under GAAP; (vii) environmental compliance costs; (viii) health and safety costs; and (ix) mutually agreed upon charges by the parties from time to time. The capital costs associated with the locating, construction and installation of the Processing Facility shall be considered an Operating Expense, but shall be amortized and reimbursed by the Seller to the Buyer from the Processing Revenue over a reasonable period of time agreed to by Buyer and Seller.

"Processing Facility" shall have the meaning ascribed to such term in Section 4.2.

"Processing Revenue" shall be the gross revenue from the sale of the Scrubber Sludge, Recovered Materials (hereinafter defined) and Slag (to the extent such Slag has not been processed) net of the Operating Expenses.

"Recovered Materials" shall have the meaning ascribed to such term in Section 4.2.

"Regulatory Agency" or "Regulatory Agencies" shall mean any one or all applicable governmental agencies, including without limitation the United States Environmental Protection Agency, the Illinois Environmental Protection Agency and the Occupational Safety and Health Administration.

"Scrap Assets" shall have the meaning ascribed to such term in Section 1.1(a)(i).

"Scrap Purchase Price" shall have the meaning ascribed to such term in Section 2.2(a).

"Scrap Revenue" shall be the gross revenue from the sale of the Scrap Assets net of the Operating Expenses.

"Scrubber Sludge" shall mean, in general, material recovered from the dust collection system operated in conjunction with the Seller's former copper processing plant.

"Seal Order" shall mean that certain Seal Order pursuant to Section 34 of the Illinois Environmental Protection Act filed with the Court on December 8, 2001, a copy of which is attached hereto as part of the Interim Order (Exhibit B).

"Seller" shall have the meaning ascribed to such term in the Background paragraphs.

"Slag" shall mean, in general, material recovered from the copper processing plant as a liquid, transported outside the processing buildings and placed in appropriate stockpiles where it has cooled, by air or water, and solidified.

"Smelter Purchase Price" shall have the meaning ascribed to such term in the Background Paragraph 2.2(b).

"Smelter Site" shall have the meaning ascribed to such term in Section 1.1(a)(ii).

"Smelter Transfer Date" shall mean the date upon which title to the Smelter Site shall pass from Seller to Buyer, which date shall be the later of (i) the date the Smelter Purchase Price has been paid in full and (ii) the date that all the Scrubber Sludge and Slag (whether processed or unprocessed) has been sold.

"Trustee" shall have the meaning ascribed to such term in the Background paragraphs.

"Work Plans" shall have the meaning ascribed to such term in Section 5.1

IN THE UNITED STATES BANKRUPTCY COURT
FOR THE SOUTHERN DISTRICT OF ILLINOIS

IN RE:	)	In Proceedings Under Chapter 7
CHEMETCO, INC.,	)	BK 01-34066
DEBTOR.	)	

ORDER APPROVING AND CLARIFYING THE ASSET PURCHASE AND PROCESSING AGREEMENT

This matter having come before the Court pursuant to a Motion to Approve Asset Purchase and Processing Agreement ("Motion") between Debtor and Industrial Asset Disposition, LLC ("Buyer") dated July 29, 2009 ("Purchase Agreement") and the Illinois Environmental Protection Agency and Commerce Bank having requested clarification thereto, the Court finds as follows:

1. On July 29, 2009, the Trustee entered into the Purchase Agreement with Buyer to sell to Buyer certain real property owned by Debtor and defined in the Motion as the Smelter Site, the real property adjacent to the Smelter Site lying, the New Poag Road Property, and certain other assets defined as Scrap Assets, subject to this Court's approval of the Purchase Agreement ("Court Approval"). The Purchase Agreement further grants Buyer the exclusive right to process and/or sell the Scrubber Sludge and Slag pursuant to the terms of the Purchase Agreement.

2. Since the filing of the bankruptcy, the Trustee has met with numerous groups to arrive at the best solution to reclaim the metals from the slag and scrubber sludge located at Chemetco. Until now, none of those groups has been willing to invest the funds necessary to develop the technology needed to arrive at a solution that will result in substantially cleaning the site while realizing some monetary value from the metals. The Trustee believes the Purchase Agreement will provide a solution to reclaiming the metals from the recyclable metal bearing materials, the proceeds of which will contribute to the elimination of several environmental problems on this site, thereby reducing threats to the public health, welfare and the environment.

3. The Illinois Environmental Protection Agency has requested clarification of certain terms in the Purchase Agreement, which the Trustee and the Illinois Environmental Protection Agency have agreed can be clarified as follows:

a. The clause "remediation issues" contained in Section 5.2 of the Purchase Agreement refers to those matters requiring corrective action or response or remedial activities as a result of occurrences of non-compliance with Work Plans or ARARs during the performance of processing or other activities authorized by the Purchase Agreement, such as spills of materials. It was not the intent of the Buyer or the Trustee to include in this definition any environmental remediation issues previously existing on the real property caused by or amplified by a prior owner or occupier of the real property.

b. The purpose of the Escrowed Funds is to secure performance of the Buyer in any remediation required as a result of occurrence during the performance of the Purchase Agreement. The Buyer's performance will be further secured by performance bonds as may be necessary initially until such time as the Escrowed Funds are sufficient to provide adequate financial assurance to the Illinois Environmental Protection Agency. The Buyer has also agreed to purchase an environmental insurance policy in the amount of $10,000,000.00.

c. The clause "all appropriate no further remediation letters" was not a specific reference to a "No Further Remediation Letter" pursuant to Section 58.10 of the Environmental Protection Act but rather a generic reference to any appropriate closure or termination letter issued by an agency with jurisdiction over the remediation in question. The Escrowed Funds will remain in escrow until all appropriate closure or termination letters have been issued by the appropriate agency, be it the Illinois Environmental Agency or the U. S. Environmental Protection Agency.

d. Notwithstanding the foregoing, the Buyer and the Trustee have agreed to amend the Purchase Agreement to provide that any Escrowed Funds (as defined in the Purchase Agreement) remaining after the termination of the Agreement for whatever reason and after those funds have been used to remediate any new environmental non-compliance conditions caused by the Buyer or Trustee subsequent to this Order, shall be used to remediate any environmental problem or condition existing on the site prior to the filing of this bankruptcy proceeding.

e. As used in the Purchase Agreement, EPA shall mean either the Illinois Environmental Protection Agency or the U. S. Environmental Protection Agency or both as appropriate.

f. The Illinois Environmental Protection Agency seeks clarification as to what is done with the Operating Expenses (as defined in the Purchase Agreement). The Operating Expenses are paid by the Trustee to the appropriate creditor to whom the Operating Expenses are due. The Operating Expenses reduce the gross revenue collected by the Trustee to arrive at the Processing Revenue which is then distributed to the appropriate parties pursuant to the terms of the Purchase Agreement.

g. With respect to the remaining requests for clarification raised by the Illinois Environmental Protection Agency, it is the intent of the Seller and is provided in the Purchase Agreement that no action to be taken by the Buyer in the Purchase Agreement may be taken until this Court approves the Purchase Agreement and until all applicable Regulatory Agencies, including the Illinois Environmental Agency and the U. S. Environmental Agency, have approved the actions to be taken, whether such approval shall take the form of Work Plans, Consent Decrees or such other documents as may be required by the applicable Regulatory Agency.

4. For purposes of clarifying the position of Commerce Bank ("Bank"), it is acknowledged by the Trustee and the Bank that the Bank has a secured claim of $5,000,000.00

which shall be paid according to the formula provided in the Purchase Agreement, as well as from such other assets of the Debtor that are excluded from the sale contemplated under the Purchase Agreement upon which the Bank has a valid lien, and the balance of the Bank's claim shall be treated as a general unsecured claim.

IT IS THEREFORE ORDERED that the Asset Purchase and Processing Agreement between Chemetco and Industrial Asset Disposition, LLC, dated July 29, 2009, as clarified by this Order, is hereby approved. The Motion is hereby granted.

Counsel for the moving party shall serve a copy of this Order by mail to all interested parties who were not served electronically.

ENTERED: September 21, 2009

/s/ Kenneth J. Meyers
UNITED STATES BANKRUPTCY JUDGE-2

Approved as to form and content:

/s/ Laura K. Grandy
Laura K. Grandy, Trustee

/s/ Daniel C. Nester
Daniel C. Nester, Attorney for Commerce Bank

/s/ Elliott G. Stegin
Elliott G. Stegin
Industrial Asset Disposition, LLC

/s/ James L. Morgan
James L. Morgan, for Lisa Madigan Attorney General for State of Illinois

/s/ Greg Sukys
U.S. Department of Justice
U.S. Environmental Protection Agency

Notice Recipients

District/Off: 0754−3	User: tf	Date Created: 9/21/2009
Case: 01−34066	Form ID: pdf900	Total: 8

Recipients of Notice of Electronic Filing:

tr	Laura K Grandy	LGrandy@mmrg.com
intp	United States Trustee	USTPRegion10.es.ecf@usdoj.gov
ust	United States Trustee	USTPRegion10.es.ecf@usdoj.gov
aty	Mathis Marifian Richter &Grandy Ltd	Lgrandy@mmrg.com
aty	Laura K Grandy	LGrandy@mmrg.com

TOTAL: 5

Recipients submitted to the BNC (Bankruptcy Noticing Center):

cr	United States Environmental Protection Agency	9 Executive Dr	Fairivew Heights, IL 62208	
1242314	Illinois Environmental Protection Agency	1021 North Grand Avenue East	P.O. Box 19276	Springfield, Illinois 62794−9276
1221202	Industrial Process Equipment Group	2800 Locust St	St Louis MO 63103	

TOTAL: 3

Notice Recipients

District/Off: 0754−3	User: tf	Date Created: 9/21/2009
Case: 01−34066	Form ID: pdf900	Total: 8

Recipients of Notice of Electronic Filing:

tr	Laura K Grandy	LGrandy@mmrg.com
intp	United States Trustee	USTPRegion10.es.ecf@usdoj.gov
ust	United States Trustee	USTPRegion10.es.ecf@usdoj.gov
aty	Mathis Marifian Richter &Grandy Ltd	Lgrandy@mmrg.com
aty	Laura K Grandy	LGrandy@mmrg.com

TOTAL: 5

Recipients submitted to the BNC (Bankruptcy Noticing Center):

cr	United States Environmental Protection Agency	9 Executive Dr	Fairivew Heights, IL 62208	
1242314	Illinois Environmental Protection Agency	1021 North Grand Avenue East	P.O. Box 19276	Springfield, Illinois 62794−9276
1221202	Industrial Process Equipment Group	2800 Locust St	St Louis MO 63103	

TOTAL: 3

IN THE UNITED STATES BANKRUPTCY COURT
FOR THE SOUTHERN DISTRICT OF ILLINOIS

IN RE:	)	IN PROCEEDINGS UNDER
	)	CHAPTER 7
CHEMETCO, INC.,	)	
	)	BK 01-34066
Debtor(s).	)	

MOTION TO CLARIFY THE ASSET PURCHASE AND PROCESSING AGREEMENT

COMES NOW Laura K. Grandy, the Trustee in the above-referenced bankruptcy proceeding, and for her Motion to Clarify the Asset Purchase and Processing Agreement states as follows:

1. On July 29, 2009, the Trustee entered into the Asset Purchase and Processing Agreement ("Purchase Agreement") with Industrial Asset Disposition, LLC ("IAD") to sell certain real property owned by the Debtor and defined in the Purchase Agreement as the Smelter Site and the NPR Property, and certain other assets defined as Scrap Assets, subject to this Court's approval of the Purchase Agreement (the "Court Approval"). The Purchase Agreement further grants IAD the exclusive right to process and/or sell the Scrubber Sludge and Slag pursuant to the terms of the Purchase Agreement. Defined terms used herein and not otherwise defined shall have the meaning given to such terms in the Purchase Agreement.

2. The Purchase Agreement assumes that the Trustee would consult regularly with IAD on many aspects related to the processing and/or sale of the Scrubber Sludge and Slag. The Purchasing Agreement provides for the distribution of the Processing Revenue according to a certain formula. The Processing Revenue was defined as the gross revenues from the sale of the Scrubber Sludge, Recovered Materials and Slag, net of the Operating Expenses. The Operating Expenses included all costs of operation as well as the costs associated with the location, construction and installation of the Processing Facility. While IAD is obligated to fund the Processing Facility, IAD is at all times entitled to recover the costs associated with the location, construction and installation of the Processing Facility.

3. The Trustee and IAD reviewed and investigated numerous processes to recover the copper, zinc, lead, tin, nickel and other materials and valuable metals from the Slag, Scrubber Sludge and other by-products from the copper smelter process (referred to in the Purchase Agreement as "Recovered Materials"). Ultimately, it was decided that the process developed by the employees of Paradigm Minerals and Environmental Services, LLC ("Paradigm") would result in significantly all of the Slag and Scrubber Sludge and other by-products being processed, thereby leaving significantly smaller amounts of waste to be disposed of from the Smelter Site. This

combination, the Trustee believes, will result in the highest and best distribution to the creditors of this case. Paradigm has agreed to charge the bankruptcy estate a flat fee of 30% of the gross revenue from the sale of Recovered Materials (ie revenue before Operating Expenses) pursuant to a Processing Agreement to be entered into between Paradigm and/or its affiliate and the Trustee (the "Processing Agreement"). In exchange for said payment, Paradigm will absorb all capital costs associated with the location, construction and installation of the Processing Facility as well as all operating expenses associated with the Processing Facility (except for personnel and administrative costs, specifically related to the bankruptcy estate including Trustee fees and applicable taxes). Elliott Stegin is the majority owner of Paradigm. Elliott Stegin is also the majority owner of IAD. The purpose of this Motion is to clarify the allocation of expenses and payment of same related to the Processing Facility. Therefore, for purposes of the Purchase Agreement, the definition of Operating Expenses shall include the foregoing payments to Paradigm. The purpose of this motion is also to authorize the Trustee to enter into the Processing Agreement with Paradigm and/or its affiliates on such terms as the Trustee deems appropriate.

4. The Purchase Agreement also sets forth numerous instances in which the Trustee and IAD would discuss issues and make decisions related to the Processing Facility. It was and remains the intention of the parties that the Trustee would have authority to make said decisions without coming back to the Court to approve each decision related to the operations of the Processing Facility. The purpose of this Motion also is to clarify that the Trustee has the authority to make said decisions so as to allow the process to operate smoothly and efficiently. In order for this process to succeed, the liquidation of the assets through the Processing Facility needs to proceed in a responsive, business-like atmosphere. It will be impossible to come back and ask the Court to approve each decision necessary to maintain the day-to-day operations of the bankruptcy estate under the Purchase Agreement and Processing Agreement.

WHEREFORE, the Trustee prays that this Court approve the clarification set forth above, to establish and allow the Trustee to pay the processing fee of 30% of the gross revenue from the sale of Recovered Materials to Paradigm or its affiliate pursuant to the Processing Agreement entered into between Paradigm and/or its affiliates and the Trustee on such terms as the Trustee deems appropriate, and to make all decisions necessary to facilitate the operations of the Processing Facility as they relate to the Purchase Agreement and the Processing Agreement.

Dated this 9th day of March, 2010.

/s/ Laura K. Grandy, Trustee

Mathis, Marifian, Richter & Grandy, Ltd.
23 Public Square, Ste. 300

Belleville, IL 62232
(618) 234-9800
(618) 234-9786

CERTIFICATE OF SERVICE

I, LAURA K. GRANDY, hereby certify that on this 9th day of March, 2010, I forwarded a copy of the foregoing instrument by U.S. Mail or electronic Mail to Tim Ruppel, Assistant U.S. Trustee, Becker Building, Room 1100, 401 Main Street, Peoria, IL 61602; all parties requesting notification via ECF; and to all creditors set forth on the matrix.

/s/ Laura K. Grandy

IN THE UNITED STATES BANKRUPTCY COURT
FOR THE SOUTHERN DISTRICT OF ILLINOIS

IN RE:	)	IN PROCEEDINGS UNDER
	)	CHAPTER 7
CHEMETCO, INC.,	)	
	)	BK 01-34066
Debtor(s).	)	

ORDER

This matter having come before the Court pursuant to a Motion to Clarify the Asset Purchase and Processing Agreement and the Court having reviewed said Motion and being fully advised of the premises;

IT IS ORDERED that the Motion is hereby GRANTED.

Counsel for the moving party shall serve a copy of this Order by mail to all interested parties who were not served electronically.

ENTERED: May 4, 2010

/s/ Gerald Fines
UNITED STATES BANKRUPTCY JUDGE

IN THE UNITED STATES BANKRUPTCY COURT
FOR THE SOUTHERN DISTRICT OF ILLINOIS

In Re:	)	IN CHAPTER 7 PROCEEDINGS
	)	
CHEMETCO, INC.	)	BK 01-34066
	)	
Debtor.	)	

MOTION TO PAY SECURED CREDITOR AND ALLOCATE FUNDS

Comes now Donald M. Samson, trustee, and files this motion to pay secured creditor and allocate funds and in support thereof shows as follows:

1. On December 1, 2010, Donald M. Samson, trustee, filed a notice of trustee's intent to sell approximately 4,000 metric tons of scrubber sludge and 3,500 metric tons of mixed fines free and clear of liens. No objections were filed within the notice period thereby authorizing the trustee to sell said materials within the parameters set forth in the notice.

2. Pursuant to said notice the trustee has entered into an agreement with H & H Metals to sell approximately 3,500 metric tons of mixed fines. The estate and H & H Metals are in the process of arranging shipping and loading of the materials.

3. The trustee is negotiating with several metal purchasers for the sale of the approximately 4,000 metric tons of scrubber sludge and anticipates entering into a sales agreement shortly.

4. On April 15, 2011, Donald M. Samson, trustee, filed a notice of trustee's intent to sell approximately 120 tons of furnace cleanup. No objections were filed within the notice period, thereby authorizing the trustee to sell said materials within the parameters set forth in the notice.

5. The trustee has entered into an agreement with Aurubis A.G. to sell said furnace cleanup within the parameters set forth in the notice and said materials have been shipped to Aurubis A.G..

6. Laura K. Grandy, the prior trustee, entered into an asset purchase and processing agreement with Industrial Asset Disposition, LLC (IAD), dated July 29, 2009, as amended by the order approving and clarifying the asset purchase and processing agreement entered by the U.S. Bankruptcy Court on May 4, 2010.

7. The asset purchase and processing agreement as amended sets forth a formula for allocation and distribution of the proceeds of the sale of materials sold pursuant to the agreement.

8. The anticipated revenues from the sales of the mixed fines, scrubber sludge and furnace cleanup is estimated at approximately $3.5 million. The exact revenues will depend on the measured amounts sold and final assays to determine the percentage of copper and tin in the materials.

9. The formula provides for payment of expenses from the sale proceeds to arrive at the processing revenue:

a) Operating expenses to buyer - 30%

b) Estate's unreimbursed operating expenses and trustee fees including reserve for future expenses to insure funds for on-going operating expenses.

10. The resulting processing revenue is then allocated as follows:

a) Escrow for future environmental clean up – 5%

b) Payment to buyer - 25%

c) Payment to estate to be applied to the purchase price – 35%

d) Payment to Commerce Bank secured claim – 35%

11. Pursuant to the formula set forth in the agreement based on the estimated revenues the proceeds are to be distributed as follows:

Gross revenue – from sale of scrubber sludge, mixed fines and furnace clean up	$3,500,000.00
Buyer fixed fee for operating expenses 30% - per Motion to Clarify Asset Purchase and Processing Agreement	1,050,000.00[1]
Seller operating expenses – as defined on page 23 of the Asset Purchase and Processing Agreement[2]	785,217.90[3]
Seller reserve for operating expenses – reserved pursuant to Section 6.1(f)[4] of the asset Purchase and Processing Agreement	.00
Processing revenue – gross revenue less operating expenses	1,664,782.10

Allocation of Processing Revenue Pursuant to Sect. 4.4(a) of Asset Purchase and Processing Agreement

Escrow funds – 5%	$83,329.10
Buyer – 25%	416,195.52
Seller – 35%	582,673.74
Commerce Bank – 35%	582,673.74[5]

12. That pursuant to agreement with Commerce Bank, seller agrees to defer $100,000.00 of the expense reimbursement, said $100,000.00 to be applied to the secured claim of Commerce Bank. This agreement does not

---

[1] Actual payment to buyer reduced by $100,000.00 pursuant to agreement with Commerce Bank set forth in paragraph 13.

[2] Unreimbursed costs incurred by seller through March 2011, and trustee fees.

[3] Actual payment to seller reduced by $100,000.00 pursuant to agreement with Commerce Bank set forth in paragraph 12.

[4] It is anticipated that with the reimbursement of costs and seller's share of the proceeds no additional reserve will be necessary. The trustee reserves the right to reserve additional funds from the gross revenue in the event said reserve is necessary to maintain the continued operation of the estate.

[5] Actual payment to secured creditor Commerce Bank based on calculations set forth in paragraphs 12 and 13 will be $782,673.43 pursuant to agreement between Commerce Bank, seller and buyer.

change the terms of the Asset Purchase and Processing Agreement as amended with the deferred expense reimbursement to be paid from future sales.

13. That pursuant to agreement with Commerce Bank, buyer agrees to defer $100,000.00 of the operating expense payments, said $100,000.00 to be applied to the secured claim of Commerce Bank. This agreement does not change the terms of the Asset Purchase and Processing Agreement as amended with the deferred expenses to be paid from further sales.

14. The trustee requests authority to distribute funds from the aforementioned sales as funds are received by the estate in accordance with the formula for distribution of funds set forth herein.

15. The trustee will file periodic reports of sale including a report of the distribution of funds.

WHEREFORE, Donald M. Samson, trustee, prays that this motion be granted, that he be authorized to allocate and distribute funds from the herein described sales as set forth herein and for such further relief as this Court deems just and equitable.

/s/ Donald M. Samson
DONALD M. SAMSON, Trustee
226 W. Main St., Ste. 102
Belleville, IL 62220
618-235-2226
Fax: 618-235-0037

IN THE UNITED STATES BANKRUPTCY COURT
FOR THE SOUTHERN DISTRICT OF ILLINOIS

IN RE:	)	In Proceedings Under Chapter 7
CHEMETCO, INC.,	)	BK 01-34066
DEBTOR.	)	

OBJECTION TO MOTION TO PAY
SECURED CREDITOR AND ALLOCATE FUNDS

The Illinois Environmental Protection Agency, by Lisa Madigan, Attorney General of the Sate of Illinois, objects to the Motion to Pay Secured Creditor and Allocate Funds ("Motion") as follows:

1. Through the Motion, the Trustee seeks to distribute revenues "pursuant to the terms of the Asset and Purchasing Agreement entered in to between the Estate of Chemetco and Industrial Asset Disposition, LLC, dated July 29, 2009 as amended by Order Approving and Clarifying the Asset Purchase and Processing Agreement entered May 4, 2010", from the sale of:

Approximately 3,500 metric tons of mixed fines pursuant to notice dated 12/11/1 0
Approximately 4,000 metric tons of scrubber sludge pursuant to notice dated 12/11/10
Approximately 120 tons of furnace clean up pursuant to notice dated 4/15/10

2. The docket in this cause does not list a notice dated 4/15/10. There is one dated July 28, 2010 (Document 1542) that includes 155 metric tons of furnace cleanup (of unspecified make-up) and a second dated April 15, 2011 (Document 1608) that includes 120 tons of furnace cleanup "containing metallic, slippage, fines, scrap metal, and slag in three grades." Accordingly, the motion is deficient because it does not accurately identify which notice is actually involved. This is particularly relevant because the 7/28/10 notice does not mention any disbursements pursuant to any agreement with Industrial Assets Disposition LLC (hereafter "IAD") and the 4/15/11 notice contends the distribution is only subject to the Asset and Purchasing Agreement entered in to between the Estate of Chemetco and Industrial Asset Disposition, LLC, dated July 29, 2009 and approved by this Court on September 21, 2009.

3. The Asset Purchase and Processing Agreement executed on July 29, 2009 and approved by the Court on September 21, 2009 (hereafter the "Purchase Agreement") provided the Trustee would sell to Buyer certain real property owned by the Estate and defined in the Agreement as the Smelter Site and other real property adjacent to the Smelter Site and certain other assets defined as Scrap Assets. Scrap Assets were defined by the Purchase Agreement to be "miscellaneous stainless steel, iron and other metal bearing material located on the Smelter Site, including the metal contained in or comprising part of the buildings on the Smelter Site" (Section1, par. 1.1(a)(i) of the Purchase Agreement). The Purchase Agreement established a specific reimbursement formula distributing the proceeds of the sale of Scrap Assets. The furnace cleanup described in the 4/15/11 notice would fall under this definition of Scrap Assets and be subject to that distribution formula.

4. The reimbursement formula for Scrap Assets set forth in Section 3.1 of the Purchase Agreement, allocates the "Scrap Revenue" (gross revenue from the sale net of the Operating Expenses") as 20% to IAD and 80% to the Trustee with no payment directed to Commerce Bank. Yet the 4/15/11 Notice states the net proceeds "less the costs and expenses of the sale" and other fees to the Estate and Trustee will be paid to Commerce Bank because of its "first lien" on such assets.

5. As a further complexity, the 7/28/10 Notice does not reference the Purchase Agreement and also parrots the language regarding distribution of the proceeds to Commerce Bank utilized in the 4/15/11 Notice.

6. To clear up the confusion generated by the contradictory Notices of Intent to Sell and the Motion as to the Furnace Cleanup we need:

a. to see the documents supporting Commerce Bank's asserted first lien to determine if they apply to these materials;

b. to ascertain which Notice of Intent is actually involved; and

c. confirm that it is either the Scrap Assets formula of the original Purchase Agreement that applies or the distribution required by Commerce Bank's asserted first lien.

7. Similarly, the definition of Scrap Assets seem to cover the mixed fines since they are "other metal bearing materials located on the Smelter Site" and were not included in the Purchase Agreement's definition of scrubber sludge, slag, or Excluded Assets. The 12/1/10 Notice (Document 1583) did explicitly state this sale was subject to only the original Purchase Agreement approved by the Court on September 21, 2009.

8. Yet the 12/1/10 Notice interjected further confusion by also utilizing what appears to be the boilerplate language regarding payments to Commerce Bank set out in the 7/28/10 and 4/15/11 Notices

9. The Purchase Agreement further granted IAD the exclusive right to process and/or sell the Scrubber Sludge and Slag if the Trustee deems it appropriate and provided a second reimbursement formula applicable to such a sale. That formula, set out in Section 4.4(a) of the Purchase Agreement, allocates the Processing Revenue (gross revenue from the sale net of the Trustee's (Seller's) and IAD's (Buyer's) "Operating Expenses" as defined in the Purchasing Agreement) as follows: (1) 5% to the Trustee to be held pursuant to Section 5.2 of the Purchasing Agreement; (2) 25% to IAD; (3) 35% to Trustee to be applied to the Smelter Purchase Price; and (4) 35% to Commerce Bank "to satisfy its lien against the Slag, which shall be applied to the Smelter Purchase Price." The definition of "Processing Revenue" had three components, gross revenue from the sale of Scrubber Sludge, Recovered Materials (hereinafter

defined), and Slag (to the extent such Slag has not been processed. The definition of Recovered materials referred back to the description in Section 4.2 (copper, zinc, lead, tin, nickel, and other materials recovered from the processing of Scrubber Sludge and Slag).

10. The Trustee filed a motion to clarify the Purchase Agreement which asserted that there would be a third reimbursement formula applicable solely to revenues from the sale of "Recovered Materials" derived from the processing of scrubber sludge and slag "pursuant to a Processing Agreement to be entered into [emphasis added] between Paradigm [Minerals and Environmental Services LLC] and/or its affiliate and the Trustee." That formula would pay Paradigm "a flat fee of 30% of the gross revenue from the sale of Recovered Materials." The Order, entered May 4, 2010, granting that motion did not make any reference to the Processing Agreement nor did it incorporate the third reimbursement formula into its terms. The Motion seeks to apply this third formula even though it was not incorporated into the Court's order and there has been no processing of Scrubber Sludge to obtain Recovered Materials for sale Since Scrubber Sludge is a separate category from Recovered Materials, a formula applicable to the sale of Recovered Materials does not apply to the sale of Scrubber Sludge.

11. Furthermore, there has been no accounting of IAD's "Operating Expenses", if any, applicable to this transaction, so Processing Revenues cannot be determined. Similarly, there has been no accounting of the Trustee's Operating Expenses applicable to this transaction, just a tabulation of all such expenses.

Wherefore, the Illinois Environmental Protection Agency objects to the Motion and asks that the Trustee file a new motion which applies the correct reimbursement formulas and provides the necessary detailed accounting of Operating Expenses.

Respectfully submitted,

_____

James L. Morgan
Assistant Attorney General
Environmental Bureau
500 South Second Street
Springfield, Illinois 62706
217-524-7506
217-524-7740

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing was served electronically upon all parties scheduled upon the Court's ECF Notice List on the 13th day of July, 2011.

/s/ James L. Morgan
James L. Morgan
Assistant Attorney General
Environmental Bureau
Office of the Attorney General
500 South Second Street
Springfield, IL 62706

UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF ILLINOIS

IN RE:	)	In Proceeding Under Chapter 7
	)	
CHEMETCO, INC.,	)	Case No. 01-34066
	)	
Debtor.	)	**COMMERCE BANK'S RESPONSE TO MOTION TO PAY SECURED CREDITOR AND ALLOCATE FUNDS AND ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S OBJECTION TO MOTION TO PAY SECURED CREDITORS AND ALLOCATE FUNDS**

Commerce Bank ("Commerce Bank"), through its undersigned counsel, files its response to the Motion to Pay Secured Creditor and Allocate Funds (the "Motion") filed by Donald Samson, Chapter 7 trustee, and the Objection to Motion to Pay Secured Creditor and Allocate Funds (the "Objection") filed by Illinois Environmental Protection Agency ("IEPA"), and in support thereof, states as follows:

1. By order dated December 19, 2002 entered in Adversary Proceeding No. 02-03103 (the "Adversary Proceeding Order"), this Court ordered as follows:

> Commerce Bank's security interests are valid against Chemetco's inventory, parts inventory, accounts receivable, accounts, copper anodes, black copper, zinc material ("Commerce collateral"). Commerce Bank shall have a valid lien against the Commerce collateral.

A copy of the Adversary Proceeding Order is attached hereto as Exhibit A.

2. During the following nine years, this Court approved numerous distributions to Commerce Bank from sales of its collateral. IEPA did not object (nor did any other party object) to any of these distributions.

3. The Asset Purchase and Processing Agreement dated July 29, 2009 (the "Purchase Agreement") was drafted to ensure that Commerce Bank would continue to receive distributions

from sales of its collateral. In particular, the proceeds from all sales of Commerce Bank's collateral under the Purchase Agreement are designated as "Processing Revenue" to ensure that Commerce Bank receives distributions from these sales. See Section 4.4(a) of the Purchase Agreement.

4. The materials that are the subject of the Motion (the "Sold Materials") constitute Commerce Bank's collateral because (like each prior sale of Commerce Bank's collateral approved by this Court) they are Chemetco's inventory. See 810 ILCS 5/9-102(a)(48) ("'Inventory' means goods, other than farm products which: … (D) consist of raw materials, work in progress, or materials used or consumed in a business"); 810 ILCS 5/9-315(a)(2) ("[A] security interest attaches to any identifiable proceeds of collateral").

5. Because the Sold Materials constitute Commerce Bank's collateral, the Motion correctly identifies the proceeds of the Sold Materials as "Processing Revenue" and proposes to distribute $782,673.43 to Commerce Bank from this "Processing Revenue."

6. The IEPA is wrong in its assertion that the Sold Materials constitute "Scrap Assets." The Purchase Agreement contains two distribution formulas depending on whether the sold materials constitute Commerce Bank's collateral or not. The formula for "Processing Revenue" requires a distribution to Commerce Bank because it involves proceeds from sales of Commerce Bank's collateral. See Section 4.4(a) of the Purchase Agreement. Conversely, the formula for "Scrap Revenue" does not require a distribution to Commerce Bank because it does not involve proceeds from sales of Commerce Bank's collateral. See Section 3.3 of the Purchase Agreement. Therefore, "Scrap Assets" (the sale of which generate "Scrap Revenue") must only

involve materials that do not constitute Commerce Bank's collateral.[1] To hold otherwise would unfairly deprive Commerce Bank of the proceeds of its collateral.

7. Currently, approximately $2.2 million remains unpaid on Commerce Bank's $5 million secured claim. Commerce Bank supports the Motion and the distributions proposed therein. Commerce Bank reserves it right to object to any modification to the distributions proposed in the Motion.

WHEREFORE, Commerce Bank requests that the Court (i) approve the Motion and the distributions proposed therein, (ii) overrule the Objection, and (iii) grant such additional relief as the Court deems is just.

Dated: July 15, 2011

Respectfully submitted,

BRYAN CAVE LLP

By: /s/ David M. Unseth
David M. Unseth
211 N. Broadway, Suite 3600
St. Louis, Missouri 63102-2750
(314) 259-2000
(314) 259-2020 (Facsimile)

Attorneys for Commerce Bank

1/ Commerce Bank believes that "Scrap Assets" are comprised chiefly of Chemetco's equipment (the Adversary Proceeding Order held that Commerce Bank did not have a security interest in Chemetco's equipment) and fixtures located on Chemetco's real property (Commerce Bank does not have a mortgage on Chemetco's real property).

CERTIFICATE OF SERVICE

I, the undersigned, hereby certify that on this 15th day of July, 2011, the foregoing was served electronically via the Court's ECF/CM system and via first-class mail, postage prepaid, on the following parties:

James L. Morgan
Assistant Attorney General
Environmental Bureau
500 South Second Street
Springfield, Illinois 62706

/s/ David M. Unseth

EXHIBIT A

UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF ILLINOIS

IN RE:	)	CHAPTER 7
	)	
CHEMETCO, INC.,	)	CASE NO. 01-34066
	)	
Debtor.	)	
	)	
	)	
LAURA K. GRANDY, Trustee in Bankruptcy for Chemetco, Inc.,	)	Adv. Pro. No. 02-03103
	)	
Plaintiff,	)	
	)	
v.	)	
	)	
COMMERCE BANK, N.A., NEWCOURT FINANCIAL USA, INC., IBM CREDIT CORP., GENERAL ELECTRIC CAPITAL CORP., DELPHI AUTOMOTIVE SYSTEMS, WELLS FARGO EQUIPMENT FINANCE, INC., IKON OFFICE SOLUTIONS, K.C. JONES PLATING & ARROW PROFILE, GOLD'N WEST SURPLUS, DAVIS COOPER, SNOWMAN RECYCLING, INC., GACHMAN METALS & RECYCLING, WADDELL'S METAL RECYCLING, INC., NIBCO INC., THE YAFFE COMPANIES INCORPORATED, AMERICAN RECYCLING, EAST TENNESSEE CONVEYORS, METAL MANAGEMENT, INC., MUELLER CO., NATIONAL MATERIAL RECYCLING INC., RIVER RECYCLING INDUSTRIES, INC., S & M RECYCLING, INC. and PETAG CORPORATION,	)	
	)	
Defendants.	)	

JUDGMENT ORDER

This matter came before the Court for trial on November 4, 2002. Appearances were made by Laura K. Grandy, Trustee, and Jennifer A. Merlo, counsel for Commerce Bank, N.A. The Court having jurisdiction to consider the relief requested in this adversary proceeding; and due and

proper notice of the trustee's complaint and application to approve settlement having been given; and no objections having been filed thereto; and the Court having determined that the relief sought by the Trustee is in the best interests of the Debtor and all parties in interest; the Court orders as follows:

IT IS ORDERED that the secured claim of Tyco Capital, successor in interest to Newcourt Financial USA, Inc. ("Newcourt"), is resolved in that the equipment Newcourt had an interest in has been returned to Newcourt. Any lien claimed by Newcourt in assets of the estate, other than those assets on which relief from stay was previously granted, is void. Newcourt shall have sixty days from the date of this order to file a proof of claim for any unsecured claim it may have against the estate;

IT IS ORDERED, that any lien claimed by Wells Fargo Equipment Finance, Inc. ("Wells Fargo") against the assets of this estate is void. Wells Fargo shall have sixty days from the date of this order to file a proof of claim for any unsecured claim it may have against the estate;

IT IS ORDERED that Gachman Metals & Recycling ("Gachman") shall have an allowed unsecured claim in the amount of $4,916.00. Gachman shall have sixty days from the date of this order to file a proof of claim for any unsecured claim it may have against the estate. Gachman's claim as to any asset of this estate or lien against any asset of this estate is void.

IT IS ORDERED that Commerce Bank's security interests are valid against Chemetco's inventory, parts inventory, accounts receivable, accounts, copper anodes, black copper, zinc material and the general intangibles ("Commerce collateral"). Commerce Bank shall have a valid lien against the Commerce collateral. Commerce does not have a lien on any equipment described in the complaint. The Trustee's settlement of Commerce Bank's general intangibles security interest in the proceeds of the Debtor's lawsuit against The Hartford Insurance Company, whereby

the Trustee has agreed to pay Commerce one half of the net proceeds of the lawsuit, after payment of the one-third contingency fee and expenses owed to special counsel for the Debtor, is approved. The Trustee is authorized to immediately make the settlement payment to Commerce;

IT IS ORDERED that the Trustee's settlement with Davis Cooper of $8,929.68 is approved. Davis Cooper's claim as to any asset of this estate or lien against any asset of this estate is void. The Trustee is authorized to immediately make the settlement payment to Davis Cooper. Davis Cooper shall have sixty (60) days from the date of this Order to file a Proof of Claim for any unsecured claim it may have against the estate;

IT IS ORDERED that the Trustee's settlement with The Yaffe Companies, Inc. ("Yaffe") of $3,474.66 is approved. Yaffe's claim as to any asset of this estate or lien against any asset of this estate is void. The Trustee is authorized to immediately make the settlement payment to Yaffe. Yaffe shall have sixty (60) days from the date of this Order to file a Proof of Claim for any unsecured claim it may have against the estate;

IT IS ORDERED that the Trustee's settlement with Metal Management, Inc. ("Metal Management") of $1,500 is approved. Metal Management's claim as to any asset of this estate or lien against any asset of this estate is void. The Trustee is authorized to immediately make the settlement payment to Metal Management. Metal Management shall have sixty (60) days from the date of this Order to file a Proof of Claim for any unsecured claim it may have against the estate;

IT IS ORDERED that the Trustee's settlement with Mueller Co. of $7,748.71 is approved. Mueller's claim as to any asset of this estate or lien against any asset of this estate is void. The Trustee is authorized to immediately make the settlement payment to Mueller Co. Mueller Co. shall have sixty (60) days from the date of this Order to file a Proof of Claim for any unsecured claim it may have against the estate;

IT IS ORDERED that River Recycling Industries, Inc. ("River Recycling") has a valid reclamation claim. River Recycling shall be paid $11,424.33, the full price received by the Trustee for their goods, which were sold post-petition. River Recycling's claim as to any other asset of this estate or lien against any asset of this estate is void. River Recycling shall have sixty (60) days from the date of this Order to file a Proof of Claim for any unsecured claim it may have against the estate;

IT IS ORDERED that the Trustee's settlement with Petag Corporation ("Petag") of $14,927.20 is approved. Petag's claim as to any asset of this estate or lien against any asset of this estate is void. The Trustee is authorized to immediately make the settlement payment to Petag. Petag shall have sixty (60) days from the date of this Order to file a Proof of Claim for any unsecured claim it may have against the estate;

IT IS ORDERED that the Trustee's settlement with S&M Recycling ("S&M") of $3,000 is approved. S&M's claim as to any asset of this estate or lien against any asset of this estate is void. The Trustee is authorized to immediately make the settlement payment to S&M.

IT IS ORDERED that the Trustee's settlement with Delphi Automotive Systems ("Delphi") of $5,000 is approved. The Trustee is authorized to immediately make the settlement payment to Delphi. Delphi's claim as to any other assets of this bankruptcy estate or lien against any of the assets of this bankruptcy estate is void. Delphi shall have sixty (60) days from the date of the Order approving this settlement to file an Amended Proof of Claim for any unsecured claim it may have against the estate.

IT IS ORDERED that Gold'N West Surplus ("Gold'N West") does not have a valid reclamation claim against the estate. Gold'N West's claim as to any asset of this estate or lien

against any asset of this estate is void. Gold'N West shall have sixty days from the date of this order to file a proof of claim for any unsecured claim it may have against the estate; and

IT IS ORDERED that National Material Recycling, Inc. ("National Material") does not have a valid reclamation claim against the estate. National Material's claim as to any asset of this estate or lien against any asset of this estate is void. National Material shall have sixty days from the date of this order to file a proof of claim for any unsecured claim it may have against the estate.

ENTERED: December 19, 2002

/s/ Kenneth J. Meyers
UNITED STATES BANKRUPTCY JUDGE

UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF ILLINOIS

IN RE:	)	In Proceeding Under Chapter 7
	)	
CHEMETCO, INC.,	)	Case No. 01-34066
	)	
Debtor.	)	**COMMERCE BANK'S RESPONSE TO MOTION TO PAY SECURED CREDITOR AND ALLOCATE FUNDS AND ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S OBJECTION TO MOTION TO PAY SECURED CREDITORS AND ALLOCATE FUNDS**

Commerce Bank ("Commerce Bank"), through its undersigned counsel, files its response to the Motion to Pay Secured Creditor and Allocate Funds (the "Motion") filed by Donald Samson, Chapter 7 trustee, and the Objection to Motion to Pay Secured Creditor and Allocate Funds (the "Objection") filed by Illinois Environmental Protection Agency ("IEPA"), and in support thereof, states as follows:

1. By order dated December 19, 2002 entered in Adversary Proceeding No. 02-03103 (the "Adversary Proceeding Order"), this Court ordered as follows:

> Commerce Bank's security interests are valid against Chemetco's inventory, parts inventory, accounts receivable, accounts, copper anodes, black copper, zinc material ("Commerce collateral"). Commerce Bank shall have a valid lien against the Commerce collateral.

A copy of the Adversary Proceeding Order is attached hereto as Exhibit A.

2. During the following nine years, this Court approved numerous distributions to Commerce Bank from sales of its collateral. IEPA did not object (nor did any other party object) to any of these distributions.

3. The Asset Purchase and Processing Agreement dated July 29, 2009 (the "Purchase Agreement") was drafted to ensure that Commerce Bank would continue to receive distributions

from sales of its collateral. In particular, the proceeds from all sales of Commerce Bank's collateral under the Purchase Agreement are designated as "Processing Revenue" to ensure that Commerce Bank receives distributions from these sales. See Section 4.4(a) of the Purchase Agreement.

4. The materials that are the subject of the Motion (the "Sold Materials") constitute Commerce Bank's collateral because (like each prior sale of Commerce Bank's collateral approved by this Court) they are Chemetco's inventory. See 810 ILCS 5/9-102(a)(48) ("'Inventory' means goods, other than farm products which: … (D) consist of raw materials, work in progress, or materials used or consumed in a business"); 810 ILCS 5/9-315(a)(2) ("[A] security interest attaches to any identifiable proceeds of collateral").

5. Because the Sold Materials constitute Commerce Bank's collateral, the Motion correctly identifies the proceeds of the Sold Materials as "Processing Revenue" and proposes to distribute $782,673.43 to Commerce Bank from this "Processing Revenue."

6. The IEPA is wrong in its assertion that the Sold Materials constitute "Scrap Assets." The Purchase Agreement contains two distribution formulas depending on whether the sold materials constitute Commerce Bank's collateral or not. The formula for "Processing Revenue" requires a distribution to Commerce Bank because it involves proceeds from sales of Commerce Bank's collateral. See Section 4.4(a) of the Purchase Agreement. Conversely, the formula for "Scrap Revenue" does not require a distribution to Commerce Bank because it does not involve proceeds from sales of Commerce Bank's collateral. See Section 3.3 of the Purchase Agreement. Therefore, "Scrap Assets" (the sale of which generate "Scrap Revenue") must only

involve materials that do not constitute Commerce Bank's collateral.[1/] To hold otherwise would unfairly deprive Commerce Bank of the proceeds of its collateral.

7. Currently, approximately $2.2 million remains unpaid on Commerce Bank's $5 million secured claim. Commerce Bank supports the Motion and the distributions proposed therein. Commerce Bank reserves it right to object to any modification to the distributions proposed in the Motion.

WHEREFORE, Commerce Bank requests that the Court (i) approve the Motion and the distributions proposed therein, (ii) overrule the Objection, and (iii) grant such additional relief as the Court deems is just.

Dated: July 15, 2011

Respectfully submitted,

BRYAN CAVE LLP

By: /s/ David M. Unseth
David M. Unseth
211 N. Broadway, Suite 3600
St. Louis, Missouri 63102-2750
(314) 259-2000
(314) 259-2020 (Facsimile)

Attorneys for Commerce Bank

1/ Commerce Bank believes that "Scrap Assets" are comprised chiefly of Chemetco's equipment (the Adversary Proceeding Order held that Commerce Bank did not have a security interest in Chemetco's equipment) and fixtures located on Chemetco's real property (Commerce Bank does not have a mortgage on Chemetco's real property).

CERTIFICATE OF SERVICE

I, the undersigned, hereby certify that on this 15th day of July, 2011, the foregoing was served electronically via the Court's ECF/CM system and via first-class mail, postage prepaid, on the following parties:

James L. Morgan
Assistant Attorney General
Environmental Bureau
500 South Second Street
Springfield, Illinois 62706

/s/ David M. Unseth

EXHIBIT A

UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF ILLINOIS

IN RE:	)	CHAPTER 7
	)	
CHEMETCO, INC.,	)	CASE NO. 01-34066
	)	
Debtor.	)	
	)	
	)	
LAURA K. GRANDY, Trustee in Bankruptcy for Chemetco, Inc.,	)	Adv. Pro. No. 02-03103
	)	
Plaintiff,	)	
	)	
v.	)	
	)	
COMMERCE BANK, N.A., NEWCOURT FINANCIAL USA, INC., IBM CREDIT CORP., GENERAL ELECTRIC CAPITAL CORP., DELPHI AUTOMOTIVE SYSTEMS, WELLS FARGO EQUIPMENT FINANCE, INC., IKON OFFICE SOLUTIONS, K.C. JONES PLATING & ARROW PROFILE, GOLD'N WEST SURPLUS, DAVIS COOPER, SNOWMAN RECYCLING, INC., GACHMAN METALS & RECYCLING, WADDELL'S METAL RECYCLING, INC., NIBCO INC., THE YAFFE COMPANIES INCORPORATED, AMERICAN RECYCLING, EAST TENNESSEE CONVEYORS, METAL MANAGEMENT, INC., MUELLER CO., NATIONAL MATERIAL RECYCLING INC., RIVER RECYCLING INDUSTRIES, INC., S & M RECYCLING, INC. and PETAG CORPORATION,	)	
	)	
Defendants.	)	

JUDGMENT ORDER

This matter came before the Court for trial on November 4, 2002. Appearances were made by Laura K. Grandy, Trustee, and Jennifer A. Merlo, counsel for Commerce Bank, N.A. The Court having jurisdiction to consider the relief requested in this adversary proceeding; and due and

proper notice of the trustee's complaint and application to approve settlement having been given; and no objections having been filed thereto; and the Court having determined that the relief sought by the Trustee is in the best interests of the Debtor and all parties in interest; the Court orders as follows:

IT IS ORDERED that the secured claim of Tyco Capital, successor in interest to Newcourt Financial USA, Inc. ("Newcourt"), is resolved in that the equipment Newcourt had an interest in has been returned to Newcourt. Any lien claimed by Newcourt in assets of the estate, other than those assets on which relief from stay was previously granted, is void. Newcourt shall have sixty days from the date of this order to file a proof of claim for any unsecured claim it may have against the estate;

IT IS ORDERED, that any lien claimed by Wells Fargo Equipment Finance, Inc. ("Wells Fargo") against the assets of this estate is void. Wells Fargo shall have sixty days from the date of this order to file a proof of claim for any unsecured claim it may have against the estate;

IT IS ORDERED that Gachman Metals & Recycling ("Gachman") shall have an allowed unsecured claim in the amount of $4,916.00. Gachman shall have sixty days from the date of this order to file a proof of claim for any unsecured claim it may have against the estate. Gachman's claim as to any asset of this estate or lien against any asset of this estate is void.

IT IS ORDERED that Commerce Bank's security interests are valid against Chemetco's inventory, parts inventory, accounts receivable, accounts, copper anodes, black copper, zinc material and the general intangibles ("Commerce collateral"). Commerce Bank shall have a valid lien against the Commerce collateral. Commerce does not have a lien on any equipment described in the complaint. The Trustee's settlement of Commerce Bank's general intangibles security interest in the proceeds of the Debtor's lawsuit against The Hartford Insurance Company, whereby

the Trustee has agreed to pay Commerce one half of the net proceeds of the lawsuit, after payment of the one-third contingency fee and expenses owed to special counsel for the Debtor, is approved. The Trustee is authorized to immediately make the settlement payment to Commerce;

IT IS ORDERED that the Trustee's settlement with Davis Cooper of $8,929.68 is approved. Davis Cooper's claim as to any asset of this estate or lien against any asset of this estate is void. The Trustee is authorized to immediately make the settlement payment to Davis Cooper. Davis Cooper shall have sixty (60) days from the date of this Order to file a Proof of Claim for any unsecured claim it may have against the estate;

IT IS ORDERED that the Trustee's settlement with The Yaffe Companies, Inc. ("Yaffe") of $3,474.66 is approved. Yaffe's claim as to any asset of this estate or lien against any asset of this estate is void. The Trustee is authorized to immediately make the settlement payment to Yaffe. Yaffe shall have sixty (60) days from the date of this Order to file a Proof of Claim for any unsecured claim it may have against the estate;

IT IS ORDERED that the Trustee's settlement with Metal Management, Inc. ("Metal Management") of $1,500 is approved. Metal Management's claim as to any asset of this estate or lien against any asset of this estate is void. The Trustee is authorized to immediately make the settlement payment to Metal Management. Metal Management shall have sixty (60) days from the date of this Order to file a Proof of Claim for any unsecured claim it may have against the estate;

IT IS ORDERED that the Trustee's settlement with Mueller Co. of $7,748.71 is approved. Mueller's claim as to any asset of this estate or lien against any asset of this estate is void. The Trustee is authorized to immediately make the settlement payment to Mueller Co. Mueller Co. shall have sixty (60) days from the date of this Order to file a Proof of Claim for any unsecured claim it may have against the estate;

IT IS ORDERED that River Recycling Industries, Inc. ("River Recycling") has a valid reclamation claim. River Recycling shall be paid $11,424.33, the full price received by the Trustee for their goods, which were sold post-petition. River Recycling's claim as to any other asset of this estate or lien against any asset of this estate is void. River Recycling shall have sixty (60) days from the date of this Order to file a Proof of Claim for any unsecured claim it may have against the estate;

IT IS ORDERED that the Trustee's settlement with Petag Corporation ("Petag") of $14,927.20 is approved. Petag's claim as to any asset of this estate or lien against any asset of this estate is void. The Trustee is authorized to immediately make the settlement payment to Petag. Petag shall have sixty (60) days from the date of this Order to file a Proof of Claim for any unsecured claim it may have against the estate;

IT IS ORDERED that the Trustee's settlement with S&M Recycling ("S&M") of $3,000 is approved. S&M's claim as to any asset of this estate or lien against any asset of this estate is void. The Trustee is authorized to immediately make the settlement payment to S&M.

IT IS ORDERED that the Trustee's settlement with Delphi Automotive Systems ("Delphi") of $5,000 is approved. The Trustee is authorized to immediately make the settlement payment to Delphi. Delphi's claim as to any other assets of this bankruptcy estate or lien against any of the assets of this bankruptcy estate is void. Delphi shall have sixty (60) days from the date of the Order approving this settlement to file an Amended Proof of Claim for any unsecured claim it may have against the estate.

IT IS ORDERED that Gold'N West Surplus ("Gold'N West") does not have a valid reclamation claim against the estate. Gold'N West's claim as to any asset of this estate or lien

against any asset of this estate is void. Gold'N West shall have sixty days from the date of this order to file a proof of claim for any unsecured claim it may have against the estate; and

IT IS ORDERED that National Material Recycling, Inc. ("National Material") does not have a valid reclamation claim against the estate. National Material's claim as to any asset of this estate or lien against any asset of this estate is void. National Material shall have sixty days from the date of this order to file a proof of claim for any unsecured claim it may have against the estate.

ENTERED: December 19, 2002

/s/ Kenneth J. Meyers
UNITED STATES BANKRUPTCY JUDGE

UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF ILLINOIS

IN RE:	)	In Proceeding Under Chapter 7
	)	
CHEMETCO, INC.,	)	Case No. 01-34066
	)	
Debtor.	)	**PARADIGM MINERALS AND ENVIRONMENTAL SERVICES, LLC'S RESPONSE TO MOTION TO PAY SECURED CREDITOR AND ALLOCATE FUNDS AND ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S OBJECTION TO MOTION TO PAY SECURED CREDITORS AND ALLOCATE FUNDS**

Paradigm Minerals and Environmental Services, LLC ("PMES"), through its undersigned counsel, hereby files its response to the Motion to Pay Secured Creditor and Allocate Funds (the "Motion") filed by Donald Samson, Chapter 7 trustee (the "Trustee"), and the Objection to Motion to Pay Secured Creditor and Allocate Funds (the "Objection") filed by Illinois Environmental Protection Agency ("IEPA").

In the Objection, the IEPA objects to the following matters: (a) the identity of the proper party for payments under the Asset Purchase and Processing Agreement dated July 29, 2009 (the "Purchase Agreement"), (b) the characterization of certain materials being sold pursuant to the Purchase Agreement, and (c) the calculation of the payments being made pursuant to the Purchase Agreement. It is worth noting that (i) IEPA has approved the underlying sales which are generating the Processing Revenues at issue in the Motion so there are no environmental or remediation issues associated with these sales, and (ii) none of the parties that holds a direct interest in the outcome of these matters (namely, the Trustee, Commerce Bank or PMES) has raised similar objections. PMES will address each of the IEPA's three objections below.

I. <u>PMES Is the Proper Party for Receipt of Payments under the Purchase Agreement</u>

The Purchase Agreement was originally entered into by the bankruptcy estate of Chemetco, Inc. and Industrial Asset Disposition, LLC ("IAD"). Pursuant to an Assignment, Assumption and Consent Agreement dated April 20, 2011 (the "Assignment"), IAD assigned all of its rights under the Purchase Agreement to PMES. As a result of the Assignment, PMES is now the "Buyer" under the Purchase Agreement.

II. <u>"Mixed Fines" and "Furnace Cleanup" are not "Scrap Assets" and should be treated as "Scrubber Sludge" and "Slag"</u>

The Purchase Agreement deals with the two categories of property: "Assets" and "Excluded Assets." The Assets are comprised of the Scrap Assets and certain real property, buildings, facilities and improvements. The Purchase Agreement defines "Scrap Assets" as "miscellaneous stainless steel, iron and other metal bearing materials located on the Smelter Site" (Section 1.1(a)(i) of the Purchase Agreement) and "by-products from the demolition of the buildings, including steel I beams, copper wire, old breakers, transformers and motors" (Section 3.1 of the Purchase Agreement). So, the Scrap Assets are essentially the infrastructure and building components located on the Chemetco site. The Assets (including the Scrap Assets) were sold to the Buyer pursuant to the Purchase Agreement, for which the Buyer agreed to pay the purchase price amounts set forth in Section 2.2 of the Purchase Agreement.

As listed on Schedule 1.2 of the Purchase Agreement, the "Excluded Assets" are comprised of the following:

- Scrubber Sludge and Slag
- Various and sundry feed stocks
- "In-process" materials (i.e., materials contained within or around the existing processing equipment)

- Sediments and dusts associated with environmental clean-ups
- Cupro
- Pot slag
- Furnace dust

The Excluded Assets were not sold to the Buyer. Rather, the Buyer was granted the exclusive right to process and/or sell Scrubber Sludge and Slag.

IEPA contends that the "mixed fines" and "furnace cleanup" should be treated as "Scrap Assets" for purposes of the Purchase Agreement. This position is not supported by the facts. First, the "mixed fines" and "furnace cleanup" are not Scrap Assets because they are not infrastructure or building components located at the Chemetco site; rather, they are materials used in and generated from Chemetco's prior operations (similar to Scrubber Sludge and Slag). Second, just like Scrubber Sludge and Slag, the "mixed fines" and "furnace cleanup" can either be sold in their existing (i.e., unprocessed) form or in a processed form, while Scrap Assets can only be sold in their existing form. Third, similar to Scrubber Sludge and Slag, the "mixed fines" and "furnace cleanup" can be processed to recover copper, zinc, lead, tin, nickel and other materials. Fourth, the "mixed fines" and "furnace cleanup" are being sold to buyers that also purchase Scrubber Sludge and Slag. Finally, because the "mixed fines" and "furnace cleanup" are included within the "Excluded Assets" listed on Schedule 1.2 of the Purchase Agreement, they cannot constitute Scrap Assets (because Scrap Assets, by definition, are not Excluded Assets).

III. IEPA's Objection to Payment of 30% Flat Fee to PMES is based on an Incorrect Reading of the Purchase Agreement

The Purchase Agreement contains two (not three, as argued by IEPA) formulas for calculating distributions of sale revenues. The first formula calculates distributions of "Scrap Revenue" (which is the gross revenue from the sale of Scrap Assets minus Operating Expenses). This formula does not apply here because, as discussed above, the Motion does not involve any sales of Scrap Assets.

The second formula calculates distributions of "Processing Revenue" (which is the gross revenue from the sale of Scrubber Sludge, Slag and Recovered Materials minus Operating Expenses). Regardless of which formula is applicable, both require a calculation of the amount of "Operating Expenses."

The Court (by its approval of the Trustee's Motion to Clarify) clarified that the definition of "Operating Expenses" includes payment of 30% flat fee to PMES in lieu of reimbursement of PMES's actual operating expenses. IEPA is correct that this 30% flat fee was meant to apply to revenues from the sale of Recovered Materials. IEPA, however, is incorrect in reading into the term "Recovered Materials" a requirement that these materials actually be recovered or processed at the Chemetco site. Under the Purchase Agreement, Recovered Materials are defined as "copper, zinc, lead, tin, nickel and other materials." Section 4.2 of the Purchase Agreement. The materials that are the subject of the Motion constitute Recovered Materials because they are "other materials" being purchased for the recovery of copper. See Notices of Intent to Sell Property.

Not only is this position consistent with the Agreement, it also ensures that distributions can be made to the bankruptcy estate (for the benefit of unsecured creditors), to Commerce Bank (on account of its secured claim), and to the Environmental Remediation Fund. Under the IEPA's reading of the Purchase Agreement, PMES would still be entitled to reimbursement of its "Operating Expenses" from the gross revenues detailed in the Motion before any distributions

could be made to the bankruptcy estate, Commerce Bank or the Environmental Remediation Fund. Currently, PMES's has incurred operating expenses in excess of $4 million, which (if required to be reimbursed) would exhaust all anticipated gross revenues. By properly applying the 30% flat fee (rather than reimbursing PMES's incurred operating expenses), distributions to the bankruptcy estate, Commerce Bank and the Environmental Remediation Fund can occur immediately (rather than waiting for all of PMES's actual operating expenses to be reimbursed).

WHEREFORE, PMES requests that the Court (i) approve the Motion and the distributions proposed therein, (ii) overrule the Objection, and (iii) grant such additional relief as the Court deems is just.

Dated: July 15, 2011

Respectfully submitted,

BRYAN CAVE LLP

By: /s/ David M. Unseth
Daniel C. Nester
David M. Unseth
211 N. Broadway, Suite 3600
St. Louis, Missouri 63102-2750
(314) 259-2000
(314) 259-2020 (Facsimile)

Attorneys for Paradigm Minerals and Environmental Services, LLC

CERTIFICATE OF SERVICE

I, the undersigned, hereby certify that on this 15th day of July, 2011, the foregoing was served electronically via the Court's ECF/CM system and via first-class mail, postage prepaid, on the following parties:

James L. Morgan
Assistant Attorney General
Environmental Bureau
500 South Second Street
Springfield, Illinois 62706

/s/ David M. Unseth

IN THE UNITED STATES BANKRUPTCY COURT
FOR THE SOUTHERN DISTRICT OF ILLINOIS

In re:	)	IN CHAPTER 7 PROCEEDINGS
	)	
CHEMETCO, INC.	)	BK 01-34066
	)	
Debtor.	)	

TRUSTEE'S REPLY TO OBJECTION TO MOTION TO PAY SECURED CREDITOR AND ALLOCATE FUNDS

Trustee, Donald M. Samson, by counsel, submits this Reply to the Objection to Motion to Pay Secured Creditor and Allocate Funds ("Objection") submitted by the Illinois Environmental Protection Agency ("IEPA"). The IEPA asserts three basic objections: (1) that the Notice contains a date error (April 15, 2010 vs. April 15, 2011) that created confusion regarding how payment from proceeds should be made; (2) that certain materials being sold pursuant to the Purchase Agreement are not correctly identified, and (3) that uncertainty exists regarding calculation of the payments being made pursuant to the Purchase Agreement. The issues raised in the Objection are without merit and provide no reason to delay the proposed transactions and distributions. No environmental basis for the objection is made and the transactions have been approved by the IEPA. The Objection addresses only how sale proceeds are distributed. These questions have been resolved by other orders and agreements. Thus, no support for objection exists and, as described in the Motion for Expedited Hearing (Document No. 1613), further delay would be detrimental to the operations of the bankruptcy estate.

I. NOTICE DATE

The June 23, 2011 Notice appears to contain a typographical error in describing the proposed distribution of revenues from "approximately 120 tons of furnace clean up pursuant to notice dated 4/15/ **2010**". (Document No. 1611). In fact the Notice was dated 4/15/**2011**, as was

recognized by the IEPA in its Objection. No genuine confusion is created by the apparent typographical error.[1]

II. THE MATERIALS TO BE SOLD ARE "EXCLUDED ASSETS"

As described by Paradigm Minerals and Environmental Services, LLC ("PMES") in its Response to the Motion and Objection ("PMES Response") (Doc. No. 1617), with which the Trustee concurs, the interpretation urged by the IEPA directly contradicts the plain language of the controlling documents. The Asset Purchase and Processing Agreement dated July 29, 2009 ("Purchase Agreement") addresses two categories of property: "Assets" and "Excluded Assets." The Assets are comprised of the Scrap Assets and certain real property, buildings, facilities and improvements. The Purchase Agreement further defines "Scrap Assets" as "miscellaneous stainless steel, iron and other metal bearing materials located on the Smelter Site" (Section 1.1(a)(i) of the Purchase Agreement) and "by-products from the demolition of the buildings, including steel I beams, copper wire, old breakers, transformers and motors" (Section 3.1 of the Purchase Agreement). Scrap Assets, therefore, are the infrastructure and building components located on the Chemetco site. The Assets (including the Scrap Assets) were sold to the Buyer pursuant to the Purchase Agreement, for which the Buyer agreed to pay the purchase price amounts set forth in Section 2.2 of the Purchase Agreement.[2]

---

[1] The IEPA acknowledged the 4/15/2011 Notice in Paragraph 4 of its Objection and that this Notice referenced that Commerce would get the net proceeds from the sale less certain specifically identified costs and expenses, referred to by the IEPA as "boilerplate language." The IEPA later referenced the 12/1/2010 Notice and that it, too, utilized this "boilerplate language" claiming that this caused further confusion. In fact, both the 4/15/2011 Notice and 12/1/2010 Notice correctly acknowledge that Commerce has a first lien on the assets being sold in those Notices and that Commerce would be paid pursuant to the so-called "boilerplate language" but for the fact that these sales were "subject to the Purchase Agreement between the Estate of Chemetco and I.A.D." It is clear in both Notices that Commerce is to be paid pursuant to the Purchase Agreement, which in these particular instances supersedes the "boilerplate language." By contrast, the 7/28/2010 Notice, which the IEPA notes does not reference the Purchase Agreement but only the "boilerplate language," concerned the sale of Excluded Assets which were not subject to the Purchase Agreement, hence the "boilerplate language" was properly applied in that case.

[2] PMES entered into an assignment of interest from Industrial Asset Disposition, LLC ("IAD") on April 20, 2011 and is the "Buyer."

IN THE UNITED STATES BANKRUPTCY COURT
FOR THE SOUTHERN DISTRICT OF ILLINOIS

IN RE:	)	IN PROCEEDINGS UNDER
	)	CHAPTER 7
CHEMETCO, INC.,	)	
	)	BK 01-34066
Debtor(s).	)	

MOTION TO CLARIFY THE ASSET PURCHASE AND PROCESSING AGREEMENT

COMES NOW Laura K. Grandy, the Trustee in the above-referenced bankruptcy proceeding, and for her Motion to Clarify the Asset Purchase and Processing Agreement states as follows:

1. On July 29, 2009, the Trustee entered into the Asset Purchase and Processing Agreement ("Purchase Agreement") with Industrial Asset Disposition, LLC ("IAD") to sell certain real property owned by the Debtor and defined in the Purchase Agreement as the Smelter Site and the NPR Property, and certain other assets defined as Scrap Assets, subject to this Court's approval of the Purchase Agreement (the "Court Approval"). The Purchase Agreement further grants IAD the exclusive right to process and/or sell the Scrubber Sludge and Slag pursuant to the terms of the Purchase Agreement. Defined terms used herein and not otherwise defined shall have the meaning given to such terms in the Purchase Agreement.

2. The Purchase Agreement assumes that the Trustee would consult regularly with IAD on many aspects related to the processing and/or sale of the Scrubber Sludge and Slag. The Purchasing Agreement provides for the distribution of the Processing Revenue according to a certain formula. The Processing Revenue was defined as the gross revenues from the sale of the Scrubber Sludge, Recovered Materials and Slag, net of the Operating Expenses. The Operating Expenses included all costs of operation as well as the costs associated with the location, construction and installation of the Processing Facility. While IAD is obligated to fund the Processing Facility, IAD is at all times entitled to recover the costs associated with the location, construction and installation of the Processing Facility.

3. The Trustee and IAD reviewed and investigated numerous processes to recover the copper, zinc, lead, tin, nickel and other materials and valuable metals from the Slag, Scrubber Sludge and other by-products from the copper smelter process (referred to in the Purchase Agreement as "Recovered Materials"). Ultimately, it was decided that the process developed by the employees of Paradigm Minerals and Environmental Services, LLC ("Paradigm") would result in significantly all of the Slag and Scrubber Sludge and other by-products being processed, thereby leaving significantly smaller amounts of waste to be disposed of from the Smelter Site. This

combination, the Trustee believes, will result in the highest and best distribution to the creditors of this case. Paradigm has agreed to charge the bankruptcy estate a flat fee of 30% of the gross revenue from the sale of Recovered Materials (ie revenue before Operating Expenses) pursuant to a Processing Agreement to be entered into between Paradigm and/or its affiliate and the Trustee (the "Processing Agreement"). In exchange for said payment, Paradigm will absorb all capital costs associated with the location, construction and installation of the Processing Facility as well as all operating expenses associated with the Processing Facility (except for personnel and administrative costs, specifically related to the bankruptcy estate including Trustee fees and applicable taxes). Elliott Stegin is the majority owner of Paradigm. Elliott Stegin is also the majority owner of IAD. The purpose of this Motion is to clarify the allocation of expenses and payment of same related to the Processing Facility. Therefore, for purposes of the Purchase Agreement, the definition of Operating Expenses shall include the foregoing payments to Paradigm. The purpose of this motion is also to authorize the Trustee to enter into the Processing Agreement with Paradigm and/or its affiliates on such terms as the Trustee deems appropriate.

4. The Purchase Agreement also sets forth numerous instances in which the Trustee and IAD would discuss issues and make decisions related to the Processing Facility. It was and remains the intention of the parties that the Trustee would have authority to make said decisions without coming back to the Court to approve each decision related to the operations of the Processing Facility. The purpose of this Motion also is to clarify that the Trustee has the authority to make said decisions so as to allow the process to operate smoothly and efficiently. In order for this process to succeed, the liquidation of the assets through the Processing Facility needs to proceed in a responsive, business-like atmosphere. It will be impossible to come back and ask the Court to approve each decision necessary to maintain the day-to-day operations of the bankruptcy estate under the Purchase Agreement and Processing Agreement.

WHEREFORE, the Trustee prays that this Court approve the clarification set forth above, to establish and allow the Trustee to pay the processing fee of 30% of the gross revenue from the sale of Recovered Materials to Paradigm or its affiliate pursuant to the Processing Agreement entered into between Paradigm and/or its affiliates and the Trustee on such terms as the Trustee deems appropriate, and to make all decisions necessary to facilitate the operations of the Processing Facility as they relate to the Purchase Agreement and the Processing Agreement.

Dated this 9th day of March, 2010.

/s/ Laura K. Grandy, Trustee

Mathis, Marifian, Richter & Grandy, Ltd.
23 Public Square, Ste. 300

Belleville, IL 62232
(618) 234-9800
(618) 234-9786

CERTIFICATE OF SERVICE

I, LAURA K. GRANDY, hereby certify that on this 9th day of March, 2010, I forwarded a copy of the foregoing instrument by U.S. Mail or electronic Mail to Tim Ruppel, Assistant U.S. Trustee, Becker Building, Room 1100, 401 Main Street, Peoria, IL 61602; all parties requesting notification via ECF; and to all creditors set forth on the matrix.

/s/ Laura K. Grandy

IN THE UNITED STATES BANKRUPTCY COURT
FOR THE SOUTHERN DISTRICT OF ILLINOIS

IN RE:	)	IN PROCEEDINGS UNDER
	)	CHAPTER 7
CHEMETCO, INC.,	)	
	)	BK 01-34066
Debtor(s).	)	

MOTION TO ALLOCATE FUTURE TRUSTEE FEES

COMES NOW Laura K. Grandy, the Trustee in the above-referenced bankruptcy proceeding and for her Motion to Allocate Future Trustee Fees states as follows:

1. On November 13, 2001, Chemetco, Inc. ("Debtor") filed a voluntary Petition for Relief pursuant to Chapter 7 of the United States Bankruptcy Code. The Debtor was a secondary copper smelter which used low grade materials to produce high quality copper. The Debtor's facility was located in Hartford, Illinois and consisted of a 40 acre plant facility ("Plant Site"), adjacent farm ground and real estate located in South Roxana, Illinois. At the time of filing, the main plant contained several buildings which housed furnaces, inventory and supplies. Heavy equipment was located throughout the property. Over 1 million tons of slag, scrubber sludge and process by-products were piled in various locations on the Plant Site.

2. The Debtor had been under investigation by the Illinois Environmental Protection Agency and the United States Environmental Protection Agency for quite some time. Prior to the filing of the bankruptcy, a criminal judgment was entered against the Debtor and in favor of the Department of Justice for environmental violations. Subsequent to filing bankruptcy, the Illinois Environmental Protection Agency ("IEPA") issued a Seal Order closing the site. The Seal Order limited access to the facility to the Trustee and agents of the Trustee. Access for additional individuals was allowed upon special requests to the Illinois Environmental Protection Agency. The IEPA and United States Environmental Protection Agency ("USEPA") have filed claims in the Estate in excess of $177,000,000.00 related to the cost to clean up the Plant Site.

3. The Debtor closed its plant operations on October 31, 2001. Between the time of closing and the filing of the bankruptcy on November 13, 2001, little was done to organize the documents of the Debtor, the equipment, inventory or the plant itself. The Trustee inherited a plant and an office that were in utter disarray.

4. The USEPA recently listed the site as a National Priority Superfund Site. At the time the Plant Site was closed, Chemetco left behind approximately 1 million tons of slag and 50,000 tons of scrubber sludge.

These materials contain lead and cadmium in addition to valuable metals. The challenge of the Estate has been to maintain these materials while trying to market and sell the Estate site. In the past, real estate developers had shown interest in the site but the slag and scrubber sludge materials were deterrents to the purchase.

5. On September 21, 2009, the United States Bankruptcy Court approved the sale of substantially all of the assets of the Estate to Industrial Asset Disposition ("Asset Sale"). The Asset Sale encompasses the ultimate transfer of the real estate, demolition of buildings coated in hazardous wastes and the processing of over 1 million tons of slag, scrubber sludge and/or metal by-products. The Asset Sale is expected to result in the Plant Site being substantially remediated while producing income to pay claims. The claims of the Illinois EPA and United States EPA total $177 million dollars ("EPA Claims"). A portion of the EPA Claims is based on the estimated costs to clean the Plant Site, which amount substantially dilutes the distribution to unsecured creditors. The process being developed by IAD is expected to result in the sale and removal of over 1 million tons of slag, scrubber sludge and metal bearing by-products from the copper smelter operation (collectively "Metal By-Products"). The removal of the Metal By-Products will substantially reduce the claims of the IEPA and USEPA resulting in a more significant distribution to the unsecured creditors.

The Trustee has been responsible for the day-to-day maintenance and liquidation of the assets of Chemetco, Inc. The following functions were performed by the Trustee in the course of maintaining the Estate assets:

I. ASSETS:

A. Real Estate:

(1) Plant Location - As a result of the Seal Order, the Trustee has continued to routinely deal with water and air issues related to the property. The Trustee retained three (3) former employees of Chemetco, Inc. to assist the Bankruptcy Estate in addressing the water issues so as to maintain compliance with all environmental requirements. Issues created by excessive rain or dust problems created by dry conditions have been routinely handled on behalf of the Bankruptcy Estate. Additional issues related to deterioration of plant buildings have also been monitored for safety reasons. The Trustee also retained a full time environmental expert to handle numerous compliance issues with the Illinois EPA related to the Plant Site.

(2) Seal Order - The Trustee has continued to maintain compliance with the Seal Order so that areas which were considered high risk by the Environmental Protection Agency are contained. Continued environmental compliance is necessary to protect the numerous assets located on the Plant Site such as slag, zinc and other materials as well as protect the environment.

(3) Farm Property - Adjacent to the Plant Site are approximately 140 acres of farm ground, a house and outbuildings which Chemetco, Inc. owned. The real estate had been acquired by Chemetco, Inc. to control the surrounding area and lessen

the likelihood of neighborhood complaints. The Trustee has leased the farm ground out and the Estate has earned $103,235.02 in farm income since the filing of the bankruptcy. The Trustee listed all of the farm ground for sale and has been working with County and State officials to obtain incentives for potential buyers. Due to the proximity of this ground to the Plant location, real estate developers were not interested in acquiring the ground. The Farm Property was sold to IAD pursuant to the Asset Sale approved by the Court.

(4) Real Estate Taxes - The Trustee protested the real estate taxes on the Plant Site. The Trustee appealed the taxes which were ultimately reduced from an assessed value of $1,234,980.00 to $385,020.00. The Trustee further appealed that decision and proposed a settlement to various taxing districts which was approved by this Court. As a result of the settlement, the Trustee has continued to pay the real estate taxes on the Farm Ground located adjacent to the site. The Trustee has not paid the real estate taxes on the Plant Site as a result of said settlement but will be required to pay the reduced real estate taxes upon consummation of the Asset Sale.

(5) Security - At the time the bankruptcy was filed, Chemetco, Inc. had retained on-site security guards to monitor the facility. The cost of the security guards was approximately $1,700.00 per week. The Trustee's staff secured the facility with a configuration of gates and installed a security/alarm system with high resolution cameras to substantially reduce the cost of security. This has resulted in a savings of approximately $7,000.00 per month while at the same time keeping the facility safe. The facility has been the target of several copper thieves. The security/alarm system has been responsible for catching several of those thieves as well as keeping those who would otherwise enter the premises out. Employees continue to improve security by installing additional cameras.

(6) Utilities - At the time the Bankruptcy Petition was filed, the utilities had been turned off at the Plant Site. Power was needed to operate pumps necessary for environmental protection measures as well as to provide light to the office facility. Chemetco, Inc. had an office facility consisting of approximately 15,000 square feet. The Trustee negotiated with both Union Electric and Illinois Power Company to obtain power to the facility while at the same time reducing the power usage.

(7) L.C. Metals

Prior to the filing of the bankruptcy, Chemetco, Inc. had entered into a sale of certain real estate located in Granite City, Illinois, to L.C. Metals. L.C. Metals paid off the contract. Since the inception of this bankruptcy proceeding, the Trustee has collected a total of $319,850.38 from the L.C. Metals sale.

B. Equipment

At the time the bankruptcy was filed, the Plant Site was filled with numerous pieces of heavy equipment used in the operation of the plant as well as tools and other equipment to process the metal. The Trustee arranged an auction of some of the equipment located on the site. The auction was held on July 18, 2002. The auction grossed $495,439.00. The plant still contains equipment that was not sold at the auction. The Trustee has negotiated a sale of three (3) of the furnaces used to smelt the metals that produced copper, zinc and other metals at the site. The sale price of the furnaces is $1,525,000.00. The Trustee has been coordinating with various subcontractors and the buyer for the removal of the furnaces. A work plan will need to be approved by the Illinois EPA prior to the removal of the furnaces. Additional parts and equipment related to the smelter

process were also sold to the buyer totaling $230,523.40. The Trustee is working with her staff and the subcontractors to propose the work plan to remove the furnaces.

The Trustee sold the Cress Loaders located on site for the amount of $200,000.00. The Trustee's plant staff had refurbished the equipment and the equipment was advertised for sale.

The Plant Site also contains additional equipment including two (2) bag houses, rolling equipment, cranes, and miscellaneous tools. The equipment was sold to Industrial Assets along with all other assets. The Estate will receive 80% of net revenues from further equipment sales.

C. Inventory

The Trustee has continued to sell scrap inventory from the plant. The Trustee sold scrap inventory in February of 2002 for the amount of $1,006,000.00. The inventory was sold by means of an auction conducted in the Bankruptcy Court. Numerous buyers participated in the sale. Commerce Bank had a lien on the inventory along with several inventory suppliers who asserted reclamation claims. The Trustee filed a Complaint with the Bankruptcy Court to determine the priority of the reclamation claims. The Trustee negotiated the sale of cupro, pot slag and furnace cleanup dust. In order to complete the sales, the Trustee needed approval from the Illinois EPA. An Interim Order was negotiated with the Illinois EPA in a proceeding filed in the United States District Court by the Illinois EPA prior to the filing of the bankruptcy. An Application to Approve Settlement of the Interim Order was filed in August of 2008 and approved by the United States Bankruptcy Court. As a result of said Order, the Trustee sold approximately $1,938,454.78 of cupro, pot slag and clean up dust.

The Trustee also sold copper anodes and black copper by auction in February 2002, for a net sales price of $788,465.95. The Trustee has continued to sell inventory from time to time. To date, the total inventory sold amounts to $4,105,269.83.

D. Slag/Zinc

By far the most significant asset on the Plant Site consists of slag, which totals approximately 1 million tons. The slag was a by-product of the copper smelter process. The slag contains copper, zinc, lead, cadmium, and other metals. Prior to filing bankruptcy, Chemetco, Inc. had recovered copper from a portion of the slag and ground the remaining slag material from the recovery process. The ground slag material was sold by Chemetco to be used in roofing shingles as well as pigment for ceramic tiles. Due to the value of copper and zinc in the metals markets over the past two years, the Trustee has had renewed interest in the possible sale of the slag. The Trustee negotiated in the past with the Illinois Environmental Protection Agency and the Unites States Environmental Protection Agency to sell the unprocessed slag material. The slag material was sold to IAD pursuant to the Asset Sale. It will be necessary for the Estate to negotiate a work plan and have that work plan approved as a final Order in the District Court action prior to processing. Industrial Asset Disposition will design, construct, and assist in the operation of a processing plant to recover the saleable material by-products located on the Chemetco site. The Trustee previously negotiated a contract with Metals Finance Corporation to process the material. Metals Finance Corporation terminated that contract due to the potential cost of operating the facility and issues related to the Illinois Environmental Protection Agency and United States Environmental Protection Agency. One goal of the IAD project is to clear the Plant Site of the by-products which would otherwise need to go to a hazardous landfill. The project will reduce the EPA Claims while generating net revenue for the Bankruptcy Estate.

Commerce Bank has a lien on the Metal By-Products. As a part of the Asset Sale, Commerce Bank agreed to reduce its secured claim to $5,000,000.00.

E. Office Facility

The Chemetco, Inc. office facility located at the plant contains a significant amount of office equipment and furnishings. The equipment and furnishing are currently being used by the Trustee to house the documents needed for this Bankruptcy Estate. The sale to Industrial Asset Disposition included the office equipment and furnishings. The Estate negotiated the continual use of the office equipment and furnishings during the project with IAD as well as continued document storage.

F. Miscellaneous Scrap Metal

At the time the bankruptcy was filed, the Chemetco, Inc. site was littered with discarded equipment and inventory. The Trustee retained the services of a scrap metal processor to cut and sell the material. This netted the Bankruptcy Estate $27,656.40. The buildings located on the site still contain a significant amount of scrap material. Many of the buildings have environmental problems which need to be addressed prior to the removal of the material. The scrap metal will be sold in conjunction with the demolition of the buildings by IAD.

G. Hartford Casualty Insurance Litigation

At the time the bankruptcy was filed, Chemetco, Inc. had filed a lawsuit against Hartford Casualty Insurance for improper processing of worker's compensation claims. The Trustee retained the law firm of Morris Chapman to pursue the litigation. The litigation was settled for $2 million which was paid to the Bankruptcy Estate. Commerce Bank claimed to have a lien on the insurance settlement proceeds based upon a claim that it had all contract rights and general intangibles. The Trustee disputed the claim of Commerce Bank and the claim was ultimately settled by Commerce Bank receiving one-half (½) of the net proceeds after payment of all attorney's fees and costs of the Bankruptcy Estate. The Bankruptcy Estate netted $634,364.84 from settlement.

H. Preference Litigation

The Trustee investigated various preferences and fraudulent conveyances ("Avoidance Actions") and retained counsel to pursue preference litigation. As of this date, the Bankruptcy Estate recovered $3,024,353.79 from Avoidance Actions. The Trustee directed the filing of over two hundred (200) Avoidance Actions.

I. Miscellaneous Assets

The Trustee has also recovered numerous refunds, deposits, dividends, and structured payments totaling approximately $363,890.35.

J. Equisearch Recovery

The Trustee recovered various funds held by Equisearch for the benefit of the Bankruptcy Estate in the amount of $333,915.87.

II. CASE MANAGEMENT ISSUES

A. Environmental Issues

The Illinois Environmental Protection Agency issued a Seal Order on the Chemetco, Inc. site shortly after the bankruptcy was filed. As a result of the Seal Order, it was necessary for the Trustee to secure the property and limit access to the facility. This requires the Trustee to obtain permission for various creditors to enter the site to recover assets as well as other professionals retained by the Trustee to obtain samples and testing, etc.

B. Professionals

The Trustee retained Penni Livingston to advise the Trustee on environmental matters. The Trustee has also retained the services of ENSR and Hurst-Roche to assist the Trustee in providing technical advice needed for the Interim Order with the Illinois EPA.

C. Records

The Trustee has maintained the records of the Debtor which are required by the Illinois Environmental Protection Agency and the United States Environmental Protection Agency. The majority of the records were kept on a Wang computer system. Due to the fact that the power had been turned off prior to the bankruptcy being filed, it was necessary for the Trustee to retain the services of Wang computer experts to repair the system. The Wang system requires a consistently cool temperature; thus, the Estate must keep the utilities turned on at all times. The Wang system has required on-going upkeep and maintenance.

Chemetco, Inc. had two (2) computer systems that operated its facility. The Wang computer system was used for the commercial side of the business and an IBM computer system was used for the plant side of the facility. This computer system was leased through IBM. The Trustee negotiated a discounted payoff of the computer system from IBM. The prior lease required payments of $2,322.17 per month. The Trustee had previously negotiated a discount payment of $500.00 per month to keep the computer system. Both computer systems were necessary for the Avoidance Actions and will be necessary for the claims review process.

D. Personnel

In order to maintain the plant and office facility, it was necessary for the Trustee to hire personnel on behalf of the Bankruptcy Estate. The employees hired have been essential to the Bankruptcy Estate in order to maintain compliance with the Seal Order as well as recover documents needed to address environmental issues, recover assets of the Bankruptcy Estate, and review claims. Initially, the Trustee employed the employees through a service known as Labor Ready; this was because the Trustee did not have worker's compensation insurance for the employees. Ultimately, the Trustee was able to obtain worker's compensation insurance and health insurance to keep the employees. Due to the long history that the employees have had with the Chemetco, Inc. facility, their knowledge of the plant operation, equipment operation, and material composition is invaluable. At the time the bankruptcy was filed, all of the employees had been terminated and the Trustee had absolutely no employees to assist the Trustee in recovering documents and/or plant and office maintenance. The Trustee's office has calculated and paid payroll since the filing of the bankruptcy. The Trustee conducts weekly staff meetings to ensure the progress of the plant and stay apprised of current issues related to the facility.

E. Tax Returns

The Trustee retained accountants and accumulated information to assist in the preparation of the tax returns of the Bankruptcy Estate. Once again, the information was difficult to gather due to the fact that there were no employees at Chemetco, Inc. at the time the

facility was closed. The personnel retained by the Trustee assisted the Trustee in gathering the tax information. The Trustee has filed all tax returns necessary for the Estate to date.

F. Miscellaneous Operating

(1) Expenses - Each month the Trustee reviews and pays utility bills, uniform bills, security bills, trash collection bills, repair bills, testing and sampling bills, etc. incurred to maintain the plant.

(2) Claims - The Trustee has organized over 628 claims filed in this case. The Trustee also assisted the Illinois Department of Employment Pension and Welfare Benefits to review records of the Debtor to determine whether a claim would need to be filed. Claim objections are in progress.

(3) Monthly Reports - The Trustee has provided income and expense reports to the U.S. Trustee's office and reviewed those reports on a regular basis with the U.S. Trustee's office.

(4) Allocation of Sales Proceeds - the Trustee reviewed numerous records relating to the alleged secured claims of various creditors in this case. The Trustee has negotiated payment of the claims from various assets sold with those secured creditors and has offset against those payments costs of the Bankruptcy Estate so as not to penalize the Bankruptcy Estate for the expenses incurred in those sales.

(5) Seal Order - The Trustee has continued to provide information to the Illinois Environmental Protection Agency with regard to the Seal Order. The Trustee has also provided additional information to the Illinois EPA related to other matters in which the Illinois EPA is investigating.

6. The Trustee has spent countless hours performing the above-referenced duties. The amount of time the Trustee has spent has increased since the sale to IAD to facilitate the approval of the Consent Decree with the Illinois EPA and U.S. EPA necessary to move forward on the Processing Plant and assorted work plans. The Trustee has also spent many hours trying to coordinate the working relationship between the bankruptcy estate and IAD. The Trustee believes that the process being developed by IAD will provide a substantial benefit to this estate by not only improving the Plant Site but providing a distribution to the creditors. At the time the Trustee took this case, the possibilities for Chemetco, Inc. looked bleak. The Trustee was willing to withstand carefully calculated risks to continually maintain the plant and create the opportunities to process the material. The Trustee was recently appointed to be the next United States Bankruptcy Judge for the Southern District of Illinois. Laura K. Grandy will resign as Trustee prior to assuming the position of United States Bankruptcy Judge. The U.S. Trustee's Office has selected Donald M. Samson to replace Laura K. Grandy as Trustee. Donald M. Samson has spent several days since being notified of his selection to become acquainted with the facilities, liquidation process and administration of the estate. The Trustee was employed by the law firm of Mathis, Marifian, Richter & Grandy, Ltd. the entire time she

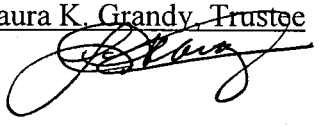
acted as Trustee in this bankruptcy estate. As such, the fees earned by Laura K. Grandy are assets of Mathis, Marifian, Richter & Grandy, Ltd. The Trustee and Donald M. Samson have agreed to allocate future trustee applications for fees so that one-third (1/3) of all future fees approved by the Court will be paid to Donald Samson and two-thirds (2/3) will be paid to Mathis, Marifian, Richter & Grandy, Ltd. for the fees earned by Laura K. Grandy but not yet realized due to the fact that the proceeds for said distributions have not yet come to fruition. The Trustee has spent a significant amount of time laying the groundwork in hopes of improving the Plant Site, increasing distribution to creditors, and realizing the future trustee fees. The division of these trustee's fees will in no way cause the Trustees to collectively be paid more than allowed by the Bankruptcy Code or approved by the Bankruptcy Court in the future. The purpose of this Motion is simply to allocate future trustee fees that may be approved by this Court between the current Trustee, Laura K. Grandy, and the future Trustee, Donald M. Samson.

7. Donald M. Samson has agreed to this Motion. The Trustee and Donald M. Samson believe the allocation of the Trustee fees are reasonable considering the substantial amount of time the Trustee has devoted to this case, the risk that certain assets would not sell, the environmental risk, the immediacy of the issues presented to the Trustee, the cost savings methods employed by the Trustee and the potential positive results the Trustee has brought to the Estate by the association with IAD. The IAD process is expected to substantially reduce the claims of the Illinois EPA and the U.S. EPA resulting in the distributions to the remaining creditors being substantially increased. Laura K. Grandy has served as Trustee for approximately eight and one half (8½) years.

WHEREFORE, the Trustee prays that the Court approve this Motion to Allocate Future Trustee Fees as set forth above.

Dated this 9th day of March, 2010.

/s/ Laura K. Grandy, Trustee



Mathis, Marifian, Richter & Grandy, Ltd.
23 Public Square, Ste. 300
Belleville, IL 62232
(618) 234-9800
(618) 234-9786

Approved as to form and content:

_____
Laura K. Grandy, Trustee

_____
Donald M. Samson

CERTIFICATE OF SERVICE

I, LAURA K. GRANDY, hereby certify that on this 9th day of March, 2010, I forwarded a copy of the foregoing instrument by U.S. Mail or electronic Mail to Tim Ruppel, Assistant U.S. Trustee, Becker Building, Room 1100, 401 Main Street, Peoria, IL 61602; all parties requesting notification via ECF; and to all creditors set forth on the matrix.

/s/ Laura K. Grandy

F:\WP51\LKG\TRUSTEE\Chemetco, Inc\Motions\Mot to Allocate Future Ttee Dist.doc

SETTLEMENT AGREEMENT

THIS SETTLEMENT AGREEMENT (the "Settlement Agreement") is made and entered into effective as of July 30, 2012 or the date of the order approving such Settlement Agreement (whichever is sooner), by and among Donald Samson, in his capacity as Trustee for the Bankruptcy Estate of Chemetco, Inc. ("Trustee" or "Seller"), Paradigm Minerals and Environmental Services, LLC ("Paradigm" or "Buyer"), Commerce Bank f/k/a Commerce Bank, N.A. ("Commerce Bank"), Illinois Environmental Protection Agency ("IEPA"), and the United States of America on behalf of the United States Environmental Protection Agency ("USEPA"). Trustee, Paradigm, Commerce Bank, IEPA, and the United States are collectively referred to as the "Parties" or individually, a "Party."

RECITALS

A. On November 13, 2001, Chemetco Inc. ("Chemetco") filed a voluntary petition under Chapter 7 of the Bankruptcy Code, Case No. 01-34066-KJM (the "Bankruptcy Case"), in the United States Bankruptcy Court for the Southern District of Illinois ("Bankruptcy Court"). The Bankruptcy Court appointed Laura Grandy as initial Trustee for the Chemetco bankruptcy estate and, upon Ms. Grandy's appointment to bankruptcy judge, appointed Donald Samson as successor Trustee. For purposes of these Recitals, the defined term "Trustee" shall refer to Ms. Grandy or Mr. Samson, as appropriate.

B. Trustee entered into an Asset Purchase and Processing Agreement dated July 29, 2009, and, pursuant to a joint motion filed by Trustee, Paradigm and IEPA, the Bankruptcy Court approved and clarified the Agreement by Order dated September 21, 2009 (the "Agreement") with Paradigm's predecessor, Industrial Asset Disposition, LLC ("IAD"). Capitalized terms not otherwise defined herein shall have their respective meanings set forth in the Agreement.

C. Pursuant to the Assignment, Assumption and Consent Agreement dated April 20, 2011 (the "Assignment"), IAD assigned all of its rights and obligations under the Agreement to Paradigm.

D. The Agreement was further clarified and amended by a Motion and Order, dated March 9, 2010 and May 4, 2010, respectively.

E. On June 23, 2011, Trustee filed a Motion to Pay Secured Creditor and Allocate Funds (the "Payment Motion"), seeking approval to allocate and pay the expected proceeds from sales of certain materials to various parties. On July 13, 2011, IEPA filed an objection to the Motion (the "Payment Objection"). On August 8, 2011, following a hearing on the Motion and the Objection, the Bankruptcy Court entered an order granting the Payment Motion (the "Payment Order").

F. On August 22, 2011, IEPA filed an appeal of the Payment Order, Case No. 3:11-CV-836-DRH (the "Appeal"), with the United States District Court for the Southern District of Illinois. The Appeal is currently pending.

G. On December 14, 2011, IEPA and USEPA filed a Joint Objection to Second Interim Application to Pay Commission to Broker (the "Broker Objection").

H. On December 14, 2011, IEPA filed an Objection to Sixth Interim Application for Compensation of Trustee Fees and Expenses (the "Trustee Objection" and, together with the Payment Objection and the Broker Objection, the "Objections").

I. The Parties now wish to compromise, settle and fully resolve the Appeal and various claims and disputes related to and/or arising from the Agreement, the Assignment, the Objections, and the Payment Order without any admission of law or fact by any of the Parties in any respect whatsoever.

AGREEMENT

NOW, THEREFORE, in consideration of the terms, conditions and mutual promises contained herein, it is acknowledged by all Parties that the Parties hereto do agree and contract with each other as follows:

1. The foregoing recitals are true and correct and are hereby incorporated into and made are a material part of this Settlement Agreement.

2. On the Effective Date, the Agreement shall be amended as follows:

a. The following defined terms contained in Exhibit A to the Agreement are amended to read as follows:

i. "'Buyer' shall mean Paradigm Minerals and Environmental Services, LLC."

ii. "'NPR Transfer Date' shall mean the date upon which Seller transfers title to the NPR Property to Buyer or to a third party purchaser in accordance with Section 11.1(b) which shall be after the date that the NPR Purchase Price has been paid in full; provided that Buyer is not obligated to take title to the NPR Property."

iii. "'Operating Expenses shall mean: (i) the costs, real estate taxes, insurance coverage, maintenance and upkeep for the Smelter Site not related to the Processing Facility; (ii) Seller's personnel and administration costs and Seller's taxes; (iii) health and safety costs applicable to the Smelter Site and Seller's personnel; (iv) any and all legal and accounting fees incurred in connection with a particular sale; (v) the Broker Fee of 2% on non-real estate gross sales revenue and the Broker Fee of 6% on real estate gross sales revenue; (vi) Trustee's fee on all gross sales revenue; (vii) all costs of Seller's compliance with Regulatory Agency requirements (except as provided in Section 5.2 (b) hereof); and (viii) any

recording and filing fees except as directly related to a particular sale hereunder."

iv. "'Scrap Assets' shall mean the miscellaneous steel, iron, and other metal bearing material comprising part of the buildings on the Smelter Site or constituting scrap metal previously acquired as feed stock for smelting; provided, however that "Scrap Assets" shall not include any Recovered Materials or Unprocessed Materials or furnaces."

v. "'Smelter Transfer Date' shall mean the date upon which Seller transfers title to the Smelter Site to Buyer or a third party purchaser in accordance with Section 11.1(a) which shall be after the date that the NPR Purchase Price has been paid in full; provided that Buyer is not obligated to take title to the Smelter Site."

vi. "'Trustee' shall mean Donald Samson, in his capacity as Trustee of the Chemetco bankruptcy estate and any successor trustee."

b. The following new defined terms are added to Exhibit A to the Agreement:

i. "'Broker Fee' shall have the meaning ascribed to such term in Section 11.5."

ii. "'Buyer Fee' shall have the meaning ascribed to such term in Section 4.5."

iii. "'Mixed Fines' shall mean, in general, material of the type identified as "Mixed Fines" in Trustee's December 1, 2010 Notice of Intent to Sell (Doc. 1583)."

iv. "'Sale Revenue' shall mean the gross revenue from the sale of all Recovered Materials and Unprocessed Materials on or after March 31, 2012, net of the Buyer Fee and the Operating Expenses."

v. "'Total Purchase Price' shall have the meaning ascribed to such term in the new Section 4.4(c)."

vi. "'Unprocessed Materials' shall mean Slag, Scrubber Sludge, Mixed Fines, furnace cleanup, furnace dust, cupro, pot slag, and any other unprocessed materials containing copper, zinc, lead, tin, nickel, or other metals."

c. The defined term "Processing Revenue" is deleted from Exhibit A of the Agreement, and all references to "Processing Revenue" in the Agreement shall be deemed to refer to "Sale Revenue."

d. Section 2.1(a) of the Agreement is deleted in its entirety and replaced with the following:

> "(a) As of the date hereof, Buyer has paid to Seller the sum of $100,000 (the "Deposit"), which amount shall be applied to the Smelter Purchase Price."

e. Section 3.4 of the Agreement is revised to read as follows: "All demolition and sale of Scrap Assets were substantially completed as of the date of this Settlement Agreement."

f. The first sentence of Section 4.2 of the Agreement is deleted in its entirety and replaced with the following:

> "4.2 If Buyer elects to do so, Buyer shall construct and operate a facility to process Unprocessed Materials on the Smelter Site (the "Processing Facility") for purposes of recovering copper, zinc, lead, tin, nickel, iron, and other materials, including compounds containing one or more of the aforementioned metals, from the Unprocessed Materials (the "Recovered Materials")."

g. Section 4.4(a) of the Agreement is revised by adding "(i) For sales made prior to March 31, 2012," at the start of the current subparagraph, deleting the last sentence of that subparagraph, and by adding the following subparagraph:

> "(ii) For sales on or after March 31, 2012, so long as a balance remains on the Smelter Purchase Price, and after the Buyer Fee is paid to Buyer and the Operating Expenses are reimbursed, the Sale Revenue shall be distributed by Seller as follows: (i) 5% to Trustee to be transferred by Trustee pursuant to Section 5.2 of the Agreement with no cap or limit on the aggregate amount of such Escrowed Funds; (ii) 15% to Buyer; (iii) 40% to Seller to be applied to the Smelter Purchase Price; and (iv) 40% to Commerce Bank to satisfy Commerce Bank's valid and first priority lien against Mixed Fines, Slag, Scrubber Sludge and Recovered Materials, which amount shall be applied to the Smelter Purchase Price."

h. Section 4.4(b) of the Agreement is deleted in its entirety and replaced with the following:

> "(b) Following payment in full of the Smelter Purchase Price, so long as there remains a balance due on the NPR Purchase Price, and after the Buyer Fee is paid to Buyer and the Operating Expenses are reimbursed, the Sale Revenue shall be distributed by Seller as follows: (i) 5% to Trustee to be transferred by Trustee pursuant to Section 5.2 of the Agreement with no cap or limit on the aggregate amount of such Escrowed Funds; (ii) 15% to Buyer; (iii) 30% to Seller to be applied to the

NPR Purchase Price; and (iv) 50% to Seller, which shall not be applied to the NPR Purchase Price."

i. Section 4.4(c) of the Agreement is deleted in its entirety and replaced with the following:

"(c) At such time as the Smelter Purchase Price and NPR Purchase Price (collectively, the "Total Purchase Price") have been paid in full, and after the Buyer Fee is paid to Buyer and the Operating Expenses are reimbursed, the Sale Revenue shall be distributed by Seller as follows: (i) 5% to Trustee to be transferred by Trustee pursuant to Section 5.2 with no cap or limit on the aggregate amount of such Escrowed Funds; (ii) 47.5% to Buyer; and (iii) 47.5 % to Seller."

j. Section 4.5 of the Agreement is deleted in its entirety and replaced by the following:

"(a) Notwithstanding anything herein to the contrary, all processing shall be completed by the seventh anniversary of: (i) Bankruptcy Court approval of this Settlement Agreement, or (ii) the District Court's approval of the Consent Decree currently being negotiated between the Parties, whichever is later, unless measures approved by USEPA in consultation with the IEPA are in place and maintained which will prevent the release of hazardous substances onto or into areas addressed by remedial or removal actions (as those terms are defined in CERCLA Section 101, 42 U.S.C. ' 9601) that are outside of the 41.1 acre portion of the Smelter Site encompassing the Foundry area, Slag Pile and Zinc Oxide Bunker.

(b) Buyer shall absorb all costs that are related to: (i) demolition, removal, and sale of Scrap Assets (Buyer has applied revenue from scrap sales to pay such costs and shall not be liable to the Trustee or otherwise for reimbursement of such costs paid by such revenue); (ii) all costs of construction, labor, equipment, marketing, development, and logistics of the construction and operation of the Processing Facility to produce Recovered Materials; (iii) all costs of the sale of Recovered Materials and Unprocessed Materials; (iv) all costs for the development and implementation of the Work Plans; and (v) all costs of Buyer's compliance with Regulatory Agency requirements (except as provided in Section 5.2 (b) hereof). In return for absorbing all of these costs, Buyer shall receive the following percentage payments from the gross sales revenue from the sale of Recovered Materials and Unprocessed Materials: 30% for sales prior to March 31, 2012 and 40% for sales on or after March 31, 2012. This fee shall be defined as the "Buyer Fee." Direct costs (not including Seller's Operating Expenses) incurred by Seller to effectuate such sales shall be credited against the Buyer Fee and reimbursed at Trustee's discretion but in any event no later than the date of termination

of the Agreement. The Buyer Fee shall remain at 40% of the gross sales revenue until the Total Purchase Price has been paid in full, after which the Buyer Fee shall change to 30% of gross sales revenue for the remainder of the Agreement."

k. A new Section 4.7 of the Agreement is added as follows:

"4.7 In the event that Buyer elects, in its sole discretion, to proceed with the construction and operation of the Processing Facility, Buyer will pay for the Processing Facility from the Buyer Fee and from the Buyer's share of Sale Revenue (or other funds available to Buyer). However, in its sole discretion, Seller may advance to Buyer funds for the costs of construction of the Processing Facility (to the extent Seller has available funds). Funds so advanced by Seller may be recouped from Buyer's distribution share of the Sale Revenue (but not from the Buyer Fee paid to Buyer). In addition, with respect to the requirements under Section 4.6(c) hereof, Seller and Buyer shall work together to determine an appropriate contractor or contractors for such work and the corresponding level of insurance, bonds or lien waivers required, if any, in Seller's reasonable discretion."

l. Section 5.2 of the Agreement is hereby deleted in its entirety and replaced with the following:

"5.2 (a) Any amounts directed to be transferred by Trustee pursuant to Section 4.4(a)(i), 4.4(b)(i), and 4.4(c)(i) hereof shall be transferred by Trustee into an interest bearing account for the benefit of USEPA and IEPA as described in subparagraph (d) of this Section ("Escrowed Funds").

(b) The purpose of the Escrowed Funds is to fund, upon approval of USEPA after consultation with the State, performance of any environmental response actions that may be required as a result of performance by Seller's, Paradigm's or its contractor's work. After Escrowed Funds have been used by Paradigm, for environmental response actions, Seller or Paradigm may access such funds to fund, upon approval of EPA after consultation with the State, for the: (i) closure and post-closure of all units used to store, manage, and process the Recovered Materials and/or Unprocessed Materials; (ii) disposal of all Recovered Materials and/or Unprocessed Materials that are in process but are not yet sold and any accumulated process wastes; (iii) decontamination of all equipment and buildings used in such processes; and (iv) any professional fees, related to the activities described in subsections (i) – (iii) of this subparagraph.

(c) The unutilized Escrowed Funds shall remain in escrow until all appropriate "no further remediation" letters have been received by Seller. As used in this Section 5.2(c), the phrase "all appropriate 'no further remediation' letters" is not a specific reference to a "No Further

Remediation Letter" pursuant to Section 58.10 of the Environmental Protection Act but rather a generic reference to any appropriate closure or termination letter issued by an agency with jurisdiction over the remediation in question.

(d) Any Escrowed Funds remaining after termination of the Agreement for whatever reason and after such Escrowed Funds have been used to remediate any new environmental non-compliance conditions caused by Buyer or Seller after September 21, 2009, may be used to remediate any environmental problem or condition existing on the site prior to the filing of Chemetco's bankruptcy proceeding."

m. Section 6.1(f) of the Agreement is deleted in its entirety and replaced with the following:

"(f) Notwithstanding anything else in this Agreement to the contrary, to the extent funds are available, make monthly distributions of Scrap Revenue and Sale Revenue, provided, that Seller may retain a portion of the Scrap Revenue and/or the Sale Revenue otherwise distributable to Buyer or Commerce Bank to meet the ongoing Operating Expenses as determined from time to time by Seller (and pay such retained amounts to Buyer or Commerce Bank, as applicable, as soon as funds are available). Seller may advance funds to Buyer for the costs of operation of the Processing Facility, the costs of implementation of Work Plans, the costs of compliance with Regulatory Agency requirements, and payment of the Buyer Fee if necessary to maintain continued operations. Such advanced funds shall be recovered at a time determined by Seller from future distributions of the Buyer Fee, the Scrap Revenue and/or the Sales Revenue payable to Buyer."

n. A new Section 6.3 of the Agreement is added, as follows:

"6.3 Notwithstanding any provision contained in this Agreement to the contrary, Buyer shall have no duty or obligation to (a) request or accept ownership to or possession of the Smelter Site or the NPR Property from Trustee or any other party, (b) sell the Smelter Site or the NPR Property, or (c) construct or operate the Processing Facility. If no Processing Facility is constructed or Paradigm ceases operation of the Processing Facility, all sales of Unprocessed Material must be completed by the seventh anniversary of: (i) the Bankruptcy Court's approval of this Settlement Agreement, or (ii) the District Court's approval of the Consent Decree currently being negotiated between the Parties, whichever is later, unless measures approved by the United States Environmental Protection Agency in consultation with the Illinois Environmental Protection Agency are in place and maintained which will prevent the release of hazardous substances onto or into areas addressed by remedial or removal actions (as those terms are defined in CERCLA Section 101, 42 U.S.C. ' 9601) that

are outside of the 41,1 acre portion of the Smelter Site encompassing the Foundry area, Slag Pile and Zinc Oxide Bunker."

o. Section 11.1 of the Agreement is deleted in its entirety and replaced with the following:

"11.1 Time and Place of Transfer

(a) Title to the Smelter Site shall remain with Seller until the occurrence (if ever) of the Smelter Transfer Date. Upon payment in full of the Total Purchase Price, Buyer shall have the right (but not the obligation) to (i) request that Trustee transfer to Buyer all of Trustee's right, title and interest in and to the Smelter Site pursuant to a trustee's deed executed by Trustee (and in form and substance acceptable to Buyer), or (ii) sell, as Trustee's agent, all of Trustee's right, title and interest in and to the Smelter Site (exclusive of and subject to Trustee's and/or Buyer's rights in and to the Scrap Assets and/or Recovered Materials) to a third party purchaser on terms and conditions acceptable to Buyer, subject to applicable approvals, with all net proceeds of such sale to be paid to Buyer.

(b) Title to the NPR Property shall remain with Seller until the occurrence (if ever) of the NPR Transfer Date. Upon payment in full of the Total Purchase Price, Buyer shall have the right (but not the obligation) to (i) request that Trustee transfer to Buyer all of Trustee's right, title and interest in and to the NPR Property pursuant to a trustee's deed executed by Trustee (and in form and substance acceptable to Buyer), or (ii) sell, as Trustee's agent, all of Trustee's right, title and interest in and to the NPR Property to a third party purchaser on terms and conditions acceptable to Buyer, subject to applicable approvals, with all net proceeds of such sale to be paid to Buyer."

p. A new Section 11.5 of the Agreement is added, as follows:

"11.5 The fee due to the Barber Murphy Group (the "Broker Fee") of 2% on non real estate gross sales revenue, the Broker Fee of 6% on all real estate gross sales revenue, and Trustee's fee of 3% on all gross sales revenue shall be paid by Seller. The Broker Fee of 6% on all real estate gross sales revenue applicable to the Smelter Site or the NPR Property shall be due and payable upon payment of the applicable purchase price."

q. Section 13.5 of the Agreement is amended to provide the following new notice addresses for the parties:

"To Buyer:

Paradigm Minerals and Environmental Services, LLC
3574 Chemetco Lane

Hartford, IL 62048
Attn: Elliott Stegin and Steve Zuber

With a copy to:

Daniel Nester
Bryan Cave LLP
211 N. Broadway, Suite 3600
St., Louis, MO 63102

-and-

Steve Poplawski
Bryan Cave LLP
211 N. Broadway, Suite 3600
St., Louis, MO 63102

To Seller:

The Bankruptcy Estate of Chemetco, Inc.
c/o Donald Samson
226 W. Main Street, Suite 102
Belleville, IL 62220

With a copy to:

William Niehoff
Mathis, Marifian & Richter, Ltd.
23 Public Square, Suite 300
Belleville, IL 62220"

3. The Parties acknowledge distributions made in connection with the sales described below must be recalculated using the revised formulae established pursuant to this Settlement Agreement. The Parties agree that the recalculated distributions for these sales are as follows:

Sale	Gross Revenue $$	Direct Cost of Sales $$	Allocated Estate Operating Costs	Allocated Paradigm Operating Costs (3)	Net for Distribution	Distribution to be Paid
Mixed Fines/Scrubber Sludge Notice 12/1/10	1,475,807.75	526,100.25	250,000	250,000	475,807.75	P: $118,951.93 C: $166,532.56 E: $166,532.56 RAE:23,790.39

Furnace Cleanup Notice 4/15/11	447,091.19	36,170.55	100,000	100,000	210,920.64	P: $52,730.16 C: $73,822.22 E: $73,822.22 RAE:10,546.03

	Gross Revenue	Buyer Fee 30%	Direct Costs of Sales	Allocated Estate Costs	Net for Distribution
Scrap Sale Demolition	1,730,199.69	NA	1,652,517.49	77,628.20	0
Scrap Sale Non-Demolition	38,863.40	5083.30	0	31,781.10	0

The Parties agree that any Party that previously received a distribution in excess of the amount recalculated above shall not be required to disgorge any such excess distribution amounts; rather, future distributions to such Party shall be adjusted to recover such excess distribution amounts, and such recovered amounts shall be used to reimburse any Party who previously received a distribution less than the amount recalculated above.

The Parties further agree that the Sales occurring before March 31, 2012 shall be reconciled as described in the table above.

The Parties further agree that the Sales occurring after March 31, 2012 (excluding the 900,000 MT slag sale contract described in the next section) shall be distributed according to the following:

Gross Revenue
Less Operating Expenses;
Less Buyer Fee.

The resulting sum shall be distributed according to the formulas set forth in paragraph 4.4 as appropriate.

The Parties further agree that with respect to sale of any portion under the 900,000 MT slag sale contract priced at $22.50 per MT, proceeds shall be distributed according to the following:

Gross Revenue
Less Direct Costs of Sale, including loading, screening, containers, materials, equipment, and labor;
Less Buyer Fee;
Less Operating Expenses;

The resulting sum will be distributed according to the formulas set forth in paragraph 4.4 as appropriate.

4. The Parties expressly acknowledge and agree that Commerce Bank has a first priority lien on Mixed Fines, Slag, Scrubber Sludge, Cupro, Pot Slag, copper fines, Furnace Cleanup, and Recovered Materials and any other Unprocessed Materials, but not on Scrap Assets, real estate or on the furnaces.

5. It remains the intention of the Parties that Trustee is vested with the authority to make decisions to allow the Processing, sales of metal bearing material and all related operations authorized by the Agreement to be undertaken by Paradigm to proceed in a smooth and efficient manner. Such authority includes, but is not limited to, the decision to extend the timeframes for performance by Buyer as set forth in the Agreement, provided that the Trustee shall advise the other Parties in writing, in advance, of any changes to such time frames.

6. Trustee has itemized, by category, $680,217.90 in costs sought by Trustee in the Payment Motion and all costs incurred by Trustee prior to March 31, 2012 (the "Itemized Costs"), which itemization is attached hereto as Exhibit A. After payment in full of the Total Purchase Price, $446,392.65 of the Itemized Costs (as set forth in Exhibits A and B) and $91,248.04 shall be paid by Paradigm (such amounts will be paid from Seller's deductions of this amount from future distributions of the Buyer Fee or Sale Revenue payable to Paradigm, unless paid earlier by Paradigm on a mutually agreeable basis). If the Agreement is terminated without full payment of the Total Purchase Price, the portion of Itemized Costs payable by Paradigm will be deducted from any payment then owed to Paradigm or paid back by Paradigm as mutually agreed to or as ordered by the Bankruptcy Court if no further payment is owed.

7. Within seven (7) days after the execution of this Settlement Agreement by the Parties, Trustee shall (a) file a motion with the Bankruptcy Court, seeking approval of this Settlement Agreement pursuant to Bankruptcy Rule 9019 (the "Settlement Motion"), (b) file a notice of hearing on the Settlement Motion with the Bankruptcy Court (the "Settlement Notice"), scheduling the hearing on the Settlement Motion for a date no more than 30 days after the filing of the Settlement Motion, and (c) serve a copy of the Settlement Notice on all parties listed on the creditor matrix filed in the Bankruptcy Case.

8. Unless otherwise agreed to by the Parties in writing, if the Court does not enter an order approving each of the terms and conditions contained in this Settlement Agreement (the "Settlement Order") within 45 days after the filing of the Settlement Motion, this Settlement Agreement shall be null and void.

9. The "Effective Date" shall be the date on which the Settlement Order becomes a final, non-appealable order, provided that no stay of the Settlement Order has been granted by any court and is then pending.

10. As soon as reasonably practicable after the Effective Date, the Parties shall take all actions necessary to dismiss the Objections and the Appeal.

11. Except as otherwise provided herein, as of the Effective Date, each Party (and anyone claiming by, through or under such Party) releases, acquits and forever discharges each other Party from any and all claims, demands, losses, costs, expenses, actions, causes of action, suits, disputes, objections, and defenses that were brought in the Objections or the Appeal .

12. This Settlement Agreement shall bind and inure to the benefit of all successors and assigns of the Parties, including, without limitation, any trustee, estate representative, responsible officer or examiner appointed or elected in the Bankruptcy Case. In the event of any conflict between the terms of this Settlement Agreement and the terms of the Agreement or the Payment Order, the terms of this Settlement Agreement shall govern. In the event of a conflict between the terms of this Settlement Agreement and the terms of the Consent Decree currently being negotiated between the parties, the Consent Decree shall govern.

13. All notices, demands, and other communications hereunder shall be in writing and shall be deemed to have been duly given: (a) when personally delivered; (b) upon receipt during normal business hours, or otherwise on the first business day thereafter, if transmitted by facsimile with confirmation of receipt; (c) when received, if mailed by certified mail, return receipt requested, postage prepaid; or (d) when received, if sent by overnight courier; in each case, to the following addresses, or to such other addresses as a Party may from time to time specify by notice to the other Party given pursuant hereto.

If to Trustee, to:

Donald Samson
226 W. Main Street, Suite 102
Belleville, IL 62220

With a copy to:

William Niehoff
Mathis, Marifian & Richter, Ltd.
23 Public Square, Suite 300
Belleville, IL 62220

If to Paradigm, to:

Paradigm Minerals and Environmental Services, LLC
3574 Chemetco Lane
Hartford, IL 62048
Attn: Elliott Stegin and Steve Zuber

With a copy to:

Daniel Nester
Bryan Cave LLP
211 N. Broadway, Suite 3600
St. Louis, MO 63102

-and-

Steve Poplawski
Bryan Cave LLP
211 N. Broadway, Suite 3600
St. Louis, MO 63102

If to Commerce Bank, to:

Commerce Bank
8000 Forsyth Blvd.
St. Louis, MO 63105
Attn: David Orf

With a copy to:

David Unseth and Dan Nester
Bryan Cave LLP
211 N. Broadway, Suite 3600
St. Louis, MO 63102

If to IEPA, to:
James Kropid
Division of Legal Counsel
Illinois Environmental Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

With a copy to:
James Morgan
Assistant Attorney General
Environmental Bureau
Office of the Attorney General
500 South Second Street
Springfield, IL 62706

If to the United States, to

As to U.S. Department of Justice

[By U.S. Mail]

Chief
Environmental Enforcement Section
U.S. Department of Justice
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044
Re: No. 90-5-1-1-4516

[By Courier]

Chief
Environmental Enforcement Section
U.S. Department of Justice
ENRD Mailroom, Room 2121
601 D. Street NW
Washington, D.C. 20004
Re: No. 90-5-1-1-4516

As to U.S. EPA:

Thomas Martin
Associate Regional Counsel
U.S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Michelle Kerr
Remedial Project Manager
Superfund Division
U.S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

14. The Parties shall cooperate fully and shall execute and deliver any and all supplementary papers, documents, instruments and other assurances, and shall do any and all acts that may be reasonably necessary or appropriate to give full force and effect to the terms and intent of this Settlement Agreement.

15. The Bankruptcy Court shall have exclusive jurisdiction to determine as a core proceeding any dispute or controversy with respect to the interpretation or enforcement of this Settlement Agreement.

16. This Settlement Agreement contains the entire agreement between the Parties with respect to the matters covered by this Settlement Agreement, and no promise or understanding or representation made by any Party or agent, director, officer, employee or attorney of any Party that is not expressly contained in this Settlement Agreement shall be binding or valid. The clarifications/amendments sought by the Motion and Order, dated March

9, 2010 and May 4, 2010, respectively, have been supplanted by this Settlement Agreement and are merged into and controlled by this Settlement Agreement.

17. This Settlement Agreement may not be modified, amended, or supplemented by the Parties except in accordance with further order of the Bankruptcy Court or by a written agreement that all of the Parties have signed.

18. A waiver of any provision of this Settlement Agreement shall not constitute a waiver of any other provision of this Settlement Agreement.

19. In case any provision of this Settlement Agreement shall be determined to be invalid, illegal or unenforceable for any reason, the remaining provisions and portions of this Settlement Agreement shall be unaffected and unimpaired thereby, and shall remain in full force and effect, to the fullest extent permitted by applicable law.

20. This Settlement Agreement is intended to settle and dispose of claims which are contested and denied. Nothing herein shall be construed as an admission by the Parties of any liability of any kind.

21. Each Party warrants and represents that the person executing this Settlement Agreement on its behalf is authorized to do so.

22. The Parties may execute this Settlement Agreement in one or more counterparts, each of which constitutes an original, and all of which constitute one and the same agreement. A facsimile or any other copy of this Settlement Agreement executed by the Parties, whether complete or in counterparts, shall constitute sufficient evidence of the executed original of this Settlement Agreement for all purposes.

[REMAINDER OF THIS PAGE LEFT INTENTIONALLY BLANK]

IN WITNESS WHEREOF, the parties have executed this Settlement Agreement effective on the date set forth above.

[signature]
DONALD SAMSON
Trustee for the Bankruptcy Estate of Chemetco, Inc.

PARADIGM MINERALS AND ENVIRONMENTAL SERVICES, LLC

By: Elliott G. Stegin

Name: Elliott G. Stegin

Title: CEO

IN WITNESS WHEREOF, the parties have executed this Settlement Agreement effective on the date set forth above.

COMMERCE BANK

By: David L. Orf

Name: David L. Orf

Title: Senior Vice President

IN WITNESS WHEREOF, the parties have executed this Settlement Agreement effective on the date set forth above.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

By: _____

Name: Interim Director

Title: John J. Kim

IN WITNESS WHEREOF, the parties have executed this Settlement Agreement effective on the date set forth above.

UNITED STATES OF AMERICA

IGNACIO S. MORENO
Assistant Attorney General
Environment and Natural Resources Division

7/24/12

GREGORY L. SUKYS
Senior Attorney
U.S. Department of Justice
P.O. Box 7611
Washington, DC 20044
Tel: 202-514-2068
Fax: 202-616-6584
greg.sukys@usdoj.gov

Operating Expenses September 2009 thru March 2011

$680,217.90

Estate expenses 9/09 thru 3/11

$378,454.66	payroll
$2,700.00	office cleaning
$2,269.86	computer & copier maintenance
$2,368.22	office supplies
$3,961.62	wisper internet
$421.57	fedex and postage
$11,776.96	uniforms
$43,621.92	health & life insurance
$2,277.54	dental insurance
$7,396.14	work comp premium
$3,114.36	reimburse medical deductible
$1,400.05	medical surveliance employees
$956.10	hazwoper training
$9,000.00	forktruck purchase

Estate $469,719.00

Paradigm expenses 9/09 thru 3/11

$34,998.33	Security
$1,024.56	Waste Hauling
$258.57	Absopure water
$2,341.07	camera maintenance
$9,241.73	USEPA Compliance
$753.63	safety supplies
$128,260.47	utilities
$5,116.00	NPDES testing
$4,150.00	NPN environmentals
$2,442.00	Odesco
$1,176.52	Heritage
$201.50	Midwest Sanitary
$1,000.00	IEPA
$356.17	Environmentals Supplies
$249.59	Shipping
$576.61	Oxygen/Acteleyene
$2,124.17	Norweco Septic
$285.00	State Fire Marshall
$1,085.75	Parts-maintenance
$2,192.60	Office maintenance
$2,110.98	Mobile equipment
$966.62	propane
$479.20	scale repair
$5,716.20	diesel fuel
$2,926.88	equipment rental
$464.75	miscellaneous

Paradigm $210,498.90

Exhibit A

Operatinig Expenses April 1, 2011 thru March 31, 2012

$647,713.73

Estate expense 4/11 thru 3/12

$300,482.06	payroll
$1,800.00	office cleaning
$460.00	computer & copier maintenance
$1,768.08	office supplies
$923.01	fedex and postage
$12,535.82	uniforms
$28,638.03	health & life insurance
$1,643.09	dental insurance
$16,988.14	work comp premium
$2,724.27	reimburse medical deductible
$1,614.20	medical survelliance employees
$985.00	hazwoper training
$9,000.00	truck purchase
$10,000.00	forktruck purchase
$9,000.00	generator purchase
$9,500.00	manlift purchase
$2,437.41	mig welder purchase
$1,320.87	internet

Estate $411,819.98

Paradigm expenses 4/11 thru 3/12

$92,945.84	Security
$711.36	waste hauling
$318.31	water
$30,236.86	Utilities
$1,030.10	NPDES permit
$27,671.68	Midwest Sanitary
$1,466.75	environmental supplies
$182.00	EMA
$250.00	St. Louis Testing
$1,360.00	SGS NA
$1,083.01	oxygen/acteleyne
$519.78	parts
$1,295.65	office maintenance
$467.85	propane
$1,432.92	mobile equip.maintenace
$1,018.40	scale repair
$8,992.66	repair parts
$27,263.75	diesel fuel
$1,506.86	equipment rental
$3,800.00	Aerotek
$4,457.00	NPDES testing
$4,480.00	Baker frac tanks
$16,570.78	Heritage RCRA bins
$5,425.92	Illini Env. - take water out of frac tanks & haul away
$702.37	safety supplies
$703.90	freight

Paradigm ($235,893.75

Exhibit B

IN THE UNITED STATES BANKRUPTCY COURT
FOR THE SOUTHERN DISTRICT OF ILLINOIS

In Re:	)	
	)	IN CHAPTER 7 PROCEEDINGS
CHEMETCO, INC.,	)	BK 01-34066
	)	
Debtor.	)	

ORDER APPROVING SETTLEMENT

Pending before the Court is the Application to Approve Settlement (Doc. 1694), Objection of Interco Trading Company ("Interco")(Doc. 1701) and Objection of Olin Corporation ("Olin")(Doc. 1702). The Court conducted a hearing at which the Trustee and Counsel for Trustee, the U.S. Department of Justice (on behalf of the USEPA), the Illinois Attorney General's office, Paradigm Minerals and Environmental Services, LLC ("PMES"), Commerce Bank, Olin and Interco all appeared. Subject to certain clarifications to the Settlement Agreement dated July 30, 2012, set forth below, Olin and Interco withdraw their Objections and recommend that the Settlement be approved.

1. New Section 5.2(d) is amended to state that Escrowed Funds "shall" be used to remediate any environmental problem or condition existing on the site prior to the filing of Chemetco's bankruptcy proceeding.

2. New Section 4.4(a) is amended to clarify that Commerce Bank will not receive any more than its secured claim under that paragraph and that any amounts otherwise payable to Commerce Bank under this paragraph in excess of its secured claims shall be paid to the Estate of Chemetco.

3. New Section 11.1(a) and (b) are amended to state that Buyer shall have the option to exercise its rights to take title to the Smelter Site and the NPR property for three years from

the date the Total Purchase Price is paid or two years from the date that the Escrowed Funds are depleted, whichever occurs later.

4. To correct a mathematical error, the chart specifying the distributions of revenues from past sales is revised as follows:

Sale	**Gross Revenue $$**	**Direct Cost of Sales $$**	**Allocated Estate Operating Costs**	**Allocated Paradigm Operating Costs (3)**	**Net for Distribution**	**Distribution to be Paid**
Mixed Fines/Scrubber Sludge Notice 12/1/10	1,475,807.75	526,100.25	250,000	250,000	449,707.25	P: 112,426.87 C: 157,397.63 E: 157,397.63 EF:22,485.37
Furnace Cleanup Notice 4/15/11	447,091.19	36,170.55	100,000	100,000	210,920.64	P: $52,730.16 C: $73,822.22 E: $73,822.22 EF:10,546.03

IT IS THEREFORE ORDERED that the Settlement Agreement filed August 23, 2012 (Doc. 1694-1), as clarified by this Order, is hereby approved.

Counsel for the moving party shall serve a copy of this Order by mail to all interested parties who were not served electronically.

ENTERED: October 11, 2012

/s/ William V. Altenberger
UNITED STATES BANKRUPTCY JUDGE-2

Agreed to:

DONALD M. SAMSON, TRUSTEE

/s/ William Niehoff
By: William Niehoff, Attorney for Trustee

PARADIGM MINERAL and ENVIRONMENTAL SERVICES

/s/ Dan Nester_____
By: Bryan Cave LLP, its attorney

COMMERCE BANK

/s/ Dan Nester_____
By: Bryan Cave LLP, its attorney

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

/s/ James Morgan_____
By: James Morgan

U.S. DEPT. OF JUSTICE (On behalf of the USEPA)

/s/ Gregory Sukys_____
By: Gregory Sukys

INTERCO TRADING CO.

/s/ Robert Brownlee_____
By: Robert Brownlee, Thompson Coburn LLP

OLIN CORPORATION

/s/ Gary Vincent_____
By: Gary Vincent, Husch Blackwell LLP

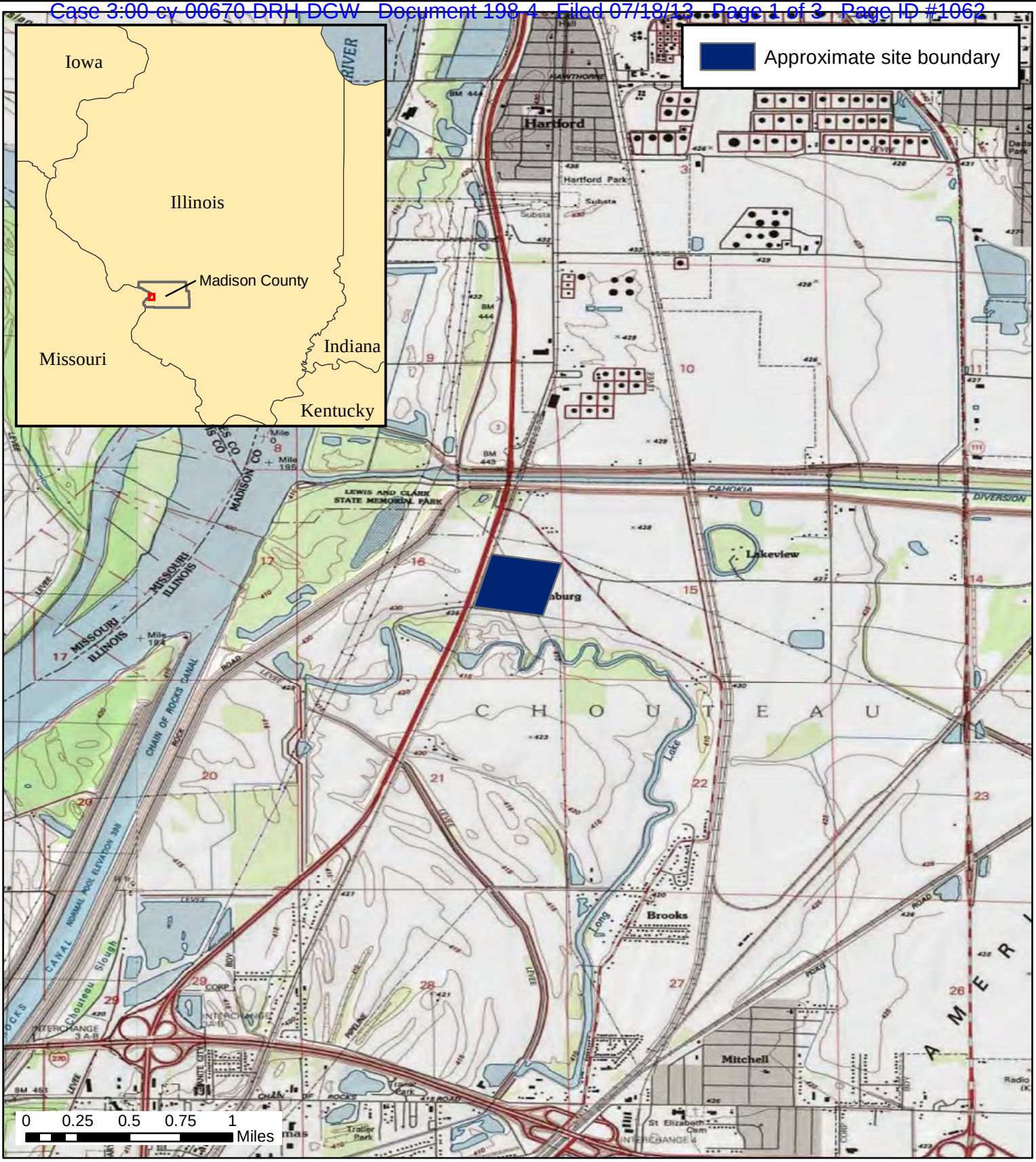


Figure 1
Site Location Map

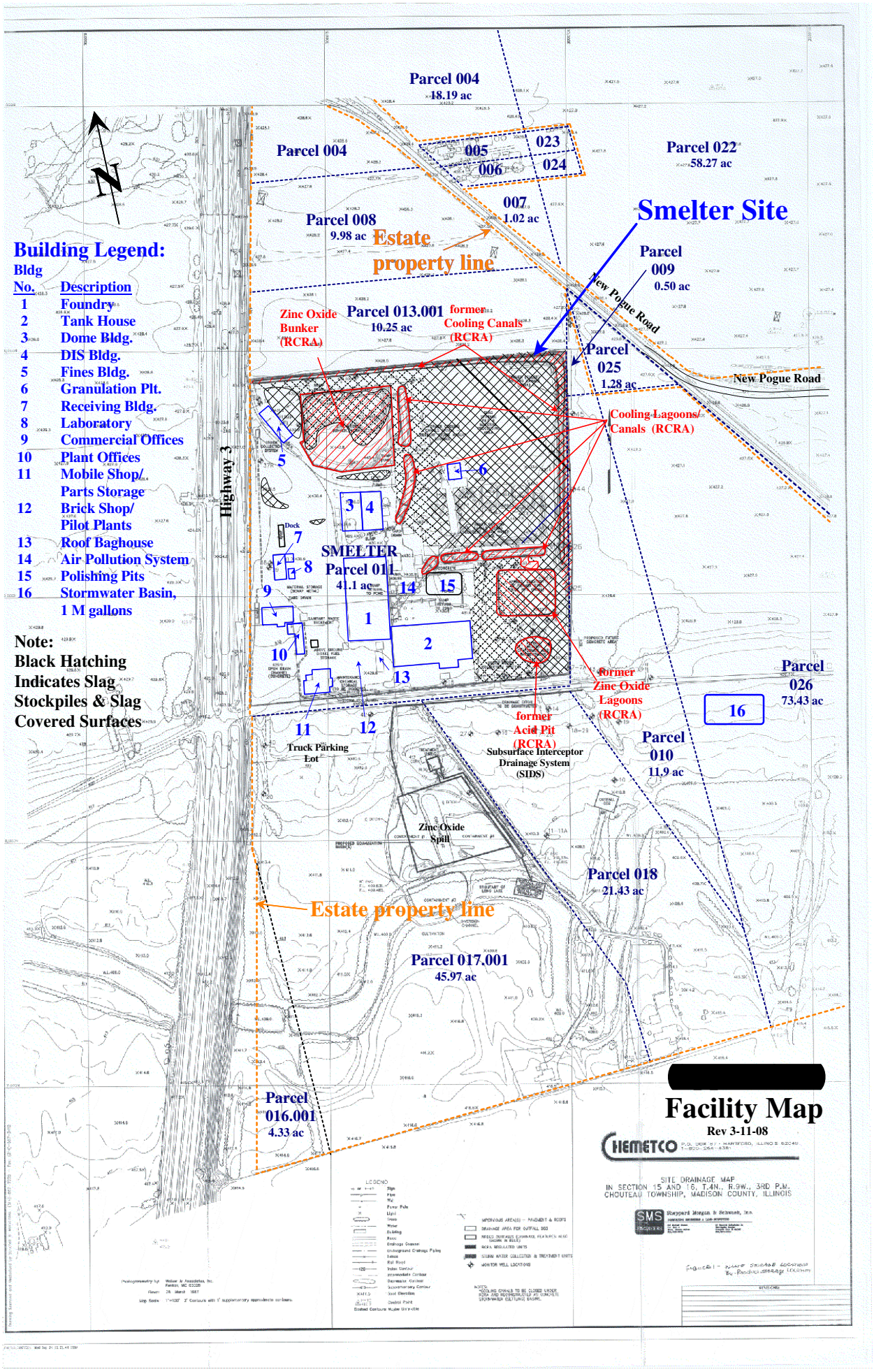
Chemetco Superfund Site, Hartford, Illinois

Seagull Environmental Technologies, Inc.

Source: U.S. Geological Survey

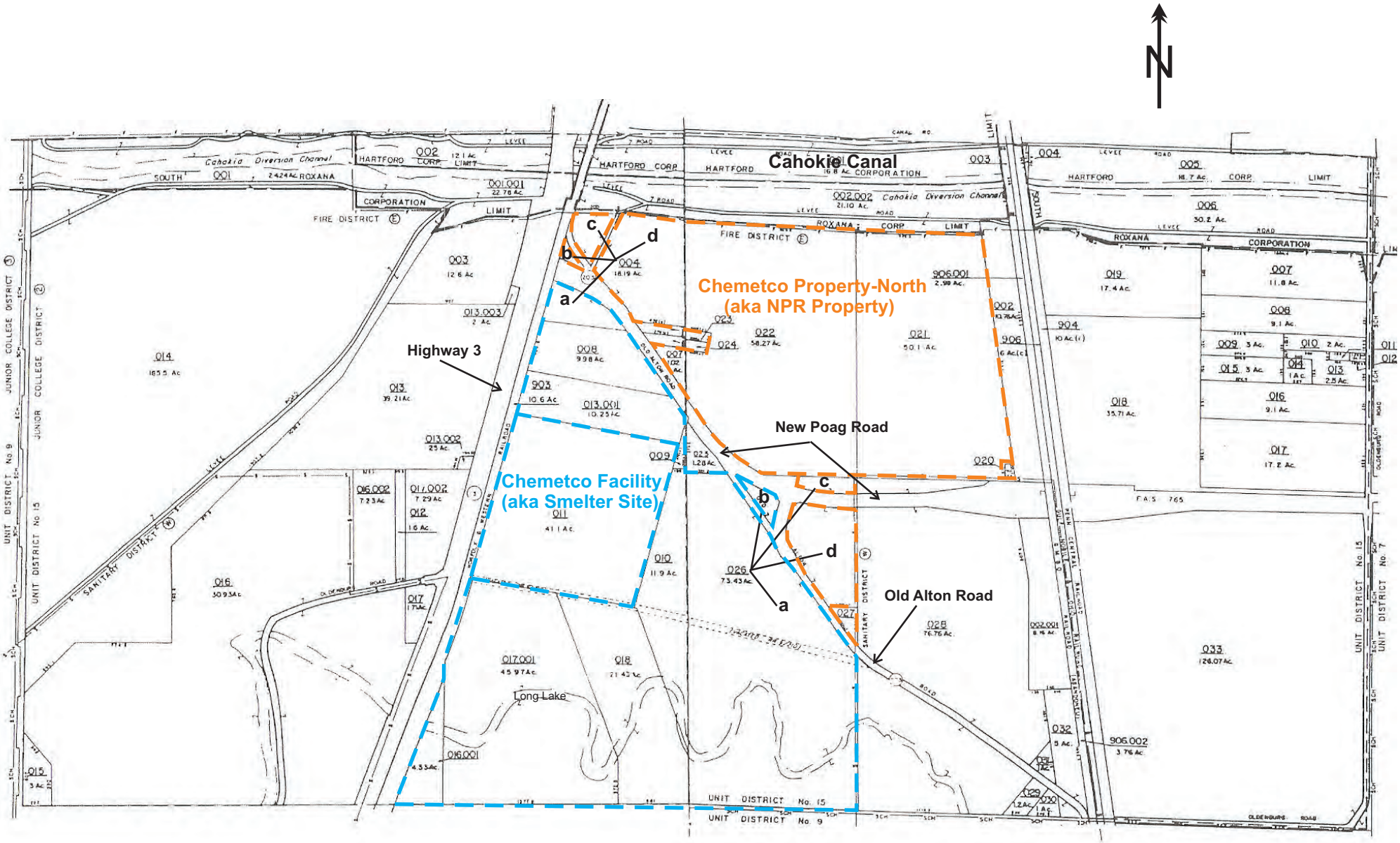
Date: December 2010

Project No: EPDTO5.00003


Parcel 004
18.19 ac
Parcel 004
005
006
023
024
Parcel 022
58.27 ac
007
1.02 ac
Smelter Site
Parcel 008
9.98 ac
Estate property line
Parcel 009
0.50 ac
New Pogue Road
Zinc Oxide Bunker (RCRA)
Parcel 013.001
10.25 ac
former Cooling Canals (RCRA)
Parcel 025
1.28 ac
New Pogue Road
Cooling Lagoons/ Canals (RCRA)
Highway 3
SMELTER
Parcel 011
41.1 ac
Dock
former Zinc Oxide Lagoons (RCRA)
Parcel 026
73.43 ac
16
former Acid Pit (RCRA)
Subsurface Interceptor Drainage System (SIDS)
Truck Parking Lot
Parcel 010
11.9 ac
Zinc Oxide Spill
Parcel 018
21.43 ac
Estate property line
Parcel 017.001
45.97 ac
Parcel 016.001
4.33 ac
Building Legend:
Bldg No. Description
1 Foundry
2 Tank House
3 Dome Bldg.
4 DIS Bldg.
5 Fines Bldg.
6 Granulation Plt.
7 Receiving Bldg.
8 Laboratory
9 Commercial Offices
10 Plant Offices
11 Mobile Shop/ Parts Storage
12 Brick Shop/ Pilot Plants
13 Roof Baghouse
14 Air Pollution System
15 Polishing Pits
16 Stormwater Basin, 1 M gallons
Note:
Black Hatching Indicates Slag Stockpiles & Slag Covered Surfaces
Facility Map
Rev 3-11-08
HEMETCO
SITE DRAINAGE MAP
IN SECTION 15 AND 16, T.4N., R.9W., 3RD P.M.
CHOUTEAU TOWNSHIP, MADISON COUNTY, ILLINOIS
SMS ENGINEERS

Estate of Chemetco, Inc. Property Map

Chemetco Facility (aka Smelter Site)
North of Poag Road (aka NPR Property)
(revised 3-1-2010)



UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF ILLINOIS

UNITED STATES OF AMERICA, **Plaintiff,** **v.** **CHEMETCO, INC.,** **Defendant.**	**Civil Nos. 00-670-DRH** **00-677-DRH (consolidated)** **CJRA Track C**
PEOPLE OF THE STATE OF ILLINOIS, *ex rel.* LISA MADIGAN, ATTORNEY GENERAL OF THE STATE OF ILLINOIS, **Plaintiff,** **v.** **CHEMETCO, INC.,** **Defendant.**	**Hon. David R. Herndon** **U.S. District Judge** **Magistrate Judge Donald G. Wilkerson**

INTERIM ORDER

I. BACKGROUND

WHEREAS, Plaintiff United States of America ("United States"), on behalf of the Administrator of the United States Environmental Protection Agency ("U.S. EPA"), filed a Complaint in this Court against Chemetco, Inc. ("Chemetco" or "Defendant"), seeking injunctive relief and civil penalties for alleged civil violations of the Clean Water Act, 33 U.S.C. § 1251 *et seq.*, and the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6901 *et seq.*, that occurred at Chemetco's secondary copper smelting facility in Hartford, Illinois ("Chemetco Facility").

WHEREAS, Plaintiff, People of the State of Illinois, *ex rel.* Lisa Madigan, Attorney General of the State of Illinois ("State of Illinois" or "State"), contemporaneous with the filing of the United States' Complaint, filed a Complaint in this Court against Chemetco, Inc. pursuant to Section 107 of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), 42 U.S.C. § 9607, seeking, among other things: (1) reimbursement of costs incurred and to be incurred by the State of Illinois in responding to the release and/or threatened release of Hazardous Substances at the

Chemetco Facility; and (2) a declaratory judgment, pursuant to CERCLA Section 113(g)(2), 42 U.S.C. § 9613(g)(2), on Chemetco's liability for future response costs associated with the Chemetco Facility. The State's Complaint also seeks injunctive relief and civil penalties for alleged violations of the Illinois Environmental Protection Act, 415 ILCS 5/1, *et seq.*, (2002) ("State Act"), at the Chemetco Facility. On October 16, 2001, the United States' Complaint and the State's Complaint were consolidated for purposes of discovery and trial.

WHEREAS, on November 13, 2001, Chemetco filed a voluntary petition under Chapter 7 of the Bankruptcy Code. *See In re Chemetco*, No. 01-34066 (Bankr. S.D. Ill.) ("the Bankruptcy Case"). Laura K. Grandy was appointed Trustee to take control of the bankruptcy estate ("Estate") and has proceeded with the liquidation of Chemetco, Inc.

WHEREAS, the Trustee disputes many of the contentions and allegations of the State of Illinois in its Complaint.

WHEREAS, the State and the Trustee recognize that mismanagement of the Facility by the previous owners and operators of the Chemetco Facility resulted in conditions that may pose a threat or threats to the public health or welfare or the environment.

WHEREAS, the State acknowledges that the Trustee has expended considerable Estate funds to maintain and preserve the Facility and to prevent further releases to the environment.

WHEREAS, the Trustee has identified on-site Work ("Work") to be undertaken by the Trustee as an alternative to the injunctive relief sought in the Complaints which, if feasible, will allow for recovery of value from certain materials accumulated at the Chemetco Facility.

WHEREAS, all Work conducted under this Interim Order shall be conducted consistent with the terms and conditions of Work Plans to be proposed by the Trustee and approved by the State.

WHEREAS the Trustee developed the Work to be implemented under this Interim Order in an effort to continue the liquidation of Facility Assets and move the Chemetco Facility toward compliance

with the applicable environmental laws. The work to be performed under this Interim Order will be undertaken within the framework of the State's authorities under CERCLA, Section 22.2(f)-(k) of the Illinois Environmental Protection Act ("State Act"), 415 ILCS 5/22.2(f)-(k), and other applicable or relevant and appropriate requirements ("ARARs").

WHEREAS, the State and/or U.S. EPA may undertake additional response actions at the Chemetco Facility pursuant to various environmental statutes, including but not limited to CERCLA Sections 106 and 107, 42 §§ 9606 and 9607, and Section 22.2(f)-(k) of State Act, 45 ILCS 5/22.2(f)-(k), the costs of which will not be the responsibility of the Trustee.

WHEREAS, the State and the Trustee recognize, and the Court by entering this Interim Order finds, that this Interim Order has been negotiated by the State and the Trustee in good faith and that implementation of this Interim Order will expedite the cleanup of the Chemetco Facility, avoid unnecessary depletion of Chemetco's assets, and avoid prolonged and complicated litigation between the State and the Trustee, and that this Interim Order is fair, reasonable, and in the public interest.

NOW, THEREFORE, it is hereby Ordered:

II. JURISDICTION

1. This Court has jurisdiction over the subject matter of this action pursuant to CERCLA Sections 107 and 113(b), 42 U.S.C. §§ 9607 and 9613(b), and 28 U.S.C. §§ 1331 and 1367. This Court also has been vested with personal jurisdiction over Chemetco and the Estate, and that jurisdiction now extends to the Trustee. As representative of Chemetco, Inc. and the Estate, the Trustee has the authority to compromise claims against Chemetco, subject to approval of the Bankruptcy Court. Pursuant to that authority, the Trustee acknowledges that Chemetco, Inc. and the Estate have no objections or defenses to the jurisdiction of this Court or to venue in this District or to this Court's jurisdiction to enter and enforce this Interim Order.

2. This Interim Order and its appendices constitute an interim agreement and understanding

between the State and the Trustee as of the date of its execution. The State and the Trustee acknowledge that this Interim Order requires the Trustee to develop and submit, for approval by the State and to comply with, various Work Plans. The State and the Trustee further acknowledge that there are no representations, agreements or understandings relating to this Order other than those expressly contained in this Interim Order. This Order does not address the disposition of the Slag or Scrubber Sludge at the Facility. The State and the Trustee further anticipate doing so through a subsequent negotiated order with the participation of the U.S. EPA and the U.S. Department of Justice when the approval of a processor and the manner of processing of those materials is sought and obtained.

III. APPLICABILITY

3. a. This Interim Order applies to and is binding upon the State, the Trustee, and the Trustee's successors and assigns, the Estate and the Estate's successors and assigns, and Chemetco, Inc.

b. The requirements of this Interim Order, including the requirement to properly manage the Facility Assets, and to provide or secure access pursuant to Section IX shall be binding upon the Trustee, the Estate, Chemetco, and any and all persons who subsequently acquire any interest in or a portion of the Facility. Sale or lease of the Facility or any part or interest thereof shall not interfere with the State's Response Actions at the Facility.

IV. DEFINITIONS

4. Unless otherwise expressly provided herein, terms used in this Interim Order which are defined in the State Act, RCRA, CERCLA, or in regulations promulgated under those statutes shall have the meaning assigned to them in those statutes or in such regulations. Whenever terms listed below are used in this Interim Order or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

ARAR or ARARs shall mean:

a. Applicable Requirements consisting of those cleanup standards, standards

of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental laws or regulations that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance found at a CERCLA site; or

b. Relevant and Appropriate Requirements consisting of those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that, while not applicable to a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site, address problems or situations sufficiently similar to those encountered at Chemetco Facility that their use is well suited to this particular site.

c. A list of possible ARARs is provided in Appendix A of this Interim Order. Additionally, ARARs shall be proposed by the Trustee in Work Plans submitted for approval under this Interim Order.

Bankruptcy Case shall mean the proceeding initiated by the voluntary petition for Chapter 7 liquidation filed by Chemetco, Inc., and captioned *In re Chemetco, Inc.*, No. 01-34066 (Bankr. S.D. Ill.).

Bankruptcy Court shall mean the United States Bankruptcy Court for the Southern District of Illinois sitting in East St. Louis, Illinois.

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

Chemetco or **Chemetco, Inc.**, shall mean the company or corporation that previously owned and operated the copper smelting equipment and operation at the Chemetco Facility in Hartford, Illinois.

Interim Order shall mean this Interim Order and all appendices attached hereto. In the event of conflict between this Interim Order and any appendix, this Interim Order shall control.

Day shall mean a calendar day unless expressly stated to be a Working Day.

Estate shall mean the bankruptcy estate of Chemetco, Inc., a debtor.

Facility or **Chemetco Facility** shall mean the former Chemetco Smelter and real property consisting of Parcel Nos. 004 (18.19 acres), 007 (1.02 acres), 008 (9.98 acres), 009 (0.5 acres), 010 (11.9 acres), 011 (41.1 acres), 013.001 (10.25 acres), 016.001 (4.33 acres), 017.001 (45.97 acres), 018 (21.43 acres), 020(1acre), 021 (50.1 acres), 022 (58.27 acres), 026 (73.43 acres), and 027 (1 acre), as shown on the property map attached as Appendix B. Subparcels 004(a), located south of New Poag Road, and 026(a) and (b), located west of the current location of Old Alton Road, and all of Parcels 008, 009, 010, 011, 013.001, 016.001, 017.001, and 018 are subject to Illinois EPA's December 4, 2001, Seal Order (attached hereto as Appendix C) and shall be subject to all terms of this Interim Order. Subparcels 004(b)-(d), located north of New Poag Road, and 026(c) and (d), located east of the current location of Old Alton Road, and Parcels 007, 020, 021, 022, and 027 are also part of the Estate, but off the Chemetco plant grounds, and one or more these particular seven parcels are areas where hazardous substances generated during the course of Chemetco's operations may have come to be located and these parcels shall be subject only to Sections V, VII-XI, XIV, XVIII-XXI, and XXVI of this Interim Order until the Trustee proposes to do Work on one or more of those parcels or the Interim Order is modified to subject any of these parcels to other requirements of the Interim Order. In any event, these parcels remain subject to evaluation by the State and U.S. EPA to determine whether response actions on such areas may be necessary.

Facility Assets shall mean all potentially saleable material and equipment present on facility grounds, including but not limited to the foundry building, the four smelting furnaces housed in the foundry building, office buildings, storage buildings, a Slag pile and other accumulations of Slag (a by-product of the smelting process), scrubber sludge and other metal bearing materials, two parking lots, a stormwater management system, a bunker containing "zinc oxide" and other materials, a black acid storage tank, a rotary dryer, screening equipment, and air pollution control equipment, and the real estate.

Former Officers, Directors, and Employees shall mean any and all individuals who served as

officers or directors of Chemetco, Inc., or who were employed by Chemetco, Inc., prior to and up to the date of filing of the Bankruptcy Case.

Foundry Building shall mean that building that previously housed the smelter operation at the Facility and which is depicted as Building #1 on the Facility Map found in Appendix B.

Demolition and Scrapping Plan shall mean one or more documents to be submitted by the Trustee to Illinois EPA for approval pursuant to Paragraphs 18 through 20 of this Interim Order in the event the Trustee elects to contract for the demolition and scrapping of a Facility Asset or Assets.

Hazardous Substances shall mean the substances identified in CERCLA Section 101(14), 42 U.S.C. § 9601(14).

Hazardous Waste or **RCRA Hazardous Waste** shall mean the substances identified in RCRA Section 1004(5), 42 U.S.C. § 6903(5).

Illinois EPA shall mean the Illinois Environmental Protection Agency and any successor agencies of the State of Illinois.

Metal Bearing Materials shall mean the approximately 46,000 tons of Scrubber Sludge (including approximately 35,000 tons in the Zinc Oxide Bunker), approximately 900,000 tons of Slag, various and sundry former smelter feed stocks, "in-process" materials (including materials contained within or around former processing equipment), and sediments, sludges, metal spills and splatters, and dusts associated with former operations and past and future environmental cleanups at the Facility that contain economically viable and reclaimable concentrations of metals (including but not limited to copper, zinc, lead, tin, and nickel).

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, including, but not limited to, any amendments thereto.

Operation and Maintenance or **O & M** shall mean all activities required to manage Facility

Assets and to provide stormwater management, fugitive emissions control and groundwater monitoring, and any other activities as required under the Operation and Maintenance Plan ("O&M Plan").

Operation and Maintenance Plan or **O&M Plan** shall mean the document to be submitted to the State for approval by the Trustee pursuant to Paragraph 17 of the Interim Order.

Parties shall mean the signatories to this Interim Order, the State, the Illinois EPA, and the Trustee on behalf of the Estate and Chemetco.

Project Coordinator shall mean each person designated as a project coordinator by a Party pursuant to Section XII of this Interim Order.

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).

Response Action shall mean past or future actions undertaken or approved by the State and/or U.S. EPA, pursuant to CERCLA, RCRA or the Clean Water Act.

Scrubber Sludge shall mean, in general, a granular solid material that was recovered from the dust collection systems operated in conjunction with the former Chemetco secondary copper smelting process. From startup of the Facility in 1970 until the mid-1980's, scrubber sludge was collected as a wet slurry in earthen pits and later transferred to a bunker. After the mid-1980s the Scrubber Sludge was collected as a wet filter cake and dry solid and stockpiled under cover in process buildings for recycling and commercial sales due to the presence of metal oxides, such as come from copper, zinc, lead, tin, and nickel. The Scrubber Sludge exhibits a characteristic of Hazardous Waste as determined by the toxic characteristic leaching procedure ("TCLP") for lead and cadmium.

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

Slag shall mean, in general, an iron-silicate solid material that was a by-product of the former Chemetco secondary copper smelting process, that was produced as a liquid, transported outside the smelter process building and placed in stockpiles where it was cooled, by air or water, and solidified.

The Slag at the Facility contains metal oxides, such as copper, zinc, lead, tin, and nickel. The Slag exhibits the characteristic of a hazardous waste as determined by the TCLP for lead and cadmium.

State shall mean the State of Illinois and all of its departments and agencies, including but not limited to the Illinois Environmental Protection Agency ("IEPA") and the Illinois Attorney General.

State Act shall mean the Illinois Environmental Protection Act, 415 ILCS 5/1-58.12 (2002).

Successor-in-Title shall mean any person who acquires any possessory interest in any property included in the Facility, other than a person who acquires such interest solely to protect a security interest in the property and who has not exercised any right to enter or possess the property.

Supervising Contractor shall mean the principal contractor retained by the Trustee, to supervise and direct the implementation of each Work Plan under this Interim Order.

Trustee shall mean the Trustee approved by the Court to act as representative of the Estate in *In re Chemetco*, No. 01-34066 (Bankr. S.D. Ill.), and not individually and/or personally.

United States shall mean the United States of America and all of its departments agencies and instrumentalities, including but not limited to U.S. EPA;

U.S. EPA shall mean the United States Environmental Protection Agency and any successor agencies of the United States.

Waste or **Solid Waste** shall mean the substances identified in RCRA Section 1004(27), 42 U.S.C. § 6903(27).

Work shall mean all actions undertaken by the Trustee under this Interim Order to liquidate Facility Assets, to demolish or scrap Facility Assets, or to move existing Facility Assets off-site without processing or treatment in accordance with the Work Plans required by this Interim Order excluding those listed in Appendix D. Any plan to manage and/or reuse the Facility, to sell/lease the Facility for reuse, process Scrubber Sludge, Slag, and other on-site materials to recover metals and other materials suitable for use or reuse as ingredients in an industrial process or as effective substitutes for commercial

products, not listed in Appendix D shall be the subject of a subsequent order or decree.

Work Affected Materials or WAM shall mean scrubber sludge, slag, metal bearing material, wastes, and substances accumulated on the surface of or within the Facility or Facility Assets that are managed, handled or otherwise dealt with in the performance of Work under this Interim Order.

Working Day shall mean a day other than a Saturday, Sunday or United States holiday. In computing any period of time under this Interim Order, where the last day would fall on a Saturday, Sunday, or United States holiday, the period shall run until the close of business of the next working day.

Work Plans shall mean any plan to liquidate Facility Assets, to demolish or scrap Facility Assets, or to move existing Facility Assets off-site without processing or treatment submitted and approved in accordance with this Interim Order.

V. GENERAL PROVISIONS

5. **Commitment to Proper Management of the Facility.**

The Trustee shall manage the Facility in accordance with this Interim Order and in accordance with all plans, standards, specifications, and schedules set forth in or developed in Work Plans approved by the State, pursuant to this Interim Order.

a. The Trustee shall manage all Work Affected Materials as if it were a RCRA Hazardous Waste in accordance with the Hazardous Waste regulations.

b. Shipment off-site of any material other than those listed in Appendix D will be subject to approval by the State, in accordance with 35 Ill. Adm. Code 721.102 and 721.106.

c. The Trustee shall undertake any sales of equipment in accordance with applicable provisions of the Bankruptcy Code, 11 U.S.C. § 101, et seq., and in accordance with 35 Ill. Adm. Code regulations.

d. All obligations of the Trustee under this Interim Order shall be understood to be obligations of the Estate and not of the Trustee, individually and/or personally.

6. **Application of ARARS.**

a. In performing Work under this Interim Order, the Trustee shall comply with all approved Work Plans.

b. All Work Plans prepared by the Trustee pursuant to this Interim Order shall include the obligation to achieve ARARs. Financial Assurance, if applicable as an ARAR pursuant to 35 Ill. Adm. Code Part 724, shall be addressed in the Work Plan.

c. In performing Work under this Interim Order, the Trustee shall comply with the National Contingency Plan ("NCP").

d. The Work conducted by the Trustee pursuant to this Interim Order, if completed consistent with ARARs and approved Work Plans, shall be considered to be consistent with the NCP.

7. **Notice to Prospective Purchasers of Real Property**

a. Within 60 days after the Effective Date, the Trustee shall place on the land records of Madison County, State of Illinois, a notice which:

(i) states that the real property comprising the Facility, including the Foundry Building and two parking lots, is subject to this Interim Order;

(ii) references the recorded location of this Interim Order and any restrictions applicable to the real property under this Interim Order; and

(iii) requires all future deeds, titles, or other instruments conveying an interest in the real property comprising the Facility to replicate such notice.

b. The Trustee or any successor-in-title shall, at least 60 days prior to the conveyance of an interest in the real property comprising the Facility, provide a copy of this Interim Order to each person proposed to receive such interest, and provide written notice to Illinois EPA of the proposed sale or lease, including the name and address of the prospective grantee/lessee, and the date on which a copy of this Interim Order was given to the prospective grantee/lessee.

8. **Notice to Contractors and Subcontractors.**

a. The Trustee shall provide a copy of this Interim Order to each contractor undertaking an obligation to manage one or more of the components of the Facility Assets, and shall condition all contracts entered into hereunder upon conformity with the terms of this Interim Order.

b. The Trustee or the Trustee's contractors shall provide written notice of this Interim Order to all subcontractors hired to perform any management of Facility Assets

c. Notwithstanding subparagraphs a. and b. of this Paragraph, the Trustee shall be responsible for ensuring that the Trustee's contractors and subcontractors perform the Work and manage the Facility in accordance with this Interim Order. With regard to the activities undertaken pursuant to this Interim Order, each contractor and subcontractor shall be deemed to be in a contractual relationship with the Trustee within the meaning of CERCLA Section 107(b)(3), 42 U.S.C. § 9607(b)(3).

9. **Applicability of Bankruptcy Code Section 363.** All sales of Facility Assets shall be subject to the requirements of Section 363 of the Bankruptcy Code, 11 U.S.C. § 363.

10. **Relief from Agency Decisions:** Notwithstanding any other provision of this Interim Order other than a provision under which an Agency decision is not subject to review by a Court, the Estate reserves its right to seek relief pursuant to the Federal Rule of Civil Procedure 60(b) as to any Agency decision with which the Trustee disagrees. The State reserves its right to oppose any such motion.

VI. PERFORMANCE OF THE WORK

11. **Applicability of Seal Order**

a. The State and the Trustee agree that the Work to be performed hereunder shall not be deemed to be in violation of the Seal Order (attached hereto as Appendix C) issued December 4, 2001, pursuant to Section 34 of the State Act and filed with the Bankruptcy Court on December 8, 2001, and the State hereby consents to the presence at the Facility of those persons performing Work at the Facility

on behalf of the Trustee pursuant to an approved Work Plan.

b. In addition to the State's authority to stop the Work set forth in Paragraphs 26 and 48, the State may revoke this consent to address noncompliance with an applicable Work Plan

12. **Selection of Supervising Contractor**

a. All aspects of the implementation of each Work Plan shall be under the direction and supervision of the Supervising Contractor, the selection of which shall be subject to approval by the State, which approval shall not be unreasonably withheld. The Trustee shall propose the Supervising Contractor in each Work Plan submitted.

b. If, at any time thereafter, the Trustee proposes to change a Supervising Contractor, the Trustee shall give such notice to the State, and must obtain an authorization to proceed from the State before the new Supervising Contractor performs, directs, or supervises Work, or the management of Facility Assets under this Interim Order.

c. If the State disapproves a proposed Supervising Contractor, the State will notify the Trustee in writing. The Trustee, within 60 days of receipt of the notice of disapproval of the previously proposed contractor shall submit to the State a list of contractors, including the qualifications of each contractor, that would be acceptable to the State. The State will provide written notice of the names of any contractor(s), contained in the Trustee's list whom the State disapprove, as well as an authorization to proceed with respect to any of the other contractors on the list. Subject to the requirements of Section 327 of the Bankruptcy Code, 11 U.S.C. § 327, the Trustee may select any contractor from that list that is not disapproved, and the Trustee shall notify the State of the name of the contractor selected within 21 working days of the date of the State' authorization to proceed.

d. If the State fails to provide written authorization to proceed or disapproval as provided in this Paragraph and this failure prevents the Trustee from meeting one or more deadlines in a plan approved by the State pursuant to this Interim Order, the Trustee may seek relief under the provisions of

Section XVI (Force Majeure).

A. IMPLEMENTATION OF WORK PLANS

13. All plans, submittals, or other deliverables required under the approved Work Plans shall be submitted to the State for approval by the State . The State shall not unreasonably deny approval of submitted Work Plans. Upon approval, the various Work Plans shall be incorporated into and become enforceable under this Interim Order, and the Trustee shall be obligated to comply with their terms and requirements.

14. The Work Plans shall be implemented by the Trustee, in consultation with the State, according to the approved schedules. Unless otherwise directed by the State, the Trustee shall not implement any Work Plan until it has been approved.

15. Nothing in this Interim Order or any of the Work Plans constitutes a warranty or representation of any kind by the State that compliance with the requirements set forth in the Work Plans will achieve ARARs or permit the reuse of the Facility for all purposes. Compliance with the Work Plan requirements shall not foreclose the State from seeking compliance with all terms and conditions of this Interim Order, including, but not limited to, identified ARARs.

16. The Trustee shall submit to the State's Project Coordinator, at the time of shipment, a copy of each manifest for any shipment of Waste off-Facility.

B. OPERATION AND MAINTENANCE PLAN

17. Within 60 days of the entry of this Interim Order, the Trustee shall submit an Operation and Maintenance Plan (O&M Plan) to the State for review and approval by the State . The O&M Plan shall update the existing stormwater management plan, fugitive emissions control plan, groundwater monitoring plan, and security plan to address current conditions at the Facility and the future management of the Facility Assets. The O&M Plan may be modified and upgraded by the Trustee, or at the direction of the State, and upon review and approval by the State, shall be implemented as so

modified.

C. SCRAPPING AND DEMOLITION PLAN

18. Nothing herein shall obligate the Trustee to undertake any scrapping or demolition of a Facility Asset. In the event the Trustee elects to contract for the demolition and scrapping of a Facility Asset, the Trustee shall submit a Scrapping/Demolition Plan to the State for approval. Upon approval by the State , the Scrapping/Demolition Plan shall be implemented by the Trustee in accordance with the approved schedule. All plans, submittals, or other deliverables required under the approved Scrapping/Demolition Plan shall be submitted to the State in accordance with the approved schedule for review and approval pursuant to Section XI (Submissions Requiring Approval).

19. The Trustee has previously submitted plans to address the closure of the Brick Shop Container Storage Area and the AAF Decontamination Area/Sump Area (attached hereto as Appendices E-1 and E-2) in response to Illinois EPA's Violation Notice, L-2007-01375. Both plans were conditionally approved by Illinois EPA on May 13, 2008 (attached hereto as Appendix E-3). These two closure plans shall be implemented as Work Plans under this Interim Order in accordance with the requirements of Appendix E-3. Within twenty-one days of entry of this Interim Order, an Addendum shall be submitted for approval by the State which shall include the following:

a. plans and schedules for the disposition of all materials to be scrapped, salvaged, and/or resold and for the disposition of WAM;

b. identification of and plans and procedures for complying with ARARs, including plans and procedures for preventing the release, or threatened release, of hazardous substances and, for the AAF Decontamination Area/Sump Area only, the remediation of soil and groundwater contaminated by hazardous substances or their constituents if necessary to satisfy Illinois EPA's Violation Notice, L-2007-01375 and Appendix E-3;

c. Methods for satisfying permit requirements, where applicable;

d. Plans and procedures for the decontamination of equipment and the disposal of Waste including submission to the State's Project Coordinators, at the time of shipment, of a copy of each required manifest for any shipment off-Facility of Waste;

e. A health and safety plan for all activities which conforms to the applicable Occupational Safety and Health Administration requirements including, but not limited to, 29 C.F.R. §1910.120; and

f. When the State concludes in writing that the Trustee has certified completion of the approved Brick Shop Container Storage Work Plan or the AAF Decontamination Area/Sump Area Work Plan in accordance with Section XIII (Certification of Completion), the respective violations from the Illinois EPA's Violation Notice, L-2007-01375, shall be deemed resolved.

20. A Scrapping/Demolition Plan addressing either the planned scrapping/demolition of the Foundry building, or sale of the furnaces, shall include all plans and schedules for implementation of all work required for such activities, including:

a. plans and schedules for the disposition of all materials to be scrapped, salvaged, and/or resold and for the disposition of WAM;

b. identification of and plans and procedures for complying with ARARs, including plans and procedures for preventing the release, or threatened release, of hazardous substances;

c. Methods for satisfying permit requirements, where applicable;

d. Plans and procedures for the decontamination of equipment and the disposal of Waste including submission to the State' Project Coordinators, at the time of shipment, of a copy of each required manifest for any shipment off-Facility of Waste; and

e. A health and safety plan for all activities which conforms to the applicable Occupational Safety and Health Administration requirements including, but not limited to, 29 C.F.R. §1910.120.

D. SCRUBBER SLUDGE AND SLAG PROCESSING

21. In the event the Trustees wishes to proceed with processing of Scrubber Sludge or Slag,

the development and entry of an additional Order or Decree shall be required before such processing may proceed.

E. ADDITIONAL RESPONSE ACTIONS

22. a. In the event that the State determines, or the Trustee proposes, and the State agrees, that additional actions are necessary to meet ARARs identified in conjunction with the approval of the Work Plans, the State shall provide a written request for such additional actions to the Project Coordinator for the Trustee.

b. Within 60 days of receipt of the written request from the State referred to in subparagraph a. of this Paragraph, the Trustee shall submit to the State for approval by the State a Work Plan for the additional work. Upon approval of such plan, the Trustee shall implement the plan in accordance with the schedule contained therein.

23. The Trustee may invoke the procedures set forth in Section XVII (Dispute Resolution) to dispute a determination by the State that additional work is necessary to meet ARARs. Such a dispute shall be resolved pursuant to Section XVII (Dispute Resolution) of this Interim Order.

VII. DUE CARE/COOPERATION

24. The Trustee and her contractors, subcontractors, agents or affiliates shall exercise due and appropriate care at the Facility with respect to the Hazardous Substances at the Facility and shall comply with all Work Plans and ARARs in undertaking Work at the Facility.

25. The Estate recognizes that the State's implementation of Response Actions to address environmental contamination at the Facility may interfere with the Estate's use of the Facility, or portion of the Facility, and may require stoppage or cessation of Work. The Estate agrees to cooperate fully with the State in the implementation of any stoppage or cessation of Work at the Facility and further agrees not to interfere with such response actions. The State agrees, consistent with their responsibilities under applicable law, to use reasonable efforts to minimize any interference with the Estate's operations.

26. If the State determines that the Response Action selected under CERCLA requires a stoppage or cessation of Work in circumstances not addressed by Section XIV (Emergency Response) below, the State may issue a Stoppage or Cessation of Work order to the Estate. The Trustee may only invoke dispute resolution pursuant to Section XVII below to address the impact of such an Order on its operations. Pursuant to CERCLA Section 113, 42 U.S.C. § 9613, any Response Action selected by the State shall not be subject to the Dispute Resolution provisions of Section XVII below. Implementation of a Stoppage or Cessation of Work Order issued pursuant to this provision shall not take effect until the dispute resolution process has concluded.

VIII. QUALITY ASSURANCE, SAMPLING, AND DATA ANALYSIS

27. The Trustee shall take all treatability, design, ARARs, compliance and monitoring samples in accordance with the quality assurance, quality control, and chain of custody procedures set forth in U.S. EPA's "Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans," December 1980, (QAMS-005/80); "Data Quality -- Objective Guidance," (U.S. EPA/540/ G87003 and 004); "U.S. EPA NEIC Policies and Procedures Manual," May 1978, revised November 1984, (U.S. EPA 330/9-78-001-R); and subsequent amendments to such guidelines upon notification by the State to the Trustee of such amendment. Amended guidelines shall apply only to procedures conducted after such notification. If relevant to the proceeding, the Parties agree that validated sampling data generated in accordance with those standards and reviewed and approved by the State shall be admissible as evidence, without objection, in any proceeding under this Interim Order. The Trustee shall ensure that the laboratories that the Trustee or the Trustee's agents use for the analyses of samples taken pursuant to this Interim Order perform all analyses according to accepted U.S. EPA methods. Accepted U.S. EPA methods consist of those methods which are documented in U.S. EPA "Test Methods for Solid Waste" SW-846, the "Contract Lab Program Statement of Work for Inorganic Analysis" and the "Contract Lab Program Statement of Work for Organic Analysis," dated February 1988, and any

amendment made thereto during the course of the implementation of this Interim Order. The Trustee shall ensure that all laboratories that the Trustee or the Trustee's agents use for the analyses of samples taken pursuant to this Interim Order participate in an U.S. EPA or U.S. EPA-equivalent QA/QC program.

28. Upon request, the Trustee shall allow split or duplicate samples to be taken by the State or their authorized representatives. The Trustee shall notify the State not less than 14 days in advance of any sample collection activity on the Trustee's behalf, unless shorter notice is agreed to by the State. In addition, the State shall have the right to take any additional samples that they deem necessary. Upon request, the State shall allow the Trustee to take split or duplicate samples of any samples that they undertake as part of their oversight of the Trustee's implementation of the Work.

29. The Trustee shall submit to the State copies of the results of all sampling and/or tests or other data obtained or generated by or on behalf of the Trustee with respect to the implementation of this Interim Order unless the State agree otherwise.

30. Notwithstanding any provision of this Interim Order, the State hereby retains all information gathering and inspection authorities and rights, including enforcement actions related thereto, under CERCLA, RCRA, the State Act, and any other applicable statutes or regulations.

IX. ACCESS

31. Commencing upon the date of entry of this Interim Order, the Trustee agrees to provide the State and their officers, employees, representatives and contractors and all other persons performing response actions at the Facility under the State's oversight, an irrevocable right of access at all reasonable times to the Facility and any other property to which access is required for the implementation of this Interim Order or other required response actions, to the extent access to the property is controlled by the Trustee, for the purposes of conducting any activity related to this Interim Order, as set forth below, and/or conducting response actions under federal and State law. The State agrees to provide reasonable notice to the Trustee of the timing of response action to be undertaken at the Facility. The activities to be

undertaken at the Facility by the State include but are not limited to:

a. Monitoring the Work at the Facility;

b. Verifying any data or information submitted to the State;

c. Conducting investigations relating to contamination at or near the Facility;

d. Obtaining samples and taking photographs and video;

e. Assessing the need for, planning, or implementing additional response actions at or near the Facility;

f. Inspecting and copying records, operating logs, contracts, or other documents, including documents relating to operating costs and revenues from the disposition of Facility Assets, maintained or generated by the Trustee or the Trustee's agents, consistent with Section XVIII (Access to Information);

g. Assessing the Trustee's compliance with this Interim Order; and

h. Undertaking response actions as determined to be required by the State.

32. To the extent that the Facility or any other property to which access is required for the implementation of this Interim Order is sold or leased by the Trustee to persons other than the Estate, the Trustee shall condition the transaction to require that such persons provide access to the Estate, the State, and their representatives including, but not limited to, their contractors, as necessary to effectuate this Interim Order.

33. Notwithstanding any provision of this Interim Order, the State retains all of its access authorities and rights, including enforcement authorities related thereto, under CERCLA, RCRA, the State Act, and any other applicable statute or regulations.

X. REPORTING REQUIREMENTS

34. a. In addition to any other requirement of this Interim Order, the Trustee, shall submit to the State, pursuant to the schedule below, written progress reports that:

(i) Describe the actions which have been taken toward achieving compliance with this Interim Order during the previous reporting period:

(ii) Include a summary of all results of sampling and tests and all other data received or generated by the Trustee or the Trustee's contractors or agents in the previous reporting period;

(iii) Identify all work plans, plans and other deliverables required by this Interim Order completed and submitted during the previous reporting period;

(iv) Describe all actions, including, but not limited to, data collection and implementation of work plans, which are scheduled for the next reporting period and provide other information relating to the progress of construction;

(v) Include information regarding percentage of completion, unresolved delays encountered or anticipated that may affect the future schedule for implementation of the Work, and a description of efforts made to mitigate those delays or anticipated delays; and

(vi) Include any modifications to the work plans or other schedules that the Trustee has proposed to the State or that have been approved by the State.

b. The Trustee shall submit all reports referred to in Paragraph 34.a. in accordance with the schedule in the applicable approved Work Plan. The Trustee shall submit these progress reports to the State by the tenth day of the new reporting period following entry of this Interim Order until certification of completion by the State under Section XIII, Paragraph 46 of the applicable approved Work Plan. If requested by the State, the Trustee shall also provide briefings for the State to discuss the progress of the Work.

35. All actions, including data collection and implementation of approved Work Plans, described in the progress reports for the performance of any activity, may be accelerated if notice is given to the State no later than fourteen days prior to the performance of the activity. Upon the occurrence of any event during performance of the Work that the Trustee is required to report pursuant to CERCLA

Section 103, 42 § 9603, or Section 304 of the Emergency Planning and Community Right-to-Know Act ("EPCRA"), 42 U.S.C. § 11004, the Trustee, within 24 hours of the onset of such event, shall orally notify the State Project Coordinator (or the Alternate State Project Coordinator in the event of the unavailability of the State Project Coordinator) or, in the event that neither the State Project Coordinator or Alternate State Project Coordinator is not available, the Emergency Response Section of Illinois EPA (217-782-3637). These reporting requirements are in addition to the reporting required by CERCLA Section 103, 42 U.S.C. § 9603, and EPCRA Section 304, 42 U.S.C. § 11004.

36. Within seven (7) days of the onset of such an event, the Trustee shall furnish to the State a written report, signed by the Trustee's Project Coordinator, setting forth the events that occurred and the measures taken, and to be taken, in response thereto. Within 21 days of the conclusion of such event, the Trustee shall submit a report setting forth all actions the Trustee has taken in response thereto.

37. The Trustee shall submit all plans, reports and data required by the Work Plans or any other approved plans to the State in accordance with the schedules set forth in such plans. The Trustee shall submit five (5) copies of all such plans, reports and data to the State unless otherwise agreed to.

38. All reports and other documents submitted to the State (other than the progress reports referred to in the preceding Paragraph 34) which purport to document compliance with the terms of this Interim Order shall be signed by an authorized representative of the party on whose behalf the documentation is being submitted.

XI. SUBMISSIONS REQUIRING APPROVAL

39. After review of any plan, report or other item which is required to be submitted for approval pursuant to this Interim Order (other than for any permit application required for on site disposal), the State shall:

a. Approve, in whole or in part, the submission;

b. Approve the submission upon specified conditions;

c. Modify the submission to cure deficiencies;

d. Disapprove, in whole or in part, the submission, directing that the submission be modified; or

e. Any combination of the above.

If the State intends to approve the submission upon specified conditions, modify the submission or disapprove the submission, the State shall provide an opportunity for an informal conference and exchange of information and documents used before reaching a final decision.

40. In the event of approval, or approval upon conditions, pursuant to Paragraph 39.a., b., or c. (and following an opportunity for informal conference and exchange of information, if applicable), all actions required by the plan, report, or other items, as approved or modified by the State , shall proceed subject only to the invocation of the Dispute Resolution procedures set forth in Section XVII (Dispute Resolution) with respect to the modifications or conditions established by the State that are not agreed to by the Trustee. In the event that such a submission by the Trustee has a material defect, and the State , modifies the submission to cure the deficiencies pursuant to Paragraph 39.c., the State each retains its right to address the submission of a plan, report, or other item that has a material defect by seeking relief from the Court or through pursuing other available remedies.

41. Notice of Disapproval

a. Upon receipt of a notice of disapproval pursuant to Paragraph 39.d. (and following an opportunity to confer and exchange information, if applicable), within 60 days or such other time as specified in such notice, the deficiencies shall be corrected and the plan, report, or other item shall be resubmitted by the Trustee for approval.

b. Notwithstanding the receipt of a notice of disapproval pursuant to Paragraph 39.d., at the direction of the State , any action required by any non-deficient portion of the submission may proceed provided such portion is reasonably severable from the unapproved portions.

42. In the event that a resubmitted plan, report, other item, or portion thereof, is disapproved by the State, the State may again require correction of the deficiencies, in accordance with the preceding Paragraphs. The State retains the right to amend or develop the plan, report or other item. Any such amended or developed plan shall be implemented by the Trustee, as amended or developed by the State , subject only to the Trustee's right to invoke the procedures set forth in Section XVII (Dispute Resolution) and/or to seek relief pursuant to Federal Rule of Civil Procedure 60(b).

43. Submittal of Plans

a. All plans, reports, and other items required to be submitted to the State under this Interim Order shall, upon approval or modification by the State , be enforceable under this Interim Order. In the event the State approves or modifies a portion of a plan, report, or other item required to be submitted to the State under this Interim Order, the approved or modified portion shall be enforceable under this Interim Order.

b. All plans, reports and other items required to be submitted to the State under this Interim Order shall be prepared in compliance with the terms of the applicable professional licensing statute and regulations promulgated thereunder.

XII. PROJECT COORDINATORS

44. Within 30 days following the entry of this Interim Order, the Trustee and the State will notify each other, in writing, of the name, address and telephone number of their respective designated Project Coordinators and Alternate Project Coordinators. If a Project Coordinator or Alternate Project Coordinator initially designated is changed, the identity of the successor will be given to the other parties at least 30 working days before the changes occur, unless impracticable, but in no event later than the actual day the change is made. The Trustee's Project Coordinator shall be subject to disapproval by the State , and shall have the technical expertise sufficient to adequately oversee all aspects of the Work. The Trustee's Project Coordinator shall not be an attorney for the Estate in this matter. The Trustee's Project Coordinator may

assign other representatives, including other contractors, to serve as a Facility representative for oversight of performance of daily operations during remedial activities.

45. The State may designate other representatives, including, but not limited to State employees and State contractors and consultants, to observe and monitor the progress of any activity undertaken pursuant to this Interim Order. The State's Project Coordinator and Alternate Project Coordinator shall have the authority lawfully vested in a Remedial Project Manager ("RPM") and an On-Scene Coordinator ("OSC") by the National Contingency Plan, 40 C.F.R. Part 300. In addition, the State's Project Coordinator and Alternate Project Coordinator shall have authority, consistent with the National Contingency Plan, to halt any activities required by this Interim Order and to take any necessary response action when s/he determines that conditions at the Facility constitute an emergency situation or may present an immediate threat to public health or welfare or the environment due to a release or threatened release of Hazardous Substances.

XIII. CERTIFICATION OF COMPLETION

46. **Completion of Work Plans.**

a. The Interim Order will terminate on the 3rd anniversary of the Court's entry of this Interim Order and the Trustee shall schedule Work under this Interim Order to meet that date.

b. Within 120 days after the Trustee determines that an approved Work Plan has been fully performed and the ARARs have been attained, the Trustee shall schedule and conduct a pre-certification inspection to be attended by the Trustee, the Supervising Contractor, and the State. If, after the pre-certification inspection, the Trustee still believes that the Work Plan has been fully performed and the ARARs have been attained, the Trustee shall submit a written report requesting certification to the State, pursuant to Section XI (Submissions Requiring Approval) within 60 days of the inspection. In the report, a Professional Engineer registered in the State of Illinois shall state that the Work Plan has been completed in full satisfaction of the requirements of this Interim Order. The written report shall include as-built drawings signed and stamped by a Professional Engineer registered in the State of

Illinois. The report shall contain the following statement, signed by a responsible corporate official or representative of such person:

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

c. If, after completion of the pre-certification inspection and receipt and review of the written report, the State determines that the Work Plan or any portion thereof (including any modification thereto pursuant to the terms of this Interim Order) has not been completed in accordance with this Interim Order or that ARARs have not been achieved, the State will notify the Trustee in writing by certified letter of the activities that must be undertaken to complete the Work Plan and achieve the ARARs contained within the approved Work Plan. The State will set forth in the certified letter a schedule for performance of such activities consistent with this Interim Order or require the Trustee to submit a schedule to the State pursuant to Section XI (Submissions Requiring Approval). The Trustee shall perform all activities described in the notice in accordance with the specifications and schedules established pursuant to this Paragraph, subject to such the Trustee's right to invoke the dispute resolution procedures set forth in Section XVII (Dispute Resolution).

d. If the State concludes, based on the initial or any subsequent report requesting Certification of Completion, that the Work Plan has been fully performed in accordance with this Interim Order and that the ARARs as they may have been modified pursuant to this Interim Order, have been achieved, the State will so certify in writing to the Trustee. This certification shall constitute the Certification of Completion of the Work Plan for purposes of this Interim Order. The Certification of Completion of the Work Plan shall not affect the other obligations under this Interim Order. The Trustee shall file the Certification of Completion of the Work Plan with the Recorder of Deeds within thirty (30) days of issuance.

XIV. EMERGENCY RESPONSE

47. In the event of any action or occurrence during the performance of a Work Plan which causes or threatens a release of Hazardous Substances from the Facility that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, the Trustee shall immediately take all appropriate action to prevent, abate, or minimize such release or threat of release, and shall immediately notify the State's Project Coordinator, or, if the Project Coordinator is unavailable, the State's Alternate Project Coordinator. If neither of these persons is available, the Trustee shall notify U.S. EPA and the State Emergency Response Unit (217-782-3637) and shall take such actions in consultation with the State's Project Coordinator or other available authorized State officer and in accordance with all applicable provision of the Health and Safety Plans, the Contingency Plans, and any other applicable plans or documents developed pursuant to this Interim Order. In the event that the Trustee or the entity implementing the Work Plan fails to take appropriate response action as required by this Section, and U.S. EPA or the State takes such action instead, the Estate or that entity shall reimburse U.S. EPA and the State for all their respective costs of the response action not inconsistent with the NCP, if applicable.

48. Nothing in the preceding Paragraph or in this Interim Order shall be deemed to limit any authority of the State to take, direct or order all appropriate action (including but not limited to issuing a Stoppage or Cessation of Work Order) or to seek an order from the Court to protect human health and the environment or to prevent, abate, respond to, or minimize an actual or threatened release of Hazardous Substances on, at, or from the Facility.

XV. INDEMNIFICATION AND INSURANCE

49. The State does not assume any liability by entering into this agreement, and the State shall be held out as a party to any contract entered into by or on behalf of the Estate in carrying out activities pursuant to this Interim Order. Neither the Trustee nor any of the Trustee's contractors or

assigns shall be considered an agent of the State.

50. The Estate waives all claims against the State for damages or reimbursement or for set-off of any payments made or to be made to the State, arising from or on account of any contract, agreement, or arrangement between any one or more persons and the Estate for performance of Work on or relating to the Facility, including, but not limited to, claims on account of construction delays.

XVI. FORCE MAJEURE

51. Force Majeure, for purposes of this Interim Order, is defined as any event arising from causes beyond the control of the Trustee (either individually or in her representative capacity as Trustee of the Estate), or of any entity controlled by the Trustee, not individually but solely in her representative capacity as Trustee of the Estate, including but not limited to, the Trustee's contractors and subcontractors, that delays or prevents performance of any obligation under this Interim Order despite the Trustee's best efforts to fulfill the obligation. The requirement that the Trustee exercise "best efforts to fulfill the obligation" includes using best efforts to address the effects of any potential Force Majeure event (1) as it is occurring and (2) following the potential Force Majeure event, such that the delay is minimized to the greatest extent reasonably possible. "Force Majeure" does not include financial inability to complete the Work, except as provided in Section XXIV (Termination of Trusteeship/Estate/Interim Order), or a failure to attain the ARARs.

52. If any event occurs or has occurred that may delay or prevent the performance of any obligations under this Interim Order, whether or not caused by a Force Majeure event, the Trustee shall notify orally the State' Project Coordinator or, in his or her absence, the State' Alternative Project Coordinator or, in the event both of the State's designated representatives are unavailable, the manager of Illinois EPA's Remedial Project Management Section within 48 hours of when the Trustee first knew or should have known that the event might cause a delay. Within 10 working days thereafter, the Trustee shall provide in writing to the State: (1) an explanation and description of the reasons for the delay; (2)

the anticipated duration of the delay; (3) all actions taken or to be taken to prevent or minimize the delay; (4) a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; (5) the Trustee's rationale for attributing such delay to a Force Majeure event if the Trustee intends to assert such a claim; and (6) a statement as to whether, in the opinion of the Trustee, such event may cause or contribute to an endangerment to public health, welfare or the environment. The Trustee shall include with any notice all available documentation supporting the Trustee's claim that the delay or prevention of performance was attributable to a Force Majeure. Failure to comply with the above requirements shall preclude the Trustee from asserting any claim of Force Majeure for that event. The Trustee shall be deemed to have notice of any circumstance of which the Trustee's contractors or subcontractors had or should have had notice.

53. If the State agrees that the delay or anticipated delay is attributable to a Force Majeure event, the time for performance of the obligations and any subsequent obligations dependent on the completion of the delayed activity under this Interim Order that are affected by the Force Majeure event will be extended by the State, for such time as is necessary to compensate for the delay including, but not limited to, demobilization time. An extension of the time for obligations affected by the Force Majeure event shall not, of itself, extend the time for performance of any other obligation that does not depend solely on the delayed activity. If the State does not agree that the delay or anticipated delay has been or will be caused by a Force Majeure event, the State will notify the Trustee in writing of such decision. If the State agrees that the delay is attributable to a Force Majeure event, the State will notify the Trustee in writing of the length of the extension, if any, for performance of the obligations affected by the Force Majeure event.

54. In the event that the Trustee objects to a determination by the State under the preceding Paragraph, and the Trustee elects to invoke the dispute resolution procedures set forth in Section XVII (Dispute Resolution), the Trustee shall do so no later than 15 days after receipt of the State's notice. In

any such proceeding, the Trustee shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a Force Majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effect of the delay, and that the Trustee complied with the requirements of Paragraphs 51 and 52, above. If the Trustee carries this burden, the delay at issue shall be deemed not to be a violation by the Trustee of the affected obligation of this Interim Order identified to U.S. EPA, the State and the Court.

XVII. DISPUTE RESOLUTION

55. Unless otherwise expressly provided for in this Interim Order, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Interim Order. However, the procedure set forth in this Section shall not apply to actions by the State to enforce obligations of the Estate that have not been disputed in accordance with this Section.

56. Any dispute which arises under or with respect to this Interim Order shall in the first instance be the subject of informal negotiations between the Parties to the dispute. The period for informal negotiations shall not exceed 20 days from the time the dispute arises unless it is modified by written agreement of the parties to the dispute. The dispute shall be considered to have arisen when one party sends the other parties a written Notice of Dispute.

57. **Dispute Resolution Schedule**

a. In the event that the Parties cannot resolve a dispute by informal negotiations under the preceding Paragraph 56, then the position advanced by the State shall be considered binding unless, within 10 days after the conclusion of the informal negotiation period, the formal dispute resolution procedures of this Section are invoked by serving on and the State a written Statement of Position on the matter in dispute, including, but not limited to, any factual data, analysis or opinion

supporting that position and any supporting documentation relied upon by the Trustee.

b. Within fourteen (14) days after receipt of the Statement of Position, the State will serve their Statement of Position, including, but not limited to, any factual data, analysis, or opinion supporting that position and all supporting documentation relied upon by the State.

c. Within fourteen (14) days after receipt of the State's Statement of Position, a response may be filed including but not limited to any factual data, analysis or opinion supporting its position or refuting any position by the State.

d. Following receipt of the Statement of Position submitted pursuant to Paragraph 57.a., the State will issue a final decision resolving the dispute. That decision shall be binding, unless, within 20 days of receipt of the decision, a notice of judicial appeal is filed with the Court and served on the State setting forth the matter in dispute, the efforts made by the parties to resolve it, the relief requested, and the schedule, if any, within which the dispute must be resolved to ensure orderly implementation of this Interim Order. The State may file response to the notice of judicial appeal.

e. Judicial review of any dispute governed by this Paragraph shall be governed by applicable provisions of law.

58. The invocation of formal dispute resolution procedures under this Section shall not extend, postpone or affect in any way any obligation under this Interim Order not directly in dispute, except those solely dependent on the completion of the disputed activity unless the Court or the State agree otherwise.

59. Nothing in this Interim Order shall be construed as prohibiting, altering, or in any way limiting the ability of the State to seek from the Estate any other remedies or sanctions available by virtue of the Estate's violation of this Decree or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to CERCLA, RCRA, or Section 42 of the State Act, 415 ILCS 5/42(f) (2002).

XVIII. ACCESS TO INFORMATION

60. a. Until such time as the Bankruptcy Case is closed, the Trustee agrees to seek leave of this Court if she intends to dispose of or destroy any Chemetco record that relates in any manner to environmental conditions at the Chemetco Facility or the liability of any person other than Chemetco for response actions conducted or to be conducted at the Facility which the Trustee is not obligated under the Bankruptcy Code to retain until the Bankruptcy Case is closed or if she intends to sell, lease, transfer, or abandon any Facility Asset housing or holding such records and provide the State at least ninty (90) days advance written notice prior to the proposed disposition or destruction of any such records and documents, including the Wang System,or the disposition of any Facility Asset housing or holding such records. The Trustee shall turn such documents over to the State if requested by them during the waiting period unless the Court directs that they be turned over to some other entity.

b. The Trustee shall also instruct the Trustee's contractors and agents to preserve all documents, records, and information of whatever kind, nature or description relating to the performance of the Work. Nothing herein shall require the Trustee to retain records beyond the time of closure of the Bankruptcy Case. If no request for delivery of documents is received within 90 days of notice of closure of the Bankruptcy Case, the documents may be destroyed.

c. Until such time as the Bankruptcy Case is closed or as provided in the leave granted by the Court pursuant to subpar.60.a above, the Trustee agrees to provide the State, upon request, access and an opportunity to copy all documents and information within possession or control of the Trustee's contractors and agents relating to activities at the Chemetco Facility, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information relating to the Facility, including documents related to operating costs or revenues, or the liability of any person other than Chemetco, for response actions conducted or to be conducted at the Facility: Provided, any documents involving the processing

of materials or related to operating costs or revenues shall not be subject to the Freedom of Information Act and shall be treated as Business Confidential by the State.

d. Until the Bankruptcy Case is closed or as provided in the leave granted by the Court pursuant to subpar.60.a above, the Trustee shall preserve and retain all records and documents 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 liability of any person for response actions conducted and to be conducted at the Facility, regardless of any corporate retention policy to the contrary.

e. The Trustee certifies that since the filing of the Petition for Relief by Chemetco, the Trustee has not altered, mutilated, discarded, destroyed or otherwise disposed of any records, documents or other information relating to its potential liability regarding the Facility and that it has fully complied with any and all of the State's requests for information.

61. Until such time as the Bankruptcy Case is closed, the Trustee shall also make available to the State, for purposes of investigation, information gathering, or testimony, all of her then current employees, agents, or representatives who possess knowledge of relevant facts concerning the performance of the Work.

62. The Estate may assert business confidentiality claims covering part or all of the documents or information submitted to the State under this Interim Order to the extent permitted by and in accordance with section 7 of the State Act, 415 ILCS 5/7 (2002), and 2 Ill. Adm. Code Part 1827. Documents or information determined to be confidential by Illinois EPA will be afforded the protection specified in Section 7 of the State Act, 415 ILCS 5/7 (2002). If no claim of confidentiality accompanies documents or information when they are submitted to the State, or Illinois EPA has notified the Trustee that the documents or information are not confidential under the standards of Section 7 of the Act, 415 ILCS 5/7 (2002), the public may be given access to such documents or information without further notice to the Trustee.

63. The Trustee 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 Trustee asserts such a privilege in lieu of providing documents, they shall provide 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 the Trustee. However, no documents, reports or other information created or generated pursuant to the requirements of this Interim Order shall be withheld on the grounds that they are privileged.

64. No claim of confidentiality or privilege 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 Facility.

XIX. EFFECT OF SETTLEMENT/CONTRIBUTION PROTECTION

65. Except as provided in Paragraph 3, nothing in this Interim Order shall be construed to create any rights in, or grant any cause of action to, any person not a Party to this Interim Order. The preceding sentence shall not be construed to waive or nullify any rights that any person not a signatory to this Decree may have under applicable law.

66. The Parties agree, and by entering this Interim Order this Court finds, that the Trustee is entitled, as of the date of entry of this Interim Order, to protection from contribution actions or claims as provided by CERCLA Section 113(f)(2), 42 U.S.C. § 9613(f)(2), for "matters addressed" in this Interim Order. The "matters addressed" in this Interim Order are all Work to be undertaken by the Trustee in accordance with approved Work Plans.

XX. NOTICES AND SUBMISSIONS

67. Whenever, under the terms of this Interim Order, written notice is required to be given or

a report or other document is required to be sent by one Party to another, it shall be directed to the individuals at the addresses specified below, unless those individuals or their successors give notice of a change to the other parties in writing. All notices and submissions shall be considered effective upon receipt, unless otherwise provided. Written notice as specified herein shall constitute complete satisfaction of any written notice requirement of this Interim Order with respect to the State, and the Estate, respectively.

As to the State:

Erin Rednour
State Project Coordinator
Illinois EPA RPMS/BOL
1021 North Grand Avenue East
Springfield, IL 62794-9276
(five copies)

James L. Morgan
Assistant Attorney General
Environmental Bureau
500 South Second Street
Springfield, IL 62706
(one copy)

Alternate Project Coordinator: Sandra Bron

As to the Estate:

Laura Grandy, Trustee
Mathis, Marifian, Richter & Grandy, Ltd.
23 Public Square
Suite 300
Belleville, IL 62220

Penni S. Livingston
Livingston Law Firm
5701 Perrin Road
Fairview Heights, IL 62208

XXI. EFFECTIVE DATE

68. The effective date of this Interim Order shall be the date upon which this Interim Order is entered by the Court.

XXII. CONTINUING JURISDICTION

69. This Court retains jurisdiction over both the subject matter of this Interim Order and the Estate for the duration of the performance of the terms and provisions of this Interim Order for the

purpose of enabling any of the Parties to apply to the Court at any time for such further Decree, direction, and relief as may be necessary or appropriate, for the construction or modification of this Interim Order, or to effectuate or enforce compliance with its terms, or to resolve disputes in accordance with Section XVII (Dispute Resolution) hereof.

XXIII. EARLY TERMINATION OF TRUSTEESHIP/ESTATE/INTERIM ORDER

70. No portion of the Facility may be abandoned by the Trustee prior to closure of the Bankruptcy Case based upon a determination that such portion of the Facility is of no value to the Estate in the absence of an Order by the Bankruptcy Court authorizing such action. As a condition of such abandonment, the Estate must be in compliance with the requirements of this Interim Order, including any Work Plan applicable to that portion of the Facility unless performance of that Work Plan has not been commenced.

71. At least 20 days prior to filing a Notice of Motion to Abandon any portion of the Facility for which a Certification of Completion has not been issued pursuant to Section XIII of this Interim Order, the Trustee will provide notice to the State of the Trustee's intent to file such motion, together with a description of that portion of the Facility proposed to be abandoned. Following receipt of such notice, the State will jointly survey the area proposed for abandonment, and the State will determine what work required under this Interim Order remains to be accomplished. The results of the survey and the State's determination will be provided to the Trustee.

72. This Interim Order may be terminated following the issuance of a Certification of Completion for all Work Plans that the Trustee implements, provided that the Trustee certifies to the State that the Trustee has: (1) made all payments required by this Interim Order; and (2) fulfilled the other requirements of this Interim Order. Within sixty (60) days following such certification, any Party may move for termination of this Interim Order. An objection to the Trustee's certification shall be subject to the Dispute Resolution provisions of this Interim Order.

73. Termination of this Interim Order shall release the Trustee from all obligations under this Interim Order, except for any remaining document retention obligation under Section XIX (Retention of Records) and any post-closure requirements applicable as a result of Work performed under this Interim Order.

XXIV. APPENDICES

74. The following appendices are attached to and incorporated into this Interim Order:

Appendix A:	Potential ARARs
Appendix B:	Maps of the Facility
Appendix C:	December 4, 2001 Seal Order
Appendix D:	Excluded Materials
Appendix E-1:	January 31, 2008 RCRA Closure Plan/AAF Decontamination Area and Sump
Appendix E-2:	January 29, 2008 RCRA Closure Plan/Brick Shop Container Storage Area
Appendix E-3:	Illinois EPA May 13, 2008, Closure Plans Conditional Approval Letter

XXV. MODIFICATION

75. All modifications, whether material or non-material, shall be deemed an enforceable part of this Interim Order.

76. There shall be no material modification of this Interim Order or the Appendices hereto, without written approval by all of the Parties and the Court.

77. Any non-material modification of this Interim Order, or its Appendices shall be in writing and signed by the Parties. Any modifications to the Appendices that are specifically allowed under the terms of those Appendices may be made in accordance with the terms of those Appendices.

78. **Modification of Approved Work Plans**

a. To obtain approval to modify any approved Work Plan, the Estate shall comply with the requirements of 35 Ill. Adm. Code703.280-703.283 and Part 703:Appendix A: Provided, the references in 35 Ill. Adm. Code 703.280-703.283 and Part 703:Appendix A to "permit" shall be read to mean "approved Work Plan" and references to "permittee" shall be read to mean the Estate.

b. The State shall employ the procedures set forth in 35 Ill. Adm. Code 703-280-703.283 to review each request for modification of an approved Work Plan, and each such request shall be approved or denied by the State .

79. Schedules specified in this Interim Order for performance of the Work may be modified by agreement of the and the Trustee and the State . All such modifications shall be made in writing.

80. Except as set forth in Paragraph 79, nothing in this Interim Order shall be deemed to alter the Court's power to enforce, supervise or approve modifications to this Interim Order.

81. If for any reason this Interim Order is not approved by either the Bankruptcy Court or the District Court: (a) this Interim Order shall be null and void and the Parties shall not be bound hereunder or under any documents executed in connection herewith; (b) the Parties shall have no liability to one another arising out of or in connection with this Interim Order or under any documents executed in connection herewith; (c) this Interim Order and any documents prepared in connection herewith shall have no residual or probative effect or value, and it shall be as if they had never been executed; and (d) this Interim Order, any statements made in connection with settlement discussions, and any documents prepared in connection herewith may not be used as evidence in any litigation between the Parties. This Interim Order is without prejudice to, and nothing in this Interim Order shall be construed to waive, any of the Parties' legal contentions in the Pleadings.

XXVI. SIGNATORIES

82. Each undersigned representative of the Estate, the Attorney General of the State of Illinois or her designee, the Illinois Environmental Protection Agency or his designee, certifies that he or she is fully authorized to enter into the terms and conditions of this Interim Order and to execute and legally bind such party to this document.

So Ordered this 16th day of September, 2008,

United States District Court Judge

The Undersigned Parties enter into this Interim Order in the matter of *United States and People of the State of Illinois, ex rel. Lisa Madigan, Attorney General of the State of Illinois v. Chemetco, Inc.*, Civil Nos. 00-670-DRH, 00-677-DRH (S.D. Ill.):

ON BEHALF OF THE PEOPLE
OF THE STATE OF ILLINOIS

LISA MADIGAN
ATTORNEY GENERAL

MATTHEW DUNN
Chief, Environmental Enforcement
Asbestos Litigation Division

THOMAS E. DAVIS
Chief, Environmental Bureau

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

ROBERT A. MESSINA
Chief Legal Counsel

The Undersigned Party enters into this Interim Order in the matter of *United States and People of the State of Illinois, ex rel. Lisa Madigan, Attorney General of the State of Illinois v. Chemetco, Inc.*, Civil Nos. 00-670-DRH, 00-677-DRH (S.D. Ill.):

ON BEHALF OF THE DEFENDANT CHEMETCO, INC., AND ON BEHALF OF CHEMETCO, INC., A DEBTOR.

LAURA GRANDY
Trustee
Mathis, Marifian, Richter & Grandy, Ltd.
23 Public Square
Suite 300
Belleville, IL 62220

PENNI S. LIVINGSTON
Environmental Counsel
Livingston Law Firm
5701 Perrin Road
Fairview Heights, Il. 62208

INDEX

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF ILLINOIS

UNITED STATES OF AMERICA,	)	
	)	
Plaintiff,	)	
	)	
v.	)	
	)	
CHEMETCO, INC.,	)	
	)	
Defendant.	)	**Civil Nos. 00-670-DRH**
	)	**00-677-DRH (consolidated)**
	)	**CJRA Track C**
PEOPLE OF THE STATE OF ILLINOIS, *ex rel.* LISA MADIGAN, ATTORNEY GENERAL OF THE STATE OF ILLINOIS,	)	**Hon. David R. Herndon**
	)	**U.S. District Judge**
	)	
Plaintiff	)	
	)	**Hon. David R. Herndon CJRA Track C**
v.	)	
	)	
CHEMETCO, INC.,	)	
	)	
Defendant.	)	
	)	

APPENDIX C: (ARARs SOURCE LIST)

ARARs governing the specified activities will be drawn from the following sources. Additional ARARs may be identified as plans are developed and the parties review implementation of the Work under the Consent Decree.

1) MATERIAL HANDLING

- Sections 9, 12, and 21 of the Environmental Protection Act, 415 ILCS 5/9, 12, and 21.
- 35 Ill. Adm. Code Part 722, Subparts A-E.
- 35 Ill. Adm. Code Part 724, Subparts A-D and 724.170, 724.173(a), (b)(2)-(6), (8)-(10), (12), (14), and (16).
- 35 Ill. Adm. Code Part 212, Subparts B (Visible Emissions), K (Fugitive

Particulate Emissions), L (Particulate Emissions), and U (Contingency Plan).

- 35 Ill. Adm. Code Part 309, Subpart B (On-site wastewater treatment)

- Stormwater Management

2) PRODUCT DISPOSITION

- 35 Ill. Adm. Code Part 726, Subpart C (Recyclable Materials Used in a Manner Constituting Disposal), and Subpart F (Recyclable Materials Utilized for Precious Metal Recovery.

- 35 Ill. Adm. Code Part 721, Subpart A.

3) UNIT CONSTRUCTION, OPERATION, AND CLOSURE/POST-CLOSURE

- 35 Ill. Adm. Code Part 724, Subparts F-L.

4) UNIT CONSTRUCTION, OPERATION, AND CLOSURE/POST-CLOSURE (WAM Handling and Storage)

- 35 Ill. Adm. Code Part 724, Subparts F-L and N.

5) MANAGEMENT OF SOURCES OF WAM

- Sections 9, 12, and 21 of the Environmental Protection Act, 415 ILCS 5/9, 12, and 21.

- 35 Ill. Adm. Code Part 724, Subparts A-D and 724.170, 724.173(a), (b)(2)-(6), (8)-(10), (12), (14), and (16).

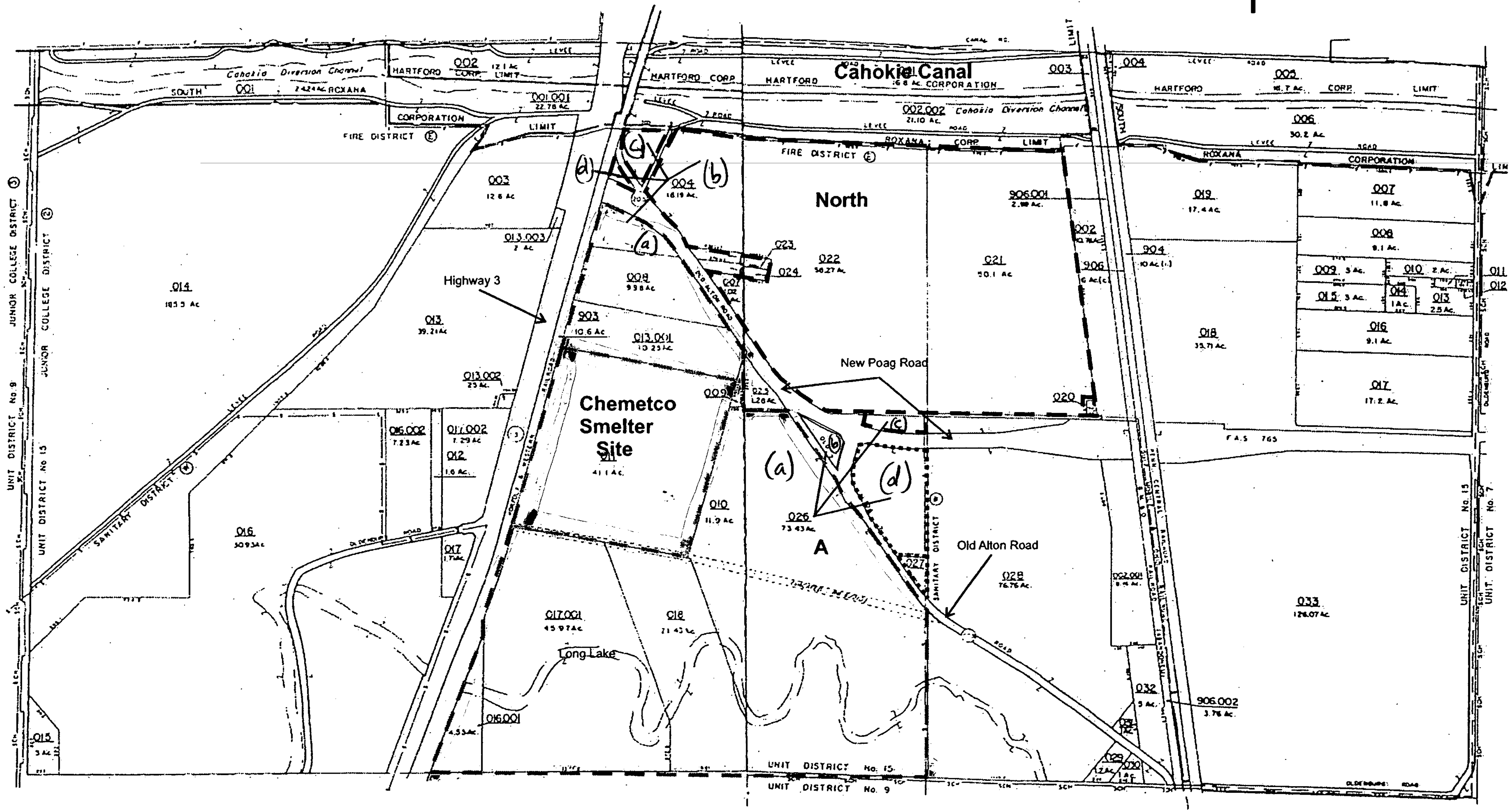
- 35 Ill. Adm. Code Part 212, Subparts B (Visible Emissions), K (Fugitive Particulate Emissions), L (Particulate Emissions), and U (Contingency Plan).

- Stormwater Management

APPENDIX B (7/18/8)

Estate of Chemetco, Inc. Property Map

- - - indicates property boundary
- - - indicates Seal Order boundary
- - - indicates Smelter site



UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF ILLINOIS

UNITED STATES OF AMERICA,	)	
	)	
Plaintiff,	)	
	)	
v.	)	
	)	
CHEMETCO, INC.,	)	
	)	
Defendant.	)	**Civil Nos. 00-670-DRH**
	)	**00-677-DRH (consolidated)**
	)	**CJRA Track C**
PEOPLE OF THE STATE OF ILLINOIS, *ex rel.* LISA MADIGAN, ATTORNEY GENERAL OF THE STATE OF ILLINOIS,	)	**Hon. David R. Herndon**
	)	**U.S. District Judge**
	)	
Plaintiff	)	
	)	**Hon. David R. Herndon CJRA Track C**
v.	)	
	)	
CHEMETCO, INC.,	)	
	)	
Defendant.	)	

APPENDIX C: DECEMBER 4, 2001 SEAL ORDER

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF:)
)
Chemetco, Inc. facility, Madison County.)

SEAL ORDER

The Illinois Environmental Protection Agency ("Illinois EPA") issues this seal order pursuant to the authority vested in it by Section 34(b) of the Illinois Environmental Protection Act ("Act"), 415 ILCS 5/34(b).

I. DESCRIPTION AND LOCATION OF FACILITY

The Chemetco, Inc. facility ("Facility") is located in Hartford, Madison County, Illinois. The portions of the Facility to which this seal order applies are as follows:

a. All areas within the fencing in place surrounding the plant portion of the Facility as of the date of this order, excluding the main office. See Attachment A.

b. The truck parking area consisting of fill and slag that is located to the south of the fenced portion of the Facility and is adjacent to Oldenberg Road. See Attachment B.

c. The area impacted by the illegal discharge south of the fenced portion of the Facility, including the four containment areas and that portion of Long Lake owned by Chemetco, Inc. See Attachment C.

d. The area containing the groundwater interceptor system, known as the SID system, located south of the fenced portion of the facility and east of the discharge area. See Attachment B.

e. The surface impoundment located south of Oldenburg Road and east of the SID system. See Attachment B.

II. PARTIES BOUND

This order is binding on and prohibits entry onto the sealed portions of the Facility for all persons except the following:

a. Employees, authorized agents or contractors of the Illinois EPA.

b. Employees, authorized agents or contractors of the United States Environmental Protection Agency.

c. Local police, fire and emergency personnel entering in the course of their duties.

d. Other persons who have received written authorization to enter the Facility from the Illinois EPA and who enter the Facility in a manner in accordance with any instructions contained within the written authorization.

III. FINDINGS

1. The Facility is a former copper smelter located in Hartford, Madison County, Illinois. During its operation, the Facility generated sludges, baghouse dust, refractory brick, acids and other materials.

2. The operator of the Facility, Chemetco, Inc., filed bankruptcy under Chapter 7 in the U.S. Bankruptcy Court for the Southern District of Illinois on November 13, 2001 and is no longer managing the Facility.

3. The Facility has eight hazardous waste management units subject to closure requirements under the Resource Conservation and Recovery Act ("RCRA"). Closure has not been completed at any of these units.

4. A large pile of slag, estimated to be in excess of 100,000 tons, is located at the facility. This slag has tested as hazardous for the toxicity characteristic for lead. Slag fines are also located on the pile of slag.

5. A large bunker, known as the zinc oxide bunker, also contains sludges that have tested hazardous for the toxicity characteristic for lead.

6. Chemetco, Inc. pled guilty in the U.S. District Court for the Southern District of Illinois to violating the Clean Water Act by discharging wastewaters containing hazardous levels of lead and cadmium into a wetlands area and Long Lake over the course of approximately ten years. This discharge took place to the south of the fenced portion of the Facility, across Oldenberg Road and resulted in the deposition of hazardous contaminants in a wetlands area and Long Lake. The RCRA closure plan for the areas related to this discharge has not been completed.

7. A groundwater interceptor system, known as the SID system, is located to the south of the fenced portion of the facility and east of the discharge area.

8. A surface water impoundment is located to the south of the fenced portion of the Facility. This impoundment has received waters from the plant that may contain contaminants. The impoundment also does not have any physical barrier to access.

9. Fines and other materials containing hazardous levels of lead and cadmium are uncontained and located throughout the Facility.

10. The various contaminants described may be become airborne and may be transported by flowing water.

11. The conditions at the Facility constitute an emergency that may pose an immediate threat to human health for any person entering into the Facility.

IV. ORDER

Pursuant to Section 34(b) of the Act the Facility is hereby sealed as indicated in this order, effective on the date of execution. Unauthorized entry into the areas described

in Section I is prohibited. This order shall remain in effect until rescinded by the Illinois EPA.

Renlee Cipriano
Director

Dated: 12/4/01

ATTACHMENT A

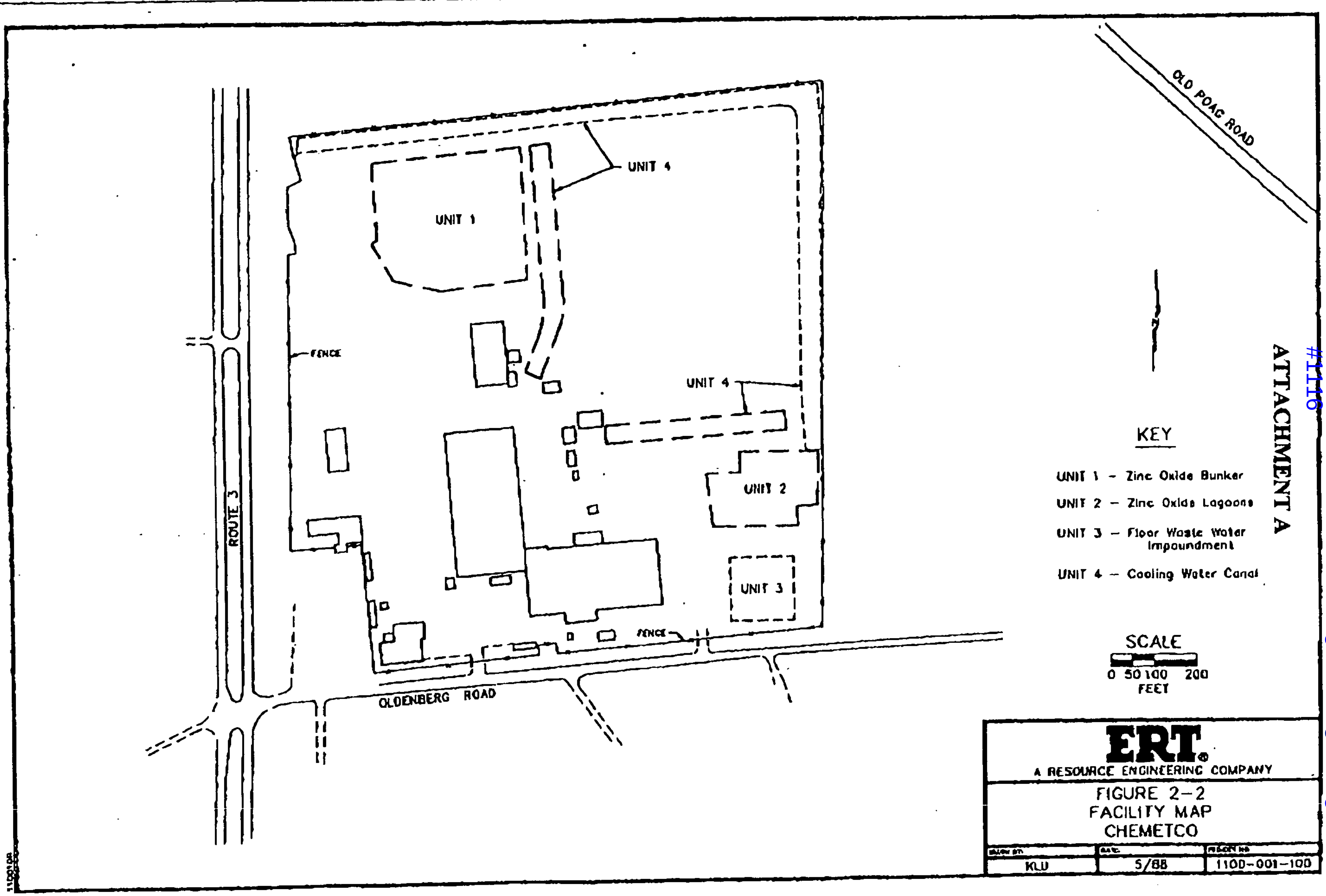


FIGURE 2-2
FACILITY MAP
CHEMETCO

ATTACHMENT B

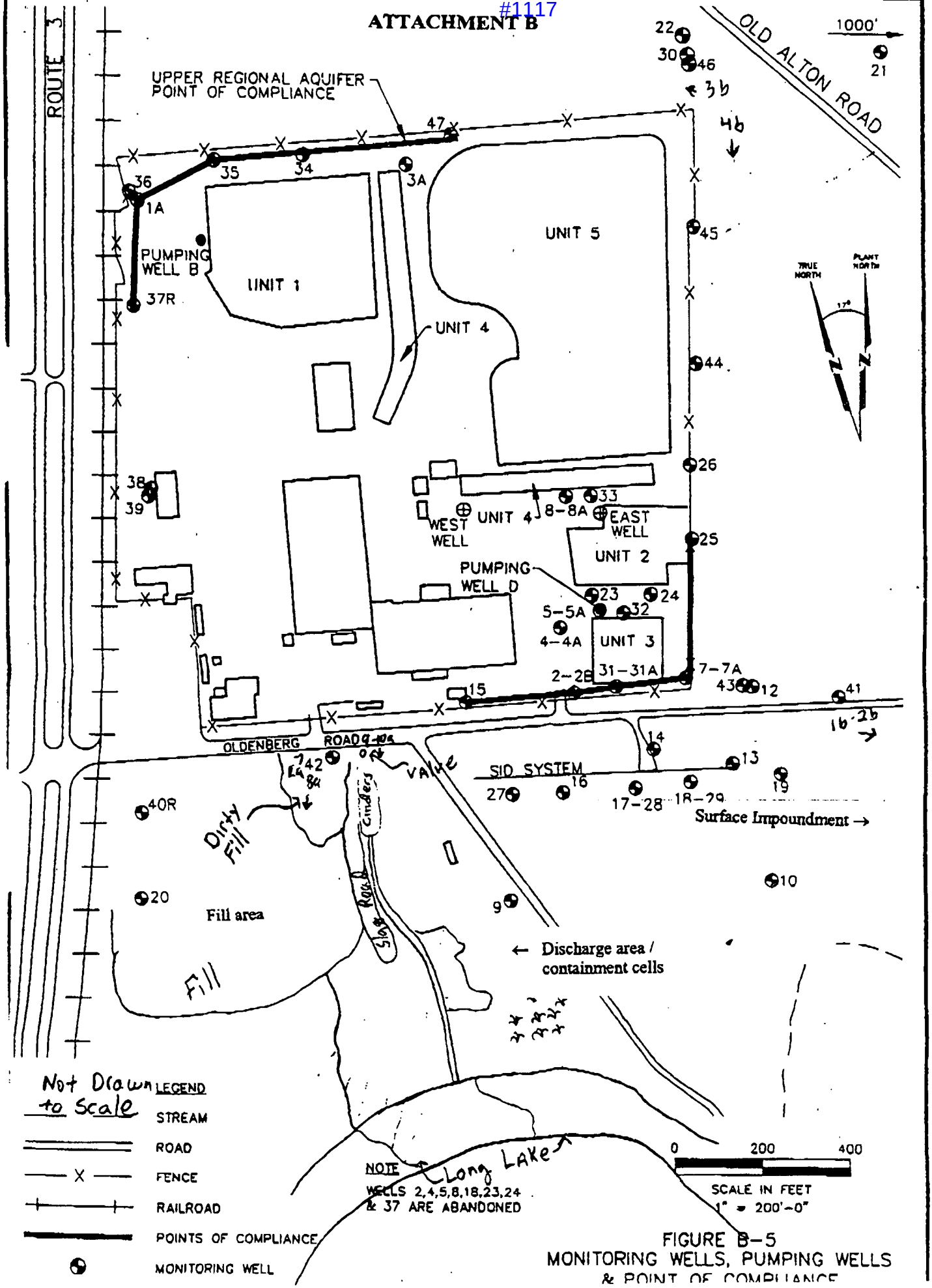


FIGURE B-5
MONITORING WELLS, PUMPING WELLS & POINT OF COMPLIANCE

ATTACHMENT C
Discharge area

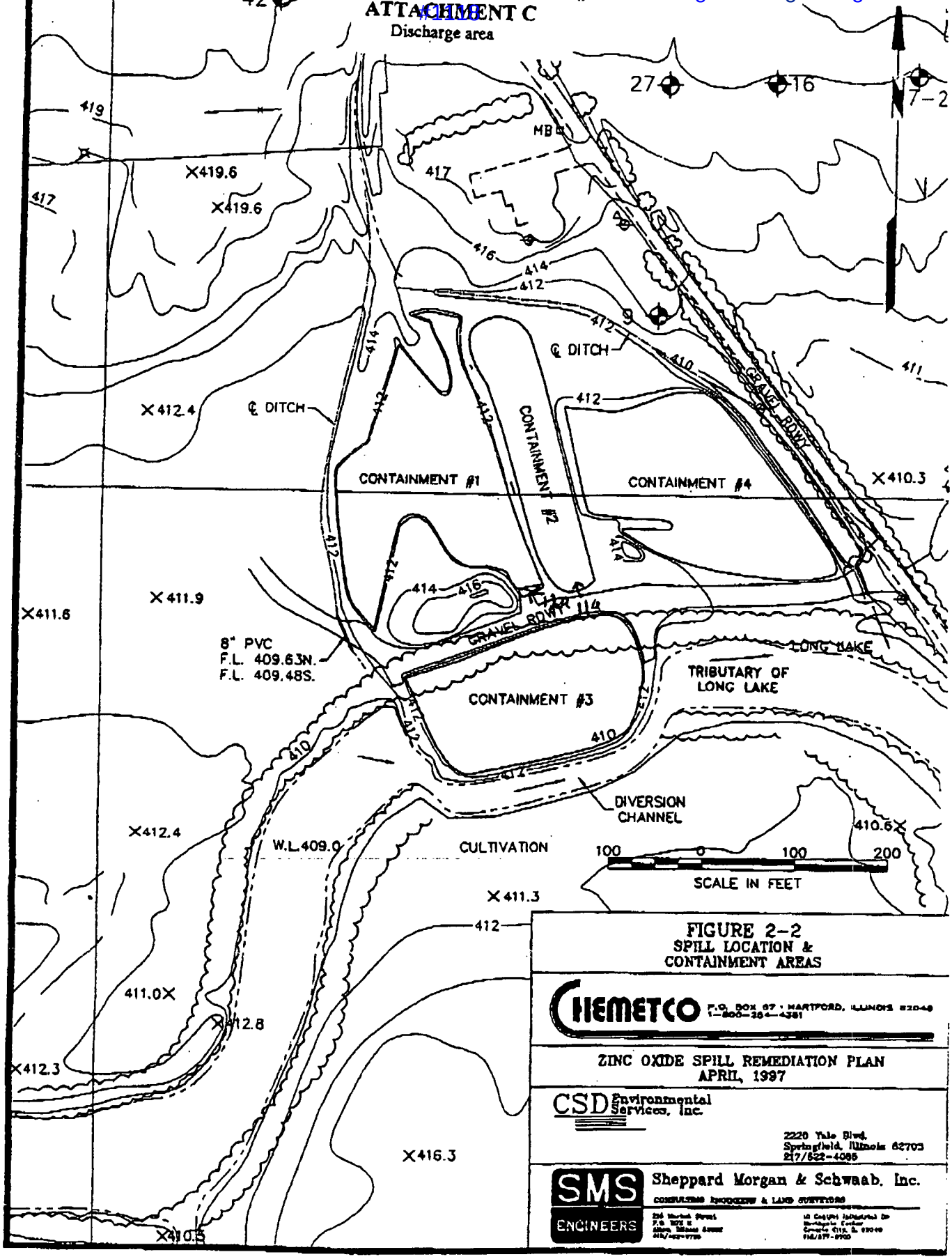


FIGURE 2-2
SPILL LOCATION &
CONTAINMENT AREAS

CHEMETCO P.O. BOX 67 · HARTFORD, ILLINOIS 62048 1-800-364-4381

ZINC OXIDE SPILL REMEDIATION PLAN
APRIL, 1997

CSD Environmental Services, Inc.
2220 Yale Blvd.
Springfield, Illinois 62703
217/522-4065

SMS ENGINEERS Sheppard Morgan & Schwaab, Inc.
CONSULTING ENGINEERS & LAND SURVEYORS

Appendix D

Exclusions to Facility Assets

Equipment, Spare Parts, and Supplies

The following equipment, spare parts, and supplies are excluded from the definition of Facility Assets in the Interim Order:

Equipment:

Lab Bldg
- Laboratory Equipment

Brick Shop
- Pilot Plants

Offices
- All office furniture and equipment are excluded

Spare Parts and Supplies

All store room inventory spare parts and supplies are excluded

RCRA Closure Plan
Brick Shop Container Storage Area

Location: Estate of Chemetco, Inc.
3754 Chemetco Lane
Hartford, IL 62048

Prepared by: Gary J. Davis, CHMM
EH&S Manager

Date: January 29, 2008

Contents

List of Attachments

List of Figures

1.0 Introduction

1.1 Purpose

This document presents a closure plan for a container storage area in the Brick Shop used for storage of hazardous process solutions and solids generated by a Pilot Plant to develop a process to extract valuable metals from scrubber sludge stockpiled on the Bankruptcy Estate of Chemetco, Inc. former smelter site. The closure plan is to clean close this area as part of the response actions to address violations cited in Illinois Environmental Protection Agency (IEPA) Violation Notice Letter (VNL), dated October 10, 2007. IEPA identified the 800 sf area inside the Brick Shop as a Hazardous Waste Management Unit (HWMU).

1.2 Background

Metals Finance Corporation (MFC), a Canadian metals recycling company, in an agreement with the Estate operated a Pilot Plant located inside the Brick Shop, a 6,000 sf concrete and steel building in excellent condition, from 2005 until 2007. In 2007, MFC terminated its efforts to develop a process for extracting metals but Electrometals Technologies, Inc., an Australian metals recycling company, expressed interest in developing a process to extract metals from stockpiles at Chemetco and using the MFC Pilot Plant and evaluating the process solutions and solids in containers in the container storage area. The container storage area consisted of an area of approximately 600 sf where approximately 550 gallons of acid solutions containing dissolved metals, including lead and cadmium (See analytical results labeled as EMEW Soln, Attachment A.) were stored in a 350 gallon plastic tote and a 250 gallon plastic tank. The solutions are not a listed waste but is hazardous for lead and cadmium. In this area was stored approximately 800 pounds of process filter solids that were acidic and contained metal compounds, including lead and cadmium (See analytical results labeled as EMEW Solids, Attachment B) and stored in a plastic container with a covered lid. The solids are not a list waste but is hazardous for lead and cadmium. No significant spills or releases have occurred except for a small drip area, less than 1.0 sf, that had crystallized under a valve on a solution tank.

1.3 Action to Date

The week of October 15, 2007, Chemetco personnel transferred all of the solutions and solids to approved plastic 55-gallon drums. All containers in the container storage area and the drip area on the concrete floor were triple rinsed and wash waters transferred to approved 55-gallon drums. All drums were disposed as hazardous waste. The area is now bare concrete floor as it originally was.

1.4 Summary of Contents

In addition to the technical details of closure, this submission provides closure cost estimates and a schedule under which the Estate proposes to conduct closure activities. This plan has been developed in accordance with IEPA's *Guidance for Preparing RCRA Closure Plans*, dated July 2003.

1.5 Goals

This is a final closure of the container storage area which has no use at this time but is expected to be available for future use consistent with the rest of the Brick Shop.

A licensed professional engineer in the State of Illinois will certify that closure has been attained and a Certificate of Closure issued.

2.0 Facility Description

2.1 Overall Facility Description

The Chemetco facility is located within a primarily agricultural, commercial warehousing and light residential area south of Hartford, Illinois in unincorporated Madison County. The facility is bounded on the west by the Norfolk Southern railroad line and Highway 3, major, heavily traveled rail and highway routes; on the north by farmland owned by Chemetco and New Poag Road; on the east by farmland owned by the Estate and Old Alton Road; and on the south by wetlands, a tributary of Long Lake, filled areas and woodlands owned by the Estate and private farmland owned by Dave Mueller. The nearest residences are two dwellings to the north and one to the west, within 500 feet. The nearest other residences are over 1500 feet to the east and over 2500 feet to the southeast. The State of Illinois Lewis and Clark Center and park are located within 1000 feet to the northwest across Highway 3 (Figure 1). No other public facilities are within 1 mile of the facility. Newly developed commercial warehouses are located approximately ½ mile from the facility to the east. More specifically, the 41 acre facility is in the Southeast 1/4, Section 16, Township 4 North, Range 9 West of the Third Meridian in Madison County, Illinois (Figure 1).

Chemetco, Inc. is registered under the following environmental identification numbers:

USEPA ID No.: ILD 048843809
IEPA ID No.: 1198010003

Chemetco is the site of a former secondary copper smelter that produced copper anodes and lead-tin ingots for commercial sales from scrap copper, lead and tin bearing materials and operated under SIC 3341-Secondary Smelting and Refining of Nonferrous Metals (NAICS 331423-Secondary Smelting, Refining, and Alloying of Copper).

The size of the Chemetco facility, where all smelting operations occurred (Figure 2) and where the container storage area is located, is 41.1 acres.

The Chemetco facility is considered by IEPA as an Interim Status RCRA Hazardous Waste Transportation, Storage, and Disposal Facility due to a Part A application by Chemetco in the 1980's. The facility has been the subject of hazardous waste management violations since the 1980's and has at least five identified SWMU's that were ordered closed in a 1986 Consent Decree with IEPA but not units have ever been closed. It is understood that IEPA and USEPA believe that there are over dozen AOC's on the facility including the stockpiles of slag. In 1996, Chemetco was found to have illegally discharged hazardous waste on their property to Long Lake which lead to a major cleanup effort that was never closed. On October 31, 2001 ceased all operations on the facility and filed for Chapter 7 Bankruptcy protection. Laura K. Grandy was appointed the Trustee and administers the facility and all owned property today. The facility is under an IEPA Administrative Seal Order issued December 4, 2001, that remains in effect today. None of these issues appears to impact the container storage area closure plan due to its location inside a contained building that was not the site of any hazardous waste management activities, known to the Estate of Chemetco, Inc. (Estate).

2.2 Brick Shop Facility Description

The container storage area is located inside the Brick Shop in the northeast corner (Figure 3). The Brick Shop is a 50 foot wide by 80 foot long by 20 foot high fully enclosed building attached to the southwest corner of the Foundry Building. The Brick Shop was constructed with sealed-joint concrete floors and 5 foot high concrete walls with metal beams and siding finishing off the sides and a metal truss, flat roof. The building has a large electric roll-up garage door opening on the east and a standard door on the west. The

building is equipped with overhead lights, exhaust fans, gas heaters and major electrical power supplies. Well water was also accessible in the building. There are no drains, sumps or other pathways for materials to exit the interior of the building except the doorways. A former pre-fab storage container is located in the southeast corner. Steel racks on the west side still hold several metal refractory lined chutes used to convey molten metal in the smelter. The Brick Shop was originally used to reline these types of chutes and melt pots with refractory brick and mortar.

3.0 Description of Hazardous Waste Management Unit (HWMU)

3.1 Regulatory Status

The Pilot Plant operations in the Brick Shop were considered exempt from RCRA permitting until the Estate received an IEPA Violation Notification Letter (VNL), dated October 10, 2007. At that time the operation of the Pilot Plant and the container storage area had been in existence since 2005 and was well known to IEPA. As of the VNL, this position changed and the regulatory status of the container storage area changed to that of an HWMU and the RCRA permit was denied due to violation of 35 Ill. Adm. Code Part 722.134 (a).

3.2 HWMU Description

In 2005, the Brick Shop was cleaned out expect as described above, floors and walls washed with fire hoses and pressure washers for the installation of the MFC Pilot Plant. All Pilot Plant equipment and storage containers were placed on drip pads constructed of heavy plastic sheeting with 3 inch walls for containment. The container storage area (the HWMA of concern) was established in a 20 foot by 30 foot area along the north wall near the northeast corner of the building where totes, drums, a small plastic tank and a large plastic container were located to store excess process solutions and solids along with small plastic containers used in the processing (these were stored on plastic sheeting with absorbent pigs surrounding them). No significant spills or releases have occurred except for a small drip area, less than 1.0 sf, that had crystallized under a valve on a solution tank (See Section 1.2 Background).

3.3 Process Description

M24 – Metals Recycling

3.4 Waste Managed

Waste Stream Name	Chemical Name	EPA HW Numbers	Hazardous Properties	Hazardous Constituents and Degradation Compounds	Chemical Analysis
Waste Corrosive Liquids, Toxic	Sulfuric Acid	D006, D008	Corrosive Toxic	Lead Compounds Cadmium Compounds	See EMEW Soln, Attachment A
Waste Corrosive Solids, Toxic	Sulfuric Acid	D006, D008	Toxic	Lead Compounds Cadmium Compounds	See EMEW Solids, Attachment B
Hazardous Waste Solids, NOS	Cadmium, Lead	D006, D008	Toxic	Lead Compounds Cadmium Compounds	No analysis (PPE, filter bags, etc. contaminated by above waste streams)

3.5 Volume of Waste Managed

Waste Stream Name	Current Volume of Each Waste Type	Max Inventory of Waste Type since Beginning	Total Past and Total Current Volume
Waste Corrosive Liquids, Toxic	None	4500 lbs	4500 lbs
Waste Corrosive Solids, Toxic	None	900 lbs	900 lbs
Hazardous Waste Solids, NOS	None	75 lbs	75 lbs

3.6 Routing of Waste

Liquid wastes were pumped approximately 20 feet from Pilot Plant to container storage area. Solids were placed in small plastic containers, weighed and dumped into large plastic container in storage area. PPE, filter bags etc. were placed in a 55-gallon drum.

3.7 Size/Volume of Each Unit

The Pilot Plant produced 100 L batches of extracted solution and solids that were filtered through a plate and frame press. Liquids were conveyed to a 100 L plastic tank, sampled and when released transferred by pump and chemical hose to a 1000 L plastic tank on a drip pad. The solids were collected from the five (5) leaves of the filter press during cleanout into a 2 gallon plastic container. After sampling the solids were deposited in the large plastic container in the storage area.

3.8 Time Period Used

The Pilot Plant and subsequent generation of process solutions and solids occurred during approximately four monthly periods from the fall of 2005 until late Spring 2007.

3.9 Prior Use of HWMU Area

The HWMU area was used by Chemetco until they shutdown on October 31, 2001 for refractory relining of chutes and melt pots. From November 1, 2001 until the fall 2005, when the Pilot Plant was started up, the HWMU area was vacant space in an unused building.

3.10 Scaled Drawing of HWMU Area

Dimensions: 50' wide by 80' long by 20' high (Brick Shop Drawing, Figure 4)

Drains, etc.: No sumps, trenches, drains or other similar structures that would provide pathways out of the Brick Shop.

HWMU Drainage: The floor in this area is essentially flat.

Containment: No containment is present inside the Brick Shop expect Chemetco used absorbent pigs as containment in part of the storage area and across the rollup door opening during processing to prevent potential of any internal release going outside.

Cracks, etc.: As shown in Figure 4, cracks do exist along joints in the container storage area that appear greater than ¼ inch.

3.11 Material Underlying HWMU

There is no known evidence of exactly what underlies the HWMU or any other structures on the Chemetco facility. It is understood from others, that the floor of the Brick Shop is probably 8" thick steel rebar reinforced concrete slab over a foundation of slag over the native clay soils.

3.12 Photograhs of HWMU Before Cleanup

As shown on Photograph #1 (note orientation on Figure 4), is the container storage area prior to cleanup and shows the west side of the area, whereas Photograph #2 shows the east side. Photograph #3 shows the small drip/spill that has crystallized under the valve on the tank. Photograph #4 shows the Pilot Plant.

4.0 Closure Activities

4.1 Remediation Activities

4.1.1 Objectives

Dust to past uses of the Brick Shop and the presence of fugitive dusts on the site that contain lead and cadmium, the most reasonable approach to establishing a remediation objective for closure is to use the level of lead and cadmium and other metals on the surface of the concrete floor as the threshold. Core samples of the top 1/4 inch of the surface from three (3) representative locations of the Brick Shop at least 20 feet away from the container storage area and the Pilot Plant, as selected by the professional engineer, will be analyzed for Total Metals by the USEPA Method 3050B, 6010B, Metals by ICP. The average of the three metal results for lead and cadmium from the samples will be used as the remediation objective.

4.1.2 Remediation

Two (2) core samples of the top 1/4 inch of the surface from representative areas of the container storage area, as selected by the professional engineer, will be analyzed by the USEPA Method for Total Metals by ICP and:

1. If the lead and cadmium results are less than or equal to the remediation objective, the area is considered remediated and sealing of the joints can proceed and closure will have been attained but
2. If the lead and cadmium results are greater than the remediation objectives, the joints will be sealed, absorbent pigs placed around the area and the surface of the floor pressure washed with well water using TSP. All wash water and solids will be collected and disposed of accordingly. The floor will be sealed with an epoxy coating and closure will have been attained.

4.2 Estimated Costs

The cost of completing the work to clean close the container storage area by a third party is expected to be between $ 7,500 and $15,000.

4.3 Schedule

Upon approval of this closure plan, Chemetco estimates that the time to complete the closure activities and execute the Certificate of Closure will take 30 – 45 days depending on weather (concrete floors have to be dry and warm for most epoxy coatings).

5.0 Status of Facility After Closure

Chemetco has no plans to use the container storage area after closure; however they do consider it be as available as any other part of the Brick Shop for future use.

6.0 Certification/Signatory Requirements

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, 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.

Signature: ______________________ Date: ______________

Signed by: Laura K. Grandy

Position: Trustee

Estate of Chemetco, Inc.

ATTACHMENT A
WASTE ANALYSES

ATTACHMENT B
PHOTOGRAPHS

FIGURES

RCRA Closure Plan
AAF Decontamination Area and Sump

Location: Estate of Chemetco, Inc.
3754 Chemetco Lane
Hartford, IL 62048

Prepared by: Gary J. Davis, CHMM
EH&S Manager

Date: January 31, 2008

Contents

7

List of Attachments

Attachment A – Photographs

Attachment B – Waste Analysis

List of Figures

1.0 Introduction

1.1 Purpose

This document presents a closure plan for the AAF decontamination area and sump used to decontaminate stainless steel ducts and other piping with scrubber sludge residue on the interior. The ducts and piping were removed from the AAF Area during an aborted demolition project in September 2007. The closure plan is to clean close this area as part of the response actions to address violations cited in Illinois Environmental Protection Agency (IEPA) Violation Notice Letter (VNL), dated October 10, 2007. IEPA identified the AAF decontamination area and sump as a Hazardous Waste Management Unit (HWMU) as shown on Figures 2 and 3.

1.2 Background

On August 31, 2007, the Estate of Chemetco, Inc. (Estate) and its contractor, Industrial Trading Group, Inc. (ITG) started demolition of the former air emissions pollution control system, commonly known as the AAF Area. A Work Plan had been developed and submitted to IEPA. In the Work Plan, the "original" decontamination pad was to be constructed in a concrete "U" shaped walled area in the southwest corner of this area (Figure 3 and Photo #1, Attachment A) where residual scrubber sludge (emissions particulates wet scrubbed from the air in the pollution control system in the AAF area and which has hazardous characteristics for lead and cadmium) was to be removed from the interior of the ducts to make them acceptable for sale as prime stainless steel and steel scrap. It became obvious during the early stages of the demolition that the large ducts (up to 9 feet in diameter) were not going to fit into this area. The decontamination pad was relocated to an area along the south wall of the elevated South Polish Pit where the concrete surface and intact and sloped to a bind concrete sump at the southeast corner of the pit outer wall (Photos #2 and #3). A 20 foot wide area from th southwest corner of the pit wall to the sump was covered with 6-mil plastic sheeting, fiberglass grid decking was laid over the plastic to protect it from puncture by the large sections of ducts (approximately 20 feet long and cut in half). A hydro-blast unit had been set up using fine slag from the site (which has hazardous characteristics for lead and cadmium) and was in the process of being demonstrated when the work was shutdown by IEPA. On October 10, 2007, IEPA issue a Violation Notice Letter indicating that the AAF Decontamination Area and sump were a Hazardous Waste Management Unit (HWMU) and were required to under go RCRA Closure.

1.3 Action to Date

All activity in the AAF Area and the AAF Decontamination Area has ceased and the sump, formerly used to collect stormwater as part of the facility stormwater management program, has ceased, resulting in flooding in the area. As this area was designed by Chemetco to be a low point, these waters appear to be contained in this area and not appear to pose a risk to the environment beyond what has historically occurred prior to this event.

1.4 Summary of Contents

In addition to the technical details of closure, this submission provides closure cost estimates and a schedule under which the Estate proposes to conduct closure activities. This plan has been developed in accordance with IEPA's *Guidance for Preparing RCRA Closure Plans*, dated July 2003.

1.5 Goals

This is a final closure of the AAF decontamination area and sump. Future use of the area will be depend on the approval of a Work Plan by IEPA to continue the demolition of the AAF Area, as this area is a critical location for the demolition and decontamination process that will probably be required for that work. Future

use of the sump is dependent on the ability of the Estate to demonstrate a successful approach to cleaning the sump and sealing it so that surface waters and materials can not penetrate to the soils below.

A licensed professional engineer in the State of Illinois will certify that closure has been attained and a Certificate of Closure issued.

2.0 Facility Description

2.1 Overall Facility Description

The Chemetco facility is located within a primarily agricultural, commercial warehousing and light residential area south of Hartford, Illinois in unincorporated Madison County. The facility is bounded on the west by the Norfolk Southern railroad line and Highway 3, major, heavily traveled rail and highway routes; on the north by farmland owned by Chemetco and New Poag Road; on the east by farmland owned by the Estate and Old Alton Road; and on the south by wetlands, a tributary of Long Lake, filled areas and woodlands owned by the Estate and private farmland owned by Dave Mueller. The nearest residences are two dwellings to the north and one to the west, within 500 feet. The nearest other residences are over 1500 feet to the east and over 2500 feet to the southeast. The State of Illinois Lewis and Clark Center and park are located within 1000 feet to the northwest across Highway 3 (Figure 1). No other public facilities are within 1 mile of the facility. Newly developed commercial warehouses are located approximately ½ mile from the facility to the east. More specifically, the 41 acre facility is in the Southeast 1/4, Section 16, Township 4 North, Range 9 West of the Third Meridian in Madison County, Illinois (Figure 1).

Chemetco, Inc. is registered under the following environmental identification numbers:

USEPA ID No.: ILD 048843809
IEPA ID No.: 1198010003

Chemetco is the site of a former secondary copper smelter that produced copper anodes and lead-tin ingots for commercial sales from scrap copper, lead and tin bearing materials and operated under SIC 3341-Secondary Smelting and Refining of Nonferrous Metals (NAICS 331423-Secondary Smelting, Refining, and Alloying of Copper).

The size of the Chemetco facility, where all smelting operations occurred (Figure 2) and where the AAF decontamination area and sump is located, is 41.1 acres.

The Chemetco facility is considered by IEPA as an Interim Status RCRA Hazardous Waste Transportation, Storage, and Disposal Facility due to a Part A application by Chemetco in the 1980's. The facility has been the subject of hazardous waste management violations since the 1980's and has at least five identified SWMU's that were ordered closed in a 1986 Consent Decree with IEPA but not units have ever been closed. It is understood that IEPA and USEPA believe that there are over dozen AOC's on the facility including the stockpiles of slag. In 1996, Chemetco was found to have illegally discharged hazardous waste on their property to Long Lake which lead to a major cleanup effort that was never closed. On October 31, 2001 ceased all operations on the facility and filed for Chapter 7 Bankruptcy protection. Laura K. Grandy was appointed the Trustee and administers the facility and all owned property today. The facility is under an IEPA Administrative Seal Order issued December 4, 2001, that remains in effect today. It is understood that the site is the subject of CERCLA action by IEPA which does not appear at this time to impact this closure action.

2.2 AAF Decontamination Area and Sump Description

The AAF decontamination area, as shown on Figure 3, is a 20 foot wide concrete covered area extending from the southwest corner of the South Polish Pit to the sump at the southeast corner of the South Polish Pit, a distance of approximately 82 feet. The sump is constructed of concrete and has dimensions of 3 feet wide by 5 feet long by 3 feet deep. Between this area and the Tank House to the south is a concrete covered area of questionable integrity. The entire area prior to the demolition work was the location of large tanks and piping systems for handling slurries of scrubber sludge and the entire area was covered with scrubber sludge as shown in Photos #1, #2, and #3.

3.0 Description of Hazardous Waste Management Unit (HWMU)

3.1 Regulatory Status

The decontamination operations in this area were considered exempt from RCRA permitting until the Estate received an IEPA Violation Notification Letter (VNL), dated October 10, 2007. Prior to the start of the demolition work, it was common practice to use the sump to discharge the stormwater in this area to the facility lagoons as part of the stormwater management program. As of the VNL, this position changed and the regulatory status of the AAF decontamination area and sump changed to that of an HWMU and the RCRA permit was denied due to violation of 35 Ill. Adm. Code Part 722.134 (a).

3.2 HWMU Description

The HWMU area has been expanded beyond the AAF decontamination area and sump, specifically addressed in the VNL, to include the concrete area east of the Polish Pits due to presence of ducts that have residual scrubber sludge inside. As shown in Figure 3 the HWMU area is an approximately 13,880 sf open, concrete covered area, as described in Section 2.2. As seen in Photos #4 and #6, involved in this area is the plastic sheeting and fiberglass grids, 15 sections of stainless steel ducts that have residual scrubber sludge contamination on the interior, various scrap metal pipes and materials in the "U" shaped concrete structure and a coating of scrubber sludge and debris across the surface of area between the South Polish Pit and the Tank House. The surface sediments in the AAF decontamination area was sampled on 9/24/07 (identified as "Clean Area Road Soil", Attachment B) and found to contain lead and cadmium above TCLP levels. The water in the sump was sampled on 9/24/07 (identified as "Clean Area Sump", Attachment B) and was found have hazardous characteristics for lead and cadmium.

3.3 Process Description

Abrasive removal of scrubber sludge from stainless steel using hydro-blasting with slag fines as abrasive material in water stream.

3.4 Waste Managed

Waste Stream Name	Chemical Name	EPA HW Numbers	Hazardous Properties	Hazardous Constituents and Degradation Compounds	Chemical Analysis
Hazardous Waste Solids, NOS	Cadmium, Lead	D006, D008	Toxic	Lead Compounds Cadmium Compounds	See "Clean Area Road Soil", Attachment B
Hazardous Waste Liquids, NOS	Cadmium, Lead	D006, D008	Toxic	Lead Compounds Cadmium Compounds	See "Clean Area Sump", Attachment B

3.5 Volume of Waste Managed

Waste Stream Name	Current Volume of Each Waste Type (still in area, not in containers)	Max Inventory of Waste Type since Beginning	Projected Volume
Waste Corrosive Solids, Toxic	~ 1000 lbs	0	~ 1000 lbs
Waste Corrosive Liquids, Toxic	~ 20,000 lbs	0	20,000 lbs
Hazardous Waste Solids, NOS	~ 1000 lbs	14,680 lbs	1000 lbs

3.6 Routing of Waste

Except for cleanup and disposal of a mixture of scrubber sludge and demo debris (mostly insulation), 14,680 lbs, that was shipped to Heritage for hazardous waste disposal, no other collection of wastes has occurred in the HWMU area. The volumes stated in Section 3.5 are estimates of what we expect to generate during cleanup and they will most likely be routed to Heritage Environmental for disposal.

3.7 Size/Volume of Each Unit

The hydro-blast unit is estimated to have generated less than 200 lbs of hazardous solids, including slag fines, before it was shutdown. The hydro-blast unit did not contribute significantly to the waste water, than was generated by stormwater impacting the scrubber sludge on the surface of the area.

3.8 Time Period Used

The work in the AAF Decontamination Area started on August 31, 2007 and shutdown on September 11, 2007. The hydro-blast unit was used less than four hours as it was still being demonstrated when we shutdown.

3.9 Prior Use of HWMU Area

Prior to shutdown at Chemetco on October 31, 2001, the HWMU area saw extensive in the handling of scrubber sludge slurries and recycled spray water to the AAF System. At least three 10,000 gallon tanks were in the area and used as hold tanks for scrubber sludge, the valving and piping system from the Polish Pits to the filtration system in the Tank House was in this area. Releases and spills of scrubber sludge was very common in this area. Since shutdown the Estate's only use for the area was the area has been to use a sump pump to remove the stormwater and pump it to the lagoons, per our stormwater management program.

3.10 Scaled Drawing of HWMU Area

Dimensions: L shaped area that runs 130' widest by 220' longest, 13,880 sf (AAF Decon Area and Sump, Figure 3)

Drains, etc.: The area slopes toward the sump at the southeast corner of the South Polish Pit. The sump is a concrete bind sump that is 3' wide by 8' long by 3' deep with a grate over the top.

HWMU Drainage: This area drains to the sump.

Containment: No containment is present other than the constructed presence of being in a low area by design.

Cracks, etc.: The concrete joints could not be inspected due to the water present but prior to installation of the decontamination pad their were not obvious major joint separations noted.

3.11 Material Underlying HWMU

There is no known evidence of exactly what underlies the HWMU or any other structures on the Chemetco facility. It is understood from others, that Chemetco used slag as aggregate for a compaction layer and it would not be uncommon to find that the HWMU was under-laid with slag over the native clay soils.

3.12 Photographs of HWMU Before and After Demolition Project

Photos #1, #2, and #3, Attachment A, show the HWMU prior to the start of the demolition and as it has appear essentially since shutdown on October 31, 2001. The surface is covered with the grayish scrubber sludge. In Photos #4 thru #7 the area is shown as it exits today. Unfortunately, because of the freezing the sump was not very visible. The photographs do show that today, the area is littered with sections of duct work which has probably contributed to some contamination on the concrete pad on the east side of the Polish Pits.

4.0 Closure Activities

4.1 Remediation

4.1.1 Objectives

The Estate proposes to have a profession engineer licensed in Illinois to oversee the cleanup of the HWMU area where the objectives are:

1. Decontaminate the area and sump, including the sections of stainless steel ducts and scrap metal stored in the area,

2. Remove or dispose of all materials in the area, and

3. Seal the surface of the area and the sump, if practicable, otherwise insure that all joints, cracks, or holes are closed.

4.1.2 Remediation

No remedial activities will be conducted until the weather is consistently warm enough to allow the area to dry out after stormwater is pumped off. Remediation is expected to consist of the following activities:

1. Relocate all sections of duct that have residual scrubber sludge contamination back into the AAF Demolition Prep Area,

2. Pump all stormwater in the area into a Frac Tank or similar. Sample for waste determination and dispose based on RCRA requirements,

3. Using a vacuum truck, with multiple suction nozzles, vacuum the surface of the entire area, including inside the sump to remove all contaminates to the extent practicable. Perform waste determination on material removed and dispose based on RCRA requirements,

4. Remove and dispose of all non-saleable materials, such as plastic sheeting and demolition debris,

5. Pressure wash the AAF Decontamination Area and sump three times, collect all wash waters, sample for waste determination and dispose based on RCRA requirements,

6. Evaluate sealant coatings for the area, and if practicable, seal surfaces of area including the inside of the sump, and

7. Professional Engineers submits Certification of Closure.

4.2 Estimated Costs

The cost of completing the work to clean close the AAF decontamination area and sump by a third party is expected to be between $ 27,500 and $45,000, depending on sealant costs and waste volumes.

4.3 Schedule

Upon approval of this closure plan, Chemetco estimates that the time to complete the closure activities and execute the Certificate of Closure will take 30 – 45 working days depending on weather.

5.0 Status of Facility After Closure

Chemetco has no plans to use the AAF decontamination area and sump after closure; however they do consider it to be as available as any other part of the site should the AAF Demolition work start, again.

6.0 Certification/Signatory Requirements

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, 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.

Signature: ______________________ Date: ____________

Signed by: Laura K. Grandy

Position: Trustee

Estate of Chemetco, Inc

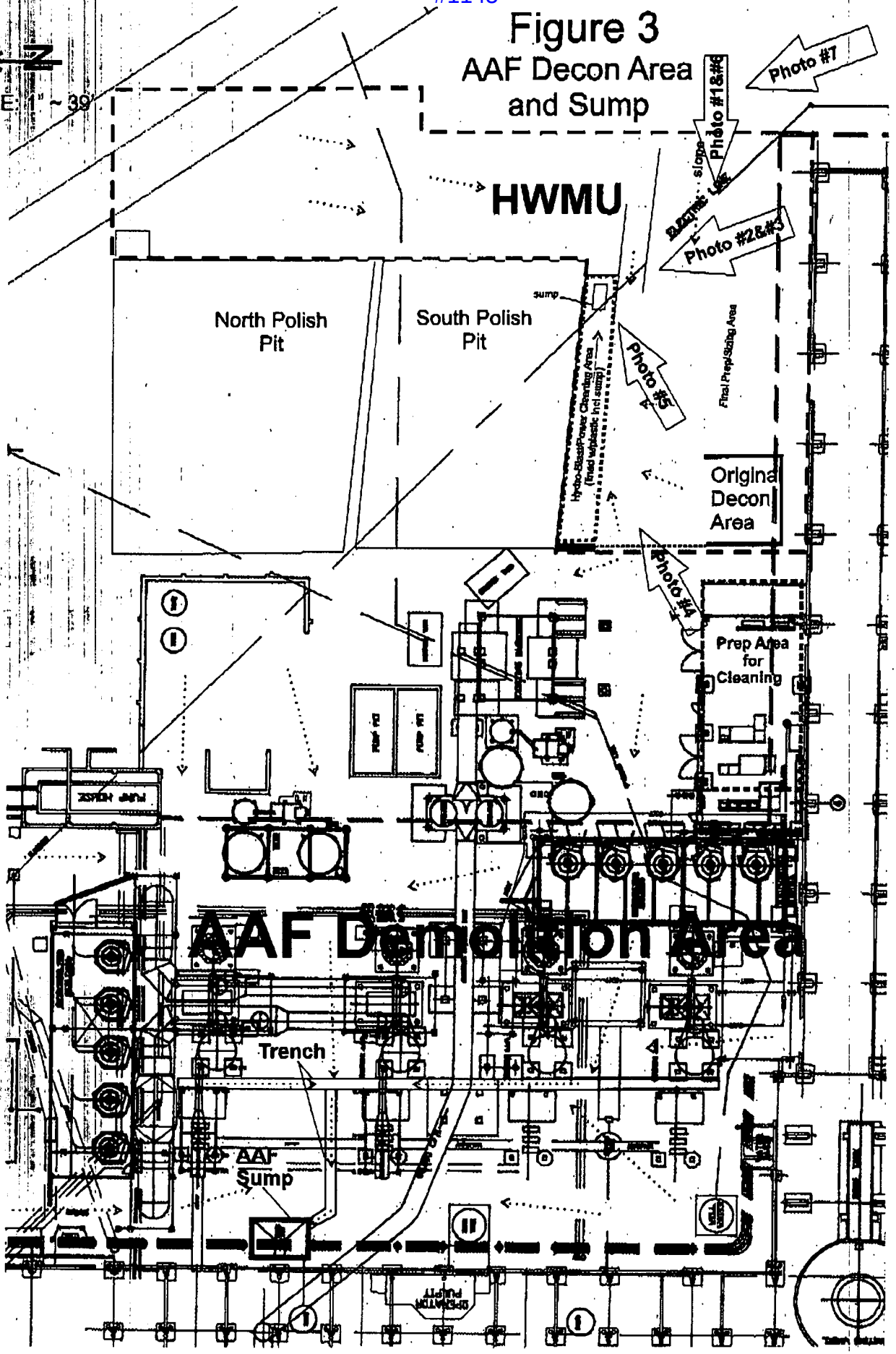
ATTACHMENT A
PHOTOGRAPHS

ATTACHMENT B
WASTE ANALYSIS

FIGURES

Figure 3

AAF Decon Area and Sump



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 – (217) 782-3397
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 – (312) 814-6026

ROD R. BLAGOJEVICH, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

217/524-3300

May 13, 2004

Certified Mail
7007 0220 0000 0040 2938

Estate of Chemetco, Inc.
Attn: Laura Grandy, Trustee
Mathis, Marifian, Richter & Grandy, Ltd.
23 Public Square, Suite 300
Belleville, Illinois 62208

Re: 1198010003—Madison County
Chemetco
ILD048843809
Log No. C-861 and C-862
Received: February 4, 2008
RCRA Closure

Dear Ms. Grandy:

This is in response to the January 31, 2008 submittal made by Gary J. Davis, EH&S Manager, Estate of Chemetco, Inc. Mr. Davis's submittal included closure plans for two alleged hazardous waste management units at the above-referenced facility (these units are referred to as the "Brick Shop Container Storage Area" and the "AAF Decontamination Area and Sump"). A drawing showing the location of these units within the subject facility is attached. It must be noted that these plans were submitted to Illinois EPA to address, in part, alleged violations set forth in Violation Notice L-2007-01375 dated October 10, 2007.

The plans to complete closure of the hazardous waste management units mentioned above are hereby approved subject to the following conditions and modifications:

1. In accordance with 35 Ill. Adm. Code 725.213(b), all activities necessary to complete closure of the subject units must be completed within 180 days of the date of this approval letter. Illinois EPA may approve an extension of this deadline if the Estate of Chemetco submits a closure plan modification request which contains information demonstrating that: (1) the closure activities will, of necessity, take longer than 180 days to complete; and (2) the Estate of Chemetco has taken and will continue to take all steps necessary to prevent threats to human health and the environmental from the units, including compliance with all applicable interim status requirements.

a. In accordance with 35 Ill. Adm. Code 725.213(c), a closure modification request for an extension of the time required to complete closure must be submitted to Illinois EPA at least 30 days prior to the expiration of the 180-day closure period.

b. The closure plan modification request for an extension of the time required to complete closure must contain a revised schedule which identifies: (1) the various tasks which must be conducted to complete closure of the unit(s); (2) the estimated time frame during which the required tasks will be completed; and (3) the final date when closure will be completed.

2. In accordance with 35 Ill. Adm. Code 725.215, when closure is complete a certification must be submitted to Illinois EPA by the owner/operator and an independent professional engineer licensed to practice in the State of Illinois that the hazardous waste management units at the facility have been closed in accordance with the specifications in the approved closure plan. This certification should be received at the Illinois EPA within sixty (60) days after closure.

The closure certification form on Illinois EPA's internet site (www.epa.state.il.us) must be used. Signatures must meet the requirements of 35 Ill. Adm. Code 702.126. The independent engineer should be present at all critical, major points (activities) during the closure. These might include soil sampling, soil removal, backfilling, final cover placement, etc. The frequency of inspections by the independent engineer must be sufficient to determine the adequacy of each critical activity.

As part of the closure certification, to document the closure activities at your facility in accordance with 35 Ill. Adm. Code 725.215, a Closure Documentation Report must be developed and submitted to Illinois EPA along with the closure certification statement which includes the following:

a. Background information about the facility overall and the overall closure project.

b. A description of the units closed (include scaled maps showing location of the units within facility and layout of units; information related to construction of the units; and identification of wastes managed in the units).

c. A chronological discussion of all closure activities and what was accomplished as a result of completing these activities.

d. The volume of waste, waste residue and contaminated soil (if any) removed. The term waste includes wastes resulting from decontamination activities.

e. A description of the method of waste handling and transport.

f. Copies of the waste manifests.

g. Information documenting the results of all sampling/analysis efforts. The goal of presenting this information should be to describe, in a logical manner, the activities and results associated with the sampling/analysis effort. At a minimum, this information must include:

(1) identification of the reason for the sampling/analysis effort and the goals of the effort;

(2) a summary in tabular form of all analytical data, including all quality assurance/quality control data;

(3) a description of the sampling procedures, sample preservation procedures and chain of custody procedures;

(4) identification of the test method used and detection limits achieved, including sample preparation, sample dilution (if necessary) and analytical inferences;

(5) copies of the final laboratory report sheets, including final sheets reporting all quality assurance/quality assurance dates;

(6) a summary of all procedures used for quality assurance/quality control, including the results of these procedures; and

(7) a discussion of the data, as it relates to the overall goal of the sampling/analysis effort.

h.. Color photo documentation of closure. Document conditions before, during and after closure.

3. Closure efforts at this facility must meet the requirements of 35 Ill. Adm. Code 725, Subpart G. Any variation to the closure activities approved by this letter shall be the subject of a request to modify the approved closure plan which is submitted to Illinois EPA for review and approval. Any such request must contain detailed information regarding the proposed modifications and the procedures which will be followed to

complete closure of the unit(s). In addition, this request must contain information demonstrating that the proposed modifications meet the requirements of 35 Ill. Adm. Code 725, Subpart G. A revised schedule for completing the various tasks necessary to complete closure must be included in this request. If the proposed modifications will require the closure project to take more than 180 days to complete, then it will be necessary for this modification request to also contain the information identified in Condition 1 above in support of extension requests.

4. All references to the "Illinois EPA's RCRA closure plan instructions" refer to the document entitled Guidance for Preparing RCRA Closure Plans (July 2003). A copy of this document is available on Illinois EPA's internet site (www.epa.state.il.us). All references to "SW-846" refer to the USEPA document entitled Test Methods for Evaluating Solid Wastes, Third Edition and any finalized updates.

5. Closure of the HWMU shown in Figure 3 of the closure plan for the AAF Decon Area and Sump is proposed to be carried out as follows:

   a. Relocate any ductwork remaining in the area to the "Prep Area for Cleaning" area shown in Figure 3;

   b. Pump all water which has accumulated in this area into a tank;

   c. Vacuum the concrete surface of the entire area;

   d. Remove any nonsaleable material from the area;

   e. Pressure wash the area three times.

   These efforts are approved, provided: (1) equipment used to move ductwork around in the HWMU is decontaminated before it is used outside of the boundaries of the HWMU (this will minimize the "tracking" of contaminated materials outside the area); and (2) all waste generated during these closure efforts is collected, analyzed for waste characterization purpose, and disposed of properly.

6. Closure of the Brick Shop Container Storage Area shall consist of pressure washing the area three time. all waste generated during these closure efforts is collected, analyzed for waste characterization purpose, and disposed of properly.

7. The proposed activities are appropriate for properly addressing any contamination which may be present in the areas associated with the improper management of hazardous waste observed in September and November 2007. However, contamination may be present in the soils beneath these areas from previous activities in them; the approval of this closure plan does not address any such possible contamination.

8. Quality assurance/quality control procedures which meet the requirements of SW-846 must be implemented during all required sampling/analysis efforts.

9. All hazardous waste generated during this project is subject to annual reporting as required by 35 Ill. Admin. Code 722.141. A report must be submitted to the Illinois EPA by March 1 of the following year for wastes generated during a calendar year and: (a) treated and left on-site; or (b) shipped off-site for storage, treatment and/or disposal. Additional information and appropriate report forms can be obtained from:

    Waste Reduction and Compliance Section
    Bureau of Land
    Illinois Environmental Protection Agency
    1021 North Grand Avenue East
    P.O. Box 19276
    Springfield, Illinois 62794-9276

10. All non-hazardous special waste generated during this project that are shipped to a facility located outside the State of Illinois are subject to annual reporting as required by Section 22.01 of the Illinois Environmental Protection Act and 35 Ill. Admin. Code 809.601(g) and shall be reported to Illinois EPA by February 1 of the following year. Additional information and appropriate report forms can be obtained from the Waste Reduction and Compliance Section at the address above.

11. If the Illinois EPA determines that implementation of this closure plan fails to satisfy the requirements of 35 Ill. Adm. Code 725.211, the Illinois EPA reserves the right to amend the closure plan. Revisions of closure plans are subject to the appeal provisions of Section 40 of the Illinois Environmental Protection Act.

12. Under the provisions of 29 CFR 1910, cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination and training. General site workers engaged in activities that expose or potentially expose them to hazardous substances must receive a minimum of 40 hours of safety and health training off site plus a minimum of

three days of actual field experience under the direct supervision of a trained experienced supervisor. Managers and supervisors at the cleanup site must have at least an additional eight hours of specialized training on managing hazardous waste operations.

13. The approval of this closure plan will not: (1) resolve any of this facility's possible violations of the Illinois Environmental Protection Act and/or 35 Ill. Adm. Code, Subtitle G: Waste Disposal as set forth in Violation Notice L-2007-01375; or (2) prevent the USEPA or Illinois EPA from pursuing enforcement proceedings and monetary penalties as a result of the afore-mentioned possible violations.

14. The form entitled RCRA Interim Status Closure and Post-Closure Care Plans General Form (LPC-PA18) must be completed and accompany all information submitted to the Illinois EPA associated with the closure activities described in this letter. As noted on this form, two copies must accompany the original of all submittals, so that the information submitted can be distributed, as necessary to Illinois EPA personnel and regional offices. A copy of this form can be found on Illinois EPA's internet site.

15. The original and two (2) copies of all certifications, logs, or reports which are required to be submitted to the Illinois EPA by the facility should be mailed to the following address:

    Illinois Environmental Protection Agency
    Bureau of Land -- #33
    Permit Section
    1021 North Grand Avenue East
    Post Office Box 19276
    Springfield, Illinois 62794-9276

This action shall constitute Illinois EPA's final action on the subject submittal. Within 35 days after the date of mailing of Illinois EPA's final decision, the applicant may petition for a hearing before the Illinois Pollution Control Board to contest the decision of Illinois EPA, however, the 35-day period for petitioning for a hearing may be extended for a period of time not to exceed 90 days by written notice provided to the Board from the applicant and the Illinois EPA within the 35-day initial appeal period.

Work required by this letter, your submittal(s) or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. This letter does not relieve anyone from compliance with these laws and the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them.

The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

Should you have any questions regarding this matter, please contact James K. Moore at 217/524-3295.

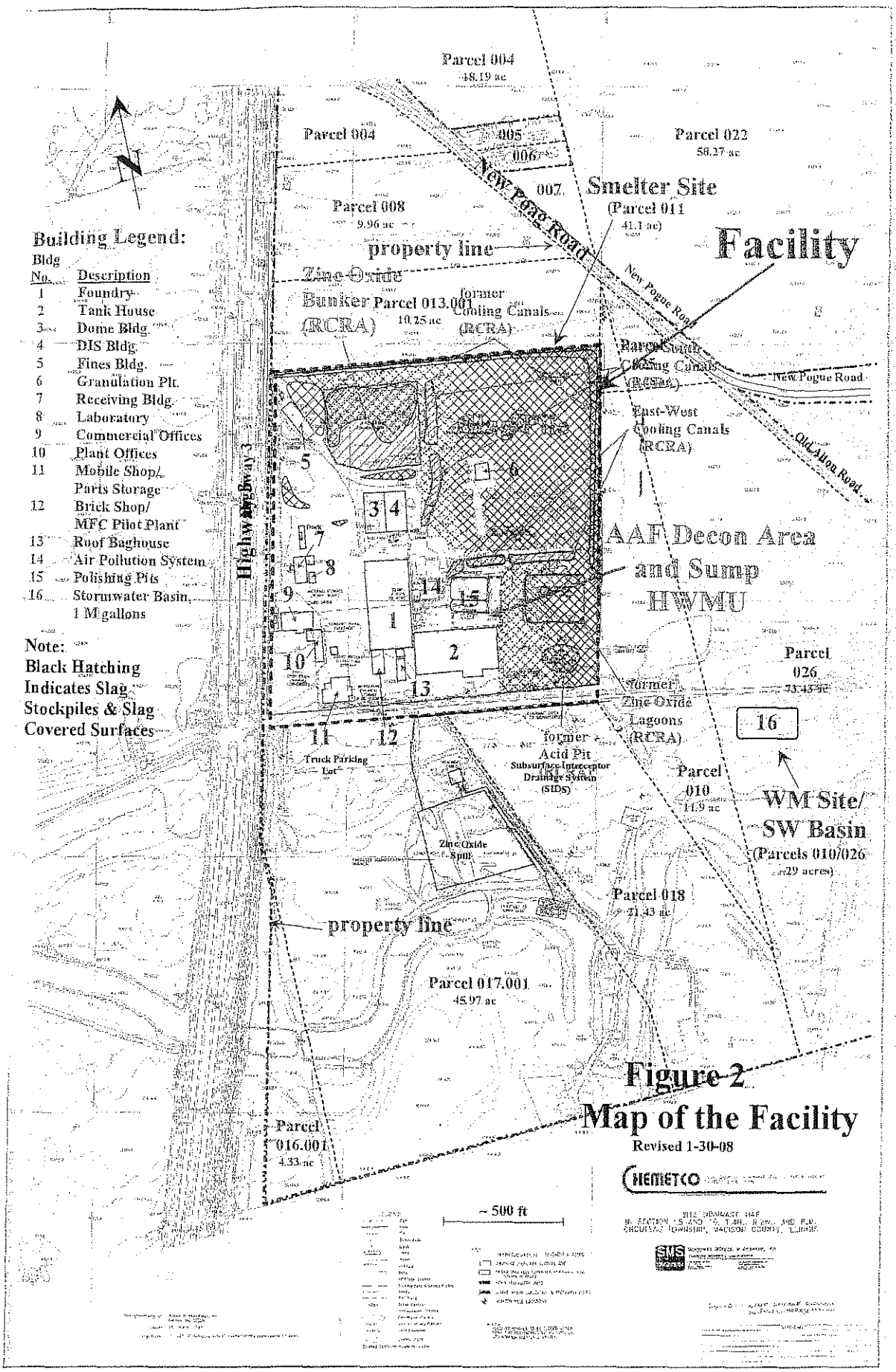
Sincerely,

Stephen F. Nightingale, P.E.
Manager, Permit Section
Bureau of Land

SFN:JKM/mls/082593s.doc
JKM

Attachment: Site Layout Map

cc: Penny Livingston
Gary Davis


Parcel 004
48.19 ac
Parcel 004
005
006
007
Parcel 022
58.27 ac
New Pogue Road
Smelter Site
(Parcel 011
41.1 ac)
Facility
Parcel 008
9.96 ac
property line
Zinc Oxide
Bunker Parcel 013.001
10.25 ac
(RCRA)
former
Cooling Canals
(RCRA)
Parcel South
Cooling Canals
(RCRA)
New Pogue Road
East-West
Cooling Canals
(RCRA)
Old Alton Road
Highway 3
AAF Decon Area
and Sump
HWMU
Parcel
026
73.43 ac
former
Zinc Oxide
Lagoons
(RCRA)
16
former
Acid Pit
Subsurface Interceptor
Drainage System
(SIDS)
Truck Parking
Lot
Parcel
010
11.9 ac
WM Site/
SW Basin
(Parcels 010/026
~29 acres)
Zinc Oxide
Spill
Parcel 018
21.43 ac
property line
Parcel 017.001
45.97 ac
Parcel
016.001
4.33 ac
~ 500 ft
Building Legend:
Bldg No. Description
1 Foundry
2 Tank House
3 Dome Bldg
4 DIS Bldg
5 Fines Bldg.
6 Granulation Plt.
7 Receiving Bldg.
8 Laboratory
9 Commercial Offices
10 Plant Offices
11 Mobile Shop/ Parts Storage
12 Brick Shop/ MFC Pilot Plant
13 Roof Baghouse
14 Air Pollution System
15 Polishing Pits
16 Stormwater Basin, 1 Mgallons
Note:
Black Hatching
Indicates Slag
Stockpiles & Slag
Covered Surfaces
Figure 2
Map of the Facility
Revised 1-30-08
CHEMETCO

OPERATION AND MAINTENANCE PLAN

Chemetco

FIRST IN PEOPLE – QUALITY – SERVICE

ESTATE OF CHEMETCO, INC.
HARTFORD, ILLINOIS

February 15, 2013

ESTATE OF CHEMETCO
3754 CHEMETCO LANE
HARTFORD, ILLINOIS 62048

TABLE OF CONTENTS

SECTION 1

Figure

List of Appendices

SECTIONONE Operation and Maintenance

1.0 PURPOSE

This Operation & Maintenance (O&M) Plan supersedes the previous O&M Plan that was submitted on November 20, 2008 to the Illinois Environmental Protection Agency (IEPA). This O&M includes the following plans: i) stormwater management plan, ii) fugitive emissions control plan, and iii) security plan to address current conditions at the former Chemetco Facility (Facility) and the future management of the Facility assets of the Bankruptcy Estate of Chemetco, Inc. (Estate).

The O&M plan complies with paragraph 17 of the September 16, 2008 Interim Order (IO) in the Matter of the United States and the People of the State of Illinois v. Chemetco, Inc., Civil Case Nos. 00-670-DRH and 00-677-DRH (consolidated). It should be noted that the IO has been updated several times and recently has been extended through March 31, 2013. A copy of the IO is included in **Appendix A**.

On April 1, 2009, the Trustee entered into an Asset Purchase Agreement with Industrial Asset Disposition (IAD). IAD's rights under the Asset Purchase Agreement were assigned to Paradigm Minerals and Environmental Services (Paradigm) on April 20, 2011.

Currently, a Consent Decree (CD) is being negotiated between the United States Environmental Protection Agency (USEPA), the Illinois Environmental Protection Agency (IEPA), Paradigm, and the Estate. The objective of the CD is intended to move the Facility toward compliance with the applicable environmental laws, and allow the process of Metal Bearing Material (MBM) by Paradigm.

1.1 GENERAL BACKGROUND

Chemetco, Inc. (Chemetco) shutdown operations on October 31, 2001 and filed for bankruptcy protection under Chapter 7 of the U.S. Bankruptcy Code on November 13, 2001. The Estate was originally administered by Laura K. Grandy, Trustee, for

SECTIONONE Operation and Maintenance

the U. S. Bankruptcy Court for the Southern District of Illinois. On March 9, 2010 Donald M. Samson became the new Trustee for the Estate.

The Trustee currently has five full time employees located at the Facility providing caretaker maintenance, environmental compliance and security for the Facility as well as management of assets for the Trustee.

The Facility currently operates under an Administrative Seal Order (Seal Order) issued on December 4, 2001 by IEPA. A copy of the Seal Order is included in **Appendix A**. The Seal Order restricts access and activity on the Facility due to the presence of "materials containing hazardous levels of lead and cadmium". Stormwater that falls on the Facility is collected and managed on the Facility through an existing stormwater collection system.

Effective November 1, 2005, IEPA issued a National Pollutant Discharge Elimination System (NPDES) Permit # IL0025747 for the Estate to address potential discharge from the 1 million gallon stormwater collection basin that receives surface runoff and stormwater from a collection system immediately southeast of the former smelter site on the Facility. The NPDES permit was updated in 2010 and is valid through 2015. A copy of the NPDES Permit is included in **Appendix A**.

Currently, the Estate has subcontracted with Metro Contract Services (MCS) for the removal and sale of the three former furnaces to Metallo Chimique NA. The furnaces are located in the Foundry Building, and the work is being performed under an approved work plan. In the next few months, the following activities are expected to change in association with the updated IO, Consent Decree, and Paradigm on site activities. These activities may include:

1. Paradigm expects to begin processing the Slag and other MBM from stockpiles throughout the facility.

2. Paradigm expects to upgrade portions of the buildings as part of the processing activities.
3. The Estate continues to sell some of the assets in the form of "scrap metal", "metal bearing material" (MBM), and other miscellaneous items.

1.2 O&M PLAN

The Estate's O&M Plan consists of the following:

1.2.1 Stormwater Management Plan

The Facility was operating under the 3rd Amendment, to the Chemetco, Inc. Stormwater Pollution Prevention Plan (SWPPP) issued August 9, 2002. The SWPPP was replaced by the Stormwater Management Plan (SMP), dated November 20, 2008 and the Facility continues to operate under the existing SMP. On April 29, 2010, the Estate submitted an application to extend the existing NPDES permit #IL0025747. Between June 2010 and December 2011, the SMP was slightly modified to reflect some of the changes associated with the demolition activities that occurred on site, but the SMP was not formally submitted to IEPA. After December 2011, the Estate reverted to using the original SMP pre-demolition activities.

However, it should be noted that Paradigm is anticipated to begin processing the MBM material on site in the near future, as such; the SMP will have to be updated to reflect changes. The SMP is included as **Appendix B**.

The SMP will continue to reflect the management of all stormwater on the smelter site and control through the use of the closed-loop retention system, including the lagoons/canals, to store stormwater. The use of pumping the water from the on site canals and evaporation through irrigation sprayers, a method that has proven successful since 2001 by the Estate to control stormwater levels and

prevent overflowing off the smelter site is currently being evaluated. It is possible that the water cannons may need to be relocated when Paradigm begins its processing work.

1.2.2 Fugitive Emissions Control Plan

The Facility does not currently operate under a formal Fugitive Emissions Control Plan but controls fugitive dust by use of water sprays and restricted activities on the Facility. Due to the anticipated future activities on the Facility, the control of fugitive emissions has been formalized in a Fugitive Emissions Control Plan and is included in **Appendix C**. The Plan requires visual monitoring of fugitive emissions and actions such as the use of water misters and sprayers to control fugitive emissions above the background levels caused by acts of nature.

It should be noted that site activities by Paradigm will be primarily at the north and northeast of the site. Paradigm will be responsible for implementing and controlling fugitive emissions in accordance with the Process Work Plan.

1.2.3 Groundwater Monitoring Plan

The Facility does not currently monitor groundwater and has not been required to do so since the Facility shutdown. As such, a Groundwater Monitoring Plan is not included in the O&M Plan.

1.2.4 Security Plan

The Facility does not currently have a formal Security Plan. However, on May 25, 2010 the security plan was modified to include status of action items. These changes were made at the request of USEPA. Currently, status of action items is submitted to USEPA and IEPA on a monthly basis. A copy of this letter and formal Security Plan is included in **Appendix D**.

SECTIONONE Operation and Maintenance

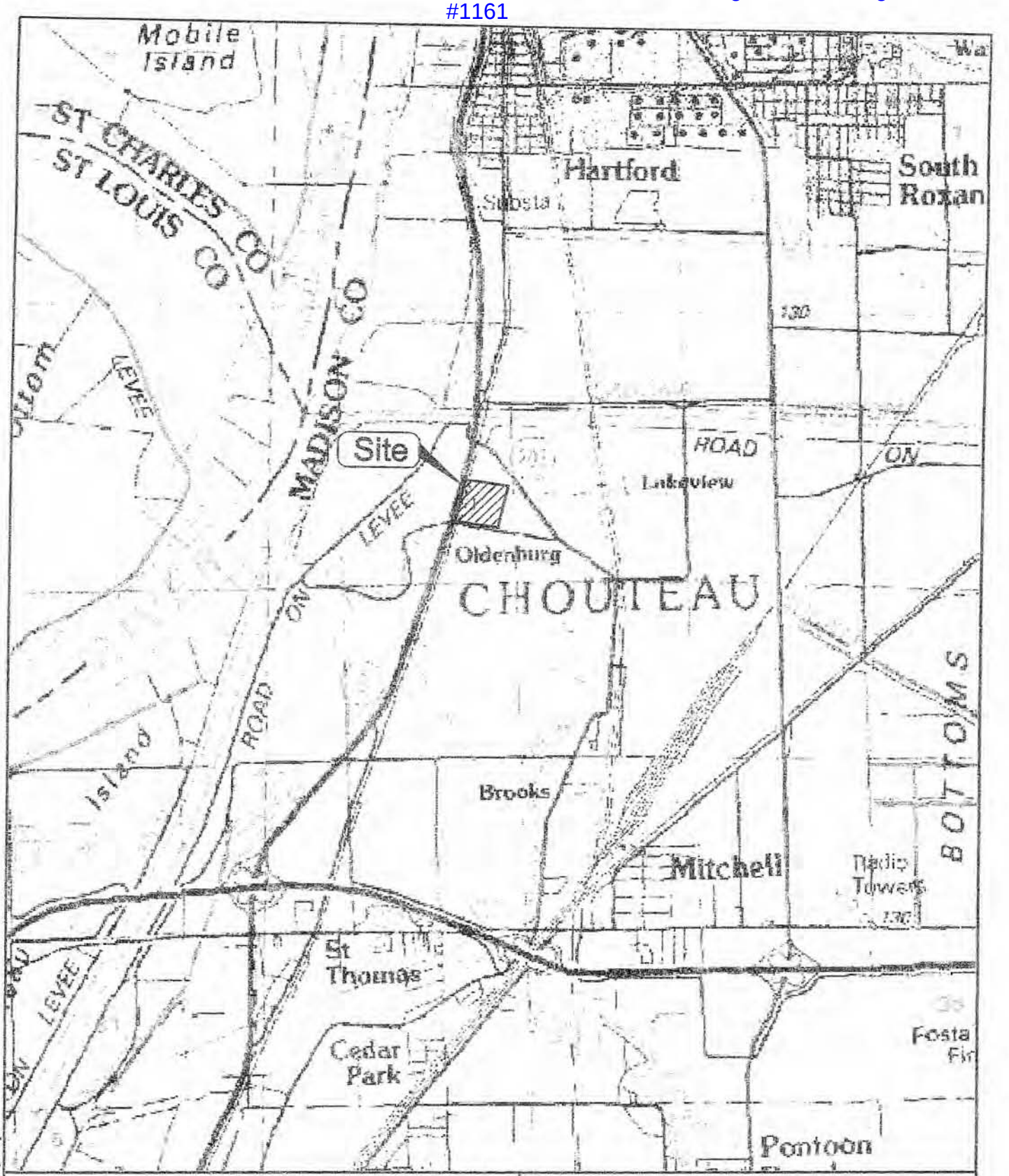
The Estate contracts with PASS, a local security firm, to provide 24-hour web-based video camera surveillance of the smelter site, main parking lot, and along portions of the perimeter of the smelter site. The office buildings, and Maintenance/Stores Building, are protected by an alarm system. The Brick Shop (under Paradigm ownership) is not under an alarm system, but is locked with an industrial padlock.

During working hours, Monday through Friday, 8:00AM to 4:00PM, Estate personnel provide security. During other hours, the camera surveillance system and alarm systems are active. The entire smelter site is fenced and contains "No Trespassing" bilingual signs, and security lighting is provided where cameras are viewing.

All personnel entering the smelter site are required have authorization from IEPA, sign in and out and have a copy of their driver's license made and placed in an Estate file.

1.2.5 Responsibilities

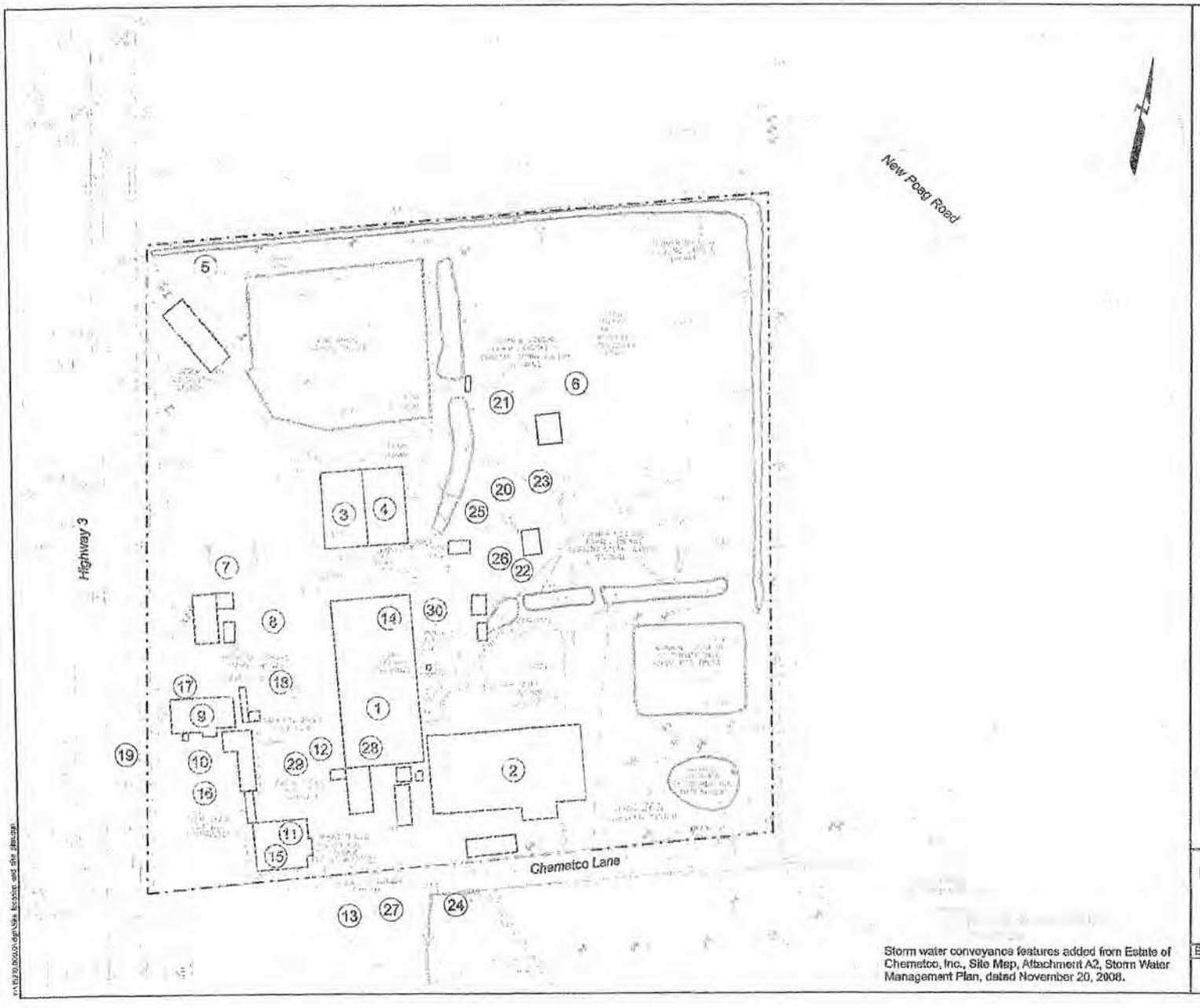
O&M issues associated with the Estate of Chemetco will be addressed and managed by the staff of the Estate of Chemetco and Trustee.
O&M issues associated with processing slag and other MBM, packaging, shipping, and storing will be addressed by Paradigm in accordance with the Process Work Plan.



SITE LOCATION MAP
Former Chemetco Site
3754 Chemetco Lane
Hartford, Illinois

By:	Date: 05/06/10	Project No:
		Figure 1

Y:\15210.000.01\dgn\Site location and site plan.dgn



Storm water conveyance features added from Estate of Chemetco, Inc., Site Map, Attachment A2, Storm Water Management Plan, dated November 20, 2008.

Explanation

- Monitoring well location
- Site boundary
- Paved surface
- Storm water conveyance - gravity drained
- Storm water conveyance - mechanical pumped
- Storm water conveyance - surface flow
- Perimeter off-site system
- Storm water collection sump with transfer pump

Building Legend

No.	Description
1	Foundry
2	Tank House
3	Dome Buildings
4	DIS Building
5	Fines Building
6	Granulation Plant
7	Receiving Building
8	Laboratory
9	Commercial Offices
10	Plant Offices
11	Mobile Shop
12	Brick Shop/MFC Pilot Plant
13	Foundry Baghouse
14	AAF
15	Parts Storage Building
16	Laborer's Lunch Trailer
17	Shower Trailer
18	Sewage Treatment
19	Scale Office
20	Granulation Pump House
21	Granulation Trailer
22	Main Pump House
23	Barge Area
24	Motor Storage Building
25	North Cooling Tower
26	South Cooling Tower
27	Restroom
28	Baghouse Control Room
29	Boiler Room Hydraulics
30	Ameren Electrical Substation

Approximate Scale in Feet
0 100 200
Approximate Scale in Meters
0 30 60

Basemap modified from Sheppard Morgan & Schwab, Inc., Site Drainage Map in Sections 16 and 18, Chouteau Township, Madison County, Illinois, dated September 1997.

EXISTING STORM WATER MANAGEMENT PLAN
Former Chemetco Site
3754 Chemetco Lane
Hartford, Illinois

By: | Date05/06/10 | Project No: [illegible]

Figure 2

APPENDIX A Supportive Documents

APPENDIX B Stormwater Management Plan

1. INTRODUCTION

Chemetco, Inc. (Chemetco) ceased operations on October 31, 2001 and filed for Chapter 7 bankruptcy protection on November 13, 2001. The U. S. Bankruptcy Court for the Southern District of Illinois appointed Laura K. Grandy, 23 Public Square, Suite 300, Belleville, Illinois 62222 as Trustee to administer the Bankruptcy Estate of Chemetco, Inc. (Estate). On March 9, 2010, Mr. Donald M. Samson replaced Ms. Grandy as the Trustee for the Estate.

The 41 acre smelter site, which is fenced, and the approximately 200 acres of adjacent land are under an Administrative Seal Order (119801003-Madison County, ILD048843809) issued by the IEPA, dated: December 4, 2001. It should be noted that the IO has been updated several times and recently has been extended through January 31, 2013. A copy of the IO is included in **Appendix A**.

On September 16, 2008, the Estate entered an Interim Order in the Matter of the United States and the People of the State of Illinois v. Chemetco, Inc., Civil Case No. 00-670-DRH, 00-677-DRH (consolidated) that required that the stormwater pollution prevention plan (SWPPP) be updated as part of an Operation and Maintenance Plan (O&M Plan) to address and any changes, and/or modifications, which alters the existing Storm Water Pollution Prevention Plan (SWPPP) from any future work that is conducted on the site.

2. BACKGROUND

Chemetco is located at Rt. 3 and Chemetco Lane (formerly Oldenberg Road) near Hartford, Madison County, Illinois in an unincorporated portion of the county. The Facility is located in a primarily agricultural area except for the State of Illinois Lewis & Clark Historic Center and state park to the northwest across Rt. 3. The Cahokia Canal flows east-west just north of the Facility into the Mississippi River approximately 1 mile to the west. South of the smelter site on the Facility is a tributary of Long Lake.

From 1970 until October 31, 2001, Chemetco operated a secondary copper smelter which recycled copper based scrap that was processed in four natural gas fired furnaces to

APPENDIX B Stormwater Management Plan

remove impurities and produce an "anode" grade copper plate that was shipped to others for final refining to "cathode" commercial grade standards. As part of the smelting operation, a lead/tin product was produced as an ingot for refining by others off-site. Secondary products from the smelting operations included an iron-silicate slag and zinc oxide rich emissions particulates, called "scrubber sludge" for the manner in which it was removed from the smelter exhaust by wet scrubbing and forming sludge that was dewatered in a filter press for recycling.

Chemetco operated a closed-loop stormwater management system under IEPA Permit No. 1997-EO-3853. Stormwater was collected through a series of concrete lined ditches and sumps and was pumped to on-site retention basins for storage until water was removed and used as makeup water in the wet scrubber system, slag granulation or the cooling towers. Captured stormwater was stored in either a series of four canals within the smelter site, referred to as the east, west, north and south RCRA canals. In addition, stormwater surface water run-off from the slag piles is captured by the Perimeter Off-Site System (north and east canal). Water from these canals is transported via gravity to the 1,000,000 gallon retention basin, which is located southeast of the Site and south of Chemetco Lane. (See **Figure 1**).

The Facility was operating under the 3rd Amendment, to the Chemetco, Inc. Stormwater Pollution Prevention Plan (SWPPP) issued August 9, 2002. The SWPPP was replaced by the Stormwater Management Plan (SMP), dated November 20, 2008 and continues to operate under the existing SMP. Between June 2010 and December 2011 during the demolition activities that were performed at the site, the SMP was slightly modified to reflect some of the changes associated with the demolition activities, but was not formally submitted to IEPA. After December 2011, the Estate modified the SMP back to pre-demolition activities.

Refer to **Figure 2** for existing site stormwater conveyance areas,

In addition, the Estate may modify the SMP to allow for changes in site conditions based on Paradigm processing activities.

APPENDIX B Stormwater Management Plan

a. Remove stormwater that flow into the interior of the Dome and DIS Building that will adversely affect Paradigm's processing work.
b. Prevent stormwater flow to adjacent structures to the Dome and DIS Building (i.e., AAF area, Tank House, DIS Building) during Paradigm's processing work.
c. Work in conjunction with Paradigm to provide a manageable approach to prompt removal of stormwater from the perimeter area; and as warranted, temporarily divert stormwater and surface water run-off from the northwestern and southwestern portion of the facility that is normally collected in the RCRA canals to the 1,000,000 gallon retention basin
d. Alleviate the chronic lack of adequate stormwater storage capacity and flooding on the site that has been experienced due to rainfall.

3. REGULATORY REQUIREMENTS

The Storm Water Pollution Prevention Plan (SWPPP) is regulated by:

- Clean Water Act
- 35 ILAC, Subtitle C, Part 304 *Effluent [Discharge] Standards*
- IEPA Administrative Seal Order (December 4, 2001)
- NPDES Permit No. IL0025747, (1,000,000 gallon retention basin and Outfall #005) included in **Appendix A**.

4. PURPOSE

The purpose of the revised SMP is to prevent the uncontrolled discharge of any stormwater and surface run-off that falls on the Site, except for the discharge of stormwater from the north and east side of the slag piles that is collected by the Perimeter Off-Site System and directed in aboveground and underground drain pipes to the 1,000,000 gallon lined stormwater retention basin where overflow is monitored monthly at Outfall #005 under the NPDES Permit. Analytical results for the last 12 months are shown in **Table 1**.

APPENDIX B Stormwater Management Plan

5. DESCRIPTION OF STORMWATER SYSTEM

On-Site System

The current stormwater collection system consists of the following and is confined to the Facility and the 1,000,000 gallon stormwater basin as shown on the Annotated Site Map, presented as **(Figure 2)**.

a. Smelter Site-

Western Edge of Smelter Site: Currently, stormwater which lands on this portion of the site is captured by a shallow concrete ditch on the west side of the facility approximately 750 ft in length. Water in the ditch gravity flows to small collection basin at the north end referred to as the north sump and pump. A series of pumps transfer the water to the north RCRA canal. However, during demolition activities, electric power was shutdown. Electric Power has been restored to the main transformer on site, but electric power to other smaller secondary areas has not been fully restored. As such, a diesel generator is often used as warranted to transfer the stormwater surface runoff to the North RCRA canal. The pumps are designed to operate in either the automatic mode whereby floats in the sump activate the pump or by manual operation. If additional stormwater capacity is needed during time of heavy rainfall, the pumps are operated in the manual mode to all the sumps to fill and create additional storage capacity.

During the processing work, the stormwater may be diverted at the north valve station. The underground flange that discharges to the north RCRA canal may be taken off and a coupler with flexible line may be attached to the flange. This will divert the water to the North off-site perimeter canal, which discharges to the 1,000,000 gal retention basin. The interior surface runoff from the slag piles will continue to discharge into the north and south RCRA canal. However, if during the processing work the slag pile east of the north and south RCRA canal may alter how the surface runoff impacts the canals. To reduce the potential of increased impact to the north and south canal, sand bags or berms as Best Management Practices (BMP) may be required to be installed.

APPENDIX B Stormwater Management Plan

Previously, during demolition activities, additional room for stormwater runoff was needed due to heavy rainfall; the two on site barges ~332,000 gals, and 134,000 gals respectively were used to temporarily store excess water, but they were found to be leaking. In the event of inclement weather conditions exceed storage capacity, the stormwater will be sent to the 1,000,000 retention basin. As previously requested by IEPA, additional sampling at the Outfall #005 may be warranted when such events occur.

Southwestern Corner of Smelter Site: Currently, stormwater which lands on this portion of the facility is captured by a shallow concrete ditch near the mobile maintenance shop approximately 350 ft in length. Water collected in this ditch gravity drains to a collection sump on the southeastern corner of the mobile maintenance shop. The collection sump referred to as the southeast sump and pump also receives sheet flow from the southwestern corner of the site. A series of two pumps transfer the water through a 10-inch main to the east RCRA canal. If necessary, the water can be routed to the north RCRA canal if the east RCRA canal is at capacity. Check valves on the mains and piping insure the proper flow direction. The pumps are designed to operate in either the automatic mode whereby floats in the sump activate the pump or by manual operation. If additional stormwater capacity is needed during time of heavy rainfall, the pumps are operated in the manual mode to all the sumps to fill and create additional storage capacity.

Surface runoff from the southwestern slag piles has been allowed to discharge into the east and west RCRA canal. As mentioned above the two barges appear to leak and may not be used. If additional room for stormwater runoff is needed due to potential heavy rainfall; the stormwater will be sent directly to the 1,000,000 retention basin. If this occurs, additional sampling at the Outfall #005 may be warranted when such events occur.

Southeastern Edge of Smelter Site: Currently, sheet flow from the southeastern edge of the plant is either captured in a small concrete ditch approximately 110 ft. in length inside the fenced area or flows across Chemetco Lane to a ditch on the south side which directs the flow to the 1,000,000 gallon retention basin. Stormwater captured inside the fenced

APPENDIX B Stormwater Management Plan

area is pumped to the east RCRA canal. If necessary, the water can be routed to the north RCRA canal if the east RCRA canal is at capacity.

In the event of inclement weather conditions exceed storage capacity, the stormwater will be sent to the 1,000,000 retention basin since the interior barges leak. Additional sampling at the Outfall #005 may be warranted if such events occur.

Southern Edge of the Smelter Site: Currently, the southern edge of the site is bermed with concrete curbing and/or slag to direct flow to either the southwest or southeast sumps. No changes are proposed to this area during the processing activities.

Zinc Oxide Bunker: Stormwater which falls into the bunker remains within the bunker. Since shutdown, the level of water in the retention area in the southeast corner has never been more than 60% full. No changes are proposed to this area during the processing activities.

Trapped stormwater within the former demolition areas: A number of areas of the site have a tendency to trap stormwater, including but not limited to the low areas, trenches, and sumps in the AAF Area; low spots in the Foundry Building; and the area between the Dome Building and the Zinc Oxide Bunker. Trapped stormwater may be pumped to any of the four RCRA canals, depending on close proximity and/or storage capacity, if warranted. . In the event of inclement weather conditions exceed storage capacity, the stormwater from the demolition areas may be sent to the 1,000,000 retention basin. As previously requested by IEPA, additional sampling at the Outfall #005 may be warranted if such events occur.

b. Off-Site Perimeter System

East and North Edge of Smelter Site: Currently, runoff from the south and west sides of the slag pile at the northeast corner of the site flows to either the east, west, north or south RCRA canals. Runoff from the north and east sides of the slag pile is captured by a collection system consisting of 18-in.plastic drain tile with inlets installed approximately every 200 ft. outside the site fence on the north and east sides.

APPENDIX B Stormwater Management Plan

As described above, during processing activities, stormwater from the northwestern portion of the site may be sent to the north canal; and stormwater from the southwestern portion of the site may be sent to the east canal and ultimately discharged to the 1,000,000 gal retention basin.

1,000,000 Gallon Retention Basin System: The basin is a fiberglass lined earthen basin that is connected to the Off-Site perimeter drain system by 18-in. plastic drain tiles. Since November, 2005 the basin has been subjected to monthly sampling of the water that overflows the banks of the basin under NPDES Permit # IL0025747, Outfall: #005. During the demolition work, additional stormwater surface runoff was diverted to the retention basin. After demolition activities, the system was restored to pre-demolition conditions.

It is plausible that during Paradigm processing, the discharge flow from the Outfall #005 may increase. As such, rip rap was placed within the discharge area for erosion control. In the event of inclement weather conditions exceed storage capacity, the stormwater will be sent to the 1,000,000 retention basin. As previously requested by IEPA, additional sampling at the Outfall #005 may be warranted if such events occur.

Stormwater Volume Calculations

i. Calculation of square footage

Location	Total ft^2	Pervious ft^2	Impervious ft^2
Inside the fenced boundary	1,715,525	923,350	792,175

ii. Existing Capacity

Area	Retention Volume (in gallons)
North Canal	458,032
South Canal	543,722
East Canal	426,764
West Canal	263,464
Northwest sump	90,850
Southwest sump	30,574
Southeast sump	7,705
Northwest sump	90,850
Swimming pool-east of East Canal	120,436
AAF area	24,270
Retention Basin	1,000,000

APPENDIX B Stormwater Management Plan

Total	**2,958,112**

iii. Calculated Stormwater Storage Volume

Rainfall	Average Monthly	Monthly Maximum	Daily Maximum
Rainfall	3.28 in.	8.63 in.	5.59 in.
Less evaporation rate for region	(1.50 In.)	(1.50 In.)	(0 in.)
Rainfall amount less evaporation rate	1.78 inches	7.13 inches	5.59 inches
Converted to ft [1]	0.15 ft	0.59 ft	0.47 ft
Calculated Runoff Storage Volume Required [2], [3]	(0.15x985,450)(65%) + (0.15x836,575) (30%)x7.5 gals/ft^2 = **1.0 million gallons/mo**	(0.59)(985,450)(65%) + (0.59)(836,575) (30%)x7.5 gals/ft^2 = **3.94 million gallons/mo**	(0.15x985,450)(65%) + (0.15x836,575) (30%)x7.5 gals/ft^2 = **3.13 million gallons/mo**
Available on site storage	**3.0 million gallons**	**3.0 million gallons**	**3.0 million gallons**

Notes: [1] Estimated average evaporation rate.
(2) Pervious 985,450 ft^2
Impervious 836,575 ft^2
(3) Runoff rates (30%) pervious
(65%) impervious

6. SAMPLING DATA

Stormwater samples are collected on a monthly basis from the Stormwater Retention Basin Outfall #005 Surface water samples have been collected since 2005. The results from the Outfall #005 have been predominantly below the permit water quality standards. Occasionally, pH, Total Suspended Solids (TSS), and Chemical Oxygen Demand (COD), and Lead exceed the water quality standards. A summary of analytical results is shown in **Table 1.**

7. POLLUTION PREVENTION

Stormwater Control: The Estate has successfully used irrigation sprayers during warm weather to evaporate the stormwater by spraying the stormwater from the interior canals very high in the air and letting it impact the open concrete covered areas of the site. During cold weather, natural evaporation is sufficient to control stormwater on the site.

APPENDIX B Stormwater Management Plan

As the following sampling data indicates, contaminates in the stormwater stored in the lagoons/canals on the smelter site do not exceed effluent standards except for slightly elevated lead level. The stormwater impacting the north and east sides of the slag piles that is collected in the Off-Site Perimeter System and samples did not exceed effluent standards. The stormwater issue of concern is to contain scrubber sludge (a/k/a zinc oxide). It should be noted that nearly all of the scrubber sludge has been sold and removed from the Facility, thus reducing the source of concern.

a. Sampling Data

Analytical results from samples collected from the NPDES Outfall #005 are shown in **Table 1**. The table shows the most recent over the past 12 months. The 12-month running average shows that all constituents were well within effluent standards except for a slightly elevated COD, TSS, Lead, Zinc, and pH. It should be noted that Nitrogen (Ammonia, Total) exceeded one time in November 2011.

b. Materials of Concern

Included below is a list of significant materials/wastes located on the smelter site whose exposure to stormwater impacts stormwater management:

i. Scrubber Sludge (a/k/a, zinc oxide) – granular fine solids generated as emissions particulates from the smelting operation that contain elevated levels of zinc, copper, and lead oxides. Scrubber sludge exhibits toxic characteristics according to TCLP analysis for lead and cadmium.

It should be noted that the majority of the Scrubber sludge has been removed from the site and sold. Scrubber sludge can still be found in the following locations around the site:

APPENDIX B Stormwater Management Plan

1. On the exterior surfaces, including on the concrete pavement, trenches and sumps in the AAF area as well as inside the adjacent open Polish Pits.
2. Approximately 40,000 tons of mixes of scrubber sludge, soil, slag, scrap and debris stored in an open top concrete lined bunker (Zinc Oxide Bunker) on the north end of the site.

ii. Slag – An iron-silicate ceramic matrix, Slag was generated as a by-product of the copper smelting operations over the 30 years of operation. The slag has toxic characteristics for lead and occasionally for cadmium based on TCLP analysis. The slag has not exhibited toxic characteristics when subjected to analysis under SPLP analysis. Over 900,000 tons of slag is estimated to be openly stockpiled on the site, primarily along the eastern boundary with the majority stockpiled in the northeast corner of the site. Slag is found in sizes from granular to over several feet in diameter.

iii. Pot Slag – (A copper slag by-product). Nearly all of the Pot Slag has been sold and removed from the Facility.

iv. Lead, Copper, Zinc Concentrates (Mixed Fines)- Approximately 1,800 tons of mixed fines containing copper and lead scrap metal, scrubber sludge, slag, scrap iron, and debris was stored in the Fines Building. The material was originally stored during demolition activities from various areas of the site (i.e. Tank House, AAF Area). The material has been screened and sold as MBM internationally.

v. Furnace Charges and Cleanup Materials – Over 300 tons of various materials containing copper and lead scrap metal, scrubber sludge, slag, scrap iron, and debris located inside the Foundry Building and outside have been removed and sold . The removal of the Furnace Charges and Cleanup Materials (FCCM) should improve the quality of the stormwater collected.

APPENDIX B Stormwater Management Plan

vi. Scrap Metal – Scrap metal currently on site, will continue to be removed and sold. The removal of the scrap metals should improve the quality of the stormwater collected.

vii. Refractory Brick and Lining – Old refractory brick and lining exhibiting toxic characteristics for lead and cadmium are located inside the Foundry Building inside the furnaces, and south of the Brick Shop.

viii. Fuel Storage – The site has two 2,500-gallons above ground storage tanks for diesel fuel and a 1000-gallon waste oil above ground storage tank located outside but inside sealed secondary containment.

ix. Lubricants, Oils and Antifreeze – Usually, several drums of one of these materials is found located outside the Mobile Shop but most is stored inside.

c. On-Site Stormwater Control

i. Stormwater Storage Control

The following control scheme will be used to manage the quantity of stormwater stored on the site in the lagoons, canals, and sumps in the order shown:

#1 Control - Discharge into Off-Site Perimeter System – Currently the irrigation sprayers (water cannons) are turned off, and only one is turned on as needed. The interior surface runoff from the slag piles continues to discharge into the north and south RCRA canal. During Paradigm processing of the slag, adjustments to runoff control may be warranted.

Because the two barges ~332,000 gals, and 134,000 gals respectively were found to leak during the demolition activities, they may or not be used depending on the extent of heavy rainfall. In the event of inclement whether conditions exceed storage capacity, the stormwater will be sent to the 1,000,000 retention basin. As requested by IEPA, additional sampling at the Outfall #005 may be warranted.

APPENDIX B Stormwater Management Plan

ii. **AAF Area and Foundry Building Flooded with Stormwater** – AAF Area and Foundry Building flooded with stormwater will be allowed to evaporate. Depending on the extent of heavy rainfall, the stormwater may be pumped into any of the four RCRA Ponds at a rate so as not to cause overflowing of the storage system.

In the event of inclement weather conditions exceed storage capacity, the demolition area stormwater may be sent to the 1,000,000 retention basin. As previously requested by IEPA, additional sampling at the Outfall #005 may be warranted if such event occur.

d. **Off-Site Perimeter Control** – The Estate has successfully used and will continue to use the perimeter drainage system connected to the stormwater retention basin to collect and direct the stormwater to the stormwater retention basin where it is monitored through the NPDES Permit.

e. **Inspection and Maintenance** – The Estate will inspect the Site periodically to ensure the existing system and are properly maintained.

f. **Contingency Procedures**

i. **Emergency Contacts**

1. Primary Contact	Eric Watt, Facility Manager Office: 618/254-4381 x230 Cell: 618/444-0622
2. Secondary Contact	Jorge Garcia, EH&S Manager Office: 618/254-4381 x372 Cell: 314/348-8211

APPENDIX B Stormwater Management Plan

ii. **Contingent Actions**

Event	Contingent Action
1. Total Suspended Solids exceed Effluent Standards (15 ppm) at exit or in results of monthly NPDES #005 sampling.	1. a. Stop pumping to Off-Site Perimeter System notify EH&S Manager and collect sample of exit water and store on ice or in refrigerator for EH&S Manager. b. Document date, time, and actions taken.
1.. Overflow Off Site-no indication of scrubber sludge or other contaminates	1. a. Document date, time, and estimate of flow rate, b. Divert overflow to another area of site, c. If not successful, notify EH&S Manager and collect samples of overflow water and store on ice or in refrigerator for EH&S Manager, d. EH&S Manager have samples Analyzed.
2. Overflow Off Site- indication of scrubber sludge or other contaminates.	2. a. Same as 1. a.-d. above, b. Locate source of scrubber sludge contaminating stormwater, and c. Isolate and prevent stormwater from contacting scrubber sludge.

TABLE 1
Summary of NPDES Stormawater Data 2012
Estate of Chemetco
Hartford, Illinois

NPDES IL0025474, OUTFALL: #005 DATA TRACKING-30 Day Average
(EXCEEDANCES OF STDS SHOWN IN SHADED CELLS AND BOLD FONT)

		NPDES #005 OUTFALL DISCHARGE SAMPLE ANALYSIS															
Parameter	Units	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	2012 YTD Average	35IAC304 Effluent Water Quality Stds (mg/l)	12 Month Running Avg	12 Mo Avg vs. Effluent Stds
BOD, 5-Day	mg/L	8.00	7.00	6.00	<5	<5	10.00	6.00	15.00	7.00	<5	5.00	5.00	7.00	**30**	7.00	23.3%
Oxygen Demand, Chemical	mg/L	74.00	58.00	85.00	64.00	<50	73.00	51.00	76.00	<50	65.00	58.00	<50	62.83	**50**	62.83	125.7%
pH		9.16	9.17	9.16	8.70	8.99	8.88	8.64	8.95	9.08	8.50	8.50	8.22	8.83	**9.0**	8.83	98.1%
Solids, Total Suspended	mg/L	35.00	31.00	9.00	18.00	19.00	25.00	16.00	12.00	30.00	10.00	16.00	18.00	19.92	**15**	19.92	132.8%
Arsenic, Total	mg/L	*<0.0250*	<0.0250	<0.0250	0.0365	0.0414	0.0424	0.0301	0.0278	<0.0250	<0.0250	<0.0250	<0.0250	0.0294	**0.25**	0.0294	11.8%
Barium, Total	mg/L	0.0984	0.0932	0.0784	0.0791	0.0767	0.2260	0.3230	0.1210	0.1660	0.1720	0.1520	0.1450	0.1442	**2.00**	0.1442	7.2%
Cadmium, Total	mg/L	0.0225	0.0179	0.0070	0.0118	<0.0020	0.0027	<0.0020	<0.0020	0.0046	0.0020	0.0024	0.0020	0.0066	**0.15**	0.0066	4.4%
Chromium, Total	mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	0.0100	**1.00**	0.0100	nil
Copper, Total	mg/L	0.1600	0.1320	0.0575	0.2120	0.0342	0.0579	0.0288	0.0205	0.0840	0.0315	0.0430	0.0273	0.0741	**0.50**	0.0741	14.8%
Iron, Total	mg/L	0.5790	0.5990	0.1400	0.7150	0.0856	0.2890	0.1290	0.0732	0.1790	0.1280	0.2660	0.1680	0.2794	**2.00**	0.2794	14.0%
Lead, Total	mg/L	0.1660	0.1390	0.0630	**0.2100**	<0.0400	0.0656	<0.0400	<0.0400	0.0899	<0.0400	0.0622	<0.0400	0.0830	**0.20**	0.0830	41.5%
Manganese, Total	mg/L	0.1610	0.1910	0.0882	0.2080	0.0685	0.1440	0.0911	0.0784	0.0654	0.0981	0.1090	0.1160	0.1182	**1.00**	0.1182	11.8%
Nickel, Total	mg/L	0.0534	0.0597	0.0252	0.0577	0.0172	0.0299	0.0243	0.0251	0.0295	0.0310	0.0493	0.0469	0.0374	**1.00**	0.0374	3.7%
Selenium, Total	mg/L	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	0.0500	**None**	0.0500	nil
Silver, Total	mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	0.0100	**0.10**	0.0100	nil
Zinc, Total	mg/L	0.6640	0.4060	0.0982	0.3910	0.0480	0.1210	0.0538	0.0478	0.1710	0.0660	0.1230	0.1300	0.1933	**1.00**	0.1933	19.3%
Oil and Grease	mg/L	<6	<6	<6	<6	<6	<6	<6	<6	<6	<5	<6	<6	5.92	**15**	5.92	39.4%
Nitrogen, Ammonia, Total	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.140	<0.10	<0.10	<0.10	<0.10	0.270	0.12	**None**	0.12	nil
Avg Flow (MGD)	MGD													0.001354		0.001354	nil
Avg flow (GPM)	GPM	1.75	1.11	0.72	7.60	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.9400		0.9400	nil
															Note: pH 6-9		
			4200 ml/min		28800ml/min		no flow	no flow	no flow	no flow	no flow	no flow	no flow				
				2700 ml/min													

Note:
MGD = million gallons per day
GPM = Gallons per minute
Highlighted colored cells reflect 2012 results

APPENDIX C Fugitive Emissions Control Plan

I. PURPOSE

This Fugitive Emissions Control Plan documents the control of dust on the Chemetco, Inc. (Chemetco) Facility as required in paragraph 17 of the September 16, 2008 Interim Order in the Matter of the United States and the People of the State of Illinois v. Chemetco, Inc., Civil Case Nos. 00-670-DRH and 00-677-DRH (consolidated). It should be noted that the IO has been updated several times and recently has been extended through January 31, 2013. A copy of the IO is included in **Appendix A**.

The Facility currently operates under an Administrative Seal Order (Seal Order) issued on December 4, 2001 by the Illinois Environmental Protection Agency (IEPA). A copy of the Seal Order is included in **Appendix A**. Paragraph 6. of Attachment A to the Seal Order states that "Movement of scrap or other materials and vehicular traffic must be conducted in a manner that will minimize the release of particulate fugitive emissions to the atmosphere. A Fugitive Emissions Control Plan, that will achieve a level of 95% percent control, must be submitted and approved by the IEPA prior to removal of materials from Chemetco." This Fugitive Emissions Control Plan (FECP) addresses and complies with the Seal Order requirements.

The objective of the plan is for fugitive emissions control of dust and particulates of the Facility is of concern to protect personnel, property and prevent the release of materials of environmental concern to the environment.

During the past year, the Estate and Paradigm have loaded and shipped materials such as scrap metals, Scrubber Sludge and Scrubber Sludge mixed with fines, Copper Furnace Cleanup Solids from a stockpile formerly accumulated in the Foundry Building, and copper, lead, and zinc concentrates (Mixed Fines). It should be noted that the mixed fines were screened in order to remove debris that was mixed with the fines.

APPENDIX C Fugitive Emissions Control Plan

The following tasks may require a FCEP in the next few months:
The Estate will begin the removal and sale of the three furnaces in the Foundry Building.

In addition, under the Paradigm Processing Work Plan, Paradigm expects to handle the slag material for screening, and loading and shipping of crushed slag.
A separate Fugitive Emissions Work Plan (FEWP) that describes how the dust be controlled. The FEWP will be submitted by Paradigm and fugitive emissions will be managed by Paradigm.

II. BACKGROUND

The Chemetco Facility is contaminated with the dust from slags (produced as a by-product of the secondary copper smelter that operated on the site from 1970 until shutdown in 2001) and scrubber sludge/zinc oxide (emissions particulates from the smelting operation). Slag and scrubber sludge both exhibit toxic characteristics for lead and cadmium as well as low levels of nickel, tin, and other metals of concern.
Activities that handle the materials from the facility were described in the previous section.

Between June 2010 and December 2011, demolition activities removed the Foundry Building, American Air Filter (AAF) filter system, and the interior of the Tank House Building. The volume of dust has been greatly reduced by the removal of the buildings that limited the exposure to dust. However, as the remaining material is handled, it has the potential to generate dust.

APPENDIX C Fugitive Emissions Control Plan

III. FUGITIVE EMISSIONS CONTROL

The following control measures are to be incorporated into work plans and normal activities to control fugitive emissions within 95% of control (visual sign of particulates above that created by nature):

1. Monitor activity so that there are no visible emissions.
2. Use water spray or mist to control emissions but be careful not to cause runoff,
3. Use coating/bonding agent (e.g., cohex) to coat particulates, and/or
4. Remove source of particulates (e.g., vacuum up particulates and containerize),

Other engineering controls as warranted.

IV. RESPONSIBILITIES

Fugitive Emissions generated by the Estate of Chemetco will be addressed and managed by the current staff of the Estate of Chemetco and Trustee.

Fugitive Emissions generated by Paradigm will be addressed and managed by the staff of Paradigm in accordance with the Process Work Plan.

APPENDIX D Security Plan

I. PURPOSE

This Security Plan supersedes the previously Security Plan that was submitted on November 20, 2008 to IEPA. This Security Plan documents the security monitoring of the Chemetco, Inc. (Chemetco) Facility as required as required in paragraph 17 of the September 16, 2008 Interim Order in the Matter of the United States and the People of the State of Illinois v. Chemetco, Inc., Civil Case Nos. 00-670-DRH and 00-677-DRH (consolidated). It should be noted that the IO has been updated several times and recently has been extended through January 31, 2013. A copy of the IO is included in **Appendix A**.

Previously, the IO had been modified by Illinois Environmental Protection Agency in letter dated: October 3, 2008 as follows: "Security. The Estate [Bankruptcy Estate of Chemetco, Inc.] will provide security monitoring of the site utilizing Estate personnel during working hours, Monday through Friday. During non-working hours, security will be provided by the site's security camera monitoring system."

On May 25, 2010 the security plan was modified to include status of action items. These changes were made at the request of USEPA. Currently, status of action items is submitted to USEPA and IEPA on a monthly basis.

It should be noted that under the Asset Purchase Agreement, Paradigm Minerals and Environmental Services (Paradigm) also has access to the facility. Any security issues associated with Paradigm's presence and activities on-site will be addressed by Paradigm in accordance with the Process Work Plan.

APPENDIX D Security Plan

The Facility currently operates under an Administrative Seal Order (Seal Order) issued on December 4, 2001 by the IEPA. A copy of the Seal Order is included in **Appendix A**.

The Seal Order restricts access and activity on the Facility due to the presence of "materials containing hazardous levels of lead and cadmium". All personnel, other than Estate staff personnel, must be specifically authorized by IEPA (IEPA Collinsville Regional Office) before they can enter the smelter site and the adjacent properties, all of which are defined as the "Facility." All personnel entering the smelter site are required have authorization from IEPA, sign in and out and have a copy of their driver's license made and placed in an Estate file. A separate file of personnel visiting Paradigm at the facility is kept by Paradigm.

Currently, the Estate has subcontracted with Metro Contract Services (MCS) for the removal and sale of the three former furnaces to Metallo Chimique NA. The furnaces are located in the Foundry Building, and the work is being performed under an approved work plan.

Due to the anticipated future increase in activity on the Facility as follows, security of the Facility is of concern to protect personnel, property and prevent the release of materials of environmental concern to the environment:

- Loading and shipments and sales of Slag and MBM material from the north, northeast slag piles are expected to commence in early 2013 by Paradigm personnel;
- Upon CD approval, Paradigm will begin improving site conditions to prepare for processing the MBM material.

II. SECURITY MEASURES

On-Site Security

APPENDIX D Security Plan

Currently, a security company (Securitas) provides on-site Security. The one security guard's shift hours are from 7 pm through 3 am daily.

- Up to two on-site security guards have been provided depending on site work. Assessments will be made throughout the year and if warranted, additional on site security will be temporarily provided until items/tasks have been resolved or completed. Upgrades and/or modifications to security measures may be warranted.

Security Cameras

The Estate contracts with a local security company (PASS), to provide a 24-hour web-based security camera system. Cameras are strategically located on the smelter site and along the perimeter along with lighting to record the presence of intruders on the site. A couple of cameras were relocated after the completion of demolition activities and razing of the foundry building.

Alarm Systems

The Estate contracts with PASS to provide a 24-hour password entry/alarm system on the offices, Mobile Shop/Store Room, and Brick Shop. Passwords are only issued to Estate personnel. The last Estate person leaving for the day must activate the alarm system using their password. The first person arriving for the day must deactivate the alarm system to enter the alarmed buildings. The same is true when entering and exiting the Mobile Shop/Store Room and the Brick Shop. It should be noted that the Estate of Chemetco Employees do not have password access to the Paradigm building. As such, alarm systems for the Brick Shop and Paradigm building are managed by Paradigm.

Fencing and Gates

The smelter site is surrounded with an eight-foot high wire mesh fence and gates, including a locked metal gate at the east entrance to the Facility property at Chemetco

APPENDIX D Security Plan

Lane and Old Alton Road. All gates are locked at all times and keys are securely maintained by the staff.

Vegetation and Perimeter Upkeeping

Upkeeping of vegetation will continue periodically as needed and/or warranted in order to discourage/dissuade potential trespassers.

Coordination with local Police and Emergency Personnel

The Estate will continue submitting Contingency Plans (when modified, upgraded, and/or revised) to local Police and Emergency Personnel on an annual basis.

Security action items and/or other issues associated with the Estate will be addressed and managed by the staff of the Estate of Chemetco and Trustee

Security action items and/or other issues associated with Paradigm will be addressed and managed by the staff of Paradigm in accordance with the Process Work Plan.

PROCESS WORK PLAN

Prepared By

Paradigm Minerals & Environmental Services

3754 Chemetco Lane

Hartford, IL 62048

June 4,2013

Table of Contents

1.0 PURPOSE

This Work Plan provides for the initial processing of approximately 50-150 tons/day of Metal Bearing Materials ("MBM")[1/] after completion of the installation of the equipment in the Process Building enumerated in this Work Plan.

2.0 DESCRIPTION OF THE PROCESS FACILITY AND INITIAL PREPARATIONS

2.01 Process Facility Description and Location

Paradigm's Process Facility is situated on a portion of the 41 acre former Chemetco Smelter site, located at 3754 Chemetco Lane in Chouteau Township, just south of the Village of Hartford, in Madison County, Illinois. The Processing Facility has several key operational areas consisting of MBM Source Areas, Bulk Segregation Areas, Feed-Stock Prep Area and the Chemical Processing Area. The 41-acre former Chemetco Smelter site is currently fenced and access to the site is restricted by order of the Illinois EPA.

2.02 Maps/Diagrams of the Process Facility

Please see Appendix A for Paradigm Processing Facility and Source Areas within the Chemetco Site, the proposed plant layout, and a schematic of the process train. Also in Appendix A are routes of transportation between areas of operations on Site.

2.03 Description of Processing Areas of Operation

The Process Work areas of operation are:

- Area 1 Removal of Metal Bearing Material from Source Areas; Bulk Segregation
- Area 2 Unprocessed Metal Bearing Material – Product Packaging and Loading Area of Operations;
- Area 3 Feed Stock Preparation – Process Materials;
- Area 4 Paradigm Process Insoluble Process Train – Paradigm Process Buildings;
- Area 5 Paradigm Process Soluble Process Train[2/] - Paradigm Process Buildings

2.04 Establishment of Facility Baseline Conditions

Within sixty days of the Effective Date of the Consent Decree and prior to initiating any Process Work, Paradigm and EPA shall prepare the Baseline Documentation. The Baseline Documentation will be video, documentary, and photographic depictions of current site conditions. Baseline Documentation will provide a visual demonstration of the Chemetco Facility conditions prior to the start of Paradigm's

---

1/ All capitalized terms used within this Work Plan shall have the meanings provided in the Consent Decree executed among the United States, the State, the Chemetco Estate, the Chemetco Trustee, and Paradigm.

2/ For reference, see the map attached at Appendix A, identifying key areas of the Paradigm Process Facility.

Process Work and will consist of: (1) a report detailing a joint site visit and inspection of the Chemetco Facility by EPA and Paradigm; (2) detailed photographic documentation and descriptions of each area at the Chemetco Facility; and (3) copies of the most recent results from storm water sampling conducted by the Estate under its NPDES permit (the "Baseline Documentation"). Paradigm will prepare the Baseline Documentation in consultation with EPA. EPA will provide a written statement certifying that the Agencies agree that the baseline established at this time is accurate.

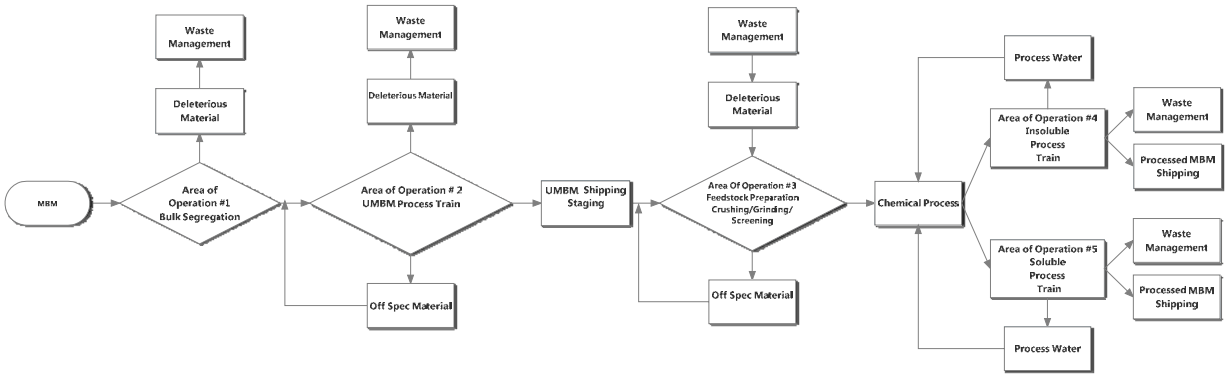
2.05 Project Coordinator and Supervising Contractor

Pursuant to provisions in the Consent Decree, within 30 days following the lodging of the Consent Decree, Paradigm will notify the EPA, the State, and the Trustee of the name, address and telephone number of Paradigm's designated Project Coordinator and Alternate Project Coordinator, which shall be subject to approval by EPA. Paradigm's Project Coordinator shall have the technical expertise sufficient to adequately oversee all aspects of this Process Work Plan and the Consent Decree. Paradigm's Project Coordinator may also assign other representatives, including other contractors, to serve as a representative for oversight of the Paradigm's performance under the Work Plan. Moreover, as the plant construction is nearing completion and initial startup is imminent, it is likely Paradigm will hire a Supervising Contractor to serve as the day to day manager of the Facility.

3.0 SCOPE OF WORK

Under this Process Work Plan, Paradigm will process MBMs on Site into marketable, beneficial products and commodities. Paradigm's operations will depend on market demand for these types of products, as Paradigm will generate a supply of products consummate with the rate of demand from buyers, but will operate continuously with the exception of defined periods due to maintenance, weather, etc . The Asset Purchase and Process Agreement, to which Paradigm and the Estate of Chemetco are party, sets a seven-year time limit on processing activities. As discussed in more detail below, Paradigm's work will be accomplished in a number of locations on the Site including: (1) bulk segregation activities within the footprint of the existing stock piles on the Site;(2) MBM Processing activities in or near the former DIS Building or the former Granulation Building; (3) Feed-Stock Preparation Activities in or near the DIS Building or the former Granulation Building; and (4) Chemical Processing of the MBM in the tank house. Paradigm will operate year round under this Work Plan.

Area Of Operation Master Flow Chart



1. The chemical Processes are further defined in the US EPA Reactor Batch Process Drawing attached as an appendix to the Pilot Plant Report
2. The Insoluble Process Train produces 2nd Grade Iron Products
3. The Soluble Train produces 2nd Grade Zinc, Aluminum, Tin, Lead, and Copper Products.

For ease of use, a larger, fold out version of this flow chart is attached at Appendix B. The names currently assigned to the various Areas of Operation above are used to distinguish the various process systems. Specific terms or names may be modified in the future.

3.01 Process Work Area of Operation 1 – Bulk Segregation – Removal of Metal Bearing Material from Source Areas

Metal Bearing Materials (MBM) will be obtained from the following large source areas for use as a feedstock in the chemical process:

- fine copper slag that remain on the Site from former operations that were commingled into large stockpiles located in the northeast quadrant of the former Chemetco Smelter Site (this source area is labeled SA2 on the map attached as Appendix A)[3/];

3/ As much as 40% of the Metal Bearing Materials from this source area may be less than ½ inch in size, providing a substantial amount of Metal Bearing Materials requiring less initial crushing, sizing and grading equipment to process the raw material in accordance with the Processing Work Plan.

- MBM stock piles located along the south east and north eastern property boundaries of the former Chemetco Smelter Site (this source area is labeled SA2 and SA3 on the map attached at Appendix A)[4/]; and

- MBM stock piles to the north and west of the former DIS and domed buildings (these source areas are labeled as SA1, SA4, SA5 and SA6 on the map attached at Appendix A).

Additional, albeit smaller quantities of MBM material may also be obtained from the following sources. The MBM from these sources are not currently accessible or available and as a result may require evaluation, review and/or analytical testing prior to being processed as feed stock for use within the chemical process.

- from general housekeeping, clean-up and decontamination activities;

- MBM that may result from activities associated with the zinc bunker; and

- MBM that may result from activities associated with storm water management.

The bulk segregation activities described share a certain amount of commonality with those of the UMBM Work Plan. Work is expected to begin after the work plans have been approved, and appropriate IEPA Joint Construction and Lifetime Operating Permit (air permits) have been obtained. Both work plans are expected to operate concurrently, although there will be several months required to construct and start-up of the chemical processing facility, as opposed to the shorter-term assemblage and start-up of the processing systems of UMBM Work Plan.

Significant quantities of fine copper slag (resembles coarse black sand) currently reside within existing MBM stock piles that do not require gross crushing. They may require screening to segregate previously commingled larger MBM. These materials essentially surround the former Granulation Building and are predominately located within the northeast quadrant of the Site. Due to a number of factors, including proximity and range of operation it is likely that the fine copper slag will be further reduced and processed within the former Granulation Building.

There are many types of equipment and configurations of equipment available that function and produce similar effects. The following configuration has been given consideration for application and suitability and is capable of processing material at a rate of about 220 tons per hour.

A wheeled loader will periodically load and haul the fine copper slag from the existing stock piles of MBM and enter it into a 4' x 6' Simplicity screen (or equivalent) sized to pass nominal ½" and less material. The screening plant will initially be located within the footprint of the large stock pile of MBM located in the north eastern quadrant of the Site and will be periodically relocated as work progresses to

4/ The majority of this material in this source area appears to be greater than ½ inch in size and is expected to be processed in accordance with the UMBM Work Plans

the north or east, but at no time will be operated less than 100 feet from the site boundary. MBM passing the screen will be transferred by a radial stacker (or equivalent) into a ball mill (or equivalent) crushing device that can be located within the former Granulation Building for additional processing prior to being used as a feed stock within the chemical process. Oversized MBM exiting the screen will periodically be transferred to an appropriate entry point within the processes described in the UMBM Work Plan.

Water spray bars can be mounted on crushers, screens, and conveyor systems and can be utilized, when needed, to control fugitive dust emissions that may be generated during processing. Water for the spray bars is expected to be pumped from the former cooling canals located to the south and east of the existing MBM stock piles that are currently used for the collection and control of surface/storm water run-off. The filtered water supply to the spray equipment will be metered to determine water usage. During active operation cycles, the water spray equipment and operation will be performed weekly. The watering of haul roads, or MBM stock piles as necessary to ensure no visible emissions beyond property lines in compliance with 35 Ill. Adm. Code 212.301 will remain the responsibility of the Estate.

In compliance with the New Source Performance Standards (NSPS) Subpart 000, the crusher, screens and conveyors will have opacity observations completed within 180 days of the start-up of operations. Processes not subject to NSPS Subpart 000 will occur at the same time. Testing for compliance within the opacity limits can be found in 35 Ill. Adm. Code 212.123.

Work performed by these types of construction and mining equipment and associated material handling systems used during the bulk segregation sizing and sorting processes will likely result in the discovery, culling and accumulation of non-MBM materials. In an effort to promote safe work operations and conditions, to allow vehicle and equipment access and to mitigate the disruption of work activities, it may be necessary to periodically relocate non-MBM from the area of operation, within the foot print of the existing slag piles, until such time that enough material has accumulated to fill an appropriate recycle/disposal container. At that time, non-MBM materials will be removed from within the foot print of the existing MBM stock piles and handled in accordance with the ARAR's detailed later in this document. Reasonable efforts will be made to minimize the handling of such material within the work areas.

3.02 Area of Operation 2 – Unprocessed Metal Bearing Material – Product Packaging and Loading Area of Operations

The bulk segregation activities and crushing operations for the UMBM are described in greater detail within the UMBM Work Plan. Appropriately sized fines resulting from those activities can be used as a feedstock for the chemical process after being subjected to additional preparation operations further described below.

3.03 Area of Operation 3 – Feed Stock Preparation – Process Material Staging Area

The MBM having passed initial segregation and sizing within the Process Work Plan is targeted to render material at a nominal ½". As such, the MBM will require additional processing before it can serve as feed stock for the chemical processing operations.

MBM having passed the initial screening can then be transferred by a radial stacker (or equivalent) into a ball mill (or equivalent) within the former Granulation Building. MBM having successfully passed through the crushing equipment and associated screening is conveyed into a loading hopper and loaded into unitized containers. Material not passing the secondary screening can be returned to the sizing equipment for further reduction. The loaded containers are then to be temporarily staged, and then transferred by forklift, skid loader or similar equipment to the feed stock staging area within the former Tank House.

Water spray bars can be mounted on crushers, screens, and conveyor systems and can be utilized, when needed, to control fugitive dust emissions that may be generated during processing. Water for the spray bars is expected to be pumped from the former cooling canals located to the south and east of the existing MBM stock piles that are currently used for the collection and control of surface/storm water run-off.

3.04 Areas of Operation 4 and 5 –Insoluble and Soluble Process Trains –Paradigm Process Building

These two process trains involve fluid processes that utilize multiple vessels, the use of chemicals and processes to further isolate the different layers or stratified zones created when the Area of Operation 3 chemical process split the feedstock into soluble layers, this stage of the process concentrates on breaking up targeted groups of metals and metal compounds and results in the generation and production of progressively higher grade commodity metals and metal compounds. The Insoluble Process Train will result in the production of predominately iron and iron compounds, while the Soluble Process Train will result in the generation and production generate progressively higher grades of products, including zinc, aluminum, tin, lead, copper, and associated compounds. These two process trains have a common initial reaction vessel that uses feed stock prepared for the process in the Process Material Staging Area. The chemical processes will likely be located in the former tank house.

The methods employed within the chemical processes make use of various chemical solutions and compounds. This does not make use of add-agents such as arsenic, cyanide, chlorides, peroxides, nitrates or their compounds, nor does it result in gangues typically associated with such processes.

The chemicals and compounds used within the various processes are by class, generally considered to be alkaline, acidic, and electrolytic in nature. In raw, bulk form as provided by various vendors, these chemicals are generally considered to be corrosive in nature. Many of the chemicals are used in the

food, medical and pharmaceutical industries. None of the chemicals used as raw materials in the process are flammable.

Chemical handling and storage is an integral part of the chemical process trains. These materials will be stored within the brick shop with smaller lots brought to the tank house as needed for the processing. Prior to being placed in solution in the process, no one liquid chemical will be stored on site in excess of 25,000 gallons and no one solid chemical will be stored on site in excess of 20,000 pounds (net of packaging). These chemical raw material volume estimates (which are based on maximums for a 50 to 150 ton per day processing facility) are based on the expectation that Paradigm will not have more than three and a half weeks of raw material stored on the site at any one time. The storage of materials within the brick shop is an interim approach until the operating units are commissioned. Ultimately, the former tank house will likely require improvements and renovations so that it can house storage areas for chemical and other materials that are expected to be a part of routine operations and activities within the tank house. The former tank house and brick shop are labeled as numbers 8 and 7 respectively on the map attached at Appendix A. Attached, as Appendix G is a conceptual diagram/layout of the Areas of Operation 4 and 5's which is further described.

Process Description

In general, appropriately sized feed stock(s) are produced and transferred within the various Areas of Operation of the chemical processes. Within the various Areas of Operation the appropriately sized feed stock is subjected to a series of hydro-chemical reactions, mechanical and gravitational separations, and other processes that further reduce, isolate, convert, and create compounds resulting in the recovery of various target metals and metal compounds as through-put products in a logical and progressive manner. The process can be progressively expanded to yield increased daily through-put and/or to produce additional and varied types and grades of commodity metals and metal compounds of increasing value and product diversification, as driven by business and market demand.

The process and associated equipment are intended to be located in the former Tank House Building. The vessels and associated systems are likely to be positioned within an area of containment located beginning in the southwest quadrant (and east of the existing water source), with down-stream and expansion of process systems progressing to the east. The various considerations for location include relative positioning to existing process equipment such as overhead cranes, filter press, utility distribution, material transfer and area to afford the proposed expansion of various Areas of Operation.

All the fluidized systems through-out the chemical process as applicable are all likely to include the following; flow metering, shut off-valves, counter-flow back check valves, over-fill limiters, over-fill ports and inter-connective piping, reserve vessels, expansion joints, maintenance clean-outs and sample ports.

The Initial Reactor

From the reserves of existing MBM previously stock piled on the Site, appropriately sized MBM will be used as feed stock and entered into the common initial reaction vessel(s). The feed stock will likely be received for entry into the chemical processing facility in a 'dampened' or 'wetted' state.

Engineering design concepts and considerations have narrowed the selection of the initial reaction vessel(s) to two types of process equipment and vessels, each with their own set of advantages and constraints. These vessels are to be fairly large in capacity (900 -1200 gallon capacity and greater are available) as they are the main flow or influx of MBM that results in crude or 'first pass' product generation and/or are utilized as the main feed stock of down-stream process operations and ultimately effect overall product generation.

Both options employ what can be loosely described as centrifugal mixing systems. One system is skid mounted and predominately more horizontal in nature, resembling a style of that of a rotating drum. Within a rotating drum or horizontal system, the feed stock can be entered into the equipment then be set into motion as process water and chemical solutions are added beginning the mixing and reaction cycle which is continued until the desired the reaction cycle completed. The lower water requirements of the horizontal system does however allow for more of the soluble materials to remain 'trapped' within the insoluble material mass, As a result, additional cycles will likely be required to maximize MBM segregation and uniform product generation.

The other system resembles that of vertical conical tanks in elevated stands on concrete support pads with specialized interior components, fluid pumping and dispersion equipment to enhance the initial reaction and can result in additional early segregation and product generation. The product generation cycles are slightly longer and allow for greater effect of fluid dynamics. However, they are generally a more complete reaction cycle, thereby resulting in greater 'first pass prime' product generation.

It is likely that over the operation of the facility, both systems will be employed. Initially, the horizontal or rotating drum system may be employed to generate crude or 'first pass' product. The more advanced vertical systems can later be constructed and phased into service and the rotating drum system can be utilized to augment that production, and / or they can later be utilized as blending mixers for the various product grades of material to be offered.

There will be a few other vessels used in direct support of the initial reactors such as those that contain process water, and chemical solution(s). The vessels are likely to be conical in nature, positioned in elevated stands on raised concrete support pads, with inter-connective piping, pumps, and associated process equipment. They will be within the containment area and may be subject to further compartmentalized containment/isolation. Double walled tanks are being considered for specialized applications such as chemical solutions.

Both initial reaction systems require top loading of feed stock and the introduction of fluid solutions. A second floor will be constructed to interconnect the individual vessels on elevated work platforms to be used as applicable to operate, inspect and maintain the systems.

After sufficient mixing and the desired effects are realized, either of the systems under consideration can be emptied into a wet-screening hopper or trough lined, belted conveyance system. The 'wet' screening allows for and aids in the separation of the more finely divided, suspended, or otherwise fluidized materials (termed soluble) to be segregated from other more coarse and dense materials (termed insoluble).

The more finely divided fluidized material that passes the screening is collected and transferred by pump to holding tanks. The product generated at this point has value as crude or 'first pass' commodity grade material. The solute can be transferred by pump and piping systems to a filter press and de-watered. After progressive expansion of the process system, the solute can also be transferred, in part or whole, to the proposed down-stream soluble process train where it can serve as a feed stock for advanced separations.

The more coarse material that doesn't pass the screening is diverted within the hopper to a belted trough conveyor associated with the reactor vessel(s) as appropriate. The insoluble product generated at this point is known to rapidly shed fluids. These belted trough lined, belted conveyor systems associated with the reactor vessels, merge their individual payloads, at different points, along a common conveyor system. The common trough lined- belted conveyor systems can be inclined to deliver the insoluble product to a filter press or other equipment/method for additional de-watering if warranted. Fluids collected during the filter press or other de-watering systems are returned to the recycle water system associated with this Area of Operation. After progressive expansion of the process system the crude 'first pass' product can be transferred to the proposed down-stream insoluble process train where it can serve as a feed stock for additional processing and separation.

Water

Water is a key component to the chemical process and it is important to be aware that the chemical processing system is predominately a 'wet system' in that may of the areas of operation make use of fluids within their range and area of effect. The predominate fluid to be used within the various process systems is water, and is intended to be initially derived from existing on-site water wells, and continuously, recycled through the process systems and the various Areas of Operation. Water can potentially be sourced from alternate on Site water sources, such as storm water containment and control devices.

One on site water well is located within the Former Tank House on the west side of the building. This previously existing water-well is intended to be the initial source of production water. To that end, the water well source must be protected from back flow intrusion. Counter-flow back check valves will be installed near the source and again downstream within the main supply trunk line or manifold.

Initial planning and design considerations locate a series of large vessels to serve as receiving and holding vessels near the existing on-site water source on the western most side of the former Tank House building within an area of containment. The vessels could range in size from 10,000 to 20,000

gallons dependent on a number of yet unrealized factors. Several will be employed to ensure a 'ready and available' supply of water is held in reserve.

The greatest majority of production water over the life of the operating facility will result from water collected and recycled for reuse within the various Areas of Operation. Process water vessels will be located within areas of containment in near association with the Area of Operation it supports. Vessels of various sizes are intended to be used. There will be large receiving and holding vessels in sizes ranging upward of 10,000 gallons to as much as 20,000 gallons. The vessels are to be constructed of materials compatible with the process chemistry and their function within the system. The exact size and configuration are subject to a number of influences relative to function, structural constraints, capacity and space availability.

Smaller vessels will also be employed to facilitate chemical solutions, fluid conditioning and distribution to individual Areas of Operation. These vessels are likely to be positioned within the containment zones and in near proximity to their respective Area of Operation. These vessels are likely to be much smaller in volume ranging from 100 gallons to 600 gallons and could be conical or bullet shaped. The vessels will be placed on elevated concrete support pads.

Advanced Process Areas of Operation

The chemical reaction within the common initial reaction vessel(s) and associated systems generated two different crude, 'first pass' products of commodity value. With continued further progressive expansion of the process, the basic products generated in the initial reaction can result in further product speciation and increase the commodity value of the resulting products generated.

There are two proposed process Areas of Operation for two separate and distinct advanced process trains currently termed as 'soluble' and 'insoluble' trains. They are intended to be part of expansive development of the existing product lines.

Part of the design process includes creating and exploiting, commonality between the various Areas of Operation that result in a modular footprint that is easily replicated for the purposes of progressive expansion and product advancement. To that end, the basic footprint of the vertical systems within the initial reaction, and the advanced areas of process are very similar.

Insoluble Process Train

The insoluble process train is an Area of Operation that utilizes the insoluble fraction product generated within the initial reaction as a feed stock. It has been engineered and designed to further segregate the 'insoluble' MBMs and by downstream connections allow for the transfer of those MBMs to the 'soluble' system train. Conversely, the 'insoluble' system trains have been engineered and designed to

accommodate 'soluble' MBMs within the process system. Otherwise, these process trains are essentially independent of each other.

During the reaction and basic separation processes of the initial reaction, it is known that a portion of the soluble fractions become 'trapped' within the heavier insoluble fractions or that additional soluble and insoluble materials may be generated to result in better defined streams by additional or repeat reactions. Additional processing can also result in a product of higher commodity value while sequestering additional amounts of soluble products.

The secondary reaction vessels require top loading of feed stock, and the introduction of process water and chemical solutions. It will be necessary to have multiple receiving/reaction vessels. The vessels will be placed within areas of containment. The vessels are likely to be between 900 -1200 gallon in capacity, vertical conical vessels in elevated stands (similar to other up-stream process vessels) positioned on concrete support pads with inter-connective piping and pumping systems. The vessels will likely be equipped with some specialized interior components, fluid pumping, and dispersion equipment. A second floor will be constructed to interconnect the individual vessels or elevated work platforms as applicable to gain access to operate, inspect and maintain the systems.

After sufficient mixing and the desired effect realized, the products generated can be emptied into a wet-screening hopper and trough lined, belted conveyance system. The 'wet' screening allows for and aids in the separation of the more finely divided, suspended, or otherwise fluidized materials (termed soluble) to be segregated from other more coarse and dense materials (termed insoluble).

The more finely divided fluidized material that passes the screening is collected and transferred by pump to receiving vessels within the soluble process train. The more coarse material that doesn't pass the screening is diverted within the hopper and transferred to the 'insoluble' process train. The fluidized products generated are transferred down-stream to the separation vessel down-stream within this process.

The recovered 'soluble' metals and metal compounds are then prepared for packaging. One method to be employed utilizes a filter press to reduce and recover fluids, which are returned to the recycle water system associated with this Area of Operation, while rendering the desired quality of metals/metal compounds into a fine yet granular marketable commodity product. The final products generated are then assayed and packaged into containers appropriate to shipping and client needs, such as super sacks, totes, drums and bags.

Soluble Process Train

Receiving / Reaction Vessels

There are three main Areas of Operation within the advanced soluble process train. These Areas of Operation include equipment and processes related to the receiving/reaction vessels, the separation vessels and the accumulation vessels. The combined effort of these Areas of Operation can result in additional product line generation, better segregation and higher purity of product lines resulting in a higher valuation of the commodity products generated.

As a result of the initial reaction, the volume of the original feed stock has been subdivided and results in the generation of two crude 'first pass' product lines. By sizing the volume capacity to be equal to that of the initial reaction vessels and increasing the number of the vessels in this Area of Operation it takes multiple 'batches' of crude 'first pass' product to fill the down-stream receiving vessels This engineering and design element is intended to better facilitate a 'continuous batching' process, increased product generation and promote system standard continuity.

The feed stock employed within the 'soluble' process train is primarily sourced from the 'soluble' process product generated from the reaction vessels and to a lesser extent from further segregation within the 'insoluble' process train.

The fluidized material is received into a second system of receiving/reaction vessels. After attaining a 'limited by device' volume, the material is allowed some residence time. After sufficient time has been allowed a separation within the solute will occur. The upper-most zone is collected and transferred to down-stream separation tanks. After transfer of the upper-most zone, additional process water is added to the receiving/reaction vessel, the solute is set into cyclonic action, and a chemical solution is added. After sufficient reaction time has been allowed, the remaining solute is transferred to down-stream separation vessels and split into two simple fractions termed 'heavy' and 'light'.

It will be necessary to have multiple receiving/reaction vessels. The vessels will be placed within areas of containment. The vessels are likely to be between 900 -1200 gallon capacities, vertical conical vessels in elevated stands (similar to other up-stream process vessels) positioned on concrete support pads with inter-connective piping and pumping systems. The vessels will likely be equipped with some specialized interior components, fluid pumping, and dispersion equipment. A second floor will be constructed to interconnect the individual vessels or elevated work platforms as applicable to operate, inspect and maintain the systems.

There will be a few other vessels used in direct support of the initial reactors such as those that contain process water, and chemical solution(s). The vessels are likely to be conical in nature, positioned in elevated stands on raised concrete support pads, with inter-connective piping, pumps, and associated process equipment. They will be within the containment area and be may be subject to further compartmentalized containment/isolation. Double walled tanks are being considered for specialized applications such as chemical solutions.

Soluble Process Train

Separation Vessels

The time it takes for each of the Reactor Vessels to complete a reaction cycle, and the number of cycles it takes to fill a separation vessel, and the number of separation vessels available are engineering and design elements that allow for adequate residence time for 'simple separation' into heavy and light fractions of similar chemical and physical properties.

It will be necessary to have multiple receiving/reaction vessels. The use of multiple separation vessels allows for a more continuous series of reactions to occur. This further allows for increased daily through-put of product line generation. The vessels will be placed within areas of containment. The vessels are likely to be between 900 -1200 gallon capacities, vertical conical vessels in elevated stands (similar to other up-stream process vessels) positioned on concrete support pads with inter-connective piping and pumping systems, placed within areas of containment that may be further subdivided. The vessels will likely be equipped with some specialized interior components, fluid pumping, and dispersion equipment. A second floor will be constructed to interconnect the individual vessels or elevated work platforms as applicable to operate, inspect and maintain the systems.

Each separation tank is filled to a capacity that allows for commingling of batches to create a homogenous solution. The mixing cycle is stopped and the MBM solution is allowed to separate into heavy and light phases. Each phase is likely to have a number of commodity metals and compounds of similar chemical and physical properties. A chemical reagent may be added to aid in surface tension reduction to enhance and/or reduce the gravitational separation cycle rates. That in turn increases the rate of production through-put in this system.

From the separation tanks the lighter fractions are transferred to one set of accumulation tanks and the heavier fractions from the separations tanks are transferred to another set of accumulation tanks.

There will be a few other vessels used in direct support of the initial reactors such as those that contain process water, and chemical solution(s). The vessels are likely to be conical in nature, positioned in elevated stands on raised concrete support pads, with inter-connective piping, pumps, and associated process equipment. They will be within the containment area and may be subject to further compartmentalized containment/isolation. Double walled tanks are being considered for specialized applications such as chemical solutions.

Soluble Process Train

Accumulation Tanks

The accumulation vessels are split into two main groups. One set receives light fractions and another set receives the heavy fractions transferred from the soluble process train separation tanks. The resulting fractions are accumulated within these vessels. When volume accumulated is sufficient the addition of process water and internal circulation serves to fluidize the concentrated material so it can be transferred to a filter press for de-watering. Fluids collected during the filter press or other de-watering systems are returned to the recycle water system associated with this Area of Operation.

A chemical solution may be added to aid in surface tension reduction to enhance and/or reduce the gravitational separation cycle rates, ease the 'lift' requirements of internal circulation and to aid in transfer as a fluid to the filter press or other down-stream de-watering processes. Smaller vessels will also be employed to facilitate chemical solutions, fluid conditioning and distribution to individual Areas of Operation. These vessels are likely to be positioned within the containment zones and in near proximity to their respective Area of Operation. These vessels are likely to be much smaller in volume ranging from 100 gallons to 600 gallons and could be conical or bullet in shape. Double walled vessels are being given consideration for use with chemical solution processes.

The accumulation vessels are to be placed within an area of containment that may be further subdivided. The vessels are likely to be between 900 -1200 gallon capacities, vertical conical vessels in elevated stands (similar to other up-stream process vessels) positioned on concrete support pads with inter-connective piping and pumping systems. The vessels will likely be equipped with some specialized interior components, fluid pumping, and dispersion equipment. A second floor will be constructed to interconnect the individual vessels or elevated work platforms as applicable to gain access to operate, inspect and maintain the systems.

Electric Coagulation Area of Operation

With continued further progressive expansion of the process, the fluidized material from the accumulation tanks of the Soluble Process Train can also be transferred to expanded Electric Coagulation (EC) processes that can enhance product speciation of increased purity and volume, effectively increasing the commodity value of the resulting products generated.

The proposed larger volume EC system has two stages of process vessels. The first set of EC vessels are connected on the intake side by a single manifold piping system and are referred to as the first stage or primary EC tanks. Each of the first stage or primary EC tanks is followed by another pair of secondary EC tanks connected by yet another single inter-connective manifold creating the secondary stage of the EC process. Products generated of sufficient quantity can be transferred a filter press or other de-watering device

The first stage EC process consists of series of process vessels. These vessels are likely to be 1000 – 1500 gallon in capacity, bullet shaped with specialized internal configurations, and non-conductive in nature. The vessels will be positioned on concrete support pads with inter-connective piping and pumping systems. The vessels will likely be equipped with some specialized interior components, fluid pumping, and dispersion equipment. An elevated work platform will likely be required to gain access to operate, inspect and maintain the systems.

Each of these first stage process vessels, although connected to the same manifold piping system, can be operated independently. The first stage EC process are generally intended to operate in tandem sets, each set receiving feed from the accumulation tanks. However, there are provisions within the system that allows feed material to be introduced and diverted as required through-out the first stage EC process as necessary to meet production demand.

The initial reduction of the light feed and heavy feed from the accumulation tanks occurs within the first stage EC process. While the light feed and heavy feed fractions are being subjected to the EC process and/or after having completed a processing cycle, both of the light and heavy feed fractions from the accumulation tanks typically result in what is typically described as a three-phase separation within a water column. A description of the three-phase separation follows;

The upper-most fraction is often referred to by industry as 'float' and is recovered by conventional recovery techniques such as over-flow or direct draw methods. The 'float' can include metals and metal compounds of copper, silicon, zinc and lead and trace minerals. The upper-most fractions are typically transferred downstream to one of the two tanks downstream associated with each primary EC tank, allowed to accumulate, subjected to additional cycle(s) and transferred to the downstream filter press. They can also be transferred to the downstream filter press filter without benefit of additional EC process cycles.

The mid-phase fraction is comprised mainly of water with some red iron.

The lower-most fraction is often referred to by industry as 'bottoms' and is recovered by conventional recovery techniques such as bottom draining after any additional 'float' has been recovered. The bottoms can include zinc, lead, and some iron ore with trace minerals. The lower most fractions are typically transferred downstream to one of the two vessels down-stream associated with each primary EC vessel, allowed to accumulate, subjected to additional cycle(s) and transferred to the down-stream filter press. They can also be transferred to the downstream filter press filter without benefit of secondary or additional EC process cycles.

Material exiting the first stage EC vessels enters the second manifold piping system and is diverted to the appropriate secondary stage EC process vessel. Typically the upper-most phase is transferred to one of the downstream secondary EC vessels and the bottom phase to another parallel down-stream vessel. After an adequate amount of material has accumulated within the down-stream secondary EC vessels, the material is subjected to a second round of EC processing resulting in generation of higher grade commodity products.

Generally, product lines generated within EC processes are transferred to down-stream filter presses. The process materials are recovered from the filter presses in the form of saleable filter cake and are temporarily staged and stored for packing and handling. Recovered liquids are transferred to the recycle water collection vessels for reuse within the 'soluble' process train.

Both of the single manifold piping systems previously described, have on both terminal ends a valve, followed by a flange and a block-in plate. This allows for the block-in plate to be removed and sections of flexible piping with correlated valves and flanges to be attached allowing for a wide variety of tasks to be performed, such as flushing of lines during product changes, introduction of fluid based feed stocks, maintenance requirements and the introduction recycle water for EC processing. This arrangement has a great deal of flexibility in operation and aides to facilitate rapid change of flow to accommodate feed stock changes driven by production requirements and market demand.

Additionally, third-party independent laboratory analysis results from pilot plant operations indicate that the EC process is currently effective at producing high quality commodity metals and metal compounds with low-energy requirements at predictable rates. The pilot plant operations also indicate that with further development, through-put rates can be further enhanced.

Small scale EC Area of Operation may be placed into service on a limited basis prior to the proposed construction and expansion of the larger system described and used in conjunction with water recycling efforts for re-use. The amount of products generated is small and will likely be transferred to the soluble process train, or may be isolated and accumulated for sale in small but high grade quantities.

3.05 Packaging & Shipping

The products generated from the insoluble process train will pass through filter and other potential de-watering systems to collect excess water. The Product produced from the soluble process train will pass through filter and hydraulic presses and readily forms a 'cake'. Excess water collected after filtering and other potential de-watering systems such as hydraulic pressing will be reclaimed for reuse within the Paradigm Process, thereby reducing the amount of 'new' water used in the Paradigm Process. Paradigm does not currently intend to utilize forced drying process that would require associated scrubbing processes and air permitting.

Products from the Paradigm Process will be staged for shipment in a portion of the former Tank House set up as a Processed Metal Bearing Materials Product Staging Area with like grades and specification of Product staged together. The proposed location for the Processed Metal Bearing Materials Product Staging Area is labeled as number 9 on the map attached at Appendix A.

The physical state of the Products can consist of powder, cake, or granular type forms. Products will be shipped in either super sacks or bulk loaded into containers as per the Product being shipped and buyer preference. Pricing is Freight on Board ("F.O.B.") Hartford and the buyers will be responsible for coordinating the shipping from the plant to the final destination. Paradigm will only be required to coordinate the packaging and loading of containers on the Process Facility. Paradigm will secure the Product for shipment in accordance with United States Department of Transportation hazardous materials shipping procedures.

4.0 ENVIRONMENTAL ISSUES/REGULATORY COMPLIANCE

4.01 Environmental Compliance Operating Procedures

APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARs)

Potential ARARs have been identified from the following pertinent environmental, and safety and health standards:

- Resource Conservation and Recovery Act (RCRA) Standards (42 USC 6901 et seq)[5/] ;
- 35 Illinois Administrative Code (35 IAC Chapters 700 – 729, 733, 739, 742, and 807 – 809);
- Clean Air Act (CAA) Standards (42 U.S.C. §7401 *et seq*) and Illinois Air Pollution Standards (35 Ill. Adm. Code §201 *et seq*.);

[5/] Compliance with the hazardous waste rule shall not be construed as an admission that the material being processed is a hazardous waste. The various forms of Metal Bearing Materials are raw materials to be processed to obtain economically viable and reclaimable amounts of metals and metal compounds.

- Department of Labor, Occupational Safety and Health (OSHA) Standards (29 CFR 1910); and
- Department of Transportation (DOT) Standards, Rules for Hazardous Materials Transport (49 CFR 107, 171.1 – 500).

Applicable ARARs, specific to the work directly associated with processing the Metal Bearing Materials and other on-site operations and activities are listed in a table, attached at Appendix D.

CHEMICAL AND HAZARDOUS MATERIALS HANDLING

Bulk chemicals and other materials will be brought to the Process Facility and initially received at the receiving building. Spill containment pallets and similar devices will be used during on site receiving, transfer, and subsequent loading operations. Liquid materials are typically shipped in drums, totes and similar devices. Whenever these types of containers of chemical compounds are found to be damaged or otherwise of questionable structural integrity, the container will be placed into over pack or salvage containers and returned to the supplier or, if appropriate, the remainder of the contents transferred into a compatible container.

Paradigm will manage all materials in a manner that takes into consideration the compatibility and reactivity of materials, and, as needed, Paradigm will provide any necessary distance, isolation, and physical separation of materials by barriers. Paradigm will also utilize spill containment pallets, fixed and portable containment berms, and drip pans in its materials handling and storage areas.

Multiple vessels will be used directly and in support of the soluble and insoluble process train operating systems. Containment berms will be built around the vessels or vessel groups. Cinder block will likely be used in the construction. Interior transition joints such as those formed at walls to floor and penetrations will be sealed with a compatible caulking and then the floor and wall surfaces will have a compatible protective coating applied to the interior faces of these containment devices.

Submersible pumps, drum vacuums, squeegees and similar devices will be used to collect any release of fluids from leak or spills and aid in the collection of these materials and return them to process.

WASTE ANALYSIS PLAN -- PROCESS WASTE HANDLING PROTOCOLS

Attached at Appendix E is Paradigm's Process Waste Handling Protocols table, which comprises Paradigm's Waste Analysis Plan. The table contains information related to the sampling, analysis and handling of debris, Process Waste, and other materials that are likely to be encountered, generated, or may otherwise result from Process Work.

The materials, debris and wastes described in the Process Waste Handling Protocols table will be collected and staged separately during debris collection activities in the Process Material Staging Area. Paradigm will not consolidate or commingle materials realized or generated under this Work Plan with staged materials existing as of the Effective Date of the Consent Decree. Once Paradigm determines that materials are unsuitable for either the Paradigm Process or sale as Unprocessed Metal Bearing Materials, Paradigm will conduct appropriate waste characterization including, when appropriate, using US EPA Methods SW-846-1311 for extraction and 6010C, Toxic Characteristic Leaching Procedures for analysis. Upon completion of appropriate waste characterization, Paradigm will transfer waste to

appropriate off-site facilities. All waste will be managed in an environmentally responsible manner consistent with RCRA and any applicable ARARs.

Concrete debris found to be below applicable 35 Ill. Adm. Code. Section 742 Tiered Approach Corrective Action Objectives Tier 1 Industrial and Commercial Standards for soils may be left on site (but will not be commingled with existing stock piles of similar materials) for use as clean fill materials for future use.

PROCESS WASTE STAGING AREAS

Process Waste Staging Areas, identified as area #6 on the aerial attached at Appendix A, will be established on the existing concrete slab areas in locations that allow for reasonable vehicle access, management of materials, profiling and collection into appropriate containers for off-site disposal or insertion into the appropriate parts of the Process Materials Staging Area for reuse in the Paradigm Process. While stored in the Process Waste Staging Area, the Process Waste will be managed in accordance with the ARARs set forth in this Work Plan.

DUST EMISSION CONTROLS

Bulk segregation activities, reduction and sizing of slag material, powered equipment and similar activities may have the potential to result in fugitive dust emissions. When fugitive dusting is visually observed, Paradigm will use its reasonable discretion to determine the use of and implement, if necessary, any dust control measures, such as water spray, fogging, misting, and/or other wetting or dampening efforts. Attached, is an aerial map identifying water truck routes paradigm will implement to control fugitive dust on Site. Moreover, as discussed in Section 3.02 Crushing and screening equipment will be fitted with water spray bars as will each conveyor transfer point. Slag fines crushing and grinding operations will be preformed indoors and where possible we will utilize crushing and grinding equipment with negative vacuum systems designed to contain dusting conditions. Finally, Paradigm will collaborate with the Estate to update the fugitive dust portion of its Operation and Maintenance Plan and ensure that the Estate's O&M Plan reflects the existence at the Facility of Paradigm and the Process Work.

DECONTAMINATION

All equipment, tools, and the exterior of containers exiting the Process Facility will be decontaminated in accordance with the Estate's Decontamination Procedure, dated January 29, 2008, attached hereto as Appendix F. Currently, Paradigm plans to perform decontamination activities within concrete bunkers located outside of the tank house and the former foundry building, identified as number 5 on the map attached at Appendix A. Both of these areas have access and egress points able to accommodate the entry of mobile equipment. They provide reasonably direct routes out of transport lanes and away from Areas of Operation. These areas also provide concrete walls and partitions that serve to establish an element of containment. The decontamination areas will require the construction of, or the installation of small partitions and ramps to contain materials resulting from decontamination efforts, and to prevent the migration and intrusion of storm water that may contain MBM. The concrete slabs that underlay and are immediately adjacent to these areas are expected to prove suitable to serve as staging areas, the placement of receiving containers such as roll-off boxes, and for the placement collection

tanks or other suitable containers for the collection of solids and water used in decontamination activities. The MBM solids and potentially affected water collected are intended for re-use within areas of operation.

Pursuant to decontamination procedures, Paradigm will establish decontamination zones for powered and process equipment, material containers, personnel and the associated personal protective equipment used to perform work. Paradigm will employ two distinct forms of decontamination: dry (gross) decontamination and wet decontamination efforts. Dry removal is characterized by the use of dry mechanical or manual device assisted removal such as broom sweeping, brushing, scrapers or vacuuming. Wet removal is characterized by the use of fluids such as water and manually assisted or powered equipment such as pressure washers and hot water or steam cleaners. Paradigm will determine in its reasonable discretion, whether the use of curtained partitions is necessary to further aid in the containment and control of resulting Metal Bearing Materials and potentially affected water collected.

Additionally, Paradigm will establish satellite stations near personnel entrance and exit points to collect and contain Metal Beating Materials on the Process Facility and ensure that Metal Bearing Materials are not transferred off-site or into areas not generally known to be affected by Metal Bearing Materials intrusion. Paradigm will either use portable decontamination collection and containment or construct low vertical walls as containment berms and apply epoxy or rubber based paints to the interiors. Paradigm will also use portable containment berms to collect and contain wash water associated wet brushing and cleaning of boots and similar articles, along with drum type containers with liners for the collection of expendable PPE such as paper suits and respirator cartridges. Dry Metal Bearing Materials and water potentially bearing Metal Bearing Materials will be collected from the activities in these satellite stations and placed into containers and will be transferred periodically for use in appropriate operating areas.

PROCESS WASTE TESTING

Paradigm shall conduct characterization of Process Waste by EPA-approved analytical methods for Quality Assurance and Quality Control (QA/QC) purposes. Potentially applicable testing methods are summarized in the Proposed Testing Protocols table, attached here to as Appendix C.

PROCESS WATER USE AND RECYCLING

Throughout the Paradigm Process, water will serve as a carrier for the Metal Bearing Materials. Paradigm will utilize existing on Site water wells as its source for process water. Testing and use during pilot activities has demonstrated that water production from these wells is compatible with and adequate to supply the process. Nevertheless, Paradigm will recycle and reuse process water which will lessen the demand of the existing on Site water wells and diminish the need to dispose of process water. Once the initial Process Work has pulled water into the Process from the deep wells, the Process Work will cycle the water through the process and back to process tanks for filtering, recycling, and reuse.

Additional water from the deep wells will be pulled in as make-up water when more water is necessary to replace any process water depleted by final product moisture content and evaporation.

Paradigm will pipe water from the deep wells directly into its process tanks which will be located on concrete slab, under a roof, and within containment berms in the tank house building. Paradigm will install backflow prevention valves on all piping and related equipment to ensure that processing apparatus will not back flush material into the wells. Paradigm will not treat, filter, or condition the deep well water prior to use in the Process Work. Once water has run through the process, water will returned to the process and reused after it is filtered and recycled through a process water recycling system. This process water recycling system will be composed of an influent holding tank, multiple filtration vessels, and a treated water holding tank located in the Process Building. Water withdrawn from the treated water holding tank will pass through a totalizing flow meter (with particulate filter to minimize meter wear) prior to being used within the Paradigm Process. Positive displacement pumps will be installed at the discharge of each holding tank and controlled by level switches to convey water through the system and recycle back into the Paradigm Process. This process water recycling system will be operated independently as a separate unit from the main metals recovery process. Activated carbon and spun polymers may be used as water conditioning filtrate medium. Spent activated carbon, if used as a filter media, will periodically be recycled back to slurry tank for reactivation and reclamation of metals and metal compounds by combining it with the feed stock train for separation and recovery of entrained commodity metals.

To the extent not recycled and reused in the Paradigm Process, any Paradigm Process water will be discharged in accordance with the Clean Water Act, RCRA disposal requirements, and/or any POTW Industrial User permits.

STORM WATER MANAGEMENT AND CONTROLS

Paradigm shall comply with the Estate's current Storm Water Management Plan and the Facility's NPDES permit (number IL0025747). However, Process Work will not result in the discharge of process water. As discussed above, Paradigm intends to recycle and reuse process water as a necessary component of its Process Work. In the unlikely event Paradigm determines that it must dispose of some process water, Paradigm will collect the water and ship it off site in appropriate containers and in compliance with RCRA and DOT regulations and standards. Moreover, with the exception of the bulk segregation areas of operation, the majority of the other areas of operation will be located within existing buildings and structures. As a result, operations and activities related to storm water management under this Work Plan are not expected to significantly impact the existing Site Storm Water Management Plan. Access and egress points to building and structures that will contain areas of operation will require evaluation and potentially result in the construction of, or the installation of small partitions and ramps to contain materials resulting from decontamination efforts, and to prevent the migration and intrusion

of storm water that may contain MBM. During transition, sand bags, gravel bags, temporary berms, and other devices will be placed at access and egress points.

As a result, while Paradigm recognizes that the Estate's NPDES permit does not cover process water, Paradigm does not anticipate needing its own NPDES permit.

TRANSPORTATION AND DOCUMENTATION

All shipments of Product and/or Process Wastes will be in compliance with United States Department of Transportation regulations and standards as well as RCRA generator requirements. Paradigm will apply for a RCRA generator ID so that Paradigm may generate manifests and ensure that appropriate placards are applied or otherwise displayed at the time of transportation of any hazardous materials, including transportation to an appropriate recycling or waste management facility. Paradigm will forward to IEPA the signed generator and transporter copy of the manifest, while maintaining at the Facility the fully executed originals.

FINANCIAL ASSURANCE

Within thirty days after completion of construction of the Process Work plant, Paradigm will provide Initial Financial Assurance in the amount of $200,000 for: (i) closure and post-closure by Paradigm of units used by Paradigm to store, manage, and process the Process Materials present at the Facility; (ii) disposal by Paradigm of all Process Materials and any accumulated Process Wastes; and (iii) decontamination and decommissioning by Paradigm of all equipment and buildings used in the Process Work. The following break down of worst-case scenario costs, establishes that the $200,000 figure is sufficient:

- $20,000 to dispose of 200,000 gallons of process water (the maximum amount of process water that would be in residence in tanks or other containers in the Process Building at the Facility at any given time). Based on the demolition and pilot plant figures, Paradigm anticipates that it will cost no more than $.10/gallon to dispose of process water.

- $120,000 to dispose of 400 tons of staged material[6/] (the maximum amount of staged material that would be in residence at the Facility at any given time) in the Product Staging Area, the Process Material Staging Area or the Process Waste Staging Area (but not the Sources Areas) (collectively, the Staging Areas). This figure contemplates it would cost $300/ton to properly dispose of all the material in the Staging Areas as hazardous waste.

- $60,000 for demobilization, decommissioning, and decontamination activities.

4.02 Monitoring Environmental Compliance

6/ Including all product -- regardless of whether this product could be sold instead of disposed as waste --, process material, and waste.

Paradigm will prepare an inspection plan for full scale operations to comply with the requirements of 35 Ill. Adm. Code 725.115 - General Inspection Requirements. The Inspection Plan will be similar to the plan developed to support the Pilot Treatability Plant operations and include inspections of activities such as collection, handling, crushing, screening, transportation, temporary storage of Metal Bearing Materials as feed sources for the Paradigm Process of sale as Unprocessed Metal Bearing Materials.

4.03 Environmental Compliance Record Keeping

Until Closure or termination, Paradigm will retain documents for Product or Process Waste shipped or disposed of off-site. Documents related to profiling and characterization of Process Waste activities will be kept at the Process Facility. Paradigm will also retain on site all manifests, Certificates of Disposal, Certificates of Recycling, and analogous documents typically generated as a part of waste management activities. Paradigm will also keep records of the approximate quantity of Metal Bearing Materials collected, relocated, or staged for use as feedstock in the Paradigm Process or sale as Unprocessed Metal Bearing Materials, as well as records of the types and staged quantities of chemicals used in Paradigm's process. Paradigm will also retain on site other documentation, such as before and after photographs depicting the conditions of slabs, buildings or areas, where Metal Bearing Materials is or has been processed, staged, or stored as feedstock for the Paradigm Process or for sale as Unprocessed Metal Bearing Materials with the approximate quantity of the Metal Bearing Materials handled and the date of movement.

Drums, containers, and other receptacles used in Process Waste management activities will be properly labeled. The labels used will be physically attached to the container, legible, and able to withstand reasonable effects by weather. At a minimum, these labels will provide the Process Facility name, Process Facility contact, type of Process Waste or material, and the date the container was filled.

REPORTING

In accordance with the Consent Decree, Paradigm will submit to the Agencies, pursuant to the schedule below, written progress reports that among other requirements:

- Include a summary of all results of sampling and tests and all other data received or generated by or on behalf of the Trustee or Paradigm, and Paradigm's contractors, or agents in the previous reporting period;

- Identify all Work Plans, plans and other deliverables that were completed and submitted during the previous reporting period;

- Describe all actions, including, but not limited to, data collection and implementation of all Work Plans, which are scheduled for the next reporting period and provide other information relating to the progress of construction;

- Any actual or anticipated increases to the quantity of process material, RMBM, and or waste in process and which changes the quantity that was used to calculate the amount of the initial financial assurance;

- Include information regarding percentage of completion, unresolved delays encountered or anticipated that may affect the future schedule for implementation of the Work, and a description of efforts made to mitigate those delays or anticipated delays; and

- Include any modifications to the Work Plans or other schedules that Paradigm has proposed to EPA or that have been approved by EPA.

For the period during which Paradigm is developing, installing, and building the processing plant, Paradigm will submit reports on a monthly basis. Once the processing plant has commenced operations, Paradigm will submit reports referred on a quarterly basis. Paradigm will submit these reports to the Agencies by the tenth day of the new reporting period following lodging of the Consent Decree until certification of completion by EPA.

5.0 HEALTH AND SAFETY

SAFETY AND HEALTH PLAN

Prior to the initiation of the application of the Paradigm Process to the Metal Bearing Materials, Paradigm will develop a Process Facility specific safety and health plan in accordance with the Department of Labor Standards (OSHA) as promulgated in 29 CFR 1910 for General Industry and where applicable in 29 CFR 1926 for Construction as applicable to known and recognized hazards that are likely to exist on the Process Facility as they relate to activities and conditions related to the Paradigm Process.

PERSONNEL TRAINING

Process Facility workers involved with the collection and handling of potentially hazardous materials will have successfully completed a 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training course and/or an 8 hour refresher course as appropriate, incompliance with 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response, Ill. Adm. Code Section 125.116, and previously established Facility policies. Affected Facility employees will be required to participate in medical surveillance as it relates to lead exposure and the evaluation of fitness for use of respiratory protective equipment.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Personal protective equipment (PPE) will be used throughout the various areas of operation. At a minimum, all persons wanting to gain access to the various areas of operation and associated process areas will be required to wear hard hats, safety glasses or alternate eye protection, and work boots or shoes with toe protection or similar alternate protective foot wear. Personnel performing work in the various areas of operation and associated process areas may be required to use additional PPE appropriate to the task and conditions present. It is expected that PPE best described as level C will be required. This may include the previously mentioned hard hats, safety glasses or alternate eye protection, work boots or shoes with toe protection or similar alternate protective foot wear, and as appropriate, gloves, paper suits and half-face cartridge respirators. There may be some exceptions to these PPE requirements, such as equipment operators working within enclosed cabs or persons performing inspection related activities with very limited exposure potential.

EMERGENCY ACTION PLAN

Paradigm will comply with applicable portions of the hazardous waste regulations within 35 IAC 725 Subpart D and the Chemetco Site Emergency Response and Action Plan, prepared by the Estate in 2008. This plan is prominently displayed in areas of employee access and is also available through the Estate Safety Health and Environmental Compliance Office. Moreover, prior to initiating the Process Work, Paradigm shall develop a separate and independent Contingency Plan for the areas within the Facility on which the Process Work will take place. Paradigm's Contingency Plan will specifically cover possible conditions created as a result of the Process Work.

Eyewash and emergency showers will be placed in areas of operation where chemical contact potential exists. Signs and tags are to be applied at these devices indicating their location, functionality and or operating status.

6.0 SECURITY

The former Chemetco Smelter site is surrounded by a fence and protected from trespassers. In addition, Paradigm is in the process of restoring video and security surveillance equipment and improving perimeter lighting within the Process Facility. Paradigm will also take advantage of the Estate's "Facility Security Plan" and security measures, which include providing 24-hour security monitoring.

All persons wishing to gain access to the Process Facility will be required to sign in before entrance and to sign out as they exit the Process Facility for purposes of accounting in the event of an emergency. Access to the Process Facility will be denied to any personnel or individuals who are not properly identified or authorized for entrance. Additionally, persons or individuals wishing to gain access to Process Facility areas outside of the administrative office areas must have and wear basic safety equipment including at a minimum, a hard hat, safety glasses, work boots or work shoes, and clothing appropriate to the task.

Any visitors requiring access or entrance to areas outside of the administrative offices areas that are considered to be short term in nature, and do not involve the handling or collection of potentially hazardous material, such as inspectors, vendors, or contractors, will be required to make an appointment with enough advance time to be provided intent to enter information to the Agency and will be escorted or accompanied by Paradigm or Estate personnel after gaining approval by the Agency for access.

Trucks and other vehicles and their drivers may be denied access to the Process Facility. This may be due to the operating state or condition of the equipment or the driver.

7.0 CLOSURE

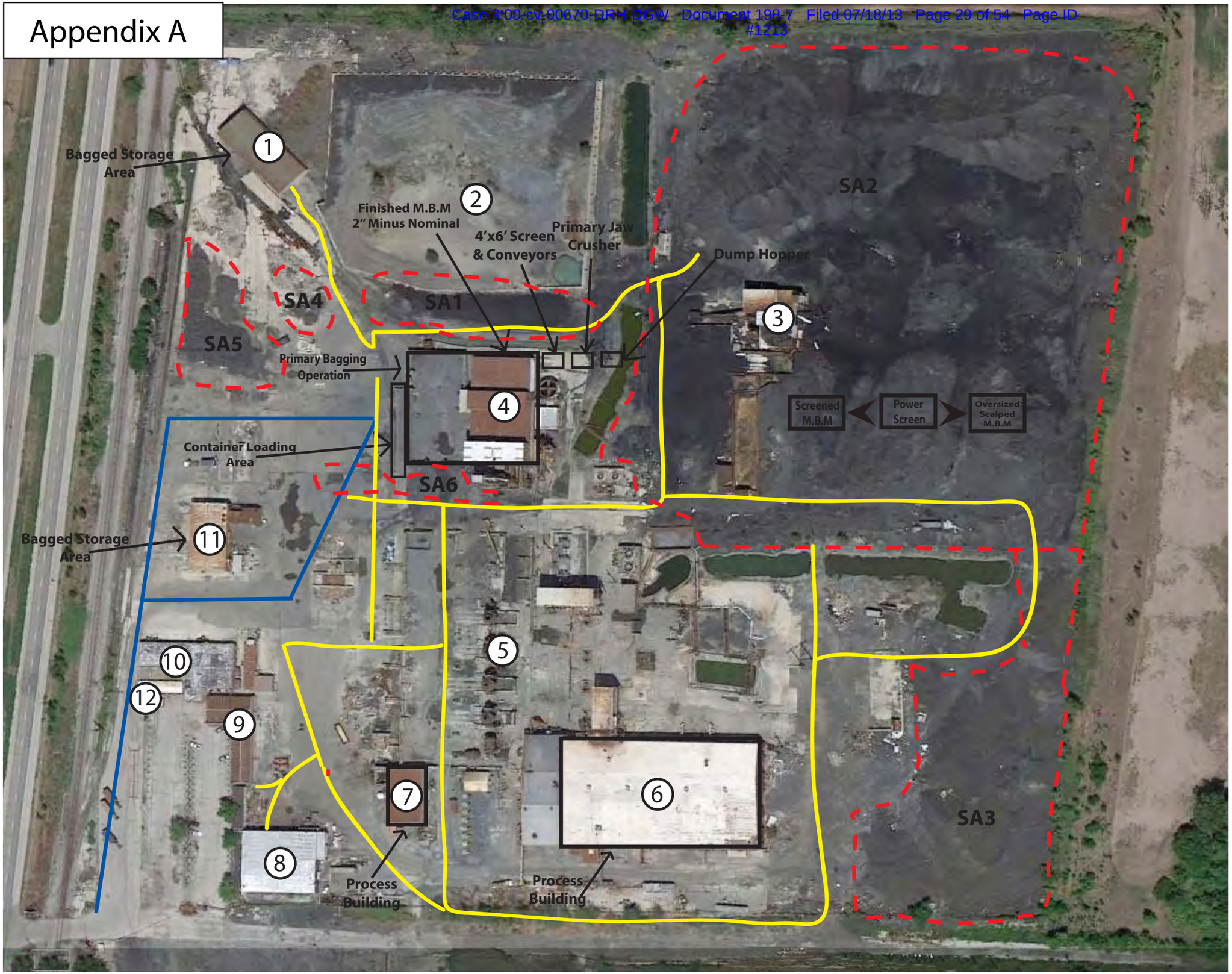
If at any time during Paradigm's Work under this Work Plan, Paradigm concludes, in its sole discretion, that the processing of Metal Bearing Materials either for use in the Paradigm Process or for sale as Unprocessed Metal Bearing Materials is no longer technically or economically feasible, Paradigm will cease the processing of Metal Bearing Materials. In this event, Paradigm will submit written notice to the EPA and IEPA indicating Paradigm's intention to stop the processing of Metal Bearing Materials. Paradigm's notice will include information and photographs to serve as comparison of the status and conditions of the Process Facility at the time Paradigm ceased operations at the Process Facility with the baseline conditions established pursuant to Section 2.04.

To demobilize operations, Paradigm will clean and decontaminate equipment and buildings in the Process Materials Staging Area and the Process Building and equipment will then be dismantled and shipped off site. All Process Waste will be shipped to appropriate waste handling facilities. Any remaining Metal Bearing Materials not saleable as Unprocessed Metal Bearing Materials shall be sent off-site for proper disposal.

8.0 MODIFICATION

Paradigm may modify this Work Plan and its Appendices at any time by mutual agreement in writing and signed by Paradigm and EPA. Any modification to this Work Plan shall be incorporated into this Work Plan.

Appendix A



Process Work Plan Areas of Operation

Points of Reference

1. Fines Building
2. Zinc Bunker
3. Crushing Building
4. Domed & Dis Building
5. Foundry
6. Tank House
7. Brick House
8. Maintenance Building
9. Administrative
10. Administrative
11. Receving Building
12. Truck Scales

Internal Access Routes

External Access Routes

Raw M.B.M. Location

SA1 Source Area 1

SA2 Source Area 2

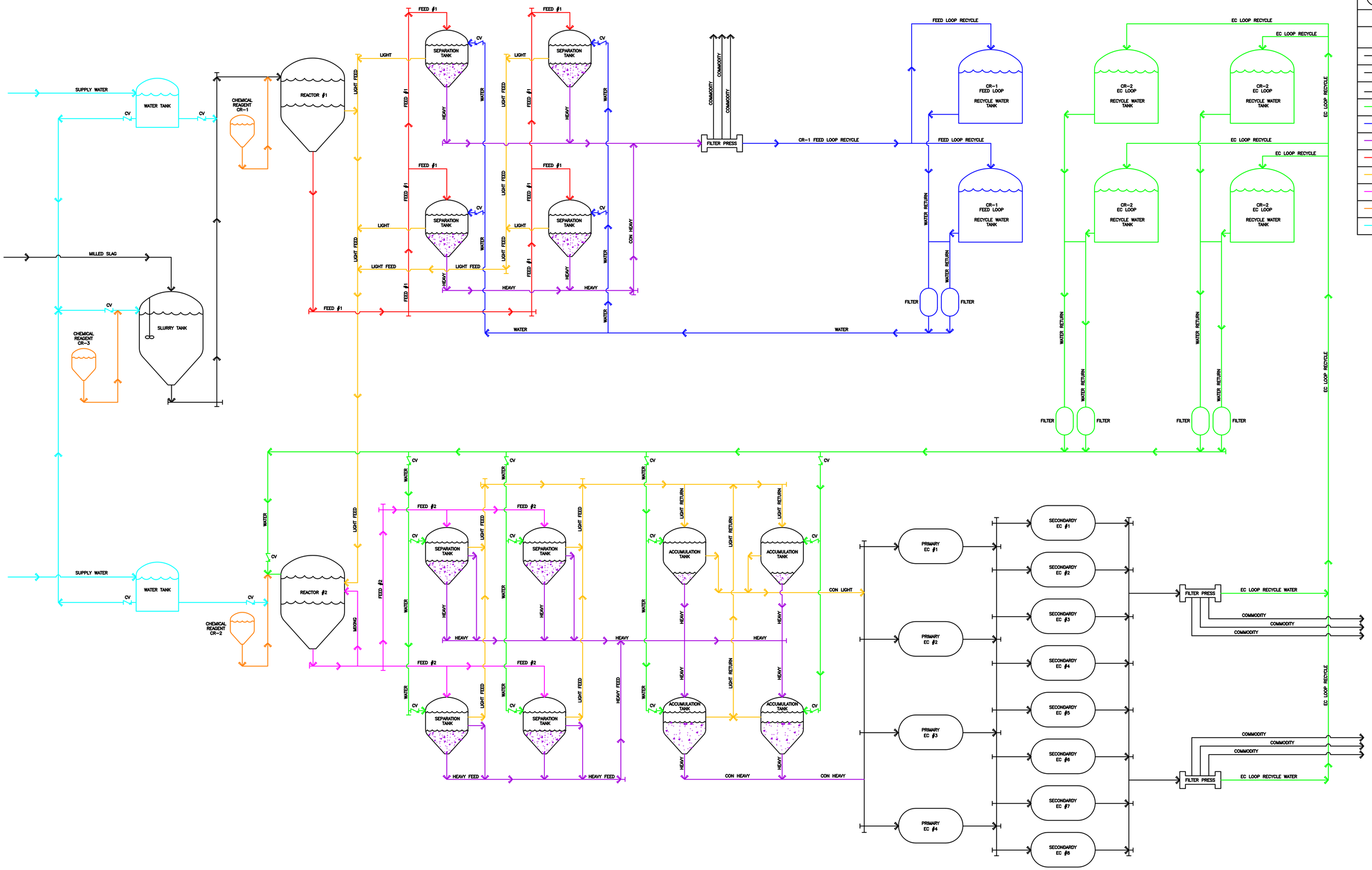
SA3 Source Area 3

SA4 Source Area 4

SA5 Source Area 5

SA6 Source Area 6

Appendix A



DRAWING LEGEND

SYMBOL	DESCRIPTION
	WATER STORAGE TANK
	REACTOR/SEPARATION TANK/ ACCUMULATION TANK
	CHEMICAL REAGENT INJECTOR
	FILTER PRESS
	FILTER
	AGITATOR
	DIRECTION OF FLOW
CV	CHECK VALVE
	EC LOOP RECYCLE WATER PIPING
	FEED LOOP RECYCLE WATER
	HEAVY FEED PIPING
	FEED #1 PIPING
	LIGHT FEED PIPING
	CHEMICAL REAGENT PIPING
	FEED #2 PIPING
	SUPPLY WATER PIPING

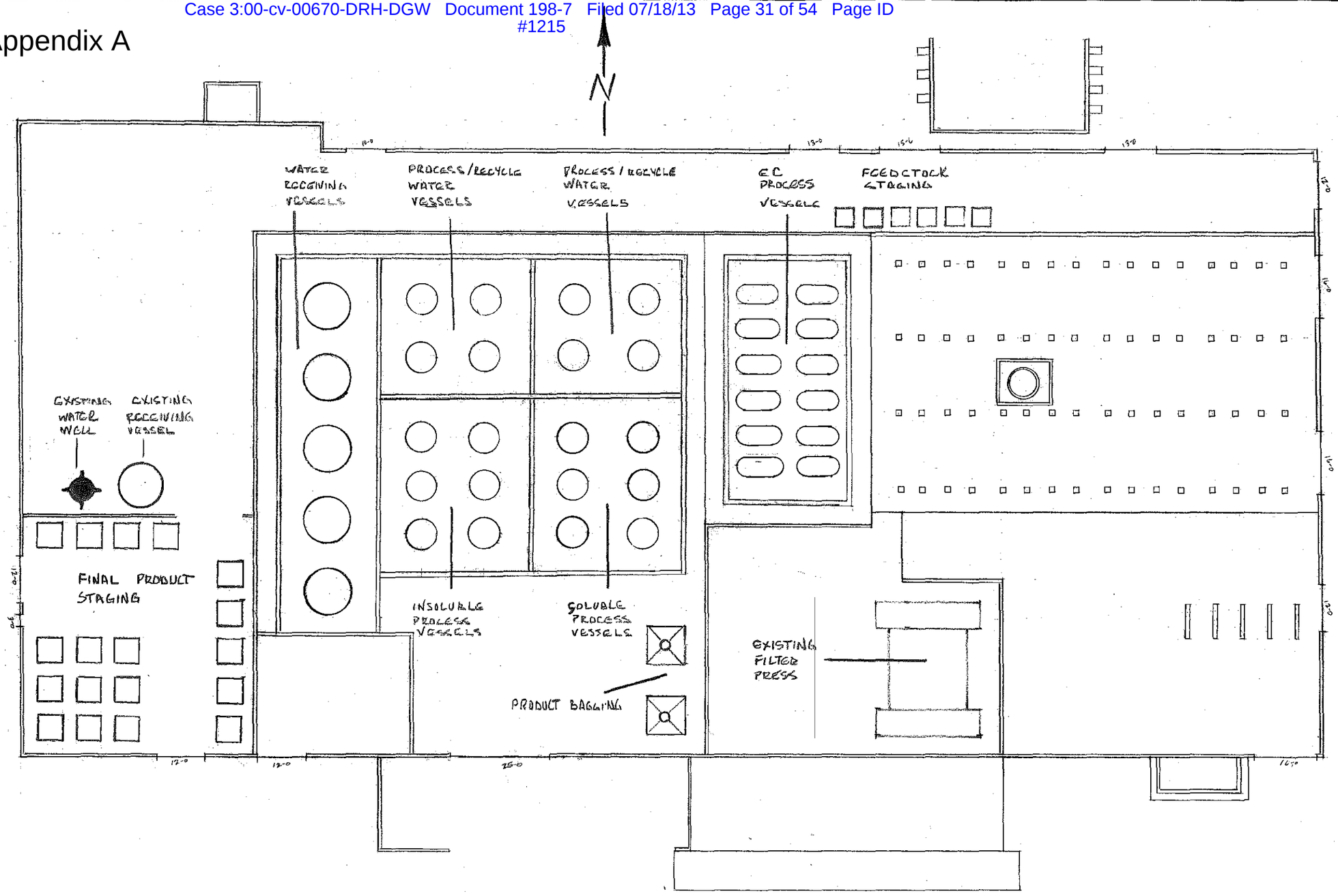
Point One Design, Ltd.
Consulting Engineers
9941 York Theta Drive North Royalton, Ohio 44133
440-230-1800 I Fax 440-230-1831
cleveland@pointonedesign.com

Material & Process Innovation
11973 Webster Road Strongsville, Ohio 44136
440-238-2794 Cell 216-857-2525
John.W.Pickens@gmail.com

PARADIGM MINERALS AND ENVIRONMENTAL SERVICES

DATE:	February 28, 2011
DRAWN BY:	DJH
CHECKED BY:	JWP
DRAWING NUMBER:	PID-1
REV.	0

Appendix A



Proposed Plant Lay-out - Processing Building 6

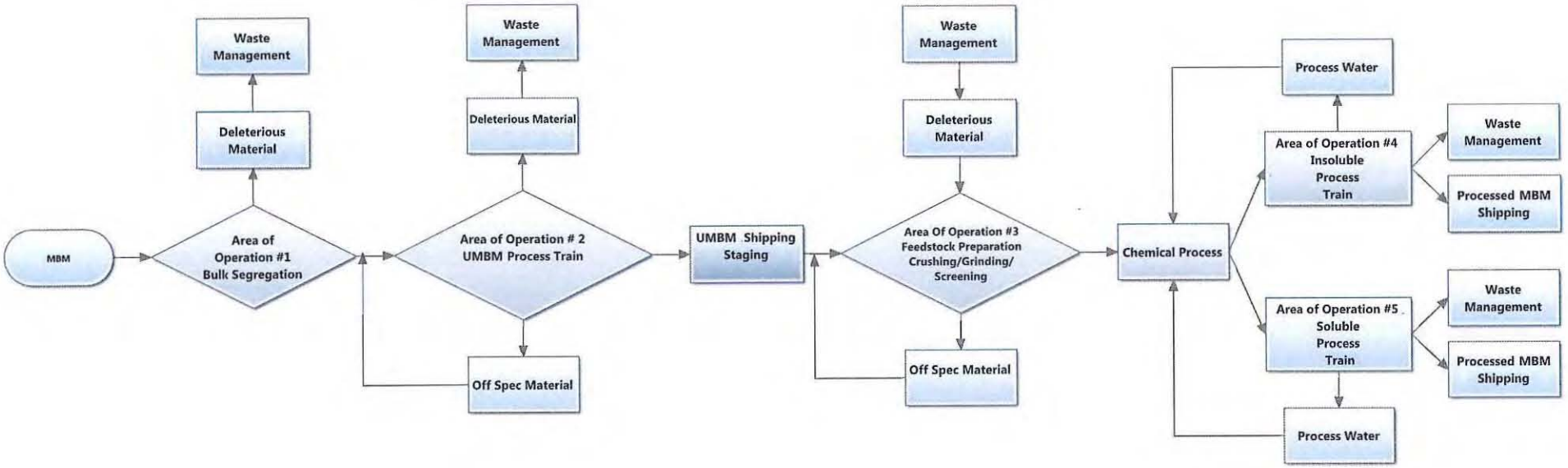
SCALE: 1/16" = 1'-0"	APPROVED BY:	DRAWN BY
DATE:		REVISED

Tank House

DRAWING NUMBER

Area of Operation Master Flow Chart

Appendix B



APPENDIX C

PROPOSED TESTING PROTOCOLS		
MATERIAL	**PURPOSE OF ANALYSIS**	**PROPOSED ANALYTICAL METHOD(S)**
Deleterious Non-METAL BEARING MATERIALS Screening Debris	Profiling and characterization as a part of waste management activities for appropriate disposal	SW 846-1311 and USEPA Method 6010C
Material Process Water	QA/QC testing to evaluate and optimize process operations. Profiling and characterization as a part of waste management activities for appropriate disposal	In house testing, SW 846-1311 and USEPA Method 6010C
METAL BEARING MATERIALS Feed Stocks	QA/QC testing to evaluate and optimize process operations. Profiling and characterization as a part of waste management activities for appropriate disposal	In house testing, SW 846-1311 and USEPA Method 6010C
Commodity Products	QA/QC testing to evaluate and optimize process operations and conformance to product specifications. Profiling and characterization as a part of waste management activities for appropriate disposal	In-house testing and that required by client, SW 846-1311 and USEPA Method 6010C
Other Waste Materials	Profiling and characterization as a part of waste management activities for appropriate disposal	SW 846-1311 and USEPA Method 6010C

APPENDIX D

POTENTIALLY APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS					
Subject	**Requirement**	**Federal or State Regulatory Standards**	**Description**	**Potentials to be Evaluated or ARAR(s)**	**Evaluation**
Concrete Debris	Concrete debris will be tested to determine if it has potential or application as clean fill material	35 IAC Section 742 Table F	Requirement for concrete debris that will be considered for reuse onsite must meet the Tiered Approach Corrective Action Objectives Tier 1 Industrial/commercial Standard for Soil.	ARAR	Applicable to concrete debris that may be found commingled with METAL BEARING MATERIALS, or that may have resulted from demolition activities, or during construction activities.
Universal Waste	Identification of material that could be classified and/or managed as Universal Waste	40 CFR 273 Subpart B IAC 733 Subpart B	Requirement to determine at the point of generation whether this waste can be managed as universal waste under the standards cited and that apply to small quantity generators of universal waste (handler that has less than 11,000 pounds of total universal waste onsite at any one time).	ARAR for batteries, mercury containing equipment, lamps, paints various light bulbs, air conditioning units. Small quantity generators are allowed to: (1) accumulate waste 1 year from the date the waste was generated; (2) waste will be stored to prevent releases to the	Applicable to debris that may be found commingled with METAL BEARING MATERIALS, or that may have resulted from demolition activities, or during construction activities.

				environment; (3) waste will be managed in containers appropriately labeled or marked	
Special Waste	Identification of material that could be classified and/or managed as Special Waste	IAC 808.121 (a) IAC 808.240	Requirement to determine if a material is a Special Waste, classify or declassify the waste, to manage waste to be disposed of offsite in a manner to prevent releases to the environment. If classified as a Special Waste onsite management and disposal according to requirements.	ARAR for waste not sold or to be recycled. Includes glass, clay, concrete products, and metallic dust sweepings for offsite disposal. If necessary IAC 808 Subparts C, D, E, F G and H will be complied with after determination by IEPA and identification and classification has occurred.	Applicable to debris that may be found commingled with METAL BEARING MATERIALS, or that may have resulted from demolition activities, or during construction activities.
Dust Emissions	Prevention of particulate emissions from METAL BEARING MATERIALS, and related process activities	Department of Labor (OSHA) Standards 29 CFR 1910 OSHA Standards 29 CFR 1910 subpart Z	Requirements for worker safety and health. General Industry standards for workplace exposure to chemicals, training requirements, and occupational exposure levels for specific chemicals and compounds.	ARAR (s)	OSHA standards are applicable by articles of incorporation to hazardous waste sites.
Electronic Waste (computer system components, circuit	Remove Electronic Wastes from METAL BEARING MATERIALS	40 CFR 261.4 (b) (14)	The Electronic Wastes as described that are found in METAL BEARING MATERIALS piles and other areas associated with	ARAR for circuit boards and computer monitors.	Applicable to circuit board debris and in-tact monitors.

boards, et al)	piles and other areas associated plant process areas and or the construction of associated process areas		construction and process areas will be removed from the pile or area and sent off for shredding and recycling. Circuit boards are exempt from regulation if handled as described.		
Recycled Products	A material is considered recycled if it is used, reused or reclaimed 40 CFR 261.1(c)(7). A material is considered reclaimed if it is processed to recover a useable product. 40 CFR 261.2 (c) designates as solid wastes, materials that are recycled in a particular manner in reclamation.	40 CFR 261.1(c)(7) and 261.2 (c) 35 IAC 721.102 and 726 Subpart C	Materials approved for sale as Products are not solid waste	ARAR for METAL BEARING MATERIALS that will be moved and staged while waiting on-site reprocessing.	Applicable to METAL BEARING MATERIALS moved and staged as a part of processing activities.
Hazardous waste generation and shipment to an off-site treatment, storage and/or disposal (TSD) facility	determining whether generated waste is a Resource Conservation Recovery Act (RCRA) hazardous waste	40 CFR 262.11/ 35 IAC 722.111	Requirement to determine at the point of generation whether waste is a RCRA hazardous waste	ARAR for debris: concrete, cardboard, cardboard; paper; wood; plastic containers, piping, and sheeting; personal protective	Applicable to debris and waste materials that are generated as a result of the Paradigm Process or sale of Packaged Product

				equipment (PPE)' fiberglass siding, and dry wall and soapy decontamination water (if hazardous), refractory brick that is not reused	
Hazardous waste generation and shipment to an off-site treatment, storage and/or disposal (TSD) facility	Identification of RCRA hazardous waste	40 CFR 261.2-.9, 40 CFR Part 261 Subpart B (waste characteristics)/ 35 IAC 721 Subpart B	Requirement for determining if a material is a RCRA solid waste and RCRA hazardous waste, and not excluded from RCRA regulation	ARAR for debris: concrete, cardboard; paper; wood; plastic containers, piping, and sheeting; PPE; fiberglass siding, and dry wall and soapy decontamination water (if hazardous), refractory brick that is not reused.	Applicable to debris and waste materials that are generated as a result of the Paradigm Process or sale of Packaged Product.
Hazardous waste generation and shipment to an off-site treatment, storage and/or disposal (TSD) facility	Labeling and packaging of RCRA hazardous wastes that will be sent off-site	40 CFR 262.30-.33/ 35 IAC 722 Subparts C, E, and H	Requirement for RCRA hazardous wastes to be sent offsite to a TSD facility must be properly packaged, labeled and placarded	ARAR for debris: concrete, cardboard; paper; wood; plastic containers, piping, and sheeting; PPE; fiberglass siding, and dry wall and soapy decontamination water (if hazardous), refractory brick that is not reused.	Applicable to debris and waste materials that are generated as a result of the Paradigm Process or sale of Packaged Product.

Hazardous Materials, including Hazardous Waste, transported off-site	These regulation establish the procedures for identifying, classifying, packaging, labeling, and transporting United States Department of Transportation (USDOT) Hazardous Materials, including Hazardous Wastes, that will be transported off-site	49 CFR 171-179/ 35 IAC 721 and 723 49 CFR 107, 171.1-500	Requirement for determining a substance is USDOT Hazardous Material, including Hazardous Waste, to be transported off site.	ARAR for packaging, labeling, documenting, loading, and transporting USDOT Hazardous Materials, which includes Hazardous Wastes	Applicable to Process Waste or Product containing lead and cadmium levels that trigger USDOT Hazardous Materials classification being transported off-site for recycling and any Hazardous Wastes being transported off site.
Closure and post-closure standards for hazardous waste management units	General RCRA performance standard for hazardous waste management unit closures	40 CFR 265.111 40 CFR 265.114/ 35 IAC 724	Requirements for management units that handle RCRA hazardous waste must be closed and receive post-closure care to minimize the need for further maintenance and to control, minimize or eliminate later escape of hazardous constituents to the extent necessary to protect human health and the environment. In addition, equipment, structures, and soil that become contaminated from contact with hazardous waste must be properly	ARAR for the Brick Shop Container Storage Area and the AAF Decontamination Area and Sump	Applicable to any storage, treatment or disposal units that would be used to manage waste materials excavated or otherwise generated.

			disposed of or contaminated.		
Container Management	General RCRA requirements for managing containers used to store materials	40 CFR 265 Subpart 1 35 IAC 725 Subpart 1	Requirement for the design and management standards for hazardous waste containers	ARAR for the containerization of the residual liquids or pre-existing containerized material within the Foundry Building and Tank House	Applicable for any hazardous waste that will be containerized
Occupation exposures to on-site workers	Required prior to working at a hazardous waste site	Occupational Safety and Health Administration (OSHA), 29 CR 1910. 651-678	Requirements that regulate worker health and safety. Sets general industry standards for workplace exposure to chemicals, and sets health and safety training requirements for workers at hazardous waste sites.	ARAR	OSHA standards are independently applicable to hazardous waste sites
Occupational exposures to on-site workers	Required prior to working at a hazardous waste site	29 CFR Part 1910, Subpart Z	Establishes occupation exposure levels for specific contaminants	ARAR	OSHA standards are independently applicable to hazardous waste sites
Spent Hydraulic Fluids	Determining whether generated waste is a RCRA hazardous waste	40 CFR 262.11/ 35 IAC 722.111	Requirement to determine at the point of generation whether waste is a RCRA hazardous waste	ARAR	Applicable to debris and waste materials that are generated as part of demolition activities
Spent Hydraulic Fluids	Identification of RCRA hazardous	40 CFR 261.2-.9	Requirement for determining if a material is a RCRA solid waste and RCRA	ARAR	Applicable to debris and waste materials that

	waste	40 CFR Part 261 Subparts B (waste characteristics) 35 IAC 721 Subpart B	hazardous waste, and not excluded from RCRA regulation.		are generated as part of demolition activities.
Spent Hydraulic Fluids	Labeling and packaging of RCRA hazardous wastes that will be sent off-site	40 CFR 262.30-.33	RCRA hazardous wastes to be sent offsite to a TSD facility must be properly packaged, labeled and placarded	ARAR	Applicable to debris and waste materials that are generated as part of demolition activities.
Used Oil Standards	Standards for used oil generators	40 CFT 279 Subpart C IAC 739 Sub Part C	Standards for used oil generators	ARAR	Applicable to material that can be classified as “Used Oil”.

APPENDIX E

PROCESS WASTE HANDLING PROTOCOL / WASTE ANALYSIS PLAN

MATERIAL BY CATEGORY	GENERAL COMPOSITION/ DESCRIPTION OF MATERIALS	DECONTAMINATION METHODS	ANALYSIS PARAMETERS	PROPOSED SAMPLING AND ANALYTICAL METHODS	SAMPLING FREQUENCY	PROPOSED RECYCLE METHODOLOGY	SHIPPING METHODS	RECEIVING FACILITY
Building Materials and Debris	wood framing materials, drywall, building siding, roof material, debris remaining after demolition activities or resulting from building improvements and similar products	may not apply; or dry or gross de-contamination such as broom sweeping or brushing; or wet methods high pressure washer and requires liquids collection	Total Metals	SW 846-1311 EPA Method 6010 C, ICPAES-MS Total Metals	Once to characterize the waste profile for each individual waste stream. One sample per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are accumulated. After that one sample per every 200 cubic	mixed material collection; or source segregation; or on site processing, after characterization some materials may be found suitable for re-use	on-site, movement by manual and powered equipment, using appropriate transfer containers and devices; Off-site, transport by roll off boxes, tank or tanker, or if appropriate, haul trucks.	ship off-site to an appropriate solid waste facility ship fluids to an appropriate treatment facility

					yards for similar profiled waste streams.			
Concrete	rubble and debris, cinder block, and similar related products	may not apply; or dry or gross de-contamination such as broom sweeping or brushing; or wet methods high pressure washer and requires liquids collection	Total Metals	SW 846-1311 EPA Method 6010 C, ICPAES-MS Total Metals	Once to characterize the waste profile for each individual waste stream. One sample per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are accumulated. After that one sample per every 200 cubic yards for similar profiled waste	source segregation; or on-site processing, METAL BEARING MATERIALS processing equipment will be capable of rendering this type of material suitable for use in on-site clean-fill applications	on-site, movement by manual and powered equipment, using appropriate transfer containers and devices Off-site, transport by roll off boxes, or if appropriate, haul trucks.	Rubble that meets the requirements of the Tier 1 Approach Corrective Action Objectives (Ill. Adm. Code 742) may be re-used on-Site. rubble that does not meet the requirements of the standard or is not intended to be re-used will be shipped off-Site to a solid waste landfill

					streams.			
Dust	resulting from the movement of METAL BEARING MATERIALS, screening, sizing and grading operations, dry or wet decontamination general clean-up and housekeeping activities	not applicable, solids entered into METAL BEARING MATERIALS process system as appropriate	Total Metals	SW 846-1311 EPA Method 6010 C, ICPAES-MS Total Metals	Once to characterize the waste profile for each individual waste stream. One sample per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are accumulated. After that one sample per every 200 cubic yards for similar profiled waste streams.	source segregation, satellite locations for accumulation of like materials to be consolidated into roll-off bins or other appropriate transport containers; or On site processing for use as a potential feed stock or potential 'as-is' material sales.	on-site, movement by manual and powered equipment, using appropriate transfer containers and devices	not applicable
Electronics	computer monitors, circuit	not applicable	Total Metals	SW 846-1311 EPA	Once to characterize	mixed material	on-site, movement	after characterization,

	boards, peripherals, and chipped and/or shredded parts of same and similar products			Method 6010 C, ICPAES-MS Total Metals	the waste profile for each individual waste stream. One sample per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are accumulated. After that one sample per every 200 cubic yards for similar profiled waste streams.	collection; or source segregation, satellite locations for accumulation of like materials to be consolidated into roll-off bins or other appropriate transport containers	by manual and powered equipment, using appropriate transfer containers and devices Off-site, transport by roll off boxes, conex, or if appropriate, haul trucks.	ship off-site to a recycling process facility; material that does not meet the requirements of the standard will be shipped off-site to a solid waste landfill
Oil and Related Products	resulting from service and maintenance of fuel powered and rotating processing	may need to drain filters	Semi-Volatile, Volatiles, BTEX, pH	SW 846-1311 EPA Method 6010 C, ICPAES-MS	Once to characterize the waste profile for each individual	mixed material collection; or source	on-site, movement by manual and powered equipment,	after characterization, ship off-site to a recycling process facility

	equipment, fluids and filters, et al			Total Metals	waste stream. One sample per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are accumulated. After that one sample per every 200 cubic yards for similar profiled waste streams.	segregation, satellite locations for accumulation of like materials to be consolidated into roll-off bins or other appropriate transport containers	using appropriate transfer containers and devices; Off-site, transport by drum, tank or tanker trucks.	
Paper	sheet paper, books, magazines, cardboard, boxes, shipping/receiving materials, general cleaning and housekeeping and similar products	not applicable	Total Metals	SW 846-1311 EPA Method 6010 C, ICPAES-MS Total Metals	Once to characterize the waste profile for each individual waste stream. One sample	mixed material collection; or source segregation, satellite locations for accumulation of	on-site, movement by manual and powered equipment, using appropriate transfer containers	after characterization, recycling process facility; material that does not meet the

					per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are accumulated. After that one sample per every 200 cubic yards for similar profiled waste streams.	like materials to be consolidated into roll-off bins or other appropriate transport containers	and devices Off-site, transport by roll off boxes, or if appropriate, haul trucks.	requirements of the standard or is not intended to be re-used will be shipped off-site to a solid waste landfill
Personal Protective Equipment	gloves, safety glasses, boots, paper suits ear plugs, respirators and associated cartridge filters (et al) and similar products	not applicable	Total Metals	SW 846-1311 EPA Method 6010 C, ICPAES-MS Total Metals	Once to characterize the waste profile for each individual waste stream. One sample per 50 cubic yards of waste for the first 5 times	mixed material collection; or source segregation, satellite locations for accumulation of like materials to be consolidated into roll-off bins or other	on-site, movement by manual and powered equipment, using appropriate transfer containers and devices Off-site, transport by	after characterization, will be shipped off-site to a solid waste landfill

					that 50 Cubic yards of similar waste are accumulated. After that one sample per every 200 cubic yards for similar profiled waste streams.	appropriate transport containers	roll off boxes, or if appropriate, haul trucks.	
Plastic	pipe cutting and tailings, vessels, shipping and packaging materials, bags and flexible containers, barrels, drums, totes, scrap rubber, fiberglass panels and similar materials	may not apply; or dry or gross de-contamination such as broom sweeping or brushing; or wet methods high pressure washer and requires liquids collection	Total Metals	SW 846-1311 EPA Method 6010 C, ICPAES-MS Total Metals	Once to characterize the waste profile for each individual waste stream. One sample per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are	mixed material collection; or source segregation, satellite locations for accumulation of like materials to be consolidated into roll-off bins or other appropriate transport containers	on-site, movement by manual and powered equipment, using appropriate transfer containers and devices Off-site, transport by drums, barrel, appropriate container,	after characterization, recycling process facility; material that does not meet the requirements of the standard or is not intended to be re-used will be shipped off-site to a solid waste landfill

					accumulated. After that one sample per every 200 cubic yards for similar profiled waste streams.		roll off boxes, or if appropriate, haul trucks.	
Process Water			Total Metals	SW 846-1311 EPA Method 6010 C, ICPAES-MS Total Metals	Once to characterize the waste profile for each individual waste stream. One sample per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are accumulated. After that one sample per every			

					200 cubic yards for similar profiled waste streams.			
Scrap Metal	of various compositions; angle iron, channel, plate, piping and conduit, wiring, equipment and equipment parts, rebar, structural components, debris remaining after demolition activities or resulting from building improvements, general cleaning and housekeeping, and similar products	may not apply; or dry or gross de-contamination such as broom sweeping or brushing; or wet methods high pressure washer and requires liquids collection	Total Metals	SW 846-1311 EPA Method 6010 C, ICPAES-MS Total Metals	Once to characterize the waste profile for each individual waste stream. One sample per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are accumulated. After that one sample per every 200 cubic yards for similar profiled	mixed material collection; or source segregation, satellite locations for accumulation of like materials to be consolidated into roll-off bins or other appropriate transport containers	on-site, movement by manual and powered equipment, using appropriate transfer containers and devices Off-site, transport by roll off boxes, or if appropriate, haul trucks.	metal recycling facility

					waste streams.			
Shipping and Receiving Materials	plastic and metal banding, pallets, bags, drums, totes, liners	may not apply; or dry or gross de-contamination such as broom sweeping or brushing	Total Metals	SW 846-1311 EPA Method 6010 C, ICPAES-MS Total Metals	Once to characterize the waste profile for each individual waste stream. One sample per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are accumulated. After that one sample per every 200 cubic yards for similar profiled waste streams.	mixed material collection; or source segregation, satellite locations for accumulation of like materials to be consolidated into roll-off bins or other appropriate transport containers	on-site, movement by manual and powered equipment, using appropriate transfer containers and devices Off-site, transport by roll off boxes, or if appropriate, haul trucks.	ship off-site to an appropriate solid waste facility

Wood	broken and scrap lumber, pallets, plywood, dimensional lumber, dunage and similarly related products	may not apply; or dry or gross de-contamination such as broom sweeping or brushing	Total Metals	SW 846-1311 EPA Method 6010 C, ICPAES-MS Total Metals	Once to characterize the waste profile for each individual waste stream. Then one sample per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are accumulated. After that one sample per every 200 cubic yards for similar profiled waste streams.	mixed material collection; source segregation; on site processing, after characterization some materials may be found suitable for re-use	on-site, movement by manual and powered equipment, using appropriate transfer containers and devices Off-site, transport by roll off boxes, or if appropriate, haul trucks.	ship off-site to an appropriate solid waste facility

*Waste streams will be tested until a waste profile is established using appropriate methodology noted in Table above and or in accordance with receiving facility requirements or profile testing methods that have been established by ongoing Chemetco Bankruptcy Estate operations.

* 90-Day rule is relevant for all waste generated.

APPENDIX F

Estate of Chemetco, Inc.

Decontamination Procedure

January 29, 2008

STANDARD FOR DECONTAMINATION

(Definition of clean debris surface as per 40 CFR §268.45)

'Clean debris surface' means the surface, when viewed without magnification should be free of all visible contamination and hazardous waste except that residual staining consisting of light shadows, slight streaks, or minor discolorations, and contamination in cracks, crevices, and pits may be present provided that such staining and contamination in cracks, crevices and pits should be limited to not more than 5% of each square inch of surface area.

1. **General**
   All visible scrubber sludge, slag, and other debris associated with the Chemetco site will be removed from the equipment in question on all exterior and interior surfaces, including inside cabs and engine compartments. All liquids and solids generated by the decontamination procedure will be handled as suspect hazardous waste in compliance with RCRA in satellite accumulation drums in the Brick Shop labeled as "Decon Waste Water" and "Decon Waste Solids."
2. **Containment**
   a. A containment pad will be constructed on an even concrete covered area of the site using at least two layers of 6 mil plastic sheeting, one layer of 10 mil plastic sheeting or better with at least 4" berms on all sides constructed using flexible drain pipe wrapped in plastic with sandbags on top to stabilize and with 4' of spacing around the equipment.
   b. A sump or low area will be created inside the containment to facilitate collection of waste waters and solids.
   c. To prevent puncturing the plastic, wood boards, plywood or other suitable material will be placed on top of the sheeting.
3. **Decontamination of Materials and Equipment**
   a. Gross and hard to remove contaminants will be removed by mechanical action (shovels, brushes, etc.)
   b. A pressure washer (less than 3000 psi) using well water will be used to remove any remaining contaminants.
4. **Collection of Decon Wastes/Hazardous Materials**
   a. Before the decontaminated materials or equipment are removed from the containment pad, all waste waters and solids will be collected from the surface of the containment area using mechanical action and/or a sump pump or wet/dry vacuum.
   b. Once the decontaminated materials or equipment are removed from the containment area, the pad will be decontaminated with a pressure washer and the waste water collected with a sump pump or wet/dry vacuum.
   c. Waste Waters will be placed in the satellite accumulation drum labeled "Decon Waste Water" and the volume documented as stated on the attached Decon Waste Water Inventory Sheet.

Estate of Chemetco, Inc.

Decontamination Procedure

January 29, 2008

d. Waste Solids will be placed in the satellite accumulation drum labeled "Decon Waste Solids" and the volume documented as stated on the attached Decon Waste Solids Inventory Sheet.
e. The waste drums will be sealed and returned to the Hazardous Storage Area in accordance with the instructions on the inventory sheets (full drums will be labeled and managed as hazardous waste until waste determinations and disposition are completed).

5. Documentation of Decontamination

Upon completion of the above actions, the lead person performing the decontamination will record evidence of this on the attached Decontamination Inspection Sheet, which will be filed by the EH&S Manager.

6. Inspection of Containment Pad

Prior to use of the containment pad for the next decontamination, the pad will be inspected to ensure that there are no punctures or other indications of failure of the intergrity, if so, it will be repaired or replaced. Used plastic sheeting will be disposed of as suspect hazardous waste.

7. Personal Protection Equipment (PPE)

a. All personnel conducting the decontamination of the equipment and the handling of suspect hazardous waste will be required to wear the following PPE:
   - Hard hat with face shield
   - Safety Glasses
   - Water resistant boots or goulashes
   - Rubber gloves
   - Water resistant apron or tyveks
   - Half-face respirator, if fugitive dust is present

b. PPE will be decontaminated or disposed of as suspect hazardous waste.

8. Health and Safety

All personnel conducting the decontamination of the equipment and the handling of hazardous wastes are required to:

a. Have current OSHA Hazwoper Certification (29 CFR 1910.120),
b. Comply with OSHA Standard for Lead Worker (29 CFR 1910.1025), and
c. Comply with OSHA Standard for Cadmium Worker (29CFR 1910.1027)

PARADIGM PROCESSING FACILITY AND SOURCE AREAS WITHIN THE CHEMETCO SITE

1- Bulk Screening Area

2 - Crushing and Grinding Area

3 - Process Material Staging Area (Former DIS Building)

4 - Unprocessed Metal Bearing Materials Product Staging Area

5 - Decontamination Areas

6 - Process Waste Staging Area

7 - Process Building (Current Brick Shop Building)

8 - Process Building (Current Tank Building)

9 - Processed Metal Bearing Materials Product Staging Area

10 - Receiving Building

SA1 - Source Area 1

SA2 - Source Area 2

SA3 - Source Area 3

SA4 - Source Area 4

SA5 - Source Area 5

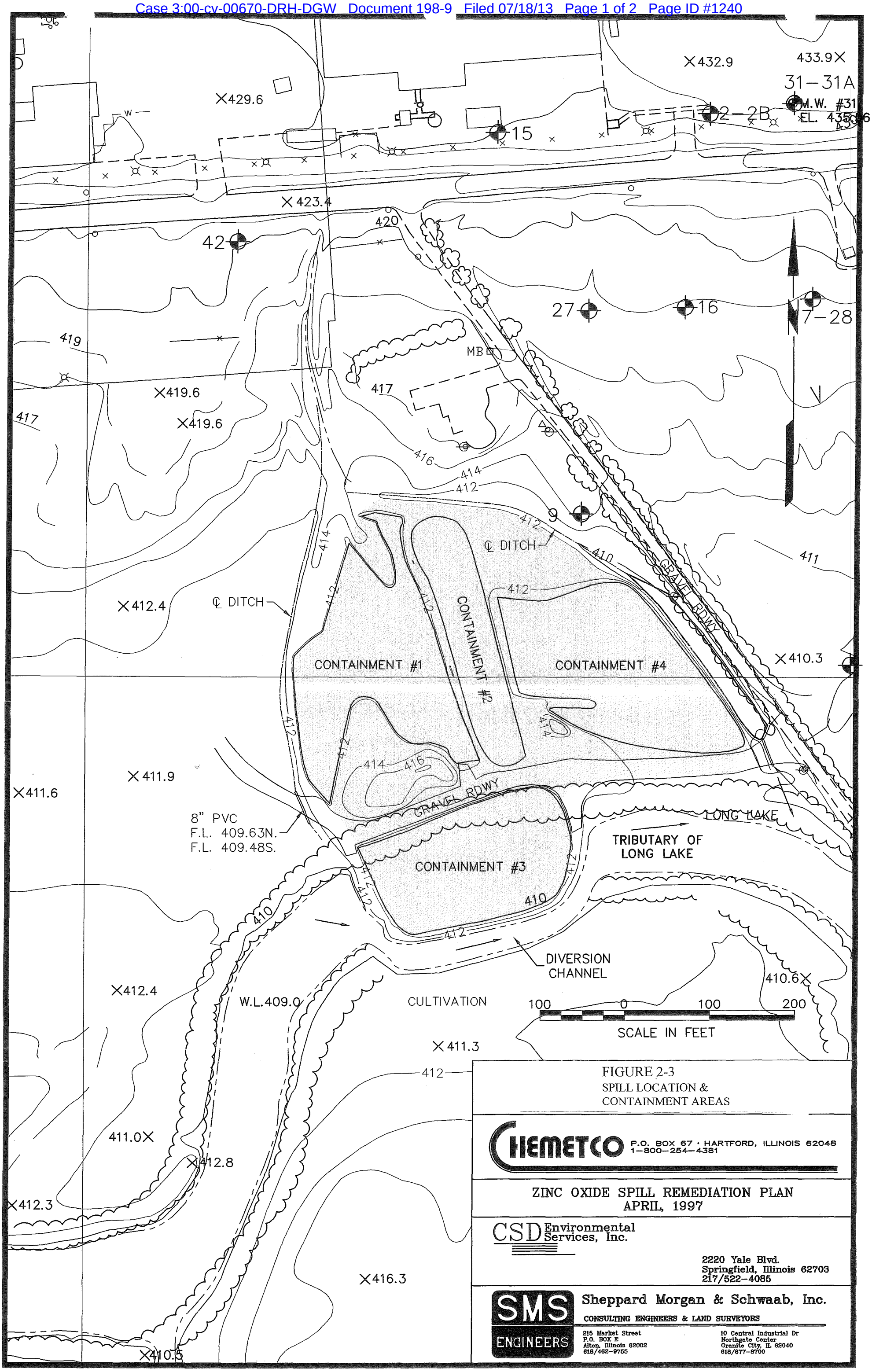


FIGURE 2-3
SPILL LOCATION &
CONTAINMENT AREAS

CHEMETCO
P.O. BOX 67 · HARTFORD, ILLINOIS 62048
1–800–254–4381

ZINC OXIDE SPILL REMEDIATION PLAN
APRIL, 1997

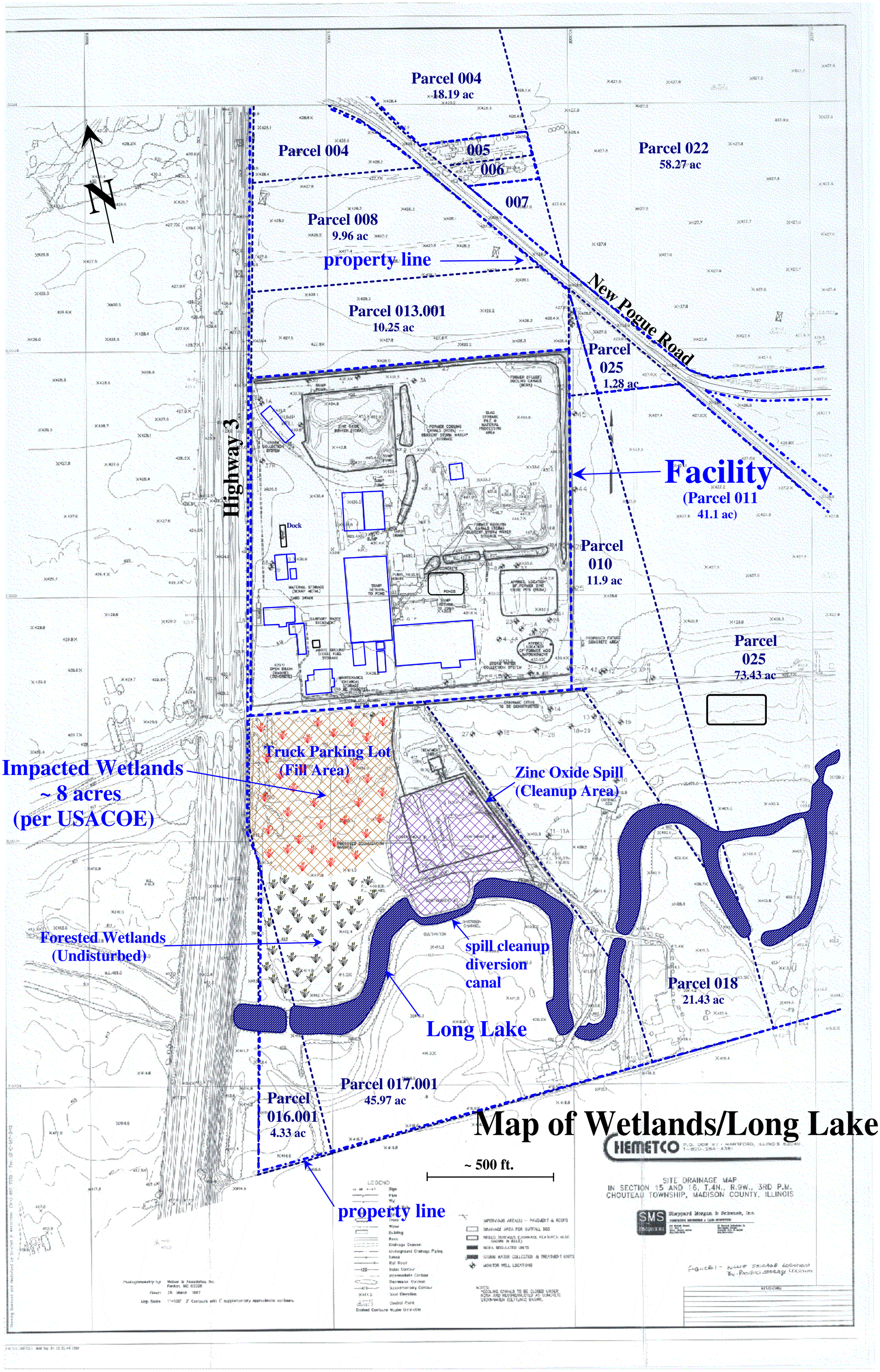
CSD Environmental Services, Inc.

2220 Yale Blvd.
Springfield, Illinois 62703
217/522–4085

SMS ENGINEERS
Sheppard Morgan & Schwaab, Inc.
CONSULTING ENGINEERS & LAND SURVEYORS

215 Market Street
P.O. BOX E
Alton, Illinois 62002
618/462–9755

10 Central Industrial Dr
Northgate Center
Granite City, IL 62040
618/877–8700


Parcel 004
18.19 ac
Parcel 004
005
006
007
Parcel 022
58.27 ac
Parcel 008
9.96 ac
property line
Parcel 013.001
10.25 ac
New Pogue Road
Parcel
025
1.28 ac
Highway 3
Facility
(Parcel 011
41.1 ac)
Dock
Parcel
010
11.9 ac
Parcel
025
73.43 ac
Truck Parking Lot
(Fill Area)
Impacted Wetlands
~ 8 acres
(per USACOE)
Zinc Oxide Spill
(Cleanup Area)
Forested Wetlands
(Undisturbed)
spill cleanup
diversion
canal
Long Lake
Parcel 018
21.43 ac
Parcel 017.001
45.97 ac
Parcel
016.001
4.33 ac
~ 500 ft.
property line
Map of Wetlands/Long Lake
HEMETCO
SITE DRAINAGE MAP
IN SECTION 15 AND 16, T.4N., R.9W., 3RD P.M.
CHOUTEAU TOWNSHIP, MADISON COUNTY, ILLINOIS
SMS ENGINEERS
Sheppard Morgan & Schwenk, Inc.
LEGEND
IMPERVIOUS AREA(S) – PAVEMENT & ROOFS
DRAINAGE AREA FOR OUTFALL 003
MONITOR WELL LOCATIONS

SCI ENGINEERING & MATERIALS TESTING, INC

Restoration Plan

CHEMETCO - PARKING LOT AREA
HARTFORD, ILLINOIS

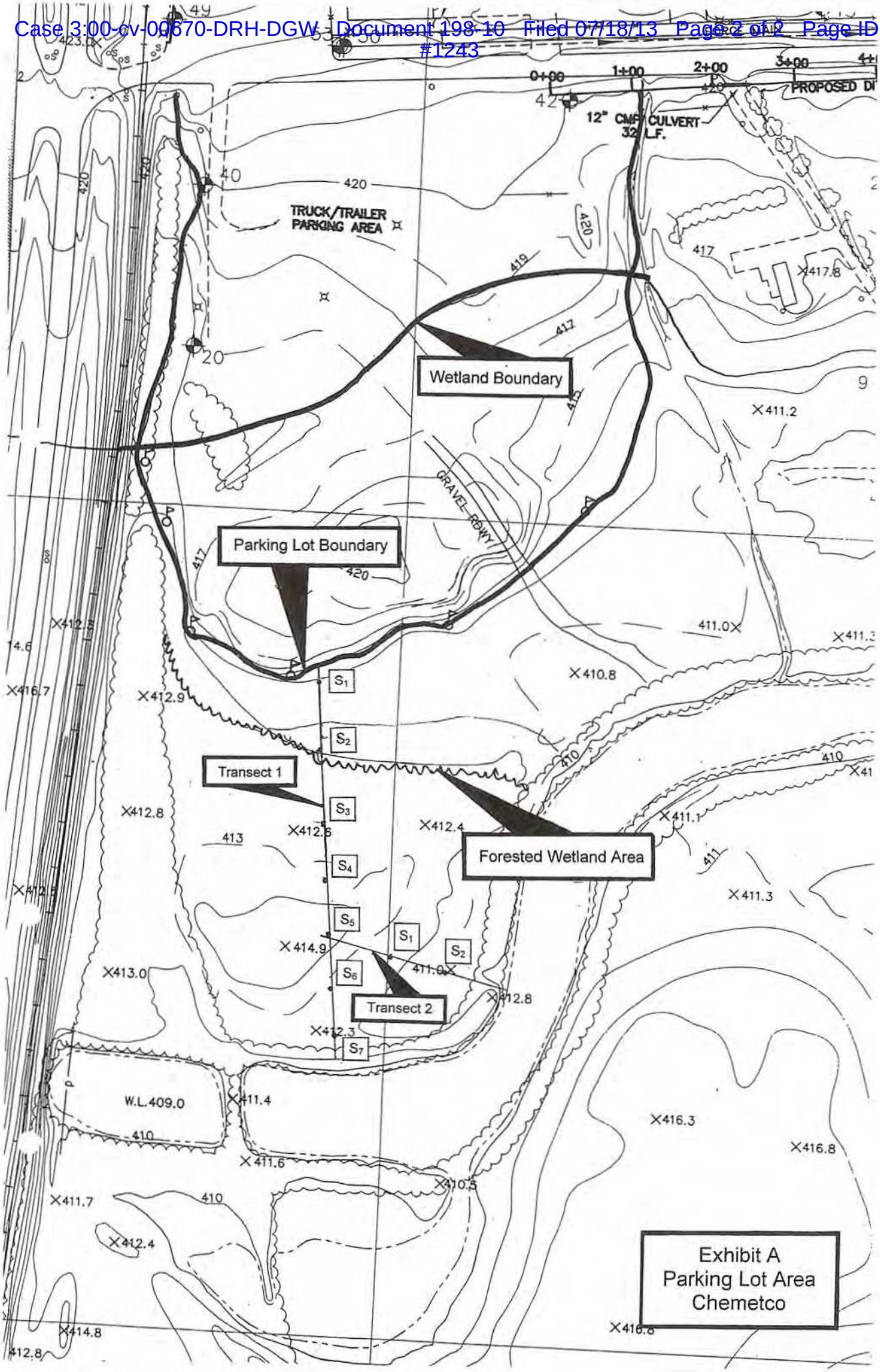
Prepared for:

U. S. ENVIRONMENTAL PROTECTION AGENCY

November 1997

EMT No. 97-3428

SCI Engineering & Materials Testing, Inc.
15 Executive Drive
Fairview Heights, Illinois 62208


TRUCK/TRAILER PARKING AREA
Wetland Boundary
Parking Lot Boundary
GRAVEL RDWY
Transect 1
Transect 2
Forested Wetland Area
12" CMP CULVERT 32 L.F.
PROPOSED DI
W.L.409.0
S1
S2
S3
S4
S5
S6
S7
Exhibit A
Parking Lot Area
Chemetco

Metro Contract Services Corp
1734 Clarkson Road : Suite 358
Chesterfield, MO 63017
Toll Free: (888) 452-3001
Phone: (314) 678-3100
Fax: (314) 551-0600

Work Plan for Removal of 3 TBRC Furnaces

1. Introduction

The Chemetco (Site) is located at 3754 Chemetco Lane, Hartford Illinois 62048 in a flood plain near the Mississippi River in Madison County, Illinois. The village of Hartford, Illinois (population approximately 1,545) is approximately 1 mile north of the site. The nearest residential area is Mitchell, a small community approximately ½ mile to the southeast. The Lewis and Clark State Memorial Park is approximately ¼ mile northwest of this site.

The Site consists of approximately 41 acres and operated as a secondary smelter facility that used to refine copper and other non-ferrous metals and allows from recyclable copper, lead and tin bearing scrap.

In October 2001, Chemetco ceased operations and on November 13, 2001 the Site filed for Chapter 7 Bankruptcy protection. On September 16, 2008 the Estate of Chemetco entered into an Interim Order (IO) agreement with the Sate of Illinois. Under the IO, the Estate of Chemetco is allowed to sell off assets, which will allow for recovery of value from certain materials accumulated at the Site.

2. Scope of Work

The Scope of Work ("SOW") is to protect the welfare and health of the workers and the public, prevent the release to the environment of hazardous materials impacted by the work; comply with the Interim Order, the Seal Order, and other federal, state and local environmental regulations; and safely configure (per Metallo specifications presented as Attachment), lift, transport, and deliver decontaminated "furnace components" from the three TBRCs to Metallo at an area designed by the Estate outside the Foundry Building. Metallo will take possession and move the furnace components off site.

3. Work Plan

3.1 Phase I

A. Initial onsite review of Safety and Work Plan.
B. Using manlifts and mobile crane, remove all upper attachments from 3 furnaces
C. Install ground covering material beneath each of 3 furnaces

Metro Contract Services Corp
1734 Clarkson Road : Suite 358
Chesterfield, MO 63017
Toll Free: (888) 452-3001
Phone: (314) 678-3100
Fax: (314) 551-0600

D. With manlifts and 100 ton mobile crane, invert, brake and block each furnace
E. Remove cooling shell, attachments and lower shell sections
F. Remove any and all remaining brick from shell sections
G. With 100 ton crane, turn each furnace upright and lock/block in place
H. Remove upper shell section and all remaining attachments from 3 furnaces
I. Install buyer designed shell reinforcements and modifications
J. Remove all scrap to designated area
K. Remove all brick and ground covering material

3.2 Phase 2

A. Remove any/all anchors, bolts and mounting bolts on north and south pedestals for all 3 furnaces
B. Rig remaining shell section and ring
C. Lift shell section and ring using 550 ton crane and set on transportation trailer
D. Move shell section and ring to decon area and decon
E. After decon, move shell section and ring to west parking lot and lift from trailer and block for Buyer's possession or at Buyer's option and expense, the trucking company will transport trailer to river dock.
F. Repeat previous steps for 2 remaining shell sections and rings
G. Remove all equipment to decon area and decon
H. Remove al deconned equipment from site
I. Dispose of all residue on site and vacate decon area
J. Exit site

For details see the following appendices:
A. Metallo Drawing number 42026
B. Metallo Drawing number 91630

4. Environmental Work

4.1 Removal of refractory brick and lining, a waste

A. Place Brick and lining in waste rolloffs for transport and disposal according to regulations

Metro Contract Services Corp
1734 Clarkson Road : Suite 358
Chesterfield, MO 63017
Toll Free: (888) 452-3001
Phone: (314) 678-3100
Fax: (314) 551-0600

4.2 Deconning

A. Set up decon pad
B. Decon items outlined in phase 1 and phase 2 (shells, rings, contractor equipment)
C. Dispose of waste water in properly contained drums and/or tank
D. Remove all decontamination pads used and dispose of any contaminated material according to regulations

5. Responsibilities

5.1 Estate

A. The Estate has contracted with MCS to remove the furnaces
B. The Estate will be the generator of record for all wastes and scrap and will be responsible for the manifesting and disposal wastes in accordance with regulations
C. Provide MCS personnel with shower and changing facility, restroom facility, and break and eating area.

5.2 Contractor – MCS

A. MCS will provide the Estate with a certificate of insurance outlining General Liability limits, Auto Liability limits, Excess Umbrella Liability limits, and Workers Compensation limits. In addition, the Estate of Chemetco must be named as an additional insured for general liability coverage with respect to the work performed

B. Comply with the following:

Section 1926.62 –Lead Standards for Construction Workers

Personnel must be under medical surveillance program for lead

Section 1926.1127 –Cadmium Standards for Construction Workers

Personnel must be under medical surveillance program for cadmium

Section 1926 Subpart E – Personal Protective Equipment

Metro Contract Services Corp
1734 Clarkson Road : Suite 358
Chesterfield, MO 63017
Toll Free: (888) 452-3001
Phone: (314) 678-3100
Fax: (314) 551-0600

Respiratory protection, including medical exam and fit testing

Section 1926 Subpart H – Materials Handling, Storage, Use and disposal

Section 1926 Subpart J – Welding and Cutting

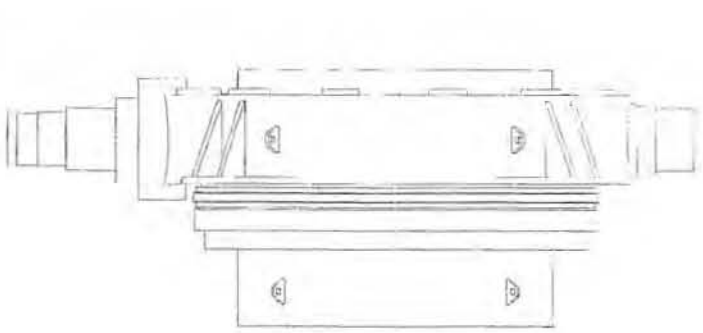
Section 1926 Subpart M – Fall Protection

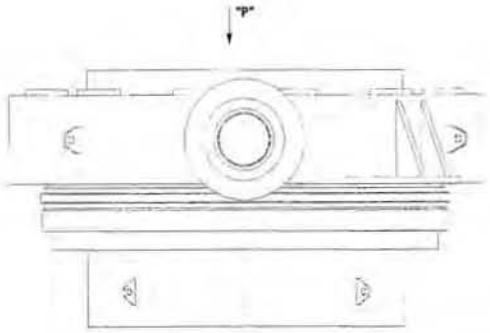
Section 1926 Subpart N – Crane, Derricks, Hoists, Elevators and Conveyors

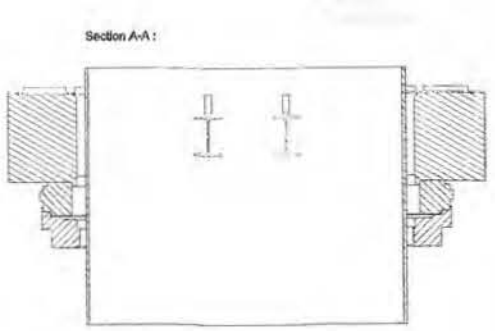
Requirements for safe rigging and crane operations

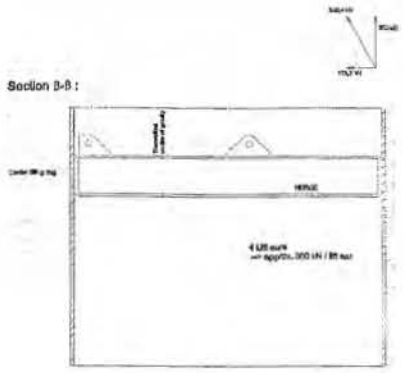
29 CFR 1910.120 HAZWOPER

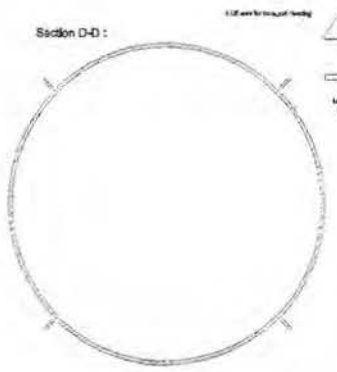
All personnel involved in this work must have documentation that they are trained (40 hours training) and current (annual 8-hour refresher).

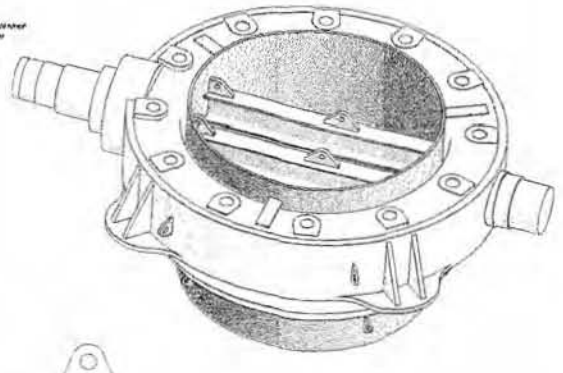


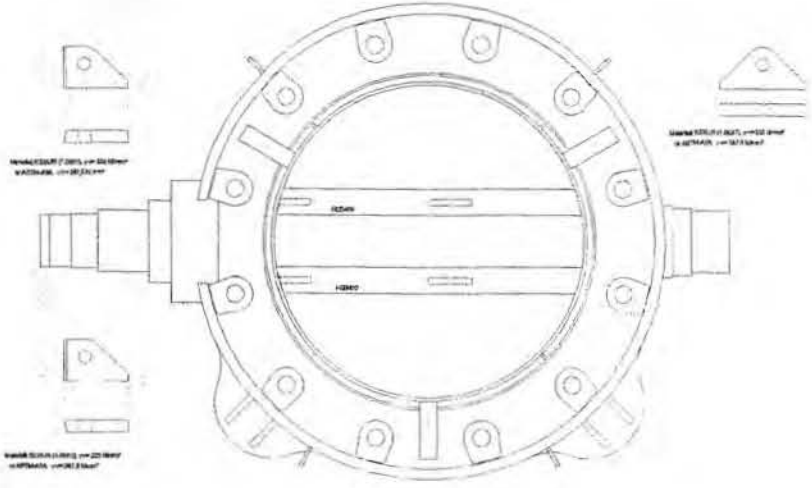


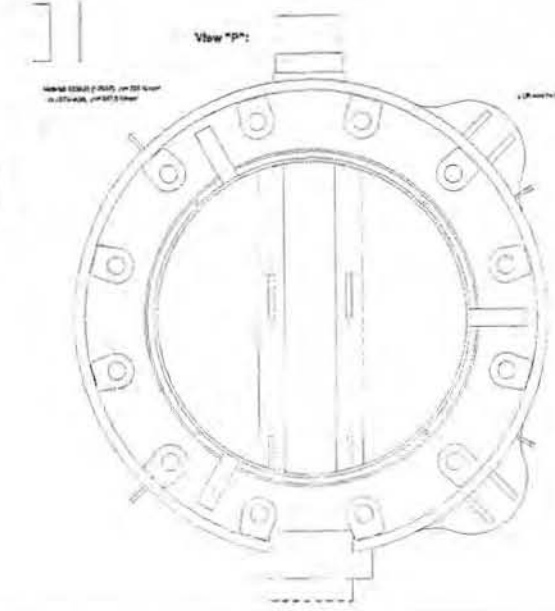


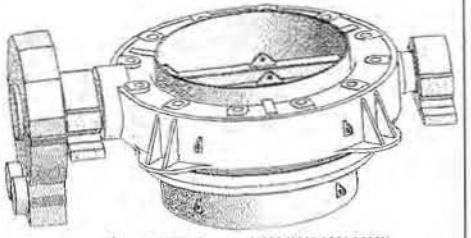










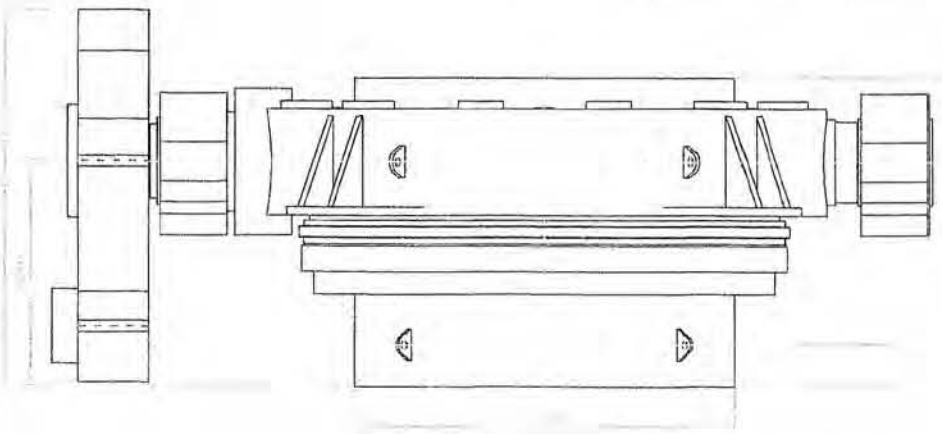


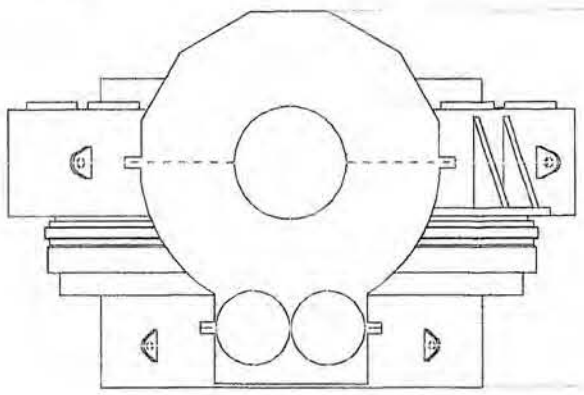
Assembly: see drawing 42020 (1010-0001-0000)

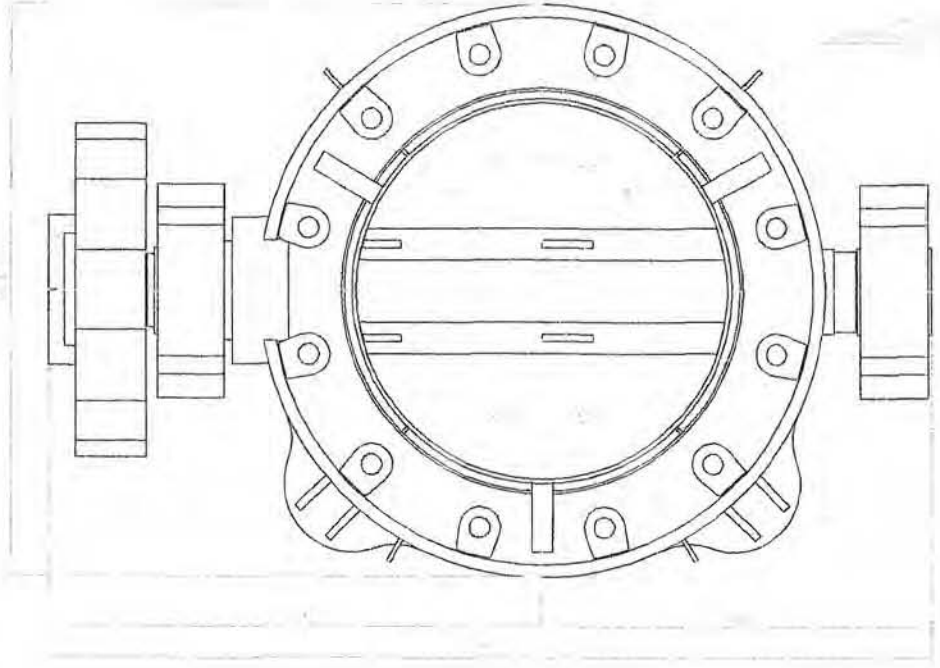
		Detail Lifting Ears Transport	
		Chemetco-Metallo	
		91630	
		1010-0001-0100	

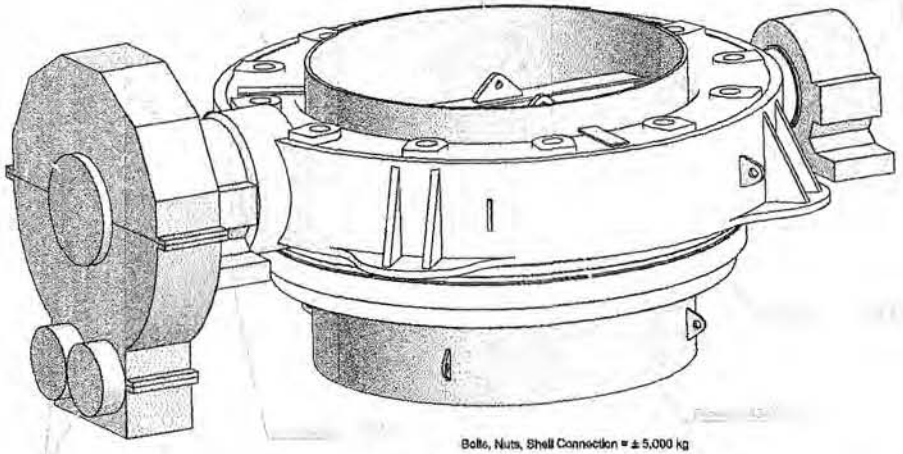
METALLO-CHIMIQUE N.V. BEERSE

DETAIL LIFTING EARS: SEE DRAWING 91630 (1010-0001-0100)









Bolts, Nuts, Shell Connection = ± 5,000 kg

TOTAL WEIGHT = 120.000 KG

Rt in un volgens Reeks2 DIN 3141		Niet getolereerde maten voor mechanisch bewerkte delen DIN 7168 "mittel" Lasconstructies DIN 25029B, gietstukken DIN 1683A			Totaal gewicht: 120.000kg
Eigendom van Metallo Chimique N.V., vermelding of mededeling aan derden in welke vorm dan ook, is zonder schriftelijke toestemming van eigenaren verboden.		Schaal 0,03/1	Titel TRANSPORT Chemetco - Metallo		
			Get. AB	Nummer 42026	
A	31/08/08	Update tekening - Plaatsen hijsogen	Nag.	1010-0001-0000	A
Index	Datum	Wijzigingen	Datum 24/10/2007	Sament.	Dossier 1010

Tel. (014) 609511
Fax. (014) 609607
METALLO-CHIMIQUE N.V. BEERSE
R.R.T.: B
BTW: BE 403.015.580

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

PAT QUINN, GOVERNOR JOHN J. KIM, INTERIM DIRECTOR

November 16, 2012

Estate of Chemetco, Inc.
Attn: Mr. Jorge Garcia, ES&H Manager
3754 Chemetco Lane
Hartford, Illinois 62048

Re: LPC # 1198010003 - Madison County
Hartford/Chemetco, Inc.
Approval of Top Blown Rotary Converter Furnace Removal Work Plan

Dear Mr. Garcia,

The purpose of this letter is to respond to your request, dated October 23, 2012 Top Blown Rotary Converter (TBRC) Furnace Removal Work Plan to allow the Estate to sell components of the 3 furnaces to Metallo Inc. out of Belgium and sell the remaining metal as scrap.

The TBRC Furnace Removal Work Plan has been reviewed and Illinois Environmental Protection Agency (Illinois EPA), in consultation with United States Environmental Protection Agency (U.S. EPA), conditionally approves the plan provided the following conditions are met:

Provide further clarification of the location of the decontamination pad area that will be set up.

Provide further clarification concerning the fate of the scrap that will be removed to designated area.

Provide clarification concerning the 90 day time clock for the brick, residues, and decon water.

Provide a project schedule.

Provide a Summary Report upon completion of the work.

If there are any questions concerning the above, please do not hesitate to contact me at 217-785-8725.

Sincerely,

Erin J. Rednour

Erin J. Rednour
Project Manager
National Priorities List Unit
Federal Sites Remediation Section
Bureau of Land
Illinois Environmental Protection Agency

Estate of Chemetco, Inc.

3754 Chemetco Lane ● Hartford, IL 62048
Office: (618) 254-4381 ●Fax: (618) 254-0138
www.chemetcoestate.com

December 5, 2012

Erin Rednour
State Project Coordinator
Illinois EPA RPMS/BOL
1021 North Grand Avenue East
Springfield, IL 62794-9276

James L. Morgan
Assistant Attorney General
Environmental Bureau
500 Second Street
Springfield, IL 62706

Re: Response to the Illinois Environmental Protection Agency (IEPA) letter dated November 16, 2012, "Approval of Top Blown Rotary Converter Furnace Removal Work Plan" LPC#1198010003- Madison County, and Interim Order (Civil Case No. 00-670-DRH, 00-677-DRH (consolidated))

Dear Mrs. Rednour and Mr. Morgan:

On November 16, 2012, the Estate of Chemetco, Inc. (Estate) received a hard copy letter from the Illinois Environmental Protection Agency (IEPA) conditionally approving the Top Blown Rotary Converter Furnace Removal Work Plan submitted to IEPA on October 23, 2012 The Estate has reviewed the conditional comments, and the response to comments are addressed below.

The IEPA conditional comments are shown in bold font, and the Estate's response to comments is shown in italics. The Estate believes that the comments are straightforward, and as such, plans to begin the work on Monday December 10, 2012.

COMMENTS FROM IEPA

1. **Provide clarification on the decontamination pad area that will be set up.**

The Estate and subcontractor (Metro Contract Services) plan to set up a decontamination pad at the northwest corner of the former Foundry Building. Existing sand used previously during demolition activities and silica sand located in the Fines Building will be used to build a berm (covered by plastic) to manage the water during decon activities. At the completion of the work, the spent sand will be analyzed and managed accordingly.

2. Provide further clarification concerning the fate of the scrap that will be removed to designated area.

The south west portion of the former Foundry Building will be used to temporarily stage the scrap metal. The scrap metal will be properly sized for loading into containers for proper recycling. It should be noted that the scrap metal will be gross decontaminated and/or wet deconned, if warranted. The proper sizing of the scrap metal will be performed after the removal and loading of the furnaces main gear drive.

3. Provide clarification concerning the 90 day time clock for the brick, residues, and decon water.

The Estate will oversee the removal of the bricks from the furnaces. Once removed, the bricks will be loaded into 20 Cubic Yard (CY) roll offs. The full roll offs will be staged along the western portion of the former Foundry Building. The roll offs will be sent off for disposal within 90 days of temporary storage.
A separate roll off, either a 20 or 40 CY roll off will be used to dispose of any residue, personal protective equipment (PPE), and miscellaneous debris generated during the removal of the furnaces.
In addition, a Frac tank will be used to manage decon water associated with the removal of the furnaces. Once the work has been completed, a water sample will be collected from the frac tank for analysis. The decon water will be managed accordingly, and disposed of at a proper disposal facility.

4. Provide a project schedule.

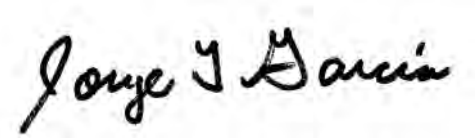
A project schedules is included as requested. The work is scheduled to commence on Monday December10, 2012 and be completed by Tuesday March 26, 2013. It should be noted that the schedule does not include down time due to inclement weather.

5. Provide a Summary Report upon completion of the work.

A Summary Report will be prepared by the Estate and will be submitted to IEPA and USEPA within 60 days of disposal of the last roll off and disposal of decon water. The report will include copies of manifests and summary of scrap metal shipments.

If you have any questions, please do not hesitate to contact me at my office, (618)254-4381 x372 or by cell phone at (314)348-8211.

Sincerely,
ESTATE OF CHEMETCO, INC.



Jorge Y. Garcia PG
Site Project/EH&S Manager

CC:

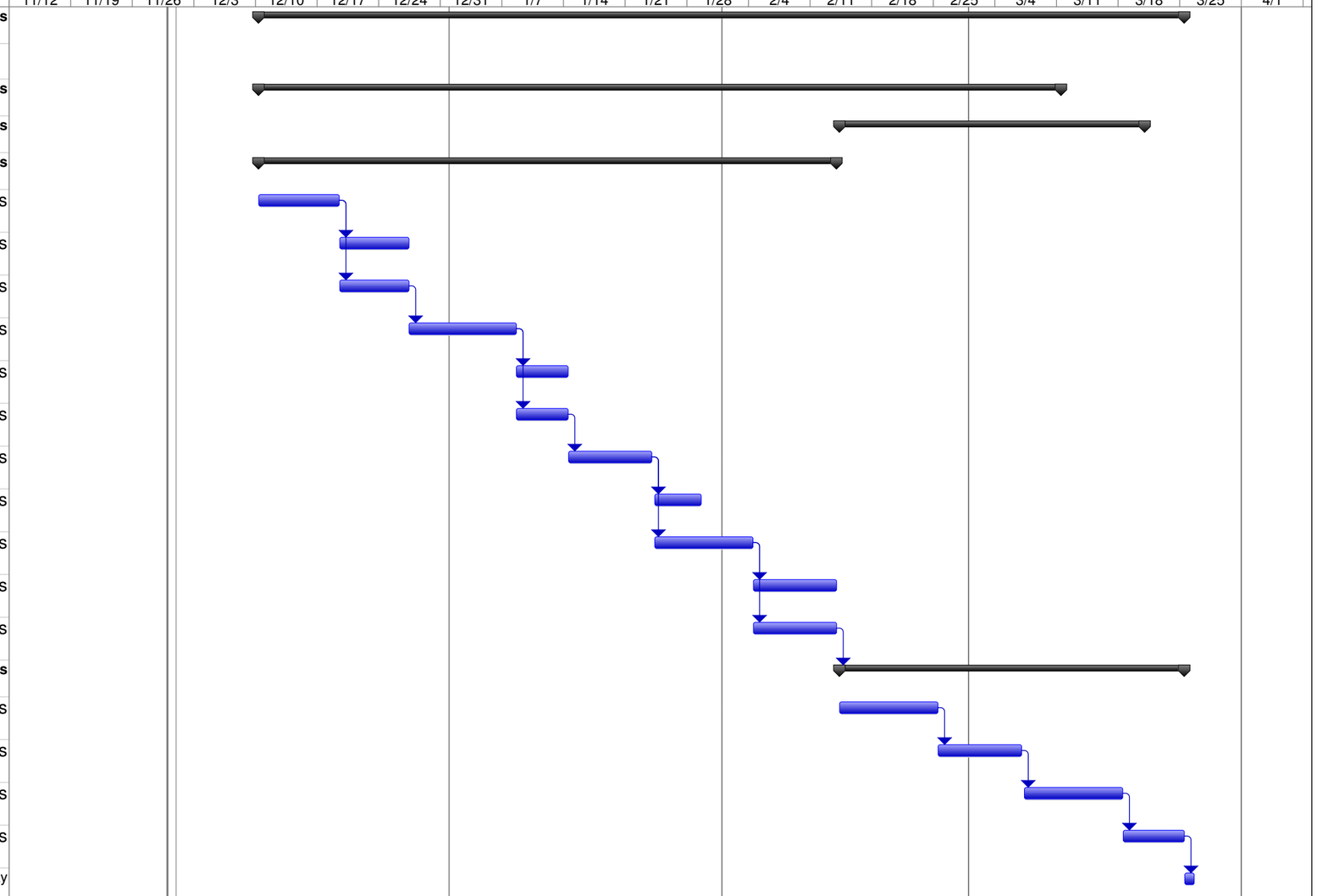
Michelle Kerr,	USEPA
Chris Cahnovsky,	Regional Mgr, IEPA
Don Samson,	Trustee
Thomas Morhaus	Metro Contract Services
Penni Livingston,	Livingston Law Firm

Attachment (1)

Chemetco Furnace Preliminary Schedule

Fri 11/30/12

ID	Task Name	Start	Finish	Duration
1	**FIELD MCS Chemetco - Move Furnaces**	**Mon 12/10/12**	**Mon 3/25/13**	**58 days**
2				
3	**Mobilization / General Conditions**	**Mon 12/10/12**	**Mon 3/11/13**	**50 days**
17	**Subcontractors**	**Thu 2/14/13**	**Wed 3/20/13**	**20 days**
25	**Remove Brick & Shell Sections**	**Mon 12/10/12**	**Wed 2/13/13**	**36 days**
26	Release brakes turn furnace face door	Mon 12/10/12	Wed 12/19/12	6 days
27	Remove shields & drives	Wed 12/19/12	Thu 12/27/12	3 days
28	Cut (rough cut) lower shell section	Wed 12/19/12	Thu 12/27/12	3 days
29	Remove brick (w/excavator)	Thu 12/27/12	Tue 1/8/13	6 days
30	Set up plastic & remove lines	Tue 1/8/13	Mon 1/14/13	3 days
31	Final cut shell section	Tue 1/8/13	Mon 1/14/13	3 days
32	Brick removal & shell Sections	Mon 1/14/13	Wed 1/23/13	6 days
33	Remove upper Shield & etc	Thu 1/24/13	Tue 1/29/13	3 days
34	Cut upper shell	Thu 1/24/13	Mon 2/4/13	6 days
35	Remove all piping & set scales	Mon 2/4/13	Wed 2/13/13	6 days
36	Remove all scrap debris etc	Mon 2/4/13	Wed 2/13/13	6 days
37	**Secure & Lift Furnaces**	**Thu 2/14/13**	**Mon 3/25/13**	**22 days**
38	Install Spiders	Thu 2/14/13	Mon 2/25/13	6 days
39	Remove all bolts & rig	Mon 2/25/13	Wed 3/6/13	6 days
40	Lift off base & onto Trailer	Thu 3/7/13	Mon 3/18/13	6 days
41	Lift Furnace from Truck and Set	Mon 3/18/13	Mon 3/25/13	4 days
42	Project Completion	Mon 3/25/13	Tue 3/26/13	1 day



DOES NOT INCLUDE ANY LOST DAYS DUE TO WEATHER

WORKING HOURS ARE 10 HRS A DAY/ 5 DAYS A WEEK

Task		External Tasks		Manual Task		Finish-only	
Split		External Milestone		Duration-only		Progress	
Milestone		Inactive Task		Manual Summary Rollup		Deadline	
Summary		Inactive Milestone		Manual Summary			
Project Summary		Inactive Summary		Start-only			

June 10, 2013

via e-mail

Steve Zuber
Paradigm Minerals & Environmental Services LLC
Estate of Chemetco, Inc.
3754 Chemetco Lane
Hartford, Illinois 62048

Re: Bulk Unprocessed Metal Bearing Materials Work Plan
Chemetco Superfund Site in Hartford, Illinois

Dear Mr. Zuber,

The U.S. Environmental Protection Agency has reviewed the revised Bulk Unprocessed Metal Bearing Materials (UMBM) Work Plan dated June 4, 2013. The June 4, 2013 version of the Bulk Unprocessed Metal Bearing Materials Work Plan is hereby approved.

Thank you for working with us and re-submitting the plan. We look forward to your company's work at the site progressing. If there are any questions concerning the above, please do not hesitate to contact me at 618-525-3665.

Sincerely,

Kevin Turner
U.S. EPA

Copies via email:
Steve Zuber, Paradigm
Erin Rednour, IEPA
Chris Cahnovsky, IEPA
Scott Sievers, IEPA
Jim Morgan, IAG
Randy Stone, USDOJ
Tom Martin, USEPA
Nefertiti DiCosmo, USEPA
Donald Samson, Estate of Chemetco
Jorge Garcia, Estate of Chemetco
Penni Livingston, Livingston Law
Dan Nester, Bryan Cave
Steve Poplawski, Bryan Cave

WORK PLAN FOR THE SALES OF CHEMETCO FACILITY ASSESTS

BULK UNPROCESSED METAL BEARING MATERIALS WORK PLAN

June 4, 2013

Paradigm Minerals and Environmental Services
3754 Chemetco Lane
Hartford, IL 62048

CONTENTS

SUBJECT

Unprocessed Metal Bearing Materials (UMBM) Work Plan.

PURPOSE

The purpose of this UMBM Work Plan is to document the material handling, packaging and shipping of Bulk Unprocessed Metal Bearing Material Products ("Bulk UMBM") on the former Chemetco Site (the "Site") to purchasers approved by the U.S. Bankruptcy Court, Southern District of Illinois. This work plan provides solely for the segregation and sale of commercially viable Bulk UMBM.

This work supports the Estate and Paradigm's ongoing efforts to reduce the environmental impact at the site and realize the economic benefits as an interim measure pending the US EPA's approval of Paradigm's Process Work Plan, which details Paradigms' activities to process and sell metal bearing materials ("MBM") at the Site.

COMMERCIAL STATUS

Over the past 3 years the following companies have purchased or expressed legitimate interest in purchasing MBM to recover ferrous and non-ferrous metals:

- California Metals and Alloys Corporation (United States);
- Interco Trading (United States);
- Norddeutsche Aurubis Affinerie A.G. (Germany);
- Becker Metals (United States);
- Colonial Metals (United States);
- Coleman Engineering and Metals (United States); and
- Metallo Chemique (Belgium).

These companies will manage the Bulk UMBM as a viable commodity and use the Bulk UMBM as an ingredient or intermediate in an industrial process to make a product or as an effective substitute for commercial products. As such, Paradigm will secure certificates of legitimate recycling from any company with which Paradigm contracts to sell Bulk UMBM under this Work Plan.

Prior to sale to any buyer, Paradigm will identify the buyer in advance to the EPA and provide proper documentation with certificates of recycling as has occurred with previous contracts for sale of material from the Chemetco facility.

CHARACTERIZATION OF MATERIAL

Considerable amounts of MBM can be found throughout the Site, most notably in association with the existing slag stock piles. The MBM may have been generated as a result of former furnace/foundry operations, or process disruptions, and/or as a result of associated operations such as the performance of service, maintenance, or repair of process equipment and vessels. The Large Bulk MBM is known to exist in various sizes and shapes and has been previously described as skulls, ladle-bottoms, and spills. Regardless of the description or etiology, the resulting furnace/foundry products and materials appear to have been previously placed in /on and became commingled within the various existing slag stock piles on the Site. The largest accumulations of MBM are predominately located within the north east quadrant of the fenced property and in slag stock piles along the eastern-most to southeast areas of the Site.

The skulls and spills on the Site are of relatively similar elemental compositions predominately consisting of iron, zinc, lead, copper, and tin of varied proportions. Other metals and metal compounds are known to exist within these matrixes, including, but not limited to antimony, and nickel. The skulls and spills also have relatively similar physical properties as they relate to densities, compressive strength, and specific gravity. The materials vary primarily due to their physical size. The MBM at the Site range in size and shape from granular fines to large bulk materials, as described below:

- **Fines:** Generally means granular material < ½" in any direction
- **Standard Bulk:** Generally means material in a size range of ≥ ½" to < 1' in any direction
- **Large Bulk:** Generally means material ≥ 1', some can be as large 6' in any direction

Large Bulk MBM at the Site is generally believed to have resulted from placing molten and cooling slag onto a surface or into a pit and allowing it to cool and harden at ambient temperatures and pressures. Additionally, when this type of MBM was allowed to cool and become hardened or semi-harden in the bottom of the furnace slag pots what resulted was the formation of large accretions or deposits of MBM of varied composition. The MBM were eventually placed on to the stock piles. The resulting MBM took on a shape, albeit often distorted, of the furnace/foundry vessel in which it was contained. Within industry these accretions are often referred to as 'ladle bottoms' or 'skulls'.

The primary target material of this Bulk UMBM Work Plan is the Large Bulk MBM. The Bulk MBM will be sold as products under this Bulk UMBM Work Plan.

The Appendix section contains an Example of Materials Image typical of the Bulk MBM products Paradigm will initially target under this Work Plan. From the photographs, it becomes easily discernible that there are many Bulk MBM products located at or near the surface of the slag piles. The Large Bulk MBM product pictured can each weigh approximately 4-5 tons and, dependent primarily to size and composition, can weigh up to 10 tons or more.

Sampling- A recent sampling event directly relates to the composition of Large Bulk MBM. Paradigm and Estate personnel located and identified fifteen (15) samples of Bulk UMBM from the slag stock pile for sampling, which are identified on the attached UMBM Sample Locator Map in the Appendix. Twelve of the fifteen samples were designated as primary target locations and the others were designated as alternates in the event circumstances or conditions prevented sampling of the primary targets. The sample locations are further identified by photographs that can be found in the appendix under Bulk UMBM Sample Images.

An electric masonry drill, an 18" long stainless steel masonry drill bit and a vacuum were used to collect the samples. At least three holes were drilled full depth into each of the sample targets through a collection box attached to the vacuum. At each sample location, the material collected within the vacuum was placed into an individual plastic bag, sealed and labeled at each location. The plastic collection bucket and filters of the vacuum were exchanged between sample collections. Paper towels, PPE and other expendable type items were disposed of in existing containers previously established for such materials.

Over the course of two days, samples were obtained from all twelve of the primary sample locations in the presence of a representative from A.H. Knight who served as an independent third party witness to the sampling event, in a strictly observatory role. The A.H. Knight Representative did not directly perform any work, but was in reasonably close proximity to sampling activities. The A.H. Knight Representative maintained custody and control of the samples as they were individually collected. After completion of the sampling event, the A.H. Knight Representative placed the 12 individual sample containers into a larger plastic bag and sealed it. Then they placed that bag into a single plastic container for transfer. The shipping container was sealed at multiple locations and forwarded to A.H. Knight for independent third party laboratory analysis. It is reported that a uniform mass (by weight) of material was collected from each of the samples and then composited into a single sample. The analytical results of the composite sample as reported by A.H. Knight, is attached in the Appendix section under A.H. Knight Test Results. A.H. Knight tested the representative Bulk UMBM to determine the typical total metal content of the Bulk UMBM, using ICP-AES SW846 method 6010 C for total metals.

Upon completion of the assay analysis performed by A.H. Knight et al. the balance of the collected samples were returned to the Site in their original containers. The 12 returned samples were then subsequently individually analyzed by St. Louis Labs using XRF method ASTM E-572. The results of analysis, as reported by St. Louis Labs are attached in the appendix as St Louis Labs Test Results.

SOURCE SEGREGATION ACTIVITIES

Large MBM located near the surface of the stock piled slag will be the initial target of the UMBM Work Plan. After the Processing Work Plan is approved and slag processing work begins, Paradigm expects to methodically and systematically work its way through the existing MBM stock piles over the next 5 to 7 years as long as Large UMBM are present. It is expected that this Bulk UMBM Work Plan continues in force and runs concurrently with the Process Work Plan, once approved. Bulk MBM source areas are the areas identified in dotted red lines on the UMBM Areas of Operation found in the Appendix. Transportation routes are identified on that document with yellow lines to show internal access routes and blue lines to show external access routes for container deliveries.

Operations and activities will be performed within the footprint of the existing MBM stockpiles, and will involve the use of various types of powered construction equipment appropriate to the task and conditions. These will be done with minimal disruption to the original site conditions and without creating new releases. These activities and operations will be primarily conducted in and subject to out-of-doors conditions.

Initially, Large Bulk MBM (best handled and loaded by heavier equipment) can be segregated into individualized piles by a front-end loader (or equivalent) within the footprint of the existing MBM stock piles.

The oversized MBM can be transported by wheeled loader to the former DIS and Dome buildings for bulk material loading. Watering of haul roads or stockpiles may be necessary to remain compliant with 35 ILL. Adm. Code 212.301 (no visible emissions beyond the property line) and will be the responsibility of Paradigm and the Estate.

Large Bulk MBM will be periodically transferred and staged pending loading operations within the concrete wall confines and on the concrete slabs of the former DIS and Dome buildings. The Large Bulk MBM will likely be loaded by skid loader, forklift or front end loader.

Scrap iron, sheet metal and other recyclable materials may be encountered during site activities and will be handled according to the ongoing Scrap Metal Work Plan that is already in place. Sale of these materials and products are expected to continue until the material sources have been depleted or are otherwise no longer available.

In addition to the Large Bulk MBM visibly observable on or protruding from to the surface or otherwise considered to be within near surface proximity of the slag stock piles, it is reasonable to expect the discovery of additional Large Bulk UMBM within and through-out the existing on Site slag stock piles.

In some cases the Bulk UMBM may require size reduction to better accommodate material handling, shipping container and packaging constraints and those requirements that may be placed by the receiving facility. When necessary, dry cutting methods will be employed to size Bulk UMBM and Paradigm will perform such functions at the source location.

LOADING

On-Site scales are used to weigh the ocean/freight containers prior to loading. The containers are then to be staged along the western-most side of the former Domed Building but will not enter the building. The containers are inspected for damage, and if applicable, sheet plastic or other linings are installed. Large Bulk MBM will likely be loaded by skid-loader, forklift or front end loader. The Large Bulk MBM can be loaded by use of portable ramps and smaller bucket loading equipment. Upon completion of loading, the plastic sheeting used to line the container will be overlapped and taped down.

SCHEDULE

In general, daily work related activities will be conducted from 7AM to 6PM, Monday-Friday, but Paradigm and the Estate reserve the right to adjust the work schedule to accommodate business related activities such as production and shipping schedules, operating contingencies, and weather conditions.

Shipments of Bulk UMBM could begin within 5 days of approval of this Bulk UMBM Work Plan and will continue until the material sources have been depleted or are otherwise no longer available. As a forward looking statement, it is possible to deliver the UMBM product in an ambitious and productive 7 years.

HANDLING, PACKAGING, SHIPPING

Recyclable MBM will be bulk loaded into containers outside the dome building and or on the concrete pad in the south east corner of the property in accordance with customer specifications. The shipping/loading areas, located within the Product Staging Area, are labeled with yellow flags #1 and #2 on the Bulk UMBM Work Plan Map attached in the appendix. If bagging is required, the existing bagging process will be located along the dock at the southwest corner of the dome building identified with yellow flag #1.

Large Bulk UMBM can be placed directly, as-is, into overseas shipping containers.

Pricing is Freight on Board ("F.O.B.") Hartford and the buyers will be responsible for coordinating the shipping from the plant to the final destination. Paradigm will only be required to coordinate the packaging and loading of containers at the Site. When applicable, Paradigm will secure the product for shipment in accordance with United States Department of Transportation hazardous materials shipping procedures.

The following bulk shipping containers may be used:

Ocean Container (International): If intended for transport via Ocean-Liner, the nature of the Bulk UMBM may require the ocean container to be lined with plastic sheeting with sealed doors. Upon completion of loading, the plastic lining will be overlapped and taped down. In an effort to eliminate or mitigate potential damage to the container or the plastic lining, large size Bulk UMBM may be placed in the container on top of smaller material using a portable ramp and a forklift or similar device.

Dump Trailer (Domestic): For domestic shipments using open top trailers or containers, Bulk UMBM will be removed from their current locations, stockpile(s) and staging areas using construction equipment appropriate to the task and conditions present or similar equipment with the intention and capability to more evenly distribute Bulk UMBM within containers. Upon completion of loading, the trailer or container will be covered and secured for shipment.

Non-bulk Packaging: Where smaller packaging is required (e.g., Gaylord cartons, Supersacks, or similar containers) packaging will be positioned on an impermeable material, (e.g., plastic sheeting to catch spills), and loaded by hand or using a portable hopper and a skid loader and sent to the 2-station bagger at the dock at the SW corner of the former Domed Building, just NW of the former Foundry Building. At that location, the material will be processed into loading hoppers and then placed into the appropriate shipping device or package. The package will be weighed, labeled and sealed for shipment. A forklift or similar material handling equipment will be used to move the packages. A forklift and the concrete loading docks will be used to load box trailers or ocean containers with packages for shipment. Fugitive dust will be controlled as described in Pollution Prevention section under Fugitive Dust Emissions.

Storage: Under ideal conditions and circumstances the intent is to load Bulk MBM into containers as soon as it is ready for sale and as soon as Paradigm has an adequate amount of material to meet the size and number of containers available for shipping. However, if conditions and circumstances require it, bulk materials could be stored on an impermeable surface and covered with plastic sheeting within the former Domed Building or other similar location that provides adequate containment. Packaged materials could be stored inside the former Receiving Building, fines building or tank house, if space is available.

POLLUTION PREVENTION

Decontamination: All equipment, tools, and the exterior of containers used in the Bulk UMBM Work Plan will be decontaminated in accordance with the Estate's Decontamination Procedure, dated January 29, 2008. Decontamination activities shall be performed within concrete bunkers located outside of the tank house and the former foundry building, (identified as circles #5 and #6 on the UMBM Work Plan Map included in the appendix). Both of these areas have access and egress points able to accommodate the entry of mobile equipment. They provide reasonably direct routes out of transport lanes and away from Site activities. These areas also provide concrete walls and partitions that serve to establish an element of containment. In the decontamination areas the Estate and Paradigm shall construct or install small partitions and ramps to contain materials resulting from decontamination efforts, and to prevent the migration and intrusion of storm water that may contain MBM. The concrete slabs that underlay and are immediately adjacent to these areas are expected to prove suitable to serve as staging areas, and for the placement of receiving containers such as roll-off boxes, and for the placement of collection tanks or other suitable containers for the collection of solids and water used in decontamination activities.

Pursuant to decontamination procedures, Paradigm and/or the Estate shall establish decontamination zones for powered and process equipment, material containers, personnel and the associated personal protective equipment used to perform work. Two distinct forms of decontamination will be employed: dry (gross) decontamination and wet decontamination efforts. Dry removal is characterized by the use of dry mechanical or manual device assisted removal such as broom sweeping, brushing, scrapers or vacuuming. Wet removal is characterized by the use of fluids such as water and manually assisted or powered equipment such as pressure washers and hot water or steam cleaners. In the event wet decontamination efforts are necessary, additional efforts such as the use of partitioned curtains (and similar devices) may be required to aid in the containment and control fugitive emissions and/or water discharges. Waste water resulting from 'wet decontamination efforts' will be pumped into and stored in a collection tank on a suitable base and appropriately disposed of in accordance with applicable regulatory requirements.

Satellite decon stations may be established near personnel entrance and exit points. Portable decontamination collection and containment devices and equipment will be constructed or installed to aid in the decontamination and collection of PPE. This may include drum type containers with liners for the collection of expendable PPE such as paper suits and respirator cartridges, the use of dry boot

brushes and portable hand washing stations. Dry MBM and water potentially bearing MBM will be collected from the activities in these satellite stations and placed into containers for proper disposal in compliance with applicable regulatory requirements until the Process Work Plan has been approved. Following the approval of the Process Work Plan, Paradigm will evaluate these materials for potential use within the chemical process.

Spills and Release Cleanup: Work will be conducted only in manageable weather conditions. Paradigm will evaluate the potential impact adverse weather conditions may have on continued safe working conditions and may suspend operations while such conditions persist. Any spills or releases of MBM will be cleaned up each day using brooms, shovels or vacuum systems. A determination will be made as to whether the materials cleaned up can be shipped as product. Materials spilled or released that cannot be shipped as products will be handled as solid or hazardous wastes in compliance with applicable regulatory requirements.

Containment: All MBM products will remain in place until work starts under this Bulk UMBM Work Plan. Commercially viable products subject to this Work Plan will be recovered and staged, as discussed above, in the Product Staging Area and as specified in this Bulk UMBM Work Plan. All sealed containers of wastes, including hazardous waste, awaiting shipment will be stored in RCRA containers and staged for shipment on the concrete area between the offices and the foundry and managed according to RCRA.

Fugitive Dust Emission Controls: On-Site source segregation activities of Bulk UMBM, powered equipment, dry cleaning of concrete surfaces and similar activities may have the potential to result in fugitive dust emissions. All efforts will be made to prevent visible fugitive dust emissions. Paradigm shall employ dust control measures, such as water spray, fogging, misting, and/or other dampening efforts to prevent such visible emissions. To the extent possible and consistent with the prevention of visible emissions, use of water will be limited in volume to prevent run-off and unsafe working conditions.

WASTE MANAGEMENT, ENVIRONMENTAL ISSUES AND REGULATORY COMPLIANCE

Hazardous Waste - All hazardous wastes will be properly characterized, contained, labeled, handled, stored and manifested according to RCRA.

Solid Waste - Any wastes generated will be properly characterized via a hazardous waste determination and disposed off-site in accordance with RCRA.

Waste Staging Areas- Waste Staging Ares will be established on the existing concrete slab areas in locations that allow for reasonable vehicle access, management of materials, profiling and collection into appropriate containers for off-site disposal. Until the approval of the Process Work Plan, all waste shall be disposed of properly and in accordance with RCRA regulations. Following the approval of the Process Work Plan, waste may either be properly disposed in accordance with applicable regulatory requirements or evaluated for use and inserted into the appropriate processing operations detailed in Paradigm's Process Work Plan. While stored in the Waste Staging Area, the waste will be managed in accordance with RCRA.

Clean Air Act - Paradigm will comply with all air permitting and air control requirements applicable to its operations.

Transportation and Documentation- All shipments of Product and/or Wastes will be in compliance with United States Department of Transportation regulations and standards as well as RCRA generator requirements. The Estate's RCRA generator ID will be used to generate manifests and ensure that appropriate placards are applied or otherwise displayed at the time of transportation of any hazardous materials, including transportation to an appropriate recycling or waste management facility. The signed generator and transporter copy of the manifest will be forwarded to the IEPA, while maintaining at the Site the fully executed originals. Monthly, the Estate will report to EPA, with a copy to IEPA, a brief activity summary and material shipments for the prior month and totals to date, along with copies of sale contracts and all manifests for the prior month.

Reporting

In accordance with the Consent Decree, Paradigm will submit to the Agencies, pursuant to the schedule below, written progress reports that among other requirements:

- Include a summary of all results of sampling and tests and all other data received or generated by or on behalf of the Trustee or Paradigm, and Paradigm's contractors, or agents in the previous reporting period;

- Identify all Work Plans, plans and other deliverables that were completed and submitted during the previous reporting period;

- Describe all actions, including, but not limited to, data collection and implementation of all Work Plans, which are scheduled for the next reporting period and provide other information relating to the progress of construction;

- Any actual or anticipated increases to the quantity of recycled metal bearing material and/or waste collected during the work which may change the quantity used to calculate the amount of the initial financial assurance;

- Include information regarding percentage of completion, unresolved delays encountered or anticipated that may affect the future schedule for implementation of the work, and a description of efforts made to mitigate those delays or anticipated delays; and

- Include any modifications to the Work Plans or other schedules that Paradigm has proposed to EPA or that have been approved by EPA.

Upon approval of this work plan, Paradigm will submit reports on a quarterly basis. Paradigm will submit these reports to the Agencies by the tenth day of the new reporting period.

HEALTH & SAFETY

All work will be performed in accordance with the approved Bulk UMBM Work Plan and in compliance with applicable and appropriate worker health and safety requirements.

Hazards – Bulk UMBM products contains hazardous levels of non-ferrous metals and inorganic metal compounds, such as lead. When dry, Bulk UMBM can be dusty. Work around moving equipment is a safety hazard.

Compliance - Workers in contact with Bulk UMBM on Site will comply with OSHA regulations for exposure to lead and cadmium. Affected workers will also secure 40-hr HAZWOPER training certification and will participate in medical surveillance monitoring for lead and cadmium exposure.

Personal Protective Equipment (PPE) - Personal protective equipment (PPE) will be used throughout the various areas of operation. At a minimum, all persons wanting to gain access to the various areas of operation will be required to wear hard hats, safety glasses or alternate eye protection, and work boots or shoes with toe protection or similar protective foot wear. Personnel performing work in the various areas of operation may be required to use additional PPE appropriate to the task and conditions present. It is expected that PPE best described as level C will be required. This may include the previously mentioned hard hats, safety glasses or alternate eye protection, long sleeve shirts and long pants, work boots or shoes with toe protection or similar protective foot wear, and as appropriate, gloves, paper suits and cartridge respirators. There may be some exceptions to these PPE requirements, such as equipment operators working within enclosed cabs or persons performing inspection related activities with very limited exposure potential.

Security- 24-hr security monitoring of the Site is provided by Estate personnel on work days, Monday through Friday, and the use of the Estate's 24-hr security camera monitoring system. All work will be conducted during daylight hours, Monday through Friday, or when Estate personnel are present for specially scheduled work on the weekends or holidays.

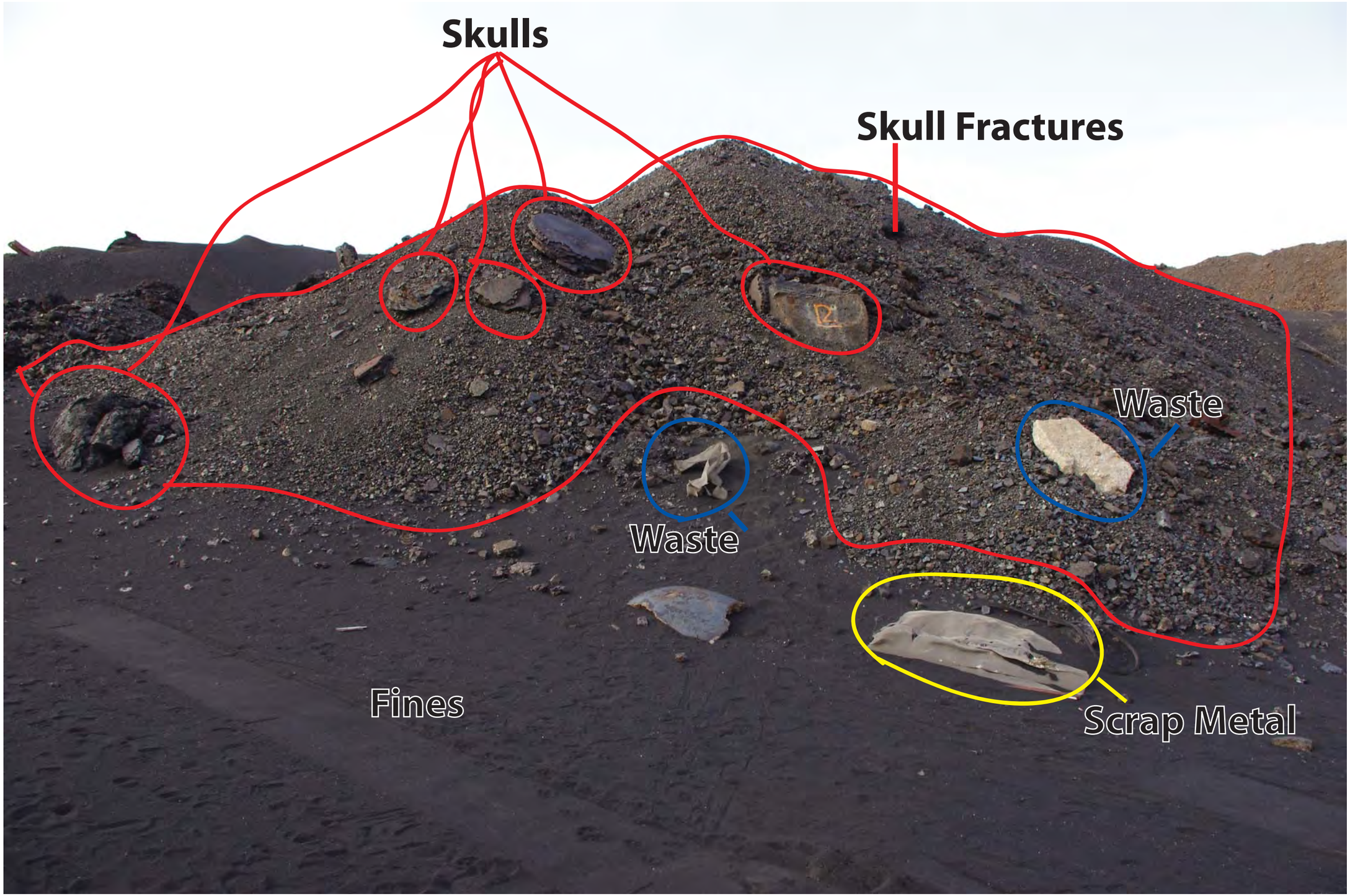
Storm Water Management- the Trustee and Paradigm shall ensure that operations under this Work Plan comply with the Estate's current Storm Water Management Plan and the Facility's NPDES permit (number IL0025747). The Trustee and Paradigm shall evaluate access and egress points to the Site that contain areas of operation and as a result of this evaluation, construct or install, as appropriate small partitions and ramps to contain materials resulting from decontamination efforts, and to prevent the migration and intrusion of storm water that may contain MBM. During transition, sand bags, gravel bags, temporary berms, and other devices shall be placed at access and egress points.

Closure- Upon completion of all work, the Trustee and Paradigm shall issue a Closure Report for this Bulk UMBM Work Plan with documentation on all shipments off-site, including sales of Bulk UMBM.

APPENDIX

Appendix A

Examples of Materials Image



Bulk UMBM Sample Images
Appendix A

Bulk UMBM Sample Images






UMBM Areas of Operation

Points of Reference

1. Fines Building
2. Zinc Bunker
3. Crushing Building
4. Domed & Dis Building
5. Foundry
6. Tank House
7. Brick House
8. Maintenance Building
9. Administrative
10. Administrative
11. Receving Building
12. Scales

1 - 15 Bulk UMBM Sample Locations

Internal Access Routes

External Access Routes

Raw M.B.M. Location

Appendix B

Bulk UMBM Sample Locator Map

CERTIFICATE OF ASSAY

Appendix B

Alfred H Knight

REFERENCE	DATE	PAGE
S/20664	17-Dec-2012	1 of 1

CLIENT	MARKS	ADVISED SHIPMENT WEIGHT
CALIFORNIA METALS AND ALLOYS CORP. 3083 SCHOLARSHIP IRVINE, CA 92612 USA		

PACKING: PILES

SEALS: AHK

CLIENT REFERENCE	MATERIAL DESCRIBED AS
	SCULLS / SLAGS

ASSAY STATE: DRY BASIS

SAMPLING DATE	ASSAY TYPE	VESSEL
15-Nov-2012 to 16-Nov-2012	PARTY ANALYSIS	

LOT NUMBER			LOT 1
Silver	(Ag)	g/MT	*
Gold	(Au)	g/MT	*
Copper	(Cu)	%	6.56
Tin	(Sn)	%	4.13
Lead	(Pb)	%	3.82
Aluminum	(Al)	%	2.53
Nickel	(Ni)	%	1.38
Palladium	(Pd)	%	*
Platinum	(Pt)	%	*
Zinc	(Zn)	%	6.15

Paul Ritson
General Manager
For and on behalf of Alfred H Knight North America Ltd.

Alfred H Knight North America Ltd.
130 Tradd Street (29301), P.O.Box 3504, Spartanburg, South Carolina 29304-3504
Tel: 864 595 1903 Fax: 864 595 1627 Email: ahk.america@ahkgroup.com

Appendix B

Founded 1929 St. Louis Testing Laboratories INCORPORATED

2810 Clark Avenue • St. Louis, MO 63103-2574 • (314) 531-8080 • FAX (314) 531-8085

Chemical, Metallurgical, Mechanical, Nondestructive, Environmental Testing, Analyses and Field Service.

December 13, 2012
Lab No. 12C-2447
Invoice No. 159488
Page 1 of 2
(Revised Report 1/17/13)

PARADIGM MINERALS & ENVIRONMENTAL SERVICES
3754 Chemetco Lane
Hartford, IL 62048

Attention: Elliot Stegin

REPORT OF ANALYSIS

MATERIAL: Skull #1 Skull #2 Skull #3 Skull #4 Skull #5 Skull #6

SUBJECT: Compositional Analysis by XRF

TEST METHOD: ASTM E572

UNITS: Percent by Weight (%)

RESULTS:

ANALYTE	Skull #1	Skull #2	Skull #3	Skull #4	Skull #5	Skull #6
Titanium	<0.30%	<0.30%	<0.30%	<0.30%	<0.30%	<0.30%
Chromium	1.41%	0.18%	0.20%	0.25%	1.53%	0.81%
Manganese	0.49%	0.33%	0.22%	0.49%	0.47%	0.34%
Iron	46.02%	45.56%	38.54%	70.08%	77.11%	62.73%
Cobalt	0.64%	0.70%	0.66%	0.95%	1.05%	0.87%
Nickel	0.20%	<0.04%	3.79%	<0.04%	<0.04%	<0.04%
Copper	1.39%	0.24%	15.88%	1.45%	3.14%	5.02%
Zinc	10.55%	8.53%	5.77%	12.51%	6.26%	9.95%
Arsenic	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%
Selenium	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%
Bromine	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%
Strontium	0.02%	0.02%	0.01%	0.01%	0.01%	0.01%
Zirconium	0.09%	0.04%	0.02%	0.03%	0.04%	0.03%
Molybdenum	0.02%	0.01%	0.02%	0.02%	0.04%	0.02%
Palladium	<0.07%	<0.07%	<0.07%	<0.07%	<0.07%	<0.07%
Silver	<0.02%	<0.02%	<0.02%	<0.02%	<0.02%	<0.02%
Cadmium	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%
Tin	2.35%	1.32%	7.75%	1.05%	1.58%	1.51%
Antimony	<0.02%	<0.02%	<0.02%	<0.02%	0.05%	<0.02%
Barium	<1%	<1%	<1%	<1%	<1%	<1%
Platinum	<0.07%	<0.07%	<0.07%	<0.07%	<0.07%	<0.07%
Gold	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%
Mercury	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%
Lead	1.06%	0.98%	1.69%	0.32%	0.81%	1.27%
Bismuth	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%

Note: These analyses should be considered semi-quantitative. XRF values can be skewed because light elements are not detected or included in the quantification. This can result in high values being reported for heavier elements (such as iron and zinc).

Identification of tested specimens provided by the client.

Robin E. Sinn
Laboratory Director

RES/bb

Founded 1929 St. Louis Testing Laboratories INCORPORATED

2810 Clark Avenue • St. Louis, MO 63103-2574 • (314) 531-8080 • FAX (314) 531-8085

Chemical, Metallurgical, Mechanical, Nondestructive, Environmental Testing, Analyses and Field Service.

PARADIGM MINERALS & ENVIRONMENTAL SERVICES
3754 Chemetco Lane
Hartford, IL 62048

December 13, 2012
Lab No. 12C-2447
Invoice No. 159488
Page 2 of 2
(Revised Report 1/17/13)

Attention: Elliot Stegin

REPORT OF ANALYSIS

MATERIAL: Skull #7 Skull #8 Skull #9 Skull #10 Skull #11 Skull #12

SUBJECT: Compositional Analysis by XRF

TEST METHOD: ASTM E572

UNITS: Percent by Weight (%)

RESULTS:

ANALYTE	Skull #7	Skull #8	Skull #9	Skull #10	Skull #11	Skull #12
Titanium	<0.30%	<0.30%	<0.30%	<0.30%	<0.30%	<0.30%
Chromium	0.24%	1.20%	<0.04%	0.52%	0.71%	1.10%
Manganese	0.38%	0.52%	0.12%	0.77%	0.46%	0.22%
Iron	61.07%	56.05%	18.06%	43.42%	40.44%	46.03%
Cobalt	0.91%	0.73%	0.36%	0.52%	0.65%	0.80%
Nickel	<0.04%	0.04%	12.66%	0.61%	0.09%	0.13%
Copper	2.14%	1.46%	25.93%	8.79%	2.34%	3.89%
Zinc	7.76%	15.22%	4.91%	16.45%	10.58%	7.85%
Arsenic	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%
Selenium	<0.01%	<0.01%	0.01%	0.02%	0.01%	0.00%
Bromine	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%
Strontium	0.02%	0.07%	<0.004%	0.02%	0.02%	0.00%
Zirconium	0.02%	0.04%	0.01%	0.06%	0.05%	0.02%
Molybdenum	0.01%	0.06%	<0.01%	0.02%	0.03%	0.00%
Palladium	<0.07%	<0.07%	<0.06%	<0.07%	<0.07%	<0.07%
Silver	<0.02%	<0.02%	<0.02%	<0.02%	<0.02%	<0.02%
Cadmium	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%
Tin	0.65%	0.69%	17.53%	4.77%	0.92%	1.22%
Antimony	<0.02%	<0.02%	<0.02%	0.06%	0.02%	0.04%
Barium	<1%	2.27%	<1%	<1%	<1%	<1%
Platinum	<0.07%	<0.07%	<0.07%	<0.07%	<0.07%	<0.07%
Gold	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%
Mercury	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%
Lead	0.48%	0.57%	3.77%	3.00%	0.66%	0.96%
Bismuth	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%

Note: These analyses should be considered semi-quantitative. XRF values can be skewed because light elements are not detected or included in the quantification. This can result in high values being reported for heavier elements (such as iron and zinc).

Identification of tested specimens provided by the client.

RES/bb

Robin E. Sinn
Laboratory Director

APPENDIX C

PROPOSED TESTING PROTOCOLS		
MATERIAL	**PURPOSE OF ANALYSIS**	**PROPOSED ANALYTICAL METHOD(S)**
Deleterious Non-METAL BEARING MATERIALS Screening Debris	Profiling and characterization as a part of waste management activities for appropriate disposal	SW 846-1311 and USEPA Method 6010C
Material Process Water	QA/QC testing to evaluate and optimize process operations. Profiling and characterization as a part of waste management activities for appropriate disposal	In house testing, SW 846-1311 and USEPA Method 6010C
METAL BEARING MATERIALS Feed Stocks	QA/QC testing to evaluate and optimize process operations. Profiling and characterization as a part of waste management activities for appropriate disposal	In house testing, SW 846-1311 and USEPA Method 6010C
Commodity Products	QA/QC testing to evaluate and optimize process operations and conformance to product specifications. Profiling and characterization as a part of waste management activities for appropriate disposal	In-house testing and that required by client, SW 846-1311 and USEPA Method 6010C
Other Waste Materials	Profiling and characterization as a part of waste management activities for appropriate disposal	SW 846-1311 and USEPA Method 6010C

APPENDIX D

POTENTIALLY APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS					
Subject	**Requirement**	**Federal or State Regulatory Standards**	**Description**	**Potentials to be Evaluated or ARAR(s)**	**Evaluation**
Concrete Debris	Concrete debris will be tested to determine if it has potential or application as clean fill material	35 IAC Section 742 Table F	Requirement for concrete debris that will be considered for reuse onsite must meet the Tiered Approach Corrective Action Objectives Tier 1 Industrial/commercial Standard for Soil.	ARAR	Applicable to concrete debris that may be found commingled with METAL BEARING MATERIALS, or that may have resulted from demolition activities, or during construction activities.
Universal Waste	Identification of material that could be classified and/or managed as Universal Waste	40 CFR 273 Subpart B IAC 733 Subpart B	Requirement to determine at the point of generation whether this waste can be managed as universal waste under the standards cited and that apply to small quantity generators of universal waste (handler that has less than 11,000 pounds of total universal waste onsite at any one time).	ARAR for batteries, mercury containing equipment, lamps, paints various light bulbs, air conditioning units. Small quantity generators are allowed to: (1) accumulate waste 1 year from the date the waste was generated; (2) waste will be stored to prevent releases to the	Applicable to debris that may be found commingled with METAL BEARING MATERIALS, or that may have resulted from demolition activities, or during construction activities.

				environment; (3) waste will be managed in containers appropriately labeled or marked	
Special Waste	Identification of material that could be classified and/or managed as Special Waste	IAC 808.121 (a) IAC 808.240	Requirement to determine if a material is a Special Waste, classify or declassify the waste, to manage waste to be disposed of offsite in a manner to prevent releases to the environment. If classified as a Special Waste onsite management and disposal according to requirements.	ARAR for waste not sold or to be recycled. Includes glass, clay, concrete products, and metallic dust sweepings for offsite disposal. If necessary IAC 808 Subparts C, D, E, F G and H will be complied with after determination by IEPA and identification and classification has occurred.	Applicable to debris that may be found commingled with METAL BEARING MATERIALS, or that may have resulted from demolition activities, or during construction activities.
Dust Emissions	Prevention of particulate emissions from METAL BEARING MATERIALS, and related process activities	Department of Labor (OSHA) Standards 29 CFR 1910 OSHA Standards 29 CFR 1910 subpart Z	Requirements for worker safety and health. General Industry standards for workplace exposure to chemicals, training requirements, and occupational exposure levels for specific chemicals and compounds.	ARAR (s)	OSHA standards are applicable by articles of incorporation to hazardous waste sites.
Electronic Waste (computer system components, circuit	Remove Electronic Wastes from METAL BEARING MATERIALS	40 CFR 261.4 (b) (14)	The Electronic Wastes as described that are found in METAL BEARING MATERIALS piles and other areas associated with	ARAR for circuit boards and computer monitors.	Applicable to circuit board debris and in-tact monitors.

boards, et al)	piles and other areas associated plant process areas and or the construction of associated process areas		construction and process areas will be removed from the pile or area and sent off for shredding and recycling. Circuit boards are exempt from regulation if handled as described.		
Recycled Products	A material is considered recycled if it is used, reused or reclaimed 40 CFR 261.1(c)(7). A material is considered reclaimed if it is processed to recover a useable product. 40 CFR 261.2 (c) designates as solid wastes, materials that are recycled in a particular manner in reclamation.	40 CFR 261.1(c)(7) and 261.2 (c) 35 IAC 721.102 and 726 Subpart C	Materials approved for sale as Products are not solid waste	ARAR for METAL BEARING MATERIALS that will be moved and staged while waiting on-site reprocessing.	Applicable to METAL BEARING MATERIALS moved and staged as a part of processing activities.
Hazardous waste generation and shipment to an off-site treatment, storage and/or disposal (TSD)	determining whether generated waste is a Resource Conservation Recovery Act (RCRA) hazardous	40 CFR 262.11/ 35 IAC 722.111	Requirement to determine at the point of generation whether waste is a RCRA hazardous waste	ARAR for debris: concrete, cardboard, cardboard; paper; wood; plastic containers, piping, and sheeting; personal	Applicable to debris and waste materials that are generated as a result of the Paradigm Process or sale of Packaged

facility	waste			protective equipment (PPE)' fiberglass siding, and dry wall and soapy decontamination water (if hazardous), refractory brick that is not reused	Product
Hazardous waste generation and shipment to an off-site treatment, storage and/or disposal (TSD) facility	Identification of RCRA hazardous waste	40 CFR 261.2-.9, 40 CFR Part 261 Subpart B (waste characteristics)/ 35 IAC 721 Subpart B	Requirement for determining if a material is a RCRA solid waste and RCRA hazardous waste, and not excluded from RCRA regulation	ARAR for debris: concrete, cardboard; paper; wood; plastic containers, piping, and sheeting; PPE; fiberglass siding, and dry wall and soapy decontamination water (if hazardous), refractory brick that is not reused.	Applicable to debris and waste materials that are generated as a result of the Paradigm Process or sale of Packaged Product.
Hazardous waste generation and shipment to an off-site treatment, storage and/or disposal (TSD) facility	Labeling and packaging of RCRA hazardous wastes that will be sent off-site	40 CFR 262.30-.33/ 35 IAC 722 Subparts C, E, and H	Requirement for RCRA hazardous wastes to be sent offsite to a TSD facility must be properly packaged, labeled and placarded	ARAR for debris: concrete, cardboard; paper; wood; plastic containers, piping, and sheeting; PPE; fiberglass siding, and dry wall and soapy decontamination water (if hazardous), refractory brick that is not	Applicable to debris and waste materials that are generated as a result of the Paradigm Process or sale of Packaged Product.

				reused.	
Hazardous Materials, including Hazardous Waste, transported off-site	These regulation establish the procedures for identifying, classifying, packaging, labeling, and transporting United States Department of Transportation (USDOT) Hazardous Materials, including Hazardous Wastes, that will be transported off-site	49 CFR 171-179/ 35 IAC 721 and 723 49 CFR 107, 171.1-500	Requirement for determining a substance is USDOT Hazardous Material, including Hazardous Waste, to be transported off site.	ARAR for packaging, labeling, documenting, loading, and transporting USDOT Hazardous Materials, which includes Hazardous Wastes	Applicable to Process Waste or Product containing lead and cadmium levels that trigger USDOT Hazardous Materials classification being transported off-site for recycling and any Hazardous Wastes being transported off site.
Closure and post-closure standards for hazardous waste management units	General RCRA performance standard for hazardous waste management unit closures	40 CFR 265.111 40 CFR 265.114/ 35 IAC 724	Requirements for management units that handle RCRA hazardous waste must be closed and receive post-closure care to minimize the need for further maintenance and to control, minimize or eliminate later escape of hazardous constituents to the extent necessary to protect human health and the environment. In addition, equipment, structures, and soil that become contaminated from contact with	ARAR for the Brick Shop Container Storage Area and the AAF Decontamination Area and Sump	Applicable to any storage, treatment or disposal units that would be used to manage waste materials excavated or otherwise generated.

			hazardous waste must be properly disposed of or contaminated.		
Container Management	General RCRA requirements for managing containers used to store materials	40 CFR 265 Subpart 1 35 IAC 725 Subpart 1	Requirement for the design and management standards for hazardous waste containers	ARAR for the containerization of the residual liquids or pre-existing containerized material within the Foundry Building and Tank House	Applicable for any hazardous waste that will be containerized
Occupation exposures to on-site workers	Required prior to working at a hazardous waste site	Occupational Safety and Health Administration (OSHA), 29 CR 1910. 651-678	Requirements that regulate worker health and safety. Sets general industry standards for workplace exposure to chemicals, and sets health and safety training requirements for workers at hazardous waste sites.	ARAR	OSHA standards are independently applicable to hazardous waste sites
Occupational exposures to on-site workers	Required prior to working at a hazardous waste site	29 CFR Part 1910, Subpart Z	Establishes occupation exposure levels for specific contaminants	ARAR	OSHA standards are independently applicable to hazardous waste sites
Spent Hydraulic Fluids	Determining whether generated waste is a RCRA hazardous waste	40 CFR 262.11/ 35 IAC 722.111	Requirement to determine at the point of generation whether waste is a RCRA hazardous waste	ARAR	Applicable to debris and waste materials that are generated as part of demolition activities
Spent	Identification	40 CFR 261.2-.9	Requirement for	ARAR	Applicable to

Hydraulic Fluids	of RCRA hazardous waste	40 CFR Part 261 Subparts B (waste characteristics) 35 IAC 721 Subpart B	determining if a material is a RCRA solid waste and RCRA hazardous waste, and not excluded from RCRA regulation.		debris and waste materials that are generated as part of demolition activities.
Spent Hydraulic Fluids	Labeling and packaging of RCRA hazardous wastes that will be sent off-site	40 CFR 262.30-.33	RCRA hazardous wastes to be sent offsite to a TSD facility must be properly packaged, labeled and placarded	ARAR	Applicable to debris and waste materials that are generated as part of demolition activities.
Used Oil Standards	Standards for used oil generators	40 CFT 279 Subpart C IAC 739 Sub Part C	Standards for used oil generators	ARAR	Applicable to material that can be classified as “Used Oil”.

PROCESS WORK PLAN APPENDIX E

PROCESS WASTE HANDLING PROTOCOL

MATERIAL BY CATEGORY	GENERAL COMPOSITION/ DESCRIPTION OF MATERIALS	DECONTAMINATION METHODS	ANALYSIS PARAMETERS	PROPOSED SAMPLING AND ANALYTICAL METHODS	SAMPLING FREQUENCY	PROPOSED RECYCLE METHODOLOGY	SHIPPING METHODS	RECEIVING FACILITY
Building Materials and Debris	wood framing materials, drywall, building siding, roof material, debris remaining after demolition activities or resulting from building improvements and similar products	may not apply; or dry or gross de-contamination such as broom sweeping or brushing; or wet methods high pressure washer and requires liquids collection	Total Metals	SW 846-1311 EPA Method 6010 C, ICPAES-MS Total Metals	Once to characterize the waste profile for each individual waste stream. One sample per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are accumulated. After that one sample per every 200 cubic	mixed material collection; or source segregation; or on site processing, after characterization some materials may be found suitable for re-use	on-site, movement by manual and powered equipment, using appropriate transfer containers and devices; Off-site, transport by roll off boxes, tank or tanker, or if appropriate, haul trucks.	ship off-site to an appropriate solid waste facility ship fluids to an appropriate treatment facility

					yards for similar profiled waste streams.			
Concrete	rubble and debris, cinder block, and similar related products	may not apply; or dry or gross de-contamination such as broom sweeping or brushing; or wet methods high pressure washer and requires liquids collection	Total Metals	SW 846-1311 EPA Method 6010 C, ICPAES-MS Total Metals	Once to characterize the waste profile for each individual waste stream. One sample per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are accumulated. After that one sample per every 200 cubic yards for similar profiled waste	source segregation; or on-site processing, METAL BEARING MATERIALS processing equipment will be capable of rendering this type of material suitable for use in on-site clean-fill applications	on-site, movement by manual and powered equipment, using appropriate transfer containers and devices Off-site, transport by roll off boxes, or if appropriate, haul trucks.	Rubble that meets the requirements of the Tier 1 Approach Corrective Action Objectives (Ill. Adm. Code 742) may be re-used on-Site. rubble that does not meet the requirements of the standard or is not intended to be re-used will be shipped off-Site to a solid waste landfill

					streams.			
Dust	resulting from the movement of METAL BEARING MATERIALS, screening, sizing and grading operations, dry or wet decontamination general clean-up and housekeeping activities	not applicable, solids entered into METAL BEARING MATERIALS process system as appropriate	Total Metals	SW 846-1311 EPA Method 6010 C, ICPAES-MS Total Metals	Once to characterize the waste profile for each individual waste stream. One sample per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are accumulated. After that one sample per every 200 cubic yards for similar profiled waste streams.	source segregation, satellite locations for accumulation of like materials to be consolidated into roll-off bins or other appropriate transport containers; or On site processing for use as a potential feed stock or potential 'as-is' material sales.	on-site, movement by manual and powered equipment, using appropriate transfer containers and devices	not applicable
Electronics	computer monitors, circuit	not applicable	Total Metals	SW 846-1311 EPA	Once to characterize	mixed material	on-site, movement	after characterization,

	boards, peripherals, and chipped and/or shredded parts of same and similar products			Method 6010 C, ICPAES-MS Total Metals	the waste profile for each individual waste stream. One sample per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are accumulated. After that one sample per every 200 cubic yards for similar profiled waste streams.	collection; or source segregation, satellite locations for accumulation of like materials to be consolidated into roll-off bins or other appropriate transport containers	by manual and powered equipment, using appropriate transfer containers and devices Off-site, transport by roll off boxes, conex, or if appropriate, haul trucks.	ship off-site to a recycling process facility; material that does not meet the requirements of the standard will be shipped off-site to a solid waste landfill
Oil and Related Products	resulting from service and maintenance of fuel powered and rotating processing	may need to drain filters	Semi-Volatile, Volatiles, BTEX, pH	SW 846-1311 EPA Method 6010 C, ICPAES-MS	Once to characterize the waste profile for each individual	mixed material collection; or source	on-site, movement by manual and powered equipment,	after characterization, ship off-site to a recycling process facility

	equipment, fluids and filters, et al			Total Metals	waste stream. One sample per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are accumulated. After that one sample per every 200 cubic yards for similar profiled waste streams.	segregation, satellite locations for accumulation of like materials to be consolidated into roll-off bins or other appropriate transport containers	using appropriate transfer containers and devices; Off-site, transport by drum, tank or tanker trucks.	
Paper	sheet paper, books, magazines, cardboard, boxes, shipping/receiving materials, general cleaning and housekeeping and similar products	not applicable	Total Metals	SW 846-1311 EPA Method 6010 C, ICPAES-MS Total Metals	Once to characterize the waste profile for each individual waste stream. One sample	mixed material collection; or source segregation, satellite locations for accumulation of	on-site, movement by manual and powered equipment, using appropriate transfer containers	after characterization, recycling process facility; material that does not meet the

					per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are accumulated. After that one sample per every 200 cubic yards for similar profiled waste streams.	like materials to be consolidated into roll-off bins or other appropriate transport containers	and devices Off-site, transport by roll off boxes, or if appropriate, haul trucks.	requirements of the standard or is not intended to be re-used will be shipped off-site to a solid waste landfill
Personal Protective Equipment	gloves, safety glasses, boots, paper suits ear plugs, respirators and associated cartridge filters (et al) and similar products	not applicable	Total Metals	SW 846-1311 EPA Method 6010 C, ICPAES-MS Total Metals	Once to characterize the waste profile for each individual waste stream. One sample per 50 cubic yards of waste for the first 5 times	mixed material collection; or source segregation, satellite locations for accumulation of like materials to be consolidated into roll-off bins or other	on-site, movement by manual and powered equipment, using appropriate transfer containers and devices Off-site, transport by	after characterization, will be shipped off-site to a solid waste landfill

					that 50 Cubic yards of similar waste are accumulated. After that one sample per every 200 cubic yards for similar profiled waste streams.	appropriate transport containers	roll off boxes, or if appropriate, haul trucks.	
Plastic	pipe cutting and tailings, vessels, shipping and packaging materials, bags and flexible containers, barrels, drums, totes, scrap rubber, fiberglass panels and similar materials	may not apply; or dry or gross de-contamination such as broom sweeping or brushing; or wet methods high pressure washer and requires liquids collection	Total Metals	SW 846-1311 EPA Method 6010 C, ICPAES-MS Total Metals	Once to characterize the waste profile for each individual waste stream. One sample per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are	mixed material collection; or source segregation, satellite locations for accumulation of like materials to be consolidated into roll-off bins or other appropriate transport containers	on-site, movement by manual and powered equipment, using appropriate transfer containers and devices Off-site, transport by drums, barrel, appropriate container,	after characterization, recycling process facility; material that does not meet the requirements of the standard or is not intended to be re-used will be shipped off-site to a solid waste landfill

					accumulated. After that one sample per every 200 cubic yards for similar profiled waste streams.		roll off boxes, or if appropriate, haul trucks.	
Process Water			Total Metals	SW 846-1311 EPA Method 6010 C, ICPAES-MS Total Metals	Once to characterize the waste profile for each individual waste stream. One sample per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are accumulated. After that one sample per every			

					200 cubic yards for similar profiled waste streams.			
Scrap Metal	of various compositions; angle iron, channel, plate, piping and conduit, wiring, equipment and equipment parts, rebar, structural components, debris remaining after demolition activities or resulting from building improvements, general cleaning and housekeeping, and similar products	may not apply; or dry or gross de-contamination such as broom sweeping or brushing; or wet methods high pressure washer and requires liquids collection	Total Metals	SW 846-1311 EPA Method 6010 C, ICPAES-MS Total Metals	Once to characterize the waste profile for each individual waste stream. One sample per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are accumulated. After that one sample per every 200 cubic yards for similar profiled	mixed material collection; or source segregation, satellite locations for accumulation of like materials to be consolidated into roll-off bins or other appropriate transport containers	on-site, movement by manual and powered equipment, using appropriate transfer containers and devices Off-site, transport by roll off boxes, or if appropriate, haul trucks.	metal recycling facility

					waste streams.			
Shipping and Receiving Materials	plastic and metal banding, pallets, bags, drums, totes, liners	may not apply; or dry or gross de-contamination such as broom sweeping or brushing	Total Metals	SW 846-1311 EPA Method 6010 C, ICPAES-MS Total Metals	Once to characterize the waste profile for each individual waste stream. One sample per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are accumulated. After that one sample per every 200 cubic yards for similar profiled waste streams.	mixed material collection; or source segregation, satellite locations for accumulation of like materials to be consolidated into roll-off bins or other appropriate transport containers	on-site, movement by manual and powered equipment, using appropriate transfer containers and devices Off-site, transport by roll off boxes, or if appropriate, haul trucks.	ship off-site to an appropriate solid waste facility

Wood	broken and scrap lumber, pallets, plywood, dimensional lumber, dunage and similarly related products	may not apply; or dry or gross de-contamination such as broom sweeping or brushing	Total Metals	SW 846-1311 EPA Method 6010 C, ICPAES-MS Total Metals	Once to characterize the waste profile for each individual waste stream. Then one sample per 50 cubic yards of waste for the first 5 times that 50 Cubic yards of similar waste are accumulated. After that one sample per every 200 cubic yards for similar profiled waste streams.	mixed material collection; source segregation; on site processing, after characterization some materials may be found suitable for re-use	on-site, movement by manual and powered equipment, using appropriate transfer containers and devices Off-site, transport by roll off boxes, or if appropriate, haul trucks.	ship off-site to an appropriate solid waste facility

*Waste streams will be tested until a waste profile is established using appropriate methodology noted in Table above and or in accordance with receiving facility requirements or profile testing methods that have been established by ongoing Chemetco Bankruptcy Estate operations.

* 90-Day rule is relevant for all waste generated.

Estate of Chemetco, Inc.

Decontamination Procedure

January 29, 2008

Appendix F

STANDARD FOR DECONTAMINATION

(Definition of clean debris surface as per 40 CFR §268.45)

'Clean debris surface' means the surface, when viewed without magnification should be free of all visible contamination and hazardous waste except that residual staining consisting of light shadows, slight streaks, or minor discolorations, and contamination in cracks, crevices, and pits may be present provided that such staining and contamination in cracks, crevices and pits should be limited to not more than 5% of each square inch of surface area.

1. **General**
   All visible scrubber sludge, slag, and other debris associated with the Chemetco site will be removed from the equipment in question on all exterior and interior surfaces, including inside cabs and engine compartments. All liquids and solids generated by the decontamination procedure will be handled as suspect hazardous waste in compliance with RCRA in satellite accumulation drums in the Brick Shop labeled as "Decon Waste Water" and "Decon Waste Solids."
2. **Containment**
   a. A containment pad will be constructed on an even concrete covered area of the site using at least two layers of 6 mil plastic sheeting, one layer of 10 mil plastic sheeting or better with at least 4" berms on all sides constructed using flexible drain pipe wrapped in plastic with sandbags on top to stabilize and with 4' of spacing around the equipment.
   b. A sump or low area will be created inside the containment to facilitate collection of waste waters and solids.
   c. To prevent puncturing the plastic, wood boards, plywood or other suitable material will be placed on top of the sheeting.
3. **Decontamination of Materials and Equipment**
   a. Gross and hard to remove contaminants will be removed by mechanical action (shovels, brushes, etc.)
   b. A pressure washer (less than 3000 psi) using well water will be used to remove any remaining contaminants.
4. **Collection of Decon Wastes/Hazardous Materials**
   a. Before the decontaminated materials or equipment are removed from the containment pad, all waste waters and solids will be collected from the surface of the containment area using mechanical action and/or a sump pump or wet/dry vacuum.
   b. Once the decontaminated materials or equipment are removed from the containment area, the pad will be decontaminated with a pressure washer and the waste water collected with a sump pump or wet/dry vacuum.
   c. Waste Waters will be placed in the satellite accumulation drum labeled "Decon Waste Water" and the volume documented as stated on the attached Decon Waste Water Inventory Sheet.

Estate of Chemetco, Inc.

Decontamination Procedure

January 29, 2008

d. Waste Solids will be placed in the satellite accumulation drum labeled "Decon Waste Solids" and the volume documented as stated on the attached Decon Waste Solids Inventory Sheet.
e. The waste drums will be sealed and returned to the Hazardous Storage Area in accordance with the instructions on the inventory sheets (full drums will be labeled and managed as hazardous waste until waste determinations and disposition are completed).

5. Documentation of Decontamination

Upon completion of the above actions, the lead person performing the decontamination will record evidence of this on the attached Decontamination Inspection Sheet, which will be filed by the EH&S Manager.

6. Inspection of Containment Pad

Prior to use of the containment pad for the next decontamination, the pad will be inspected to ensure that there are no punctures or other indications of failure of the intergrity, if so, it will be repaired or replaced. Used plastic sheeting will be disposed of as suspect hazardous waste.

7. Personal Protection Equipment (PPE)

a. All personnel conducting the decontamination of the equipment and the handling of suspect hazardous waste will be required to wear the following PPE:
   - Hard hat with face shield
   - Safety Glasses
   - Water resistant boots or goulashes
   - Rubber gloves
   - Water resistant apron or tyveks
   - Half-face respirator, if fugitive dust is present

b. PPE will be decontaminated or disposed of as suspect hazardous waste.

8. Health and Safety

All personnel conducting the decontamination of the equipment and the handling of hazardous wastes are required to:

a. Have current OSHA Hazwoper Certification (29 CFR 1910.120),
b. Comply with OSHA Standard for Lead Worker (29 CFR 1910.1025), and
c. Comply with OSHA Standard for Cadmium Worker (29CFR 1910.1027)

Estate of Chemetco, Inc.
Work Plan for Sales of Facility Assets -Copper Furnace Cleanup Solids
March 27, 2008
Revised February 8, 2010

Subject: **Copper Furnace Cleanup Solids**

Purpose:
The purpose of this revision of the Work Plan is to document the handling, packaging and shipping of approximately 200 metric tons of Copper Furnace Cleanup Solids to a new purchaser, Kataman Metals, LLC (Kataman) , approved by the U.S. Bankruptcy Court, Southern District of Illinois.

Purchaser:
Since entering the Interim Order on September 16, 2008, the Estate of Chemetco, Inc. (Estate) has successfully shipped 107.1 metric tons of Copper Furnace Cleanup Solids for recycling at Colonial Metals in Columbia, PA where they produce a wide variety of non-ferrous alloys for industry. The Copper Furnace Cleanup Solids were shipped in covered dump trailers. On January 8, 2010, the U. S. Bankruptcy Court entered an order to sell 200 metric tons of Copper Furnace Cleanup Solids to Kataman (presented as Attachment A) who had a higher bid than Colonial Metals. Kataman has contracted with Environmental Management Alternatives (EMA) of St. Louis to load and ship the Copper Furnace Cleanup Solids to the same customer, Aurubis AG, that the Estate has shipped 2,262.7 metric tonnes of Cupro and it will be loaded and shipped in the same manner (i.e., bulk loaded into a plastic lined spill proof sea container, covered with plastic, and the doors sealed).

Characterization of Material:
Copper Furnace Cleanup Solids are a collection of furnace charges and melts, splatters, and spills around the furnaces of metal bearing materials generated by Chemetco's copper and lead/tin smelting processes. Copper Furnace Cleanup Solids exist in stockpiles in the SW corner, on the walls of the furnace support structures and around the Lead/Tin Shaker Ladel in the Foundry Building and in stockpiles outside the Foundry Building along the west side. The materials consist of a mix of copper, lead/tin, and iron scrap, fines, skimmings, drosses, and furnace dust on the furnace deck. The materials range in size from granular fines to scrap metal. Copper Furnace Cleanup Solids have a bulk density of approximately 1.35 MT/cy. Copper Furnace Cleanup Solids have significant levels of economically viable non-ferrous metals as metals and metal oxides (copper 20-50% by weight, zinc 10-15%, lead 5-10% and tin 2-5%). Iron metal scrap and compounds, 4-6%, are the largest non-ferrous constituents.

Regulatory Classification:

RCRA: By-product

USDOT: Determination to be made at time of loading based on the level of fines and the concentration of lead and cadmium as it relates to Marine Pollutants and then only applies if shipment is by vessel. Copper Furnace Cleanup Solids are otherwise classified as follows:

Shipment other than by vessel:	NOT a USDOT Hazardous Substance.
Shipment by vessel:	Potentially a USDOT Hazardous Substance, Class 9, UN3077, Group III, "Environmentally Hazardous Substance, Solid, NOS (Copper Furnace Cleanup Solids-copper slag solids)" [Note: Classification triggered by potential marine pollutant limit for presence of high level of fines containing soluble lead, applicable only to shipment by vessels.]

Handling, Packaging and Shipping:

Shipping Container: All Copper Furnace Cleanup Solids will be shipped as bulk in spill proof sea containers that meet the USDOT and IMO transportation requirements.

Preparation for Shipping: EMA will use the open concrete area between the Cupro stockpile and the West Exit from the Foundry Building for stockpiling Copper Furnace Cleanup Solids to be packaged and shipped. Any wet Copper Furnace Cleanup Solids will be allowed to dry prior to packaging and shipping. A mini-excavator, a front end loader, and/or a skid loader will be used to remove the Copper Furnace Cleanup Solids from the locations in the SW corner and the locations outside on the west side of the Foundry Building to the open concrete area.

Loading and Shipping: The spill proof ocean/freight container (sea container) will be parked at the west entrance to the Foundry Building but will not enter the building. Loading will be performed using a skid-steer loader or similar equipment to transport fines and smaller pieces of Copper Furnace Cleanup Solids up a portable metal ramp into the plastic lined container with sealed doors. A small heavy-lift forklift or similar equipment will transport pieces too large and heavy for the skid-steer loader and place them strategically inside the container to maintain an even distribution of weight across the container. A front-end loader or similar equipment will be used to position Cupro in the stockpiles for loading by the skid-steer loader and/or forklift to insure that the stockpiles do not become unstable as Cupro is removed from the base. Upon completion of loading, plastic is overlapped and taped down and a bulk-head placed across the doorway.

Bill of Lading: Each shipment of Copper Furnace Cleanup Solids will be accompanied by a commercial Bill of Lading that includes the net weight of the contents as determined using the Chemetco truck scales upon leaving the site less the tare weight, description of contents, van-trailer number, date of departure, and purchaser information.

Schedule

Work is expected to be conducted from 7AM to 6PM, Monday-Friday but the Estate reserves the right to adjust the work schedule to accommodate shipping schedules. Depending on purchaser requirements, shipments of Copper Furnace Cleanup Solids are expected to start within 2 weeks and take 4 to 5 days to complete.

Pollution Prevention

Decontamination: All facility assets or the exterior of their containers going off-site will be decontaminated per the Estate's Decontamination Procedure. All decontamination residues will be managed according to RCRA. Tires on wheeled vehicles will be washed before going off-site.

Spills and Release Cleanup: Any spills or releases of Copper Furnace Cleanup Solids outside the Foundry Building will be cleaned up each day using brooms, shovels or vacuum systems. A determination will be made as to whether the materials cleaned up can be shipped or will be containerized and handled as Wastes according to RCRA.

Containment: All sealed containers of Wastes, including Hazardous Waste, awaiting shipment will be temporarily stored on plastic in an isolated area inside the west end of the Tank House and will be managed according to RCRA.

Fugitive Dust: Water spray and/or misters will be used to control fugitive dust but limited in volume to prevent run-off.

Waste Management

Hazardous Waste: The Estate expects to generate less than 100 lbs of hazardous waste as spill cleanup, debris (paper, plastic, cardboard, and wood), and contaminated PPE and filter elements. All wastes will be properly characterized, contained, labeled, handled, stored and manifested according to RCRA.

Non-Hazardous Waste: The Estate does not expect to generate any non-hazardous waste. If any non-hazardous waste is generated, it will be properly characterized, handled and disposed in accordance with RCRA..

Health & Safety

Hazards: Copper Furnace Cleanup Solids contains hazardous levels of non-ferrous metals and inorganic metal compounds, such as lead and nickel, as referred to in the Estate's MSDS-Copper Furnace Cleanup Solids (copper refining slag solids), attached. Exposure to mineral dust is a concern due to the level of fines, <10%, and respirable dusts, < 1%, present as Copper Furnace Cleanup Solids. Work around heavy and moving equipment is a safety hazard.

Compliance: The Estate requires that all workers inside the Foundry Building and in contact with Copper Furnace Cleanup Solids are required to comply with OSHA regulations for exposure to lead, cadmium and nickel, including wearing protective equipment such as hard hats, safety glasses or goggles, gloves, long sleeve shirt and long pants, boots, and respirator and are medically monitored for lead and cadmium exposure. All workers are also required to have current 40-hr HAZWOPER training certification.

Security

The Estate will provide 24-hr security monitoring of the site utilizing Estate personnel on work days, Monday thru Friday, and the use of its 24-hr security camera monitoring system. All work will be conducted during daylight hours, Monday thru Friday, or when Estate personnel are present for specially scheduled work on the weekends or holidays.

Closure

Upon completion of all work, the Estate will issue a Closure Report for this Work Plan with documentation on all shipments off-site including Copper Furnace Cleanup Solids and Wastes.

Attachment A
U. S. Bankruptcy Court Order for Sale to Kataman Metals, LLC

IN THE UNITED STATES BANKRUPTCY COURT
FOR THE SOUTHERN DISTRICT OF ILLINOIS

IN RE:	)	In Proceedings Under
	)	Chapter 7
CHEMETCO, INC.,	)	
	)	BK-01-34066
Debtor.	)	

ORDER

This matter having come before the Court pursuant to a Notice of Trustee's Intent to Sell Property free and clear of liens pursuant to 11 U.S.C. §363 to Colonial Metals Company and Kataman Metals, LLC ("Kataman") having made a higher offer and objected to said sale, the Court finds as follows:

1. The Trustee filed a Notice of Intent to Sell property free and clear of liens pursuant to 11 U.S.C. §363 to sell to Colonial Metals approximately 336,000 to 420,000 pounds of furnace clean up dust, slag, residue (20-40% copper, free of detrimental elements), (the "Refinery Metal") for a price of $ .25 per pound and pot slag (the "Pot Slag") for the price of $ .25 per pound (20-30% copper, free of detrimental elements). (Collectively "Assets").

2. Kataman offered to purchase Assets for the price of $ .265 per pound, F.O.B. Chemetco site, Hartford, Illinois.

3. There were no higher offers for the Assets. The Trustee deemed Kataman the highest bidder at the price of $ .265 per pound, F.O.B Chemetco site, Hartford, Illinois. The bankruptcy estate will be responsible for loading the Assets on the trucks provided by Kataman.

IT IS THEREFORE ORDERED that the sale of the Assets is approved to Kataman at the price of $ .265 per pound delivered F.O.B. Chemetco site, Hartford, Illinois.

Counsel for the moving party shall serve a copy of this Order by mail to all interested parties who were not served electronically.

ENTERED: January 8, 2010

/s/ Kenneth J. Meyers
UNITED STATES BANKRUPTCY JUDGE/4

Agreed:

/s/ Laura K. Grandy, Trustee
Laura K. Grandy on behalf of the Bankruptcy Estate

/s/ David Going
David Going on behalf of Kataman Metals

Attachment B
Kataman Metals LLC Recycling Letter

KATAMAN METALS

7733 Forsyth Boulevard Suite 300 St. Louis, Missouri 63105-1833
314-863-6699 FAX 314-863-5588

D. McVey
Chemetco Estate
3753 Chemetco Lane
Hartford, IL 62048

December 8, 2009

Dear Mr. McVey

With reference to final disposition of material, such as pot slag and other refinery metal that the Chemetco Estate sells to Kataman Metals, LLC, this metal in its entirety would be loaded in a sealed sea container for shipment to Aurubis in Lonen, Germany (formerly Norddeutsche Affinerie AG Recycling) where it will be totally utilized as an ingredient in their production process to produce copper cathodes.

This facility is the biggest copper producing company in Europe and the biggest company in recycling of all copper containing material in the world. Their technique is state-of-the-art, especially in reference to environmental standards.

Sincerely,

Warren Gelman
President

Attachment C
MSDS Copper Furnace Cleanup Solids

ESTATE OF CHEMETCO, INC.
MATERIAL SAFETY DATA SHEET –COPPER CLEANUP SOLIDS

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Estate of Chemetco, Inc.
3574 Chemetco Lane
Hartford, IL USA 62048

Company Phone Number: (618) 254-4381 Ext 332
Emergency Phone Number: (636) 346-0413

Product Name: **Copper Furnace Cleanup Solids**

Issue Date: Rev 2 – 1/21/2010
Supersedes: Rev 1 - 4/21/2008

Section 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance/Odor: Copper, Grayish color. Mixture of non-ferrous alloys and compounds (mainly copper, zinc and lead) and furnace dust (mainly zinc, copper, and lead oxides) and metal compounds) as solids and small scrap. Various sizes ranging from dusts to large pieces (>1' diameter). Odorless.

NOTICE
Product contains inorganic compounds of lead, a toxic substance. Inorganic lead compounds are listed by the International Agency for Research on Cancer (IARC) as Group 2B, possibly carcinogenic to humans and lead is known by the State of California to cause reproductive harm to females and males and to cause birth defects. Product contains inorganic copper and zinc compounds that could be harmful to humans if inhaled, ingested, or were contacted over extended periods of time in significant amounts.

Potential Health Effects: See Section 11 for more information

Likely Routes of Exposure: Eye contact, skin contact, inhalation, and ingestion.

Eye: Minor irritation can occur due to mechanical action of Product granular solids. Dusts can contain copper, zinc and lead and other harmful metal compounds which can irritate eyes.

Skin: Minor irritation can occur due to mechanical action of Product solids. Dusts can contain copper, zinc and lead and other harmful metal compounds which can irritate skin.

Inhalation: Inhalation of high levels of inorganic lead dusts can have cumulative blood, neurological, or reproductive hazards. Inhalation of high levels of inorganic copper dusts can affect the respiratory system, the liver, and kidneys. Inhalation of high levels of zinc oxide may cause irritation to the respiratory tract.

Ingestion: Ingestion of high levels of inorganic lead dusts can have cumulative blood, neurological, or reproductive hazards. Ingestion of high levels of inorganic copper dusts can affect the liver and kidneys.

Medical Conditions Aggravated by Exposure:
May cause more significant respiratory tract problems in people with severe ' respiratory conditions, such as asthma or emphysema. Skin irritation may be more significant in people with pre-existing skin conditions.

Target Organs:

Lead Oxide:	Digestive tract, central nervous system, blood, and gingival tissue.
Copper Dusts:	Eyes, skin, respiratory system, liver, kidneys.
Zinc Dusts:	Respiratory system.

This product does contain lead oxide, a possible carcinogen, as listed by IARC. Nickel compounds are potential carcinogens as listed by OSHA.

This product is considered to be hazardous by the OSHA Hazard Communications Standard (29 CFR 1910.1200).

Potential Environmental Effects: (See Section 12 for more information)

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Compounds[1]	CAS #[2]	% by Wt. [3]
(Mixture of metals and oxides of mainly non-ferrous metals)		
Copper/Copper Oxide (Cu_2O)	1317-39-1	20-50
Zinc/Zinc Oxide (ZnO)	1314-13-2	10-15
Lead/Lead Oxide (Pb_3O_4)	1314-41-6	5-10
Iron/Iron Oxide (Fe_2O_3)	1309-37-1	4-6
Tin/Tin Oxide (SnO)	21651-19-4	2-5

Footnote:
(1) Compounds exist as metals and oxides of that metal, unless otherwise stated.
(2) CAS # represents oxides of metals, unless otherwise stated.
(3) As metal oxides.

Section 4: FIRST AID MEASURES

Eye Contact: Immediately flush eyes with water for at least 15 minutes. Get medical attention.

Skin Contact: Remove contaminated clothing and wash before reuse. Wash skin with soap and water.

Inhalation: Move to fresh air. Get medical attention.

Ingestion: DO NOT induce vomiting. Get medical attention.

Section 5: FIRE FIGHTING MEASURES

Flammability: Non-flammable solid **Flash Point:** >200°F
Autoignition Temperature: N/A

Explosive Limits: Upper: N/A Lower: N/A

Extinguishing Media: Not applicable, Non-flammable solid.

Protection of Firefighters: Firefighters should wear full face respirator and protective clothing to prevent contact with skin and eyes. Isolate runoff to prevent environmental pollution.

Products of Combustion: Not combustible.

Section 6: ACCIDENTIAL RELEASE MEASURES

Personal Protection: Use personal protection recommended in Section 8.

Environmental Precautions: This product contains lead and inorganic lead compounds that could exhibit hazardous characteristics and fines may contain soluble lead that is a marine pollutant. Contain spilled or leaking product and DO NOT let it enter waterways.

Methods for Containment: Control dust with mist of water to keep damp. Avoid using too much water that would cause runoff.

Methods for Clean-up: Sweep dry or semi-dry product into a pile and shovel into a container. If wet, use wet vacuum or slurry pump if large quantity involved and place in an isolated area or open container to dry

Other Information: Spills of product do not need to be reported to the National Response Center.

Section 7: HANDLING AND STORAGE

Handling
Keep away from strong acids or strong oxidizers. Do not get dust in eyes. Do not breathe dust from product. Avoid contact with skin. Wash thoroughly after handling and especially before eating, drinking or smoking.

Storage
Should be stored under cover or in closed container where the product cannot come in contact with strong acids or oxidizers. Product should not come in contact with large volumes of water which come then be discharged to the environment. Misting or light sprays of water can be used to control dusts. Any residual product should be properly disposed. (For disposal, see Section 13: Disposal Considerations).

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:
The Product has not been evaluated as to exposure. The following metals and metal oxides in the product have the following exposure limits if they exist as respirable dusts (10 microns or less):

Copper	TWA: 1 mg/m^3 (OSHA/NIOSH)
Copper Oxide	TWA: 0.1 mg/m^3 (OSHA); TWA: 0.2 mg/m^3 (NIOSH)
Lead	TWA: 0.50 mg/m^3 (OSHA); TWA: 0.1 mg/m^3 (NIOSH)
Lead Oxide	TWA: 0.05 mg/m^3 (OSHA/NIOSH)
Tin	TWA: 2 mg/m^3 (OSHA/NIOSH)
Tin Oxide	Not established (OSHA); TWA: 2.0 mg/m^3 (NIOSH)
Iron Oxide	TWA: 10.0 mg/m^3 (OSHA); TWA: 5.0 mg/m^3 (NIOSH)
Zinc Oxide:	TWA: 5.0 mg/m^3 (OSHA); TWA: 2.0 mg/m^3 (ACGIH)

Engineering Controls: Provide local exhaust ventilation for dust or use of water spray(s) to prevent fugitive dust.
Eye/face Protection: Prevent eye/face contact, such as wearing compound splash goggles and face shield.
Skin Protection: Prevent skin contact, such as wearing tightly woven clothing with long sleeves and pants to cover the lower body, boots or suitable coverage of ankles and feet, head cover, and impermeable gloves.
Respiratory Protections: Use NIOSH-approved air-purifying respirator with an air protection factor of at least 10 (APF=10) and that meets the air-purifying requirements of any other operation in the area where the product is being handled.
General Hygiene Considerations: Wash thoroughly after handling and especially before eating or use of tobacco products. Remove wet or contaminated clothing.

Section 9:	PHYSICAL AND COMPOUND PROPERTIES
Color:	Copper, Gray
Odor:	Odorless
Odor Threshold:	Not available
Physical State:	Metallic solids. Metal-silicate, ceramic-like solid. Various sizes ranging from dusts to large pieces (>1' diameter).large pieces (> 2' diameter)
pH:	7.5-8.0
Boiling Point:	>1500°C
Melting Point:	>1500°C
Flash Point:	>200°F
Flammability (solid):	Non-flammable
Density:	~120.0 lbs/ft^3 or ~1,927 kg/m^3
Solubility in Water:	Negligible

Section 10:	STABILITY AND REACTIVITY
Stability:	Stable under ordinary conditions of use and storage.
Conditions to Avoid:	None
Incompatible Materials:	Strong acids and oxidizers

Hazardous Decomposition Products: Toxic fumes from metal oxide decomposition.
Possibility of Hazardous Reactions: Possibility of hazardous reaction very remote as long as product does not experience extreme heat or prolonged contact with incompatible materials.

ESTATE OF CHEMETCO, INC.
MATERIAL SAFETY DATA SHEET –COPPER CLEANUP SOLIDS

Section 11: TOXICOLOGY INFORMATION

No toxicological information available on product but the following information is available for the metals and metal compounds:

Immediately Dangerous to Life and Health (IDLH) Concentrations (NIOSH):
The Product has not been evaluated as to IDLH. The following compounds in the product have the following IDLH concentrations as pure substances and as fumes or dusts. Since these compounds are bound up in the slag, it is highly unlikely that exposure exceeding IDLH concentrations will occur.

Copper/Copper Oxide	100 mg/m^3
Lead/Lead Oxide	Possible Carcinogen, Concentration not established
Tin/Tin Oxide	Not established
Zinc Oxide:	500 mg/m^3
Iron/Iron Oxide	2,500 mg/m^3 as iron oxide fume or dust (NIOSH)

Section 12: ECOLOGICAL INFORMATION

The product has metals and metal compounds that includes toxic metals which could impact the ecology if spilled in significant quantities. Any spilled product should be contained by placing in a contained area, such as a sealed concrete pad with barrier walls and cover or inside sealable containers that are sufficient to hold this heavy, somewhat abrasive product, until it can be properly recycled or disposed.

Section 13: DISPOSAL CONSIDERATIONS

Disposal: Spilled or contaminated product should be characterized and disposed according to local, state, and/or federal regulatory requirements. Copper Furnace Cleanup Solids does contain lead at levels that could cause spilled or contaminated product to have hazardous characteristics.

Section 14: TRANSPORTATION INFORMATION

U.S. DOT Hazardous Material: Depends on level of fines and concentration of lead and mode of transportation. See Section 15 for clarification. If Hazardous Material, then the following applies:

Hazardous Material Name:	Environmentally Hazardous Substance, Solid, NOS
Hazard Class:	9
Reportable Quantity:	Not established
U.N. No.:	3077
ORM #.:	Not Applicable
Placard Requirement:	Class 9
Shipping Label:	"Environmentally Hazardous Substance, Solid, NOS (Copper Furnace Cleanup Solids)"
Waste Manifest:	Not Applicable
Packaging:	Group III; Bulk containers are plastic lined
Net Wt. Per Package:	Varies depending on packaging (e.g., 20 tons/ocean container or rolloff, 2 tons/Supersack, and 1 ton/Gaylord carton)

ESTATE OF CHEMETCO, INC.
MATERIAL SAFETY DATA SHEET –COPPER CLEANUP SOLIDS

Section 15: REGULATORY INFORMATION

USEPA Hazardous Waste? **NO.** Copper Furnace Cleanup Solids is a by-product, not a waste, of secondary copper smelting operations, therefore, it is not regulated under RCRA.

USDOT Hazardous Material?

Transported in a vessel - Determination to be made at time of loading based on the level of fines and the concentration of lead and cadmium as it relates to Marine Pollutants and then only applies if shipment is by vessel

Not Transported in a vessel – NO, not a Hazardous Material.

USEPA TSCA Inventory: YES. This product is regulated under TSCA and must maintain records of shipments and report in the reporting year every four years of the quantity shipped that exceed 10,000 lbs in the year prior to the reporting year.

USOSHA: This product is considered to be hazardous by the OSHA Hazard Communications Standard (29 CFR 1910.1200).

Section 16: OTHER INFORMATION

Process Generating the Product: Pyrometallurgical copper/lead refining where Copper Furnace Cleanup Solids are the residual parts of furnace charges and cleanup under furnaces and floor of Foundry Building.

Estate of Chemetco, Inc.

3754 Chemetco Lane ● Hartford, IL 62048
Office: (618) 254-4381 ●Fax: (618) 254-0138
www.chemetcoestate.com

May 27, 2011

Erin Rednour
State Project Coordinator
Illinois EPA RPMS/BOL
1021 North Grand Avenue East
Springfield, IL 62794-9276

James L. Morgan
Assistant Attorney General
Environmental Bureau
500 Second Street
Springfield, IL 62706

Re: Notification of Shipments to Aurubis AG and Addendum to the approved Copper Furnace Cleanup Solids Work Plan (March 27, 2008)
Interim Order (Civil Case No. 00-670-DRH, 00-677-DRH (consolidated))

Dear Mrs. Rednour and Mr. Morgan:

This letter serves as notification for the Estate to sell Copper Furnace Cleanup Solids (CFCS) under the approved Work Plan dated March 27, 2008. In the past Aurubis AG (whether directly or through a broker) has purchased various residues and dross including Copper Furnace Cleanup Solids. Enclosed is Aurubis commitment letter (i.e. certificate or recycling) as per your request.

The approved work plan described the loading procedures of the CFCS using a portable loading ramp. However, the ramp is not owned by the Estate and currently not available for use at this time.

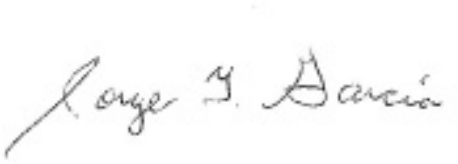
As an addendum to the approved work plan, the Estate plans to use the loading dock area adjacent to the dome building for loading the CFCS. This approach was conveyed to the IEPA during a site visit on May 10, 2011, and an email to IEPA and USEPA dated May 10, 2011. All of the work will be performed in accordance with the approved work plan.

It is the Estates understanding that IEPA requests a 14-day notification period prior to loading and shipping of any material. The Estate requests that the notification period be retroactive to May 11, 2011, when the Estate verbally notified IEPA and USEPA. The Estate had tentative arranged international shipping containers for delivery on or about May 19, 2011, but had to reschedule until we received the certificate of recycling.

The Estate has been able to reschedule delivery of containers after June 2, 2011. In addition, as previously indicated, the number of containers and loading is limited to a handful of containers. Aurubis has agreed to purchase approximately 140 to 180 metric tons (approximately 6 to 10 sea containers and approximately two-three days of loading).

The Estate looks forward to your prompt review and approval for shipping and loading of the CFCS. If you have any questions, please do not hesitate to contact me at my office, 618/254-4381 x372 or by cell phone at 314/348-8211.

Sincerely
ESTATE OF CHEMETCO, INC.



Jorge Y. Garcia, PG
Site Project/EH&S Manager

CC: Don Samson, Trustee
Michelle Kerr, USEPA
Chris Cahnovsky, Regional Mgr, IEPA-Collinsville Office
Elliot G. Stegin, Paradigm
Penni Livingston, Livingston Law Firm

Attachment

Aurubis

Aurubis AG · Postfach 15 60 · D-44505 Lünen

Chemetco Estate
c/o Mr Duane McVey
3753 Chemetco Lane
HARTFORD, ILLINOIS 62048
USA

Aurubis AG
Recycling
Kupferstraße 23
D-44532 Lünen
Telefon: +49 2306 108 -0
Telefax: +49 2306 108 - 449
recycling@aurubis.com
www.aurubis.com

27 May 2011

Subject: Verification of Recycling Chemetco copper tin containing recycling raw materials

Dear Mr McVey

This letter is in respond to your inquiry regarding the utilization of copper tin containing recycling raw materials sold to Aurubis AG. The recycling raw materials purchased from the Estate of Chemetco, Inc. are totally utilized as an ingredient in our production process to produce copper cathodes brand HK at our facility in Lünen, Germany.

We are the biggest copper producing company in Europe and the biggest company in recycling of copper containing materials worldwide. Our business consists of the recycling of copper refining scrap as well as the treatment of various types of complex copper and precious metal containing materials. Our technique is state-of-the-art, especially in reference to environmental standards.

Yours faithfully

Aurubis AG
Recycling

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 • (217) 782-2829
James R. Thompson Center, 100 West Randolph, Suite 11-300, Chicago, IL 60601 • (312) 814-6026
PAT QUINN, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

May 27, 2011

Estate of Chemetco, Inc.
Attn: Mr. Jorge Garcia, ES&H Manager
3754 Chemetco Lane
Hartford, Illinois 62048

Re: LPC # 1198010003 - Madison County
Hartford/Chemetco, Inc.
Approval of Amendment to Approved Furnace Cleanup Work Plan

Dear Mr. Garcia,

This letter is in response to your electronic request, dated May 27, 2011, to allow for an additional shipment of approximately 140 to 190 MT Copper Furnace Cleanup Solids to Aurubis in Germany.

The Illinois Environmental Protection Agency (Illinois EPA) approves the request to amendment the Copper Furnace Cleanup Work Plan provided the following conditions are met:

All work shall be done in accordance with the approved work plan, and loaded into sea containers prepared according to the approved work plan, utilizing the ramp area of the former Dome Building as designed and described by Mr. Chris Cahnovsky, Manager, Collinsville Regional Office.

A copy of the contract between the Estate and Aurubis will be submitted prior to the start of any actual loading.

If there are any questions concerning the above, please do not hesitate to contact me at 217-785-8725.

Sincerely,

Erin J. Rednour

Erin J. Rednour
Project Manager
National Priorities List Unit
Federal Sites Remediation Section
Bureau of Land
Illinois Environmental Protection Agency

Estate of Chemetco, Inc.

3754 Chemetco Lane • Hartford, IL 62048
Office: (618) 254-4381 •Fax: (618) 254-0138
www.chemetcoestate.com

July 12, 2012

Erin Rednour
State Project Coordinator
Illinois EPA RPMS/BOL
1021 North Grand Avenue East
Springfield, IL 62794-9276

James L. Morgan
Assistant Attorney General
Environmental Bureau
500 Second Street
Springfield, IL 62706

Re: Addendum- 2 to the approved Copper Furnace Cleanup Solids (CFCS) Work Plan (March 27, 2008) and Addendum to the CFCS (May 27, 2011). Interim Order (Civil Case No. 00-670-DRH, 00-677-DRH (consolidated))

Dear Mrs. Rednour and Mr. Morgan:

This Addendum-2 letter serves as notification for the Estate of Chemetco (Estate) and Paradigm Minerals and Environmental Services (Paradigm) to sell Copper Furnace Cleanup Solids (CFCS) under the approved Work Plan dated March 27, 2008 and Addendum to the CFCS dated May 27, 2011.

Up to approximately ~2000 Metric Tons (mt) of CFCS material was gathered screened and temporarily stockpiled in the Northwest corner of the former Foundry building. It should be noted that the CFCS material has been covered with an industrial grade plastic to minimize exposure, and keep the material dry.

California Metals and Alloys Corporation (CMAC) out of California, has agreed to purchase all of the CFCS material up to approximately ~ 2000 mt (100 sea containers and approximately four to six weeks of loading). A copy of the signed contract and the certificate of recycling from the recycling facility are included as an attachment.

In addition, the Estate already has submitted a notice of intent to sell the material and has been approved by the Bankruptcy Court. A copy of the notice of intent is also included as an attachment.

As previously indicated in the Addendum to the CFCS Work plan, the Estate plans to load out of the west loading dock adjacent to the dome building, and use the existing bagging equipment and existing subcontractors (Aerotek, or Labor Ready) that have been used for loading the material from the DIS Building.

Upon completion of loading all of the DIS fines, the Estate may perform some housekeeping inside the DIS building and existing slag ramp prior to the next shipment.

The Estate and Paradigm plan to transfer the CFCS material to the DIS building after the building has been emptied of the existing fines. The CFCS material may be spread out to allow evaporation and reduce moisture if warranted.

If no reduction in moisture is warranted, the CFCS material will be directly loaded into the bagging system that has been used during the loading of the DIS fines.

The work will be performed in accordance to the Addenda and CFCS approved Work Plan.

The Estate looks forward to your prompt review and approval for shipping and loading of the CFCS. If you have any questions, please do not hesitate to contact me at my office, 618/254-4381 x372 or by cell phone at 314/348-8211.

Sincerely
ESTATE OF CHEMETCO, INC.

Jorge Y Garcia

Jorge Y. Garcia, PG
Site Project/EH&S Manager

CC: Don Samson, Trustee
Elliot G. Stegin, Paradigm
Michelle Kerr, USEPA
Chris Cahnovsky, Regional Mgr, IEPA-Collinsville Office
Penni Livingston, Livingston Law Firm
Dan C. Nester, Bryan Cave

Attachment

California Metals and Alloys Corp.

P.O. Box 677
Stanton, CA 90680
www.calmetalloys.com

Tel: 714 224-6986
Fax: 714-276-0528
Email: calmetalloys@hotmail.com

June 11, 2012
Place: Hartford, IL
Purchase Order No. P80220ZN

AGREEMENT

Estate of Chemetco, Inc. (the "Seller"), 3754 Chemetco Lane, Hartford, IL 62048 (the "Premises"), agrees to sell, and California Metals and Alloys Corp., P.O. Box 677, Stanton, CA 90680, hereinafter called "the Buyer", agrees to buy following product based on the following terms and conditions:

1. PRODUCT

Product shall mean Mixed Copper Zinc and Lead Concentrate (also known as **Foundry Material**) with the following approximate analysis: Per assay performed by St. Louis Lab and/or to be performed by AH Knight (To Be Attached). Material will be screened to remove foreign materials such as dirt, stones, plastics, wires, cloth and solid metallic pieces. The failure to remove all foreign debris will not cause the material to be rejected by Buyer, but will result in a price adjustment. The Seller will also dry the material in an attempt to lower the moisture level under 10%. Moisture levels over 10% will not cause the material to be rejected by Buyer, but will result in a price adjustment.

2. QUANTITY

Buyer is purchasing a mixed lot of material stored in (among other locations) the Foundry building and/or the receiving building located on the Premises. Buyer is purchasing a total of up to approximately 2,000 metric tons of said mixed lot of material. Seller shall invoice Buyer for 25 containers at a time.

3. SHIPMENT

First shipment shall occur within ten days of approval of this agreement by the Illinois E.P.A. Material shall be packaged in 1 ton bags and loaded in 20 ft. containers. Seller shall load a minimum of 20 metric tons in each container.

4. DELIVERY

FCA loaded in containers on trucks at Chemetco's Premises, Hartford, Ill (Incoterms 2010).

5. DURATION

The duration of this contract shall be from July 1, 2012 to December 31, 2012.

6. PRICE

US $250.00/WMT FOB Hartford, IL

7. PAYMENT

The Buyer shall wire transfer to the Seller the Provisional Payment of each invoice within 3 working days of receiving an invoice for confirmed ready to go quantity and bills of lading. "Provisional Payment" shall equal 85% of the total invoice amount. Seller shall commence loading upon receipt of containers. Seller shall release containers upon receipt of the Provisional Payment. Upon payment by Buyer, this agreement shall become binding upon Seller. Final payment shall be made after the material arrives at receiving smelter/ refinery and all final information is known.

8. WEIGHING, SAMPLING AND DETERMINATION OF MOISTURE

Provisional weighing and sampling shall occur at Chemetco's Premises in accordance with a mutually agreed and independently witnessed sampling plan. Final weighing and sampling shall occur at destination works with Seller having the right to be represented during such operations. The absence of Chemetco's representative shall be deemed a waiver of this right in each instance, unless the Buyer decides not be represented at the time of reinspection.

After sampling, the product may be placed in process, commingled, or otherwise disposed of by the receiving refinery.

9. ASSAYING

The BUYER and SELLER agree to a (+ or -) 5% variance in the material in the final assays after the entire lot has been processed. Both parties already have performed sampling and exchanged their own independent agreed upon assays.

10. INSURANCE

Insurance against all risks for 110% estimated value of the material from delivery point to destination port or at Buyer's works shall be covered by the Buyer. Buyer to provide insurance certificate to Seller upon request.

11. FORCE MAJEURE

In the event of any strike, act of God, war, war like operations, lock out, combination of workmen, interference of Trade Unions, suspension of labor, fire, accident, lack of railroad or sea-borne freight facilities or delays on route or any other cause whatsoever beyond the reasonable control of Seller or Buyer or receiving smelter, whether the foregoing nature or not, preventing or hindering them, or either of them from giving, receiving or smelting respectively then the delivery under this contract shall be suspended during such time provided always that written notice shall be given of any such inability by either party contracting hereto and any outstanding advance payment made by Buyer shall nevertheless be repaid by Seller after the expiration of 90 (ninety) calendar days from the date of issuance of such notice.

In the event of such suspension of deliveries under this contract by Seller or Buyer or receiving smelter giving notice under this clause, the contract shall each time be extended for a period equal to the period of suspension. If such period of suspension extends for more than 3 (three) months, the party having received the notice of suspension shall always have the right to cancel the lost quantity by giving notice to this effect to the other party. Except by the written agreement of both parties, force majeure declared by one party will not apply to any concentrate for which pricing has been established, or vessel space has been booked, or the quotational period is running or any advance payment has been made.

12. TITLE AND RISK

Title and risk will pass from Seller to Buyer upon receipt of the Provisional Payment by Seller.

13. NOTICES

All notices, requests and other communications hereunder shall be in writing and shall be deemed to have been duly given or made when sent by first class mail, postage prepaid, addressed:

If to BUYER:

California Metals and Alloys Corp.
P.O. Box 677

Stanton, CA 90680
Tel: 714-510-6386
Fax: 714-276-0528
Email: calmetalloys@hotmail.com

and if to SELLER:

Estate of Chemetco
Donald M. Samson, Trustee
226 W. Main St., Suite 102
Belleville, IL 62220
Email: donsam47@yahoo.com

and

Elliott G. Stegin
Chairman/CEO
Paradigm Minerals & Environmental Services LLC
3754 Chemetco Lane
Hartford, Illinois 62048
Cell : 949-939-5543
Office: 618-254-6741x222
Email: egstegin@paradigm-minerals.com

and

Daniel C. Nester
Partner
Bryan Cave LLP
One Metropolitan Square, Suite 3600
St. Louis, Missouri 63102-2750
Tel: 314-259-6555
Cell: 314-705-6555
Fax: 314-552-8555
Email: dcnester@bryancave.com

or, in each case, at other such address as may be hereafter or has designated most recently in writing by the addressee to the addressor. Any notice given hereunder may be given by telefax and confirmed by mail in due course in which case such notice shall be deemed given or served when sent in telegraphic form.

14. SUCCESSION

This agreement shall bind and inure to the benefit of the parties hereto, their legal representatives, successors and assigns. This agreement shall not be assignable by either party hereto without the written consent of the other. Such consent shall not be unreasonably withheld.

15. JURISDICTION AND GOVERNING LAW

The construction, validity and enforcement of this CONTRACT, including arbitration, shall be governed by and construed in accordance with, the laws of Illinois. The parties irrevocably agree that the US Bankruptcy Court for the Southern District of Illinois shall have exclusive jurisdiction to settle any dispute arising out of or in connection with this Agreement.

16. WAIVER

Waiver of any breach of any provision hereof shall not be deemed to be a waiver of any other provision hereof or of any subsequent breach of such provision.

17. CERTIFICATE OF RECYCLING

In order to comply with the Illinois E.P.A. and the U.S. E.P.A. requirements, Buyer shall provide Seller a certificate of recycling from the final end user. This certificate shall state and confirm that all of the product will be fully recycled in an environmentally friendly manner and that none of the product will be used to create a waste situation.

18. ILLINOIS E.P.A. APPROVAL

This agreement is subject to approval by the Illinois E.P.A.

19. FUTURE FACTORS THAT MAY AFFECT EXECUTION

This agreement is also subject to approval of import permit by the Chinese import authorities, as well as the EPA standard changes that will affect the processing of this material in China. Further, because of the dramatic financial and market price changes, this agreement will be subject to price re-determination by both parties before initial shipment.

This Agreement is subject to approval by the US Bankruptcy Court.

CHEMETCO ESTATE INC.

By _____

California Metals and Alloys Corp.

By _____

Northeast Yejin (HK) Co., Ltd.

Room 1306, ChangXin F Building
No.322 Qing Nian Street
Shenyang, Liaoning,China, 110004

Tel:024-3188 3597/3188 3598
Fax:024-3188 3596
Email:shangfengsf@163.com

Certificate of Recycling

July 9, 2012

TO WHOM IT MAY CONCERN:

Our company operates a facility in Liyu Jiang Town, Chenzhou City of Hunan Province for the production of Zin Lead and Copper Metals. Copper furnace cleanup solid, mixed Copper Zinc-Lead Concentrate and/or Slag/Aggregate and other metal bearing materials (collectively, the "Materials") from Chemetco Estate will be utilized directly on site and without a special pre-treatment for the production of copper blister and silver/gold bullion.

The products are not subject to nor do they undergo a treatment typical for waste. We forbid resale to third parties. We confirm that we have all the licenses under trade law and environmental law required for the operation of our facility from the appropriate authorities and we are permitted to process your Materials. The use of your Materials in our facility is therefore lawful and does not lead to negative effects on the environment or human health. All of the products will be fully recycled in an environmentally friendly manner and that none of the products will be used to create a waste situation.

Yours sincerely,

For and on behalf of
NORTHEAST YEJIN (HK) CO., LTD.
東北冶金（香港）有限公司

Authorized Signature(s)

Authorized Signature

MAILING 4/15/11

IN THE UNITED STATES BANKRUPTCY COURT
FOR THE SOUTHERN DISTRICT OF ILLINOIS

In Re:	)	IN CHAPTER 7 PROCEEDINGS
	)	
CHEMETCO INC.,	)	BK 01-34066
	)	
Debtor.	)	

NOTICE OF TRUSTEE'S INTENT TO SELL FURNACE CLEANUP, SOLDER DROSSES AND OVERSIZED METAL SOLIDS

TO ALL PARTIES IN INTEREST:

PLEASE TAKE NOTICE that the successor trustee, Donald M. Samson, intends to sell the following:

1) Approximately 120 tons of furnace cleanup containing metallic, slippage, fines, scrap metal and slag in three grades
   a) Approximately 35-35% copper, 3-5% tin
   b) Approximately 60% copper, 2-5% tin
   c) Approximately 30-40% copper, 5-10% tin

2) Approximately 30-40 tons of solder drosses containing approximately 10-20% tin and 30-40% lead with copper and other elements present

3) 30,000-40,000 lb. oversized metal solid containing approximately 40-50% copper

4) Approximately 9,000-10,000 lb. oversized metal solid containing approximately 75% copper

Laura K. Grandy, trustee, entered into a Purchase Agreement on behalf of the estate of Chemetco Inc. with Industrial Asset Disposition, LLC, (I.A.D.) covering the Chemetco facility in Hartford, Illinois, said Purchase Agreement being approved by order of this Court entered September 21, 2009. This sale is subject to terms of said Purchase Agreement.

Due to the volatile market for copper and other metals to be extracted from the materials to be sold, in order to receive the best price for the materials to be sold, a set price for future sales is impracticable and maximum flexibility to negotiate the best prices can be realized by using recognized indexes for all sales.

The London Metals Exchange publishes recognized indexes in the metals market for said metals.

The trustee anticipates recovery of additional furnace cleanup, solder drosses and oversized metal solids which will be sold by the trustee.

The trustee intends to sell the listed furnace cleanup, solder drosses and oversized metals solids and additional recoveries for the best available price but no less than 50% of the index price based on the combined assay value for copper plus tin at the time each sales agreement is entered into. The percentage of the index price takes into account the processing costs of the purchaser to extract the copper and the fines from the materials to be sold pursuant to this notice.

ANY OBJECTIONS TO THE ALLOWANCE OF SAID SALE OR HIGHER BIDS MUST BE IN WRITING AND FILED WITH THIS COURT AT U. S. BANKRUPTCY COURT, 750 MISSOURI AVE., E. ST. LOUIS, IL 62201, ON OR BEFORE MAY 6, 2011, with a copy to the trustee, Donald M. Samson, 226 West Main Street, Ste. 102, Belleville, IL 62220.

If no objections are filed or higher offers received by the trustee within the time provided in this notice, said sale will be allowed.

The above-referenced assets are being sold free and clear of liens and encumbrances pursuant to 11 U.S.C. §363. Commerce Bank has a first lien on the above-referenced assets. Subject to the terms of the Purchase Agreement between the Estate of Chemetco and I.A.D., Commerce shall be paid the net proceeds less the costs and expenses of sale including but not limited to labor, shipping, assays, legal expenses incurred by the estate related to this sale, a Trustee fee of 3%, and a surcharge of 5% for the estate.

In the event that written objections or higher offers are filed or submitted within the time provided in this notice, a hearing on said objections or higher offers will be held on **MAY 23, 2011** at **9:00** a.m., U. S. Bankruptcy Court, Melvin Price U. S. Courthouse, 750 Missouri Avenue, East St. Louis, Illinois.

DATE: 4/15/11

/s/ Donald M. Samson
DONALD M. SAMSON, Trustee
226 W. Main St., Ste. 102
Belleville, IL 62220
618-235-2226

August 15, 2012

Estate of Chemetco, Inc.
Attn: Mr. Jorge Garcia, ES&H Manager
3754 Chemetco Lane
Hartford, Illinois 62048

Re: LPC # 1198010003 - Madison County
Hartford/Chemetco, Inc.
Approval of Addendum 2 to Approved Furnace Cleanup Work Plan

Dear Mr. Garcia,

This letter is in response to your request, dated July 12, 2012 to allow for an additional shipment of approximately 2000 MT Copper Furnace Cleanup Solids to California Metals and Alloys Corporation.

The Illinois Environmental Protection Agency (Illinois EPA) approves the request to amend the Copper Furnace Cleanup Work Plan provided the following conditions are met:

All work shall be done in accordance with the approved work plan.

A copy of the contract between the Estate and California Metals and Alloys Corporation, the certificate of recycling from Northeast Yejin (HK) Co., Ltd. in Liyu Jiang Town, Chenzhou City of Hunan Province, and the Notice of Intent to sell Furnace Cleanup Solids was attached to the addendum request.

If there are any questions concerning the above, please do not hesitate to contact me at 217-785-8725.

Sincerely,

Erin J. Rednour

Erin J. Rednour
Project Manager
National Priorities List Unit
Federal Sites Remediation Section
Bureau of Land
Illinois Environmental Protection Agency

Estate of Chemetco, Inc.

3754 Chemetco Lane ● Hartford, IL 62048
Office: (618) 254-4381 ●Fax: (618) 254-0138
www.chemetcoestate.com

May 2, 2013

Erin Rednour
State Project Coordinator
Illinois EPA RPMS/BOL
1021 North Grand Avenue East
Springfield, IL 62794-9276

James L. Morgan
Assistant Attorney General
Environmental Bureau
500 Second Street
Springfield, IL 62706

Re: Addendum- 3 to the approved Copper Furnace Cleanup Solids (CFCS) Work Plan (March 27, 2008), Addendum 1 to the CFCS (May 27, 2011), and Addendum-2 to the CFCS (July 12, 2012).
Interim Order (Civil Case No. 00-670-DRH, 00-677-DRH (consolidated))

Dear Mrs. Rednour and Mr. Morgan:

This Addendum-3 letter serves as notification for the Estate of Chemetco (Estate) and Paradigm Minerals and Environmental Services (Paradigm) to sell Copper Furnace Cleanup Solids (CFCS) under the approved Work Plan dated March 27, 2008 and Addenda to the CFCS dated May 27, 2011 and July 12, 2012.

The current CFCS is located underneath the former furnaces # 2 and # 4 containment area, and consists of approximately a 17 ft by 19 ft by 1 ft (325 ft^3) slab and a 17 ft by 14 ft by 1 ft (238 ft^3) slab. In addition, the CFCS material in the containment area # 4 appears to contain concrete layers within the CFCS. (See Figure 1 and photodocumentation).

The CFCS accumulated due to two spills that occurred when Chemetco was in operation. Access to these spills was limited due to the restricted space associated with the location of the furnaces. With the furnaces removed, it is now easier to recover the CFCS in a safe and unrestricted manner.

Due to the rather large size of the CFCS, the Estate plans to use a backhoe or similar equipment with a hydraulic breaker to break the concrete and the CFCS into manageable pieces. It is also possible that the large CFCS pieces may be able to be pried up from underneath.

As shown in figure 1, access to the CFCS is restricted to one side only, as such, additional access may be necessary. If necessary, portions of the concrete walls of the containment area may be required to be removed in order to have better access to the CFCS and maneuver the equipment. If necessary, the removed concrete will be temporarily stored within the southern western portion of the Foundry Building.

Upon completion of the removal of the concrete, the concrete will be tested for TCLP analysis to determine proper disposal.

Due to the physical size of the CFCS, the Estate and Paradigm may need to bring additional equipment to cut, break, move, and lift the CFCS material, and load into transportable containers/trucks.

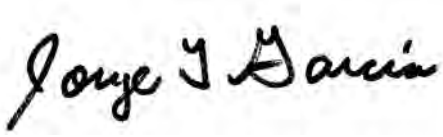
The CFCS pieces may be either loaded into 20 ft intermodal containers if shipped internationally, or loaded into open top trailer and covered in accordance with DOT requirements if shipped domestic.

At the completion of the work, all of the equipment use to remove and load the CFCS will be deconned inside the Dome Building. Consistent with previous work, the decon water will be contained within the confines of the Dome Building, and the water will be allowed to evaporate.

The work will be performed in accordance to the Addenda and CFCS approved Work Plan.

The Estate looks forward to your prompt review and approval to begin bringing the equipment and begin the removal of the CFCS material for shipping and loading. If you have any questions, please do not hesitate to contact me at my office, 618/254-4381 x372 or by cell phone at 314/348-8211.

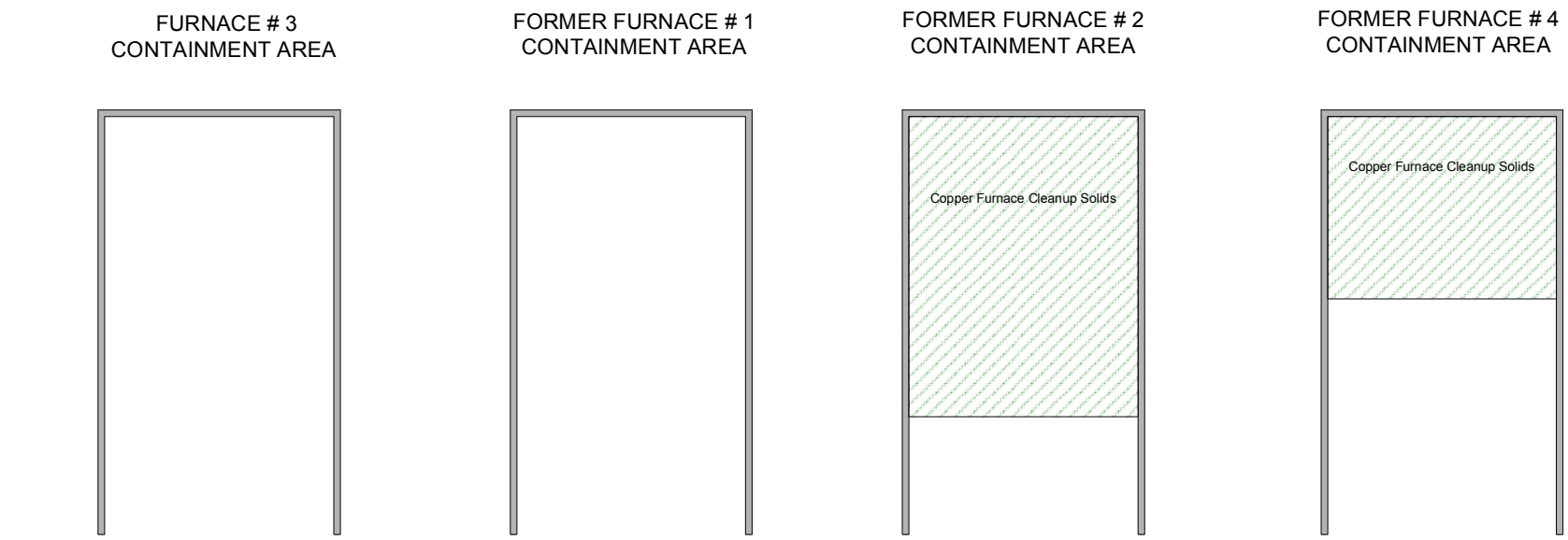
Sincerely
ESTATE OF CHEMETCO, INC.



Jorge Y. Garcia, PG
Site Project/EH&S Manager

CC: Don Samson, Trustee
Elliot G. Stegin, Paradigm
Nefertiti DiCosmo, USEPA
Kevin Turner, USEPA
Chris Cahnovsky, Regional Mgr, IEPA-Collinsville Office
Penni Livingston, Livingston Law Firm
Dan C. Nester, Bryan Cave

Attachments



NOTES:

NOT TO SCALE

N

FIGURE 1
ESTATE OF CHEMETCO

Copper Furnace Cleanup Solids Addendum 3	SITE PHOTOGRAPHS	
Client Name: Estate of Chemetco, Inc.	**Site Location:** Hartford, Illinois	**Photos No.** 1 and 2

Date: 10-17-11

Direction Photo Taken:

South East

Description:

From Left to Right:

Furnaces #3, #1, #2, #4
Prior to removal

Date:

Direction Photo Taken:

South East

Description:

From Left to Right:

Furnaces #3, #1, #2, #4
After removal

Copper Furnace Cleanup Solids Addendum 3	SITE PHOTOGRAPHS	
Client Name: Estate of Chemetco, Inc.	**Site Location:** Hartford, Illinois	**Photos No.** 3 and 4

Date: 4-25-13

Direction Photo Taken: East

Description: Former Furnace # 2 Containment Area

Date: 4-25-13

Direction Photo Taken: East

Description: Copper Furnace Cleanup Solids underneath the former Furnace # 2 containment area

Copper Furnace Cleanup Solids Addendum 3	**SITE PHOTOGRAPHS**	
Client Name: Estate of Chemetco, Inc.	**Site Location:** Hartford, Illinois	**Photos No.** 5 and 6

Date: 4-25-13

Direction Photo Taken: East

Description:

Former Furnace # 4 Containment Area

Date: 4-25-13

Direction Photo Taken:

East

Description:

Copper Furnace Cleanup Solid underneath the former Furnace # 4 containment area

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-2829

PAT QUINN, GOVERNOR LISA BONNETT, DIRECTOR

May 23, 2013

Estate of Chemetco, Inc.
Attn: Mr. Jorge Garcia, ES&H Manager
3754 Chemetco Lane
Hartford, Illinois 62048

Re: LPC # 1198010003 - Madison County
Hartford/Chemetco, Inc.
Approval of Addendum 3 to the Approved Copper Furnace Cleanup Solids Work Plan
Interim Order (Civil Case No. 00-670-DRH, 00-677-DRH (consolidated))

Dear Mr. Garcia,

The purpose of this letter is to respond to your request, dated May 2, 2013 Addendum 3 to the approved Copper Furnace Cleanup solids (CFCS) Work Plan. This request is a continuation of work previously approved under Work Plan dated March 27, 2008 and Addenda to the CFCS dated May 27, 2011 and July 12, 2012.

The material referenced by this Addendum was previously inaccessible as it was an accumulation of spills that occurred when Chemetco was in operation and that ran under the furnaces. Due to the recent removal of the furnaces, this material is now recoverable in a safe and unrestricted manner.

The Addendum 3 Work Plan has been reviewed and Illinois Environmental Protection Agency (Illinois EPA), in consultation with United States Environmental Protection Agency (U.S. EPA), conditionally approves the plan provided the following condition is met:

On page 1 of the Addendum 3 Work Plan, it states that there is a possibility that the concrete walls of the (old) containment may be removed to have better access to the CFCS and to maneuver the equipment. And that this broken concrete will be temporarily stored within the southern western portion of the Foundry Building and then tested for TCLP analysis to determine proper disposal. As this material is expected to be disposed of, and to prevent the formation of a waste pile and double handling of the same material, place this material directly into roll offs.

No other changes to the previously approved work plan are necessary and all work will be done in accordance with the Addenda and CFCS approved Work Plan.

If there are any questions concerning the above, please do not hesitate to contact me at 217-785-8725.

Sincerely,

Erin J. Rednour

Erin J. Rednour
Project Manager
National Priorities List Unit
Federal Sites Remediation Section
Bureau of Land
Illinois Environmental Protection Agency

Subject: North Polishing Pond and Sump Material – Commercial Grade

Purpose:

The purpose of this North Polishing Pond (NPP) and Sump Material Work Plan is to document the removal of the fines material (i.e. Scrubber Sludge), handle, package, and ship approximately 500 metric tons (MT) of the fines material. The fines material is currently contained in the North Polishing Pond and Sump located adjacent to the former AAF Area. See **Figure 1**.
The fines material were accumulated in the NPP during Chemetco activities and the fines in the sump may have accumulated during the demolition and deconning of the former AAF area.

Under the Interim Order (IO) agreement dated September 16, 2008, the Estate is allowed to sell off assets, which will allow for recovery of value from certain materials accumulated at the Site.

Characterization of Material:

The fine [metal bearing material (MBM)] in the NPP is primarily Scrubber Sludge. Scrubber Sludge is light gray to dark gray brown in color, moist to semi-dry granular fine to coarse sandy characteristics. *The Scrubber Sludge was originally generated as a by product from the secondary copper smelter activities, the scrubber sludge was flushed out of the AAF system and sent to the North and South Polishing Pond as a slurry. From the Polishing Ponds, the slurry was sent to a filter press that generated filter cake scrubber sludge. This material was sent to the DIS building for internal use as feedstock and/or sold for to others as process feedstock. The MBM in the Sump is primarily scrubber sludge and other mixed MBM from demolition activities. Copies of analytical data for the NPP and Sump are included as an attachment to the Work Plan. Analytical data shows the MBM from both areas is similar in composition. It should be noted that under IEPA approval, the Estate and Paradigm sold and shipped approximately 7,000 tons of MBM that was stored in the DIS Building and was considered recyclable material. As with previous work plans, a certificate of recycling for this material will be submitted from the selected buyer. Refer to **Figure 2** for photodocumentation of the MBM and NPP and Sump location.*

Material Removal and Handling:

Currently, the scrubber sludge that is in the NPP and Sump is saturated, and/or wet as shown on the photographs in Figure 2. The upper 1 to 2 feet of the MBM in the eastern portion of the NPP appears to be moist, but not saturated. Some of this drier MBM may be removed from the NPP depending on *existing weather* conditions. *If weather conditions are not favorable,* the material from the Sump may be pumped, and or excavated *using a track hoe, or similar equipment* and combined with the material in the NPP. The combined fines material will be allowed to air dry by evaporation. *Once the combined MBM becomes drier, it will be excavated using a track hoe, or similar equipment and the*

MBM will be transported with a front end loader, or similar equipment to either the Fines and/or DIS building, or both depending on existing *weather* conditions.
Inside the buildings, the MBM will be spread out to allow for evaporation and will be turned "Land Tilled" to reduce drying time and increase evaporation. As stated above, the sludge material at the bottom of the sump will be pumped to the NPP. Because the material is under water, it will be much easier to pump the water and sludge as slurry to the NPP where the excess water will be allowed to evaporate. Once the material dries to the point that is not saturated, it will be excavated and taken to the Fines and/or Dome Building, where it will be land farmed. If the material is wet, a berm may be constructed near the entrance of the Fines Building. If any significant amount of water *runoff* from the *MBM* will be contained within the Fines or DIS building. *The water may be allowed to evaporate, or may be transported to an area for temporary storage and disposal as described in the Waste Management Section below.*

Currently, the Estate does not have an estimated length of time for the material to dry. The actual length of time to dry the MBM will be determined by a number of factors, such as, weather conditions, temperature inside the building, material thickness, and the number of times the material gets land farmed. The goal is to dry this material to within a 10 to 20% moisture value. Visual observations shows that the MBM changes color from a dark gray to a light gray, and the MBM does not clump together and is non cohesive.

North Polishing and Sump Closure

After the removal of the MBM from the NPP, the carbon steel *structures* and pump *may* be removed and *may* be sold for scrap metal recycling *and/or used for spare parts*. The scrap metal and pump will be decontaminated and decon water will be contained within the NPP. *The Estate proposes to wash down (hose down, and/or power wash) the interior of the NPP after all of the MBM and/ or* carbon steel appurtenances and pump *have been removed. The bottom of the NPP will be inspected for any cracks and photodocumented. Water used for washing down the NPP will be allowed to evaporate. The residual scrubber sludge, if any will be added to the rest of the removed scrubber sludge in the Fines and/or DIS building. It should be noted that previously the Estate received approval to empty the South Polishing Pond (SPP)and wash down the SPP due to an underground line rupture and allowed water to remain in the SPP and keep the SPP inactive. In addition, the Estate received permission to transfer slurry scrubber sludge and water from AAF sump to the NPP.*
The Estate requests confirmation from the agencies that this closure is not considered a RCRA closure and will accept NPP closure as described above.

After removing the MBM and deconning the sump, the Estate proposes to close the sump by backfilling it with rip rap from the parking lot area, placing a geomembrane (i.e. plastic) over the rip rap, and top it off with approximately 4-5 inch of concrete. The Estate requests confirmation from the

agencies that this closure is not considered a RCRA closure and will accept closure as described above.

In addition, the Estate evaluated applicable or relevant and appropriate requirements (ARARs) associated with the work to be performed. A copy of the ARARS is included as ***Table 1***.

Handling, Packaging and Shipping:

A front end loader or equivalent will be used to *"Land Till" (i.e. turn)* the material and allowed to air dry. Any debris removed during the drying process will be loaded into 20 Cubic Yard (CY) roll offs and managed accordingly to environmental requirements *as shown in* ***Table 1***.

As described in the above section after material is dried and deemed acceptable for shipping, a front end loader, or equivalent may be used to load 1 mt supersacks using a dual bagger hopper system. The dual bagger system *has been* previously used to load scrubber sludge material, foundry furnace cleanup solids, and mixed fines.

The loaded supersacks will be placed on the west loading dock area adjacent to the Dome Building and loaded directly into sea containers. It should be noted that the fines shipments will be properly shipped (i.e. placards, manifests, etc.) in accordance with International and domestic transportation regulations. The *handling, packaging and shipping will be performed in the areas shown in* ***Figure 3.***

Packaging: Super sacks (1.0 MT) will be used for international shipments. Supersacks will be loaded with a front end loader or equivalent. A forklift will be used to move the Supersacks into a box trailer or ocean container positioned at the dock for shipment. *Typically, during inclement weather conditions, the Estate has refrained from loading supersacks in order to minimize increasing moisture content to the MBM. As such, when feasible, the Estate has loaded additional supersacks and* temporarily stored in the Receiving Building. *In addition, the delivery of intermodal containers is often intermittent and the supersacks will temporarily store in the Receiving Building while waiting for containers to be delivered.*

Schedule

Work will be conducted during normal business hours Monday-Friday but the Estate reserves the right to adjust the work schedule to accommodate shipping schedules. Depending on purchaser requirements, shipments of the material will be expected to begin within 14 days of work plan approval and or as soon as the fines material is dry enough. *The actual time required to dry the*

material is not known at this time. However, the Estate estimates that it should take approximately 3 to 6 weeks to transfer the material from the NPP, decon the NPP and Sump, and load and ship the MBM (i.e. Scrubber Sludge).

Pollution Prevention

Decontamination: All facility assets or the exterior of their containers going off-site will be decontaminated per the Estate's Decontamination Procedure. Any gross contamination on the tires on wheeled vehicles will be removed by, brushing, or broom sweeping to the extent practible at the point of collection.

In many cases, gross decontamination will be sufficient for the purpose of off-site recycling, and for vehicles and equipment exiting work zones. If gross contamination cannot be removed by the use of dry decontamination, wet decontamination may be required before trucks leave the site.
At the completion of the loading activities, all of the equipment will be deconned inside the Dome Building. Consistent with previous work, the decon water will be contained within the confines of the Dome Building, and the water will be allowed to evaporate.

Spills and Release Cleanup: Any spills or releases of fines material will be cleaned up using brooms, and/or shovels.

Containment: *All of the MBM removed from the sump and NPP, will be moved to the* Fines Building, *and/or* DIS Building *were it will be "land tilled" to reduce the moisture (10-20% range). The interior of the Fines Building will allow evaporation and reduce the time for the material to dry. Once the MBM is dry, it will be* loaded *and* packaged. *If required,* sealed containers *(i.e. supersacks)* of *MBM* fines will be temporarily stored *west of the Dome Building* on the asphaltic pavement away from the work areas *and temporarily stored in the Receiving Building, until intermodal sea containers become available.*

Fugitive Dust: *At the moisture target range of (10-20%) the potential for fugitive dust is small. However, the Estate has used water spray misters to reduce the potential for fugitive dust. If warranted, the water spray misters will be used.*

Waste Management

Solid Waste: Personnel protective equipment (PPE) used during loading activities will be placed in metal hoppers on a daily basis. The contents of the metal hoppers will be placed in 40 CY and/or 20

CY roll offs and will be properly, labeled, handled, stored and manifested according to RCRA disposal requirements.

Decon Debris

Any decon debris generated will be collected and placed in 40 CY and/or 20 CY roll offs and will be properly, labeled, handled, stored and manifested according to RCRA disposal requirements.

Wastewater/Sludges

Water removed from the NPP will be containerized and analyzed for disposal determination. Also, as required, the collected water will be disposed in accordance with proper disposal requirements. The water will be managed after the completion of all the work associated with the loading and shipping of the scrubber sludge that originated from the NPP and Sump, and testing of the spent water for disposal.

Health & Safety

Hazards: The Estate of Chemetco will follow the MSDS for scrubber sludge due to same composition. *A copy of the MSDS for Scrubber Sludge is included as an attachment to the Work Plan.*

Compliance: The Estate requires that all workers inside the DIS Building, Fines Building, Receiving building and in contact with fines are required to comply with OSHA regulations for exposure to lead, cadmium and nickel, including wearing personal protective equipment (PPE) such as hard hats, safety glasses or goggles, gloves, uniform (shirt and pants), boots, Tyvek, half-face respirator and are medically monitored for lead and cadmium exposure. All workers are also required to have current 40-hr HAZWOPER training certification.

Closure

Upon completion of all work, the Estate will summarize all shipments of the fines and wastes in the Interim Order quarterly report and a summary closure letter report.


DOME-DIS BLDG
Foundry Building
North Polishing Pond
SUMP
TANK HOUSE Building
© 2013 Google
Google earth
Imagery Date: 8/6/2012 38°47'50.75" N 90°05'56.61" W elev 430 ft eye alt 1979 ft

FIGURE 1

North Polishing Pond and Sump Work Plan		SITE PHOTOGRAPHS
Client Name: Estate of Chemetco, Inc.	**Site Location:** Hartford, Illinois	**Figure No. 2**

Date: 1-11-2013

Direction Photo Taken:

Southwest

Description:

Western half of North Polishing Pond

Date: 1-11-2013

Direction Photo Taken:

South

Description:

Eastern half of North Polishing Pond

North Polishing Pond and Sump Work Plan	SITE PHOTOGRAPHS	
Client Name: Estate of Chemetco, Inc.	**Site Location:** Hartford, Illinois	**Figure No. 2**

Date: 10/08/2010

Direction Photo Taken: East, Northeast

Description:

North Polishing Pond

Date: 3-15-2013

Direction Photo Taken: Southwest

Description:

Former Sump area

North Polishing Pond and Sump Work Plan		SITE PHOTOGRAPHS
Client Name: Estate of Chemetco, Inc.	**Site Location:** Hartford, Illinois	**Figure No. 2**

Date: 09/18/12

Direction Photo Taken: Northwest

Description:

Former Sump area

Date: 09/18/12

Direction Photo Taken: North

Description:

Former Sump area

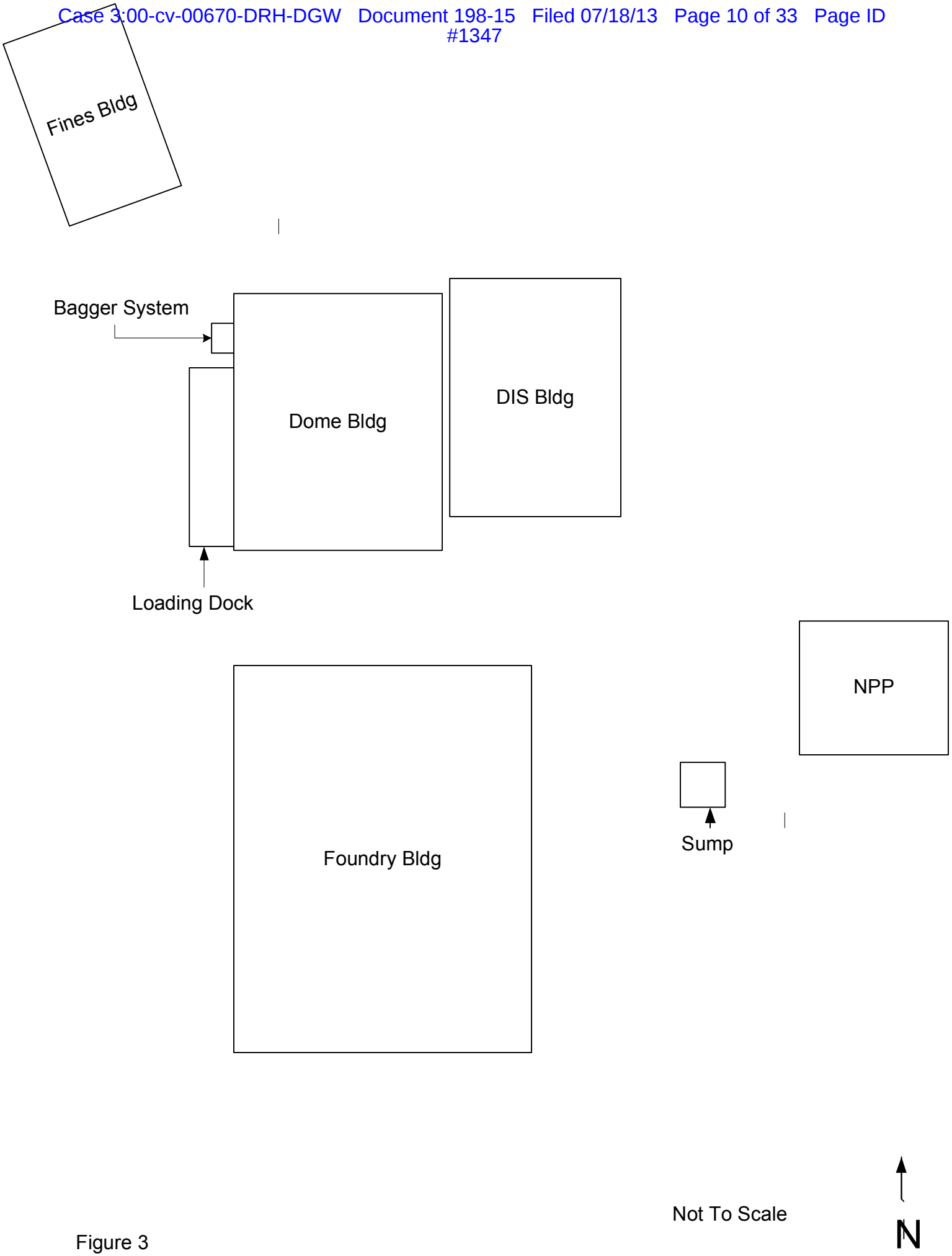

Fines Bldg
Bagger System
Dome Bldg
DIS Bldg
Loading Dock
NPP
Foundry Bldg
Sump
Not To Scale
N

Figure 3

TABLE 1

APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARAR's)

Estate of Chemetco

Hartford, Illinois

Subject	Requirement	Description	Potentially applicable or relevant and appropriate (ARAR) or to be considered (TBC)	Evaluation
Recycled Products	A material is recycled if it is used, reused, or reclaimed. A material is reclaimed if it is processed to recover a usable product.	IEPA has determined the MBM cannot be classified as a by-product or secondary material exhibiting a characteristic that will be reclaimed.	ARAR for MBM that will be excavated from the North Polishing Pond and dried in the Fines and/or Dome Building as described in the NPP Work Plan. While drying, the material will be managed in a manner that prevents reactions that threaten human health or the environment such as production of uncontrolled toxic mists, dust insufficient quantities to create such an endangerment, or further releases to other media. The MBM that will be removed will reduce existing site contamination.	Applicable to MBM generated/moved as part of loading activities.
Hazardous waste generation and shipment to an off-site treatment, storage and/or disposal (TSD) facility	Identification of RCRA hazardous waste	Requirement for determining if a material is a RCRA solid waste and RCRA hazardous waste, and not excluded from RCR regulation.	ARAR for debris: concrete, cardboard; paper; wood; plastic containers, piping, and sheeting; PPE; decontamination water (if hazardous).	Applicable to debris and waste materials that are generated as part of excavating and loading activities.
Hazardous waste generation and shipment to an off-site treatment, storage and/or disposal (TSD) facility	Labeling and packaging of RCRA hazardous wastes that will be sent offsite	Requirement for RCRA hazardous wastes to be sent offsite to a TSD facility must be properly packaged, labeled and placarded	ARAR for debris: concrete, cardboard; paper; wood; plastic containers, piping, and sheeting; PPE; decontamination water (if hazardous)	Applicable to debris and waste materials that are generated as part of excavating and loading activities
Hazardous Materials, including Hazardous Waste, transported offsite	These regulations establish the procedures for identifying, classifying, packaging, labeling, and transporting USDOT Hazardous Materials, including Hazardous Wastes, that will be transported off-site	Requirement for determing a substance is a USDOT hazardous Material, including Hazardous Waste, to be transported off site.	ARAR for packaging, labeling, documenting, loading, and transporting USDOT Hazardous Materials, which includes Hazardous Wastes.	Applicable MBM containing lead and cadmium levels that trigger USDOT Hazardous Materials classification being transported off-site for recycling and any Hazardous Wastes being transported off site.
Container Management	General RCRA requirements for managing containers used to store materials.	Requirement for the design and management standards for hazardous waste containers	ARAR for the containerization of the residual liquids or pre-existing containerized material within NPP and Sump.	Applicable for any hazardous waste that will be containerized
Occupations exposures to on-site workers	Required prior to working at a hazardous waste site	Requirement that regulates worker health and safety. Sets	ARAR	OSHA worker safety standards are

TABLE 1

APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARAR's)

Estate of Chemetco

Hartford, Illinois

		general industry standards for workplace exposure to chemicals, and set health and safety training requirements for workers at hazardous waste sites.		independently applicable to hazardous waste sites
		Establishes occupational exposure levels for specific contaminants	ARAR	OSHA worker safety standards are independently applicable to hazardous waste sites
Dust Emissions	Prevention of particulate emissions	Requirement that regulates worker health and safety. Sets general industry standards for workplace exposure to chemicals, and sets health and safety training requirements for workers at hazardous waste sites.	ARAR	OSHA worker safety standards are independently applicable to hazardous waste sites
		Establishes occupational exposure levels for specific contaminants	ARAR	OSHA worker safety standards are independently applicable to hazardous waste sites
Stormwater (NPDES) during Loading Activities	Prevention of runoff from loading activities.	Regulates stormwater runoff from loading activities disturbing 5-acres or more of land.	ARAR	Applicable to loading activities
Special Waste	Identification of material that could be classified and/or managed and disposed of as Special Waste	Requirement to determine if material is a Special Waste, classify or declassify the waste, manage waste to be disposed of offsite in a manner to prevent releases to the environment. If classified as a special waste, On site management and disposal accordingly.	ARAR	Applicable to loading activities

Founded 1929 St. Louis Testing Laboratories INCORPORATED

2810 Clark Avenue • St. Louis, MO 63103-2574 • (314) 531-8080 • FAX (314) 531-8085

Chemical, Metallurgical, Mechanical, Nondestructive, Environmental Testing, Analyses and Field Service.

November 6, 2012
Lab No. 12E-2330
Invoice No.157914
Page 1 of 4

CHEMETCO ESTATE
3754 Chemetco Lane
Hartford, IL 62048

Attention: Jorge Garcia

REPORT OF TESTS

SAMPLE ID: BARGE AND POND SAMPLES, SUBMITTED 11/2/12
N. BARGE, COLLECTED 11/1/12, 1:00 PM
S. BARGE, COLLECTED 11/1/12, 1:25 PM
W-N. POND, COLLECTED 11/1/12, 1:50 PM

Units: % as rec'd except as noted

ANALYTE	N. BARGE	S. BARGE	W-N. POND	METHOD NUMBER	DATE OF ANALYSIS
pH, S.U.	7.58	8.50	7.03	9045 D	11/05/12
Total Solids	61.1	44.1	59.9	2540 B	11/05/12
Moisture	38.9	55.9	40.1	Difference	11/05/12

Founded 1929 St. Louis Testing Laboratories INCORPORATED

2810 Clark Avenue • St. Louis, MO 63103-2574 • (314) 531-8080 • FAX (314) 531-8085

Chemical, Metallurgical, Mechanical, Nondestructive, Environmental Testing, Analyses and Field Service.

November 6, 2012
Lab No. 12E-2330
Invoice No.157914
Page 2 of 4

CHEMETCO ESTATE
3754 Chemetco Lane
Hartford, IL 62048

Attention: Jorge Garcia

REPORT OF TESTS

SAMPLE ID: BARGE AND POND SAMPLING, SUBMITTED 11/2/12
N. BARGE, COLLECTED 11/1/12, 1:00 PM

Units: % dry basis **METAL SCAN**

ANALYTE	N. BARGE	ANALYTE	N. BARGE
Silver	< 0.01	Niobium	< 0.01
Aluminum	2.14	Nickel	0.06
Arsenic	< 0.02	Lead	1.64
Barium	2.76	Antimony	< 0.02
Beryllium	< 0.01	Selenium	< 0.02
Calcium	1.77	Tin	0.90
Cadmium	0.34	Strontium	0.03
Cobalt	0.01	Silicon	12.49
Chromium	0.23	Tantalum	< 0.01
Copper	0.77	Titanium	0.06
Iron	30.77	Vanadium	< 0.01
Potassium	0.06	Zinc	7.96
Magnesium	0.55	Phosphorus	0.22
Manganese	0.30	Sulfur	0.76
Molybdenum	< 0.01	Sodium	0.76

Test Method: Flux Fusion/ICP-AES Date of Analysis: 11/05/12

Founded 1929 St. Louis Testing Laboratories INCORPORATED

2810 Clark Avenue • St. Louis, MO 63103-2574 • (314) 531-8080 • FAX (314) 531-8085

Chemical, Metallurgical, Mechanical, Nondestructive, Environmental Testing, Analyses and Field Service.

December 6, 2012
Lab No. 12E-2330
Invoice No.157914

CHEMETCO ESTATE
3754 Chemetco Lane
Hartford, IL 62048

Attention: Jorge Garcia

REPORT OF TESTS

SAMPLE ID: BARGE AND POND SAMPLING, SUBMITTED 11/2/12
S. BARGE, COLLECTED 11/1/12, 1:25 PM

Units: % dry basis **METAL SCAN**

ANALYTE	S. BARGE	ANALYTE	S. BARGE
Silver	< 0.01	Niobium	< 0.01
Aluminum	1.61	Nickel	0.07
Arsenic	< 0.02	Lead	1.76
Barium	10.04	Antimony	< 0.02
Beryllium	< 0.01	Selenium	< 0.02
Calcium	1.67	Tin	0.81
Cadmium	0.22	Strontium	0.03
Cobalt	0.01	Silicon	10.50
Chromium	0.12	Tantalum	< 0.01
Copper	3.26	Titanium	0.05
Iron	23.72	Vanadium	< 0.01
Potassium	0.05	Zinc	6.59
Magnesium	0.44	Phosphorus	0.19
Manganese	0.23	Sulfur	2.38
Molybdenum	< 0.01	Sodium	0.69

Test Method: Flux Fusion/ICP-AES Date of Analysis: 11/05/12

Founded 1929 St. Louis Testing Laboratories INCORPORATED

2810 Clark Avenue • St. Louis, MO 63103-2574 • (314) 531-8080 • FAX (314) 531-8085

Chemical, Metallurgical, Mechanical, Nondestructive, Environmental Testing, Analyses and Field Service.

November 6, 2012
Lab No. 12E-2330
Invoice No.157914

CHEMETCO ESTATE
3754 Chemetco Lane
Hartford, IL 62048

Attention: Jorge Garcia

REPORT OF TESTS

SAMPLE ID: BARGE AND POND SAMPLING, SUBMITTED 11/2/12
W-N. POND, COLLECTED 11/1/12, 1:50 PM

Units: % dry basis **METAL SCAN**

ANALYTE	W-N. POND	ANALYTE	W-N. POND
Silver	0.01	Niobium	< 0.01
Aluminum	1.58	Nickel	0.32
Arsenic	< 0.02	Lead	13.09
Barium	0.67	Antimony	0.18
Beryllium	< 0.01	Selenium	< 0.02
Calcium	1.60	Tin	5.57
Cadmium	0.69	Strontium	< 0.01
Cobalt	< 0.01	Silicon	6.54
Chromium	0.08	Tantalum	0.03
Copper	11.84	Titanium	0.06
Iron	5.49	Vanadium	< 0.01
Potassium	< 0.02	Zinc	15.39
Magnesium	0.39	Phosphorus	0.14
Manganese	0.12	Sulfur	0.53
Molybdenum	< 0.01	Sodium	0.46

Test Method: Flux Fusion/ICP-AES Date of Analysis: 11/05/12

SR/krm

Steve Root, Manager
Environmental Testing

October 09, 2012

Jorge Garcia
Chemetco
3754 Chemetco Lane
Hartford, IL 62048
TEL: (618) 254-4381
FAX: (618)254-0138

RE: Caustic Sump **WorkOrder:** 12090955

Dear Jorge Garcia:

TEKLAB, INC received 1 sample on 9/20/2012 11:34:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Marvin L. Darling II

Marvin L. Darling
Project Manager
(618)344-1004 ex 41
mdarling@teklabinc.com

Teklab, Inc. Environmental Laboratory

Definitions

http://www.teklabinc.com/

Client: Chemetco **Work Order:** 12090955

Client Project: Caustic Sump **Report Date:** 09-Oct-12

Abbr Definition

CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilutions factors.
DNI	Did not ignite
DUP	Laboratory duplicate is an aliquot of a sample taken from the same container under laboratory conditions for independent processing and analysis independently of the original aliquot.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample, spiked with verified known amounts of analytes, is analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system. The acceptable recovery range is in the QC Package (provided upon request).
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MB	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	Method detection limit means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions. The acceptable recovery range is listed in the QC Package (provided upon request).
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TNTC	Too numerous to count (> 200 CFU)

Qualifiers

# -	Unknown hydrocarbon
B -	Analyte detected in associated Method Blank
E -	Value above quantitation range
H -	Holding times exceeded
M -	Manual Integration used to determine area response
ND -	Not Detected at the Reporting Limit
R -	RPD outside accepted recovery limits
S -	Spike Recovery outside recovery limits
X -	Value exceeds Maximum Contaminant Level	

Teklab, Inc. Environmental Laboratory

Case Narrative

http://www.teklabinc.com/

Client: Chemetco
Work Order: 12090955
Client Project: Caustic Sump
Report Date: 09-Oct-12

Cooler Receipt Temp: 1.0 °C

Locations and Accreditations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email kmcclain@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email dthompson@teklabinc.com

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2013	Collinsville
Kansas	KDHE	E-10374	NELAP	1/31/2013	Collinsville
Louisiana	LDEQ	166493	NELAP	6/30/2013	Collinsville
Louisiana	LDEQ	166578	NELAP	6/30/2013	Springfield
Texas	TCEQ	T104704515-12-1	NELAP	7/31/2013	Collinsville
Arkansas	ADEQ	88-0966		3/14/2013	Collinsville
Illinois	IDPH	17584		4/30/2013	Collinsville
Kentucky	UST	0073		5/26/2013	Collinsville
Missouri	MDNR	00930		4/13/2013	Collinsville
Oklahoma	ODEQ	9978		8/31/2013	Collinsville

Teklab, Inc. Environmental Laboratory

Laboratory Results

http://www.teklabinc.com/

Client: Chemetco **Work Order:** 12090955

Client Project: Caustic Sump **Report Date:** 09-Oct-12

Lab ID: 12090955-001 **Client Sample ID:** Caustic Sump

Matrix: SLUDGE **Collection Date:** 09/19/2012 13:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA SW846 3550C, 5035A, ASTM D2974								
Percent Moisture		0.1		**55.6**	%	1	09/21/2012 11:09	R168418
SW-846 9045C								
pH (1:1)	NELAP	1.00		**11.6**		1	09/21/2012 12:38	R168379
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP								
Arsenic	NELAP	0.250		**< 0.250**	mg/L	1	10/06/2012 2:15	81811
Barium	NELAP	0.0500		**0.400**	mg/L	1	10/06/2012 2:15	81811
Cadmium	NELAP	2.00	SX	**367**	mg/L	100	10/06/2012 14:21	81811
Chromium	NELAP	0.100		**< 0.100**	mg/L	1	10/06/2012 2:15	81811
Lead	NELAP	0.400	X	**81.7**	mg/L	1	10/06/2012 2:15	81811
Selenium	NELAP	0.500		**< 0.500**	mg/L	1	10/06/2012 2:15	81811
Silver	NELAP	0.100		**< 0.100**	mg/L	1	10/06/2012 2:15	81811
MS QC limits for Cd are not applicable due to high sample/spike ratio.								
SW-846 1311, 7470A IN TCLP EXTRACT								
Mercury	NELAP	0.00020		**0.00143**	mg/L	1	09/24/2012 11:52	80437
SW-846 3050B, 6010B, METALS BY ICP								
Arsenic	NELAP	123		**251**	mg/Kg-dry	50	10/06/2012 14:17	81825
Barium	NELAP	24.5		**1290**	mg/Kg-dry	50	10/06/2012 14:17	81825
Cadmium	NELAP	9.80		**31300**	mg/Kg-dry	50	10/06/2012 14:17	81825
Chromium	NELAP	49.0		**94.1**	mg/Kg-dry	50	10/06/2012 14:17	81825
Copper	NELAP	49.0		**83300**	mg/Kg-dry	50	10/06/2012 14:17	81825
Lead	NELAP	196		**106000**	mg/Kg-dry	50	10/06/2012 14:17	81825
Selenium	NELAP	196		**< 196**	mg/Kg-dry	50	10/06/2012 14:17	81825
Silver	NELAP	27.0		**142**	mg/Kg-dry	50	10/06/2012 14:17	81825
Tin	NELAP	98.0		**29200**	mg/Kg-dry	50	10/06/2012 14:17	81825
Zinc	NELAP	490		**198000**	mg/Kg-dry	500	10/06/2012 14:10	81825
Se - Elevated reporting limit due to high levels of target analytes.								
SW-846 7471A								
Mercury	NELAP	2.12		**50.3**	mg/Kg-dry	100	09/24/2012 14:03	81845

Teklab, Inc.
Environmental Laboratory

Receiving Check List

http://www.teklabinc.com/

Client: Chemetco
Client Project: Caustic Sump

Work Order: 12090955
Report Date: 09-Oct-12

Carrier: Josh Cerar

Completed by: Timothy W. Mathis
On: 20-Sep-12

Received By: SRH

Reviewed by: Marvin L. Darling
On: 20-Sep-12

Pages to follow: Chain of custody 1 Extra pages included 0

Shipping container/cooler in good condition?	Yes ☑	No ☐		Not Present ☐		Temp ℃	***1.0***
Type of thermal preservation?	None ☐	Ice ☐		Blue Ice ☑		Dry Ice	☐
Chain of custody present?	Yes ☑	No ☐					
Chain of custody signed when relinquished and received?	Yes ☑	No ☐					
Chain of custody agrees with sample labels?	Yes ☑	No ☐					
Samples in proper container/bottle?	Yes ☑	No ☐					
Sample containers intact?	Yes ☑	No ☐					
Sufficient sample volume for indicated test?	Yes ☑	No ☐					
All samples received within holding time?	Yes ☑	No ☐					
Reported field parameters measured:	Field ☐	Lab ☐		NA ☑			
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐					
When thermal preservation is required, samples are compliant with a temperature between 0.1℃ - 6.0℃, or when samples are received on ice the same day as collected.							
Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials	☑			
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers	☑			
Water - pH acceptable upon receipt?	Yes ☑	No ☐					
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA	☑			

Any No responses must be detailed below or on the COC.

CHAIN OF CUSTODY

pg. 1 of 1 Work Order # 12090955

TEKLAB, INC. 5445 Horseshoe Lake Road ~ Collinsville, IL 62234 ~ Phone: (618) 344-1004 ~ Fax: (618) 344-1005

Client: Estate of Chemetco
Address: 3754 Chemetco Lane
City / State / Zip: Hartford, IL 62048
Contact: Jorge Garcia Phone: (618) 254-4381
E-Mail: jgarcia@chemetcoestate.com Fax: (618) 254-0138

Samples on: ☐ Ice ☒ Blue Ice ☐ No Ice 1.0 °C
Preserved in: ☐ Lab ☐ Field FOR LAB USE ONLY
Lab Notes:

Comments:

- Are these samples known to be involved in litigation? If yes, a surcharge will apply. ☐ Yes ☐ No
- Are these samples known to be hazardous? ☐ Yes ☐ No
- Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in comment section. ☐ Yes ☐ No

Project Name / Number

Sample Collector's Name: Jorge Garcia

Results Requested
☐ Standard ☐ 1-2 Day (100% Surcharge)
☐ Other_____ ☐ 3 Day (50% Surcharge)

Billing Instructions

Lab Use Only	Sample Identification	Date/Time Sampled	# and Type of Containers: UNPRES	HNO_3	NaOH	H_2SO_4	HCL	MeOH	$NaHSO_4$	Other	MATRIX: Water	Drinking Water	Soil	Sludge	Sp. Waste	INDICATE ANALYSIS REQUESTED: pH	TCLP Chem (1)		Total metals	RCRA	+Cu,Sn	Zn							
12090955 001	Caustic sump	9-19-12 1315												X	X		X												

Tekiab. Llc
Courier Pick Up

Relinquished By	Date / Time	Received By	Date / Time
Jorge Garcia	9-20-12		9/20/12 1015
	9/20/12 1134	Stephanie Haynes	9/20/12 11:34

The individual signing this agreement on behalf of client acknowledges that he/she has read and understands the terms and conditions of this agreement, on the reverse side, and that he/she has the authority to sign on behalf of client.

WHITE & YELLOW – LAB PINK – SAMPLER'S COPY

ESTATE OF CHEMETCO, INC.
MATERIAL SAFETY DATA SHEET

4/17/2008

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Estate of Chemetco, Inc.
3574 Chemetco Lane
Hartford, IL USA 62048

Company Phone Number: (618) 254-4381 Ext 332
Emergency Phone Number: (618) 254-4381 Ext 230

Product Name **Scrubber Sludge Filter Cake**

Issue Date: 4/17/2008

Section 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance/Odor: Gray, mud-like granular solid. Odorless.

WARNING

Product contains significant inorganic compounds of lead, a toxic substance, and <1% by wt. of inorganic compounds of cadmium and silver, toxic substances. Inorganic lead compounds are listed by the International Agency for Research on Cancer (IARC) as Group 2B, possibly carcinogenic to humans and lead is known by the State of California to cause reproductive harm to females and males and to cause birth defects. Nickel and Cadmium and their compounds have been identified as potential human carcinogens.

Potential Health Effects: See Section 11 for more information

Likely Routes of Exposure: Eye contact, skin contact, inhalation, and ingestion.

Eye: Minor irritation can occur due to mechanical action of granular materials. Lead Oxide: Eye contact can cause irritation.

Skin: Minor irritation can occur due to mechanical action of granular materials. Lead Oxide: Skin contact can cause irritation.

Inhalation: Zinc Oxide: Inhalation of high levels of zinc oxide may cause irritation to the respiratory tract. Inhalation may cause a flu-like illness (metal fume fever). This 24- to 48-hour illness is characterized by chills, fever, aching muscles, dryness in the mouth and throat and headache. Lead Oxide: Inhalation of high levels of inorganic lead compounds can have cumulative blood, neurologic, or reproductive hazards.

Ingestion: Lead Oxide: Ingestion of high levels of lead oxide may have cumulative blood, neurologic or reproductive hazards.

Medical Conditions Aggravated by Exposure:

May cause more significant respiratory tract problems in people with severe respiratory conditions, such as asthma or emphysema. Skin irritation may be more significant in people with pre-existing skin conditions.

ESTATE OF CHEMETCO, INC.
MATERIAL SAFETY DATA SHEET
4/17/2008

Target Organs: Zinc Oxide: respiratory system; Lead Oxide: digestive tract, central nervous system, blood, and gingival tissue.

This product does contain Lead Oxide, a possible carcinogen, as listed by IARC. Cadmium and Nickel compounds are potential carcinogens as listed by OSHA.

This product is considered to be hazardous by the OSHA Hazard Communications Standard (29 CFR 1910.1200).

Potential Environmental Effects: (See Section 12 for more information)

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS #	% by Wt.
Zinc Oxide (ZnO)	1314-13-2	21-31
Silica (SiO_2)	7631-86-9	13-19 amorphous
Copper Oxide (Cu_2O)	1317-39-1	7-11
Lead Oxide (Pb_3O_4)	1314-41-6	6-10
Iron Oxide (Fe_2O_3)	1309-37-1	4-6
Tin Oxide (SnO)	21651-19-4	2-4
Nickel Oxide (NiO)	1313-99-1	<0.5
Cadmium Oxide (CdO)	1306-19-0	<0.5
Trace Components		<5.0

Section 4: FIRST AID MEASURES

Eye Contact: Immediately flush eyes with water for at least 15 minutes. Get medical attention.

Skin Contact: Remove contaminated clothing and wash before reuse. Wash skin with soap and water. Get medical attention if irritation develops.

Inhalation: Move to fresh air. Get IMMEDIATE medical attention.

Ingestion: DO NOT induce vomiting. Get IMMEDIATE medical attention.

Section 5: FIRE FIGHTING MEASURES

Flammability: Non-flammable solid **Flash Point**: >200°F
Autoignition Temperature: N/A

Explosive Limits: Upper: N/A Lower: N/A

Extinguishing Media: Use suitable extinguishing media for surrounding materials and type of fire.

Protection of Firefighters: Firefighters must wear full face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. Fumes from fire are hazardous. Isolate runoff to prevent environmental pollution.

Products of Combustion: When heated to decomposition metal oxides may emit toxic fumes.

ESTATE OF CHEMETCO, INC.
MATERIAL SAFETY DATA SHEET

4/17/2008

Section 6: ACCIDENTIAL RELEASE MEASURES

Personal Protection: Use personal protection recommended in Section 8.
Environmental Precautions: This product contains components that are water pollutants. Do not let spilled or leaking product enter waterways.
Methods for Containment: Mist with water to keep damp. Avoid using too much water.
Methods for Clean-up: Sweep dry or semi-dry product into a pile and shovel into a container. If wet, use wet vacuum or slurry pump if large quantity involved and place in an isolated area or open container to dry.
Other Information: Spills of product do not need to be reported to the National Response Center.

Section 7: HANDLING AND STORAGE

Handling
Keep away from heat, open flame, strong acids, or strong oxidizers. Do not get in eyes. Do not breathe dust from product. Avoid contact with skin. Wash thoroughly after handling and especially before eating or smoking.
Storage
Keep container closed when not in use and stored in well ventilated area. Product residue may remain in empty Super Sacks. Observe all labeling precautions until container is cleaned, reconditioned or destroyed (For disposal, see Section 13: Disposal Considerations).

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

The scrubber sludge has not been evaluated as to exposure. The following chemicals in the scrubber sludge have exposure limits but the risk of exceeding these limits is based on the level of that chemical in the scrubber sludge and its availability for exposure.

Zinc Oxide:	TWA: 5.0 mg/m^3 (OSHA); TWA: 2.0 mg/m^3 (ACGIH)
Copper Oxide	TWA: 0.1 mg/m^3 (OSHA); TWA: 0.2 mg/m^3 (ACGIH)
Lead Oxide	TWA: 0.05 mg/m^3 (OSHA/ACGIH)
Iron Oxide	TWA: 10.0 mg/m^3 (OSHA); TWA: 5.0 mg/m^3 (ACGIH)
Tin Oxide	Not established (OSHA); TWA: 2.0 mg/m^3 (ACGIH)
Nickel Oxide	Not established (OSHA/ACGIH), Ni as dust: TWA: 1.0 mg/m^3 (OSHA); Ni as insoluble inorganic compounds: TWA: 0.1 mg/m^3 (ACGIH)
Cadmium Oxide	Not established (OSHA/ACGIH), Cd as dust: TWA: 0.005 mg/m^3 (OSHA); TWA: 0.002 mg/m^3 (ACGIH)

Engineering Controls: Provide local exhaust ventilation.
Eye/face Protection: Prevent eye/face contact, such as wearing chemical splash goggles and face shield.
Skin Protection: Prevent skin contact, such as wearing tightly woven clothing with long sleeves and pants to cover the lower body, boots or suitable coverage of ankles and feet, head cover, and impermeable gloves.
Respiratory Protections: Use NIOSH-approved air-purifying respirator with an air protection factor of at least 10 (APF=10) and that meets the air-purifying requirements of any other operation in the area where the product is being handled.
General Hygiene Considerations: Wash thoroughly after handling and especially before eating or use of tobacco products. Remove wet or contaminated clothing.

ESTATE OF CHEMETCO, INC.
MATERIAL SAFETY DATA SHEET
4/17/2008

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Color: Gray
Odor: Ordorless
Odor Threshold: Not available
Physical State: Damp, granular solid
pH: 7.5-8.0
Boiling Point: 1970°C
Melting Point: 1560°C
Flash Point: >200°F
Flammability (solid): Not applicable
Density: 104.0 lbs/ft^3 or 1,666 kg/m^3 (approximately)
Solubility in Water: Negligible

Section 10: STABILITY AND REACTIVITY

Stability: Stable under ordinary conditions of use and storage.
Conditions to Avoid: None
Incompatible Materials:

Zinc Oxide: Aluminum, chlorinated rubber, magnesium, linseed oil, strong oxidizers, hydrogen peroxide, and strong acids.

Lead, Nickel, Cadmium and Silver Oxides: Strong oxidizers, hydrogen peroxide, and strong acids.

Hazardous Decomposition Products: Toxic fumes from metal oxide decomposition.
Possibility of Hazardous Reactions: Remote possibility of hazardous reactions as long as product does not experience extreme heat or prolonged contact with incompatible materials.

Section 11: TOXICOLOGY INFORMATION

No toxicological information available on product but the following information is available for the components:

Immediately Dangerous to Life and Health (IDLH) Concentrations (ACGIH):
The scrubber sludge has not been evaluated as to IDLH. The following chemicals in the scrubber sludge have IDLH but the risk of exceeding these limits is based on the level of that chemical in the scrubber sludge and its availability for exposure.

Zinc Oxide:	500 mg/m^3
Copper Oxide	100 mg/m^3
Lead Oxide	Possible Carcinogen, Concentration not established
Iron Oxide	2,500 mg/m^3 as iron oxide fume or dust (ACGIH)
Tin Oxide	Not established
Nickel Oxide	Potential Carcinogen, 10 mg/m^3 (ACGIH)
Cadmium Oxide	Potential Carcinogen, 9 mg/m^3 (ACGIH)

ESTATE OF CHEMETCO, INC.
MATERIAL SAFETY DATA SHEET
4/17/2008

Section 12: ECOLOGICAL INFORMATION

The product has components that include toxic metals which could impact the ecology if spilled in significant quantities. Any spilled product should be contained and placed in sealed plastic containers or bags for recycling or disposal.

Section 13: DISPOSAL CONSIDERATIONS

Disposal: Spilled or contaminated product should be disposed according to local, state, and/or federal regulatory requirements. If spilled or contaminated product is disposed as a waste, USEPA Regulations and IEPA Regulations classify it as a hazardous waste and require disposal by a facility that is approved to dispose of hazardous waste.

Section 14: TRANSPORTATION INFORMATION

Hazardous Material:	Yes, if shipped in a vessel (See Section 15)
Hazardous Material Name:	Environmentally Hazardous Substance, n.o.s.
Hazard Class:	9
Reportable Quantity:	Not established
U.N. No.:	3077
ORM #.:	ORM-E
Placard Requirement:	Class 9 Placard
Shipping Label:	None required
Waste Manifest:	None required
Packaging:	Group III; Bulk containers are plastic lined
Net Wt. Per Package:	Varies depending on packaging (e.g., 20 tons/ocean container or rolloff, 2 tons/Supersack, and 1 ton/Gaylord carton)

Section 15: REGULATORY INFORMATION

USEPA Hazardous Waste: No. This substance is a by-product, not a waste, of secondary copper smelting operations, therefore, it is not regulated under RCRA.

USDOT Hazardous Material?

YES, if transported in a vessel. Furnace Deck Solids can exhibit levels of soluble lead compounds that exceeds the Marine Pollutant limit of $\geq$1% by weight of a shipping container.

NO, if not transported in a vessel.

USEPA TSCA Inventory: Yes, this product is regulated under TSCA and must maintain records of shipments and report in the reporting year every four years of the quantity shipped that exceeded 10,000 lbs in the year prior to the reporting year.

USOSHA: This product is considered to be hazardous by the OSHA Hazard Communications Standard (29 CFR 1910.1200).

ESTATE OF CHEMETCO, INC.
MATERIAL SAFETY DATA SHEET

4/17/2008

Section 16: OTHER INFORMATION

Process Generating the Product: Pyrometallurgical copper refining where zinc is volatilized and blown out of the copper bath by the use of oxygen and air. The gases are cleaned by a wet scrubber system. Caustic is added to neutralize the slurry water and force precipitation of metals. Slurry is then run through a filter press to reduce the moisture level and form the filter cake, the commercial product.

Estate of Chemetco, Inc.

3754 Chemetco Lane ● Hartford, IL 62048
Office: (618) 254-4381 ●Fax: (618) 254-0138
www.chemetcoestate.com

April 8, 2013

Michelle Kerr
Remedial Project Manager
USEPA Region 5 Superfund Division
SRF-6J
77W. Jackson Blvd.
Chicago, Illinois 60604

Re: Respond to North Polishing Pond and Sump Work Plan Comments

Dear Ms Kerr:

The Estate of Chemetco (Estate) has prepared this letter in response to the Illinois Environmental Protection Agency (IEPA) and the United States Environmental Protection Agency (USEPA) questions and comments dated February 28, 2013 regarding the North Polishing Pond and Sump Work Plan, previously submitted on January 22, 2013.

A conference call between the Estate, Paradigm, IEPA and USEPA was held on March 21, 2013 to discuss the response to comments letter. The Estate verbally addressed the regulator's comments and the responses have been incorporated into an updated Work Plan.

The IEPA/USEPA comments have been numbered and are restated in Attachment 1 in regular bold font, followed by the Estate's responses in italics font. In addition, the Work Plan has been modified to reflect the comments; the modified Text is shown in italics.

The Estate looks forward to your prompt approval of the revised North Polishing Pond and Sump Work Plan. If you have any questions, please do not hesitate to contact me at my office, (618)254-4381 x372 or by cell phone at (314)348-8211

Sincerely
ESTATE OF CHEMETCO, INC.

Jorge Y. Garcia PG
Site Project/EH&S Manager

CC:

Don Samson,	Trustee
Elliot G Stegin,	Paradigm Minerals
Erin Rednour	IEPA
James Morgan	IEPA
Chris Cahnovsky,	IEPA
Penni Livingston,	Livingston Law Firm

Attachments

General

1. **Please provide a copy of the bankruptcy court approval of this sale, the purchase contract, and the buyer's certificate of recycling, and buyer's compliance documentation**.

Currently, the Estate and Paradigm are in negotiations with existing buyers to determine the preferred buyer, The Estate has submitted a notice of intent to sell the material to the courts. Enclosed is the copy of the notice of intent. A copy of the purchase contract, and certificate of recycling will be submitted as soon as the buyer is selected.

2. **After removing the material of value from the sump, the Estate should close the sump to prevent the future accumulation of water or other materials in the sump. Describe the Estate's proposal for such work as part of this work plan**.

The Estate acknowledges the comment and the Work Plan has been modified accordingly.

3. **After removing the material of valued from the pond the Estate should take the opportunity to prevent the future infiltration of storm water into the bottom of the pond. Describe the Estate's proposal for such work a part of this work plan**.

The Estate acknowledges the comment and the Work Plan has been modified accordingly.

4. **Please propose applicable or relevant an appropriate requirements (ARARs) for this work plan**.

The Estate acknowledges the comment and an ARAR table has been added to the Work Plan accordingly.

Purpose

5. **It's unclear from the figure which feature the Estate plans to do work on with this work plan. The feature labeled North Polishing Pod on Figure 1 appears to be the West Cooling Lagoon. The Sump is indiscernible**.

The Estate acknowledges the comment and a revised Figure has been added to the Work Plan accordingly.

Characterization of Materials

6. **The characterization of materials is insufficient. Besides scrubber sludge, what else makes up the fines? Provide all analytical data available**.

The Estate acknowledges the comment and the Work Plan has been modified accordingly. In addition, analytical data associated with the NPP and Sludge from the sump has been added as an attachment to the Work Plan.

7. **Please describe how the fines material addressed by this work plan is recyclable metal bearing material**.

The Estate acknowledges the comment and the Work Plan has been modified accordingly.

Material Removal and Handling

8. **In this Section, should the plan specify:**
   a) **How "drier fines" will be removed from the north polishing pond (NPP) and transported as well as the conditions where this would be appropriate;**

   The Estate acknowledges the comment and the Work Plan has been modified accordingly.

   b) **How and where material from the Sump will be combined with the material in the NPP as well as how and where it will be allowed to air dry;**

   The Estate acknowledges the comment and the Work Plan has been modified accordingly.

   c) **How long the remaining fines material will be allowed to air dry by evaporation and where that will occur;**

   At this time, the Estate does not have a definite answer as to how long it will take to dry. There are many issues that will help expedite the drying process for example, weather, temperature, material thickness, number of times the material gets "land tilled". The target range is for the material to be in the 10 to 20% moisture. The Estate acknowledges the comment and the Work Plan has been modified accordingly.

   d) **How "removed" or "contained" water will be collected**

   The Estate acknowledges the comment and the Work Plan has been modified accordingly.

9. **"Future Management" must be more specifically define as disposal, as specified in the Handling Packing ad Shipping Section. How long would the water remain awaiting disposal?**

The Estate acknowledges the comment and the Work Plan has been modified accordingly.

10. **It is not appropriate to allow decontamination water from the scrap metal recycling to be placed in the NPP and allowed to evaporate.**

The Estate acknowledges the comment and the Work Plan has been modified accordingly.

11. **Please provide a figure that indicates the work area, staging area, loading area, and decontamination area addressed by this work plan.**

The Estate acknowledges the comment and the Work Plan has been modified accordingly and an updated copy of the requested figure is enclosed in the Work Plan.

Handling, Packaging, and Shipping

12. **Do not refer to procedures described in other work plans. Describe all procedures needed for this work in this work plan.**

The Estate acknowledges the comment and the Work Plan has been modified accordingly.

13. **In this section, should the plan specify:**

    a) **How long the material will be allowed to "air dry"?**

    Please see above Number 8 item c.

    b) **What criteria will be used to determine when the dried material is to be "deemed acceptable for shipping"?**

    Please see above Number 8 item c.

Schedule

14. **When will the work be complete?**

The Estate acknowledges the comment and the Work Plan has been modified accordingly.

Pollution Prevention

15. This section mentions for the first time storing fines in the Dome Building. Please describe/explain.

The Estate acknowledges the comment and the Work Plan has been accordingly.

16. Describe the engineering controls proposed to control fugitive dust.

The Estate acknowledges the comment and the Work Plan has been modified accordingly.

Health and Safety

17. Attach the material and safety data sheet for scrubber sludge, please.

The Estate acknowledges the comment and the Work Plan has been modified accordingly. A copy of the MSDS for scrubber sludge is included in the Work Plan.

Estate of Chemetco, Inc.

3754 Chemetco Lane • Hartford, IL 62048
Office: (618) 254-4381 •Fax: (618) 254-0138
www.chemetcoestate.com

January 25, 2012

Erin Rednour
State Project Coordinator
Illinois EPA RPMS/BOL
1021 North Grand Avenue East
Springfield, IL 62794-9276

James L. Morgan
Assistant Attorney General
Environmental Bureau
500 Second Street
Springfield, IL 62706

Re: Request for Circuitry Board and Shredded Circuitry Board Material Work Plan Approval
Interim Order (Civil Case No. 00-670-DRH, 00-677-DRH (consolidated)) and (Civil Case No. 000-cv-670-DRH-DGW, 00-cv-670 DRH (consolidated))

Dear Mrs. Rednour and Mr. Morgan:

The Estate of Chemetco, Inc. (Estate) requests approval of the attached Circuitry Board (CB) and Shredded Circuitry Board Material (SCBM) Work Plan. This Work Plan will allow the Estate to ship off-site over 50,000 to 80,000 pounds (lbs) metric tons of CB and SCBM after notice and approval of the U. S. Bankruptcy Court, Southern District of Illinois. Under the Interim Order (IO) agreement dated September 16, 2008 and extended IO through February 1, 2012, the Estate is allowed to sell off assets, which will allow for recovery of value from certain materials accumulated at the Site. Sales of CB and SCBM and other residues are expected to be a shipped international by Interco Trading Company. A copy of the certificate of recycling is also included as an Attachment.

The Estate looks forward to your prompt approval of the CB and SCBM Work Plan. If you have any questions, please do not hesitate to contact me at my office, (618)254-4381 x372 or by cell phone at (314)348-8211

Sincerely
ESTATE OF CHEMETCO, INC.

Jorge Y. Garcia

Jorge Y. Garcia PG
Site Project/EH&S Manager

CC:
Don Samson,	Trustee
Michelle Kerr,	USEPA
Elliot Stegin,	IAD/Paradigm
Chris Cahnovsky,	Regional Mgr, IEPA
Penni Livingston,	Livingston Law Firm

Attachments

Subject: Circuitry Board and Shredded Board Material

Purpose:

The purpose of this Work Plan is to document the handling, packaging and shipping of approximately 50,000 to 80,000 pounds (lbs) of circuitry board (CB) cut out remnants, trace scrubber sludge fines and 7 Gaylord boxes (~ 16,000 lbs) containing shredded circuitry board material (SCBM). The stockpiled CB is located west of the foundry building and next to the former weigh scale. The 7 Gaylord boxes of SCBM are located in the Receiving Building. The CB and SCBM will be sold to Interco Trading Company (Interco). The Estate has sold material to Interco in the past.

Under the Interim Order (IO) agreement dated September 16, 2008, the Estate is allowed to sell off assets, which will allow for recovery of value from certain materials accumulated at the Site.

Commercial Status:

Many metal recycling companies purchase material for recycling of precious and secondary metals extracted from circuitry boards, shredded circuitry board material. The Estate has obtained a bid to purchase from circuitry boards, shredded circuitry board material that was formerly used by Chemetco as feedstock when the site was in operation. This material contains low concentrations of non ferrous metals, but is often used for blending by smelter facilities.

A copy of the purchase order contract from Interco Co and certificate of recycling from Hanwa Co. LTD (recycling facility) is included for your use.

In addition, the Estate will notify the IEPA and USEPA of any changes to the approved Work Plan, and will provide a minimum of 7 day notification prior to commencement of any work activities associated with the approved work plan.

Characterization of Material:

CB scraps and shredded board is a loose bulk stockpile and the SCBM is contained in Gaylord boxes. Both the CB and SCBM material was originally used as feedstock material when the plant was in operation. The CB and SCBM material has significant levels of economically viable ferrous and non-ferrous metals. As such, many companies, domestic and international are interested in the CB and SCBM for extraction of the non-ferrous metals such as lead, copper, cadmium, tin, etc and the material will be used as a feedstock in furnaces of companies that can use the non-ferrous metals in their process.

Handling, Packaging and Shipping:

While some material debris may have been included within the CB, any large debris will be manually removed during loading activities. The removed debris will be managed accordingly to environmental requirements.

A front end loader, or equivalent may be used to load the CB stockpile and a forklift, or equivalent will be used to load the SCBM contained in Gaylord boxes.

The CB and SCBM will be shipped as a commercial product to Interco's facility in Illinois. The material will be packaged as follows:

Bulk Shipping:

Bulk - Dump Trailer: An open container may be used to load the CB and SCBM. The open top trailer will be equipped with secured tarp covers to minimize the potential of airborne releases of CB and SCBM material. Upon completion of loading, the trailer will be covered and secured for shipment. All the CB and SCBM material will be transported in accordance with transportation and environmental regulations.

Schedule

Work will be conducted during normal business hours Monday-Friday but the Estate reserves the right to adjust the work schedule to accommodate loading schedules. Depending on purchaser requirements, loading of circuitry board material will be expected to begin within 7 days of work plan approval.

Pollution Prevention

Decontamination: All facility assets or the exterior of their containers going off-site will be decontaminated per the Demolition Work Plan Procedure. Thick or wide spread accumulation of dust present on the tires on wheeled vehicles will be removed by, brushing, or broom sweeping to the extent practible at the point of collection. In many cases, gross decontamination will be sufficient for the purpose of off-site recycling, and for vehicles and equipment exiting work zones. If gross contamination cannot be removed by the use of dry decontamination, wet decontamination may be required before trucks leave the site.

Spills and Release Cleanup: No spills or releases from the CB stockpile are expected. However, any spills or releases of shredded board material will be cleaned up using brooms, and/or shovels and push back to the CB stockpile.

Containment: The Gaylord boxes containing the SCBM are currently stored in the receiving building and will remain there until they are ready to be loaded.

Fugitive Dust: Fugitive dust is not expected to be an issue. However, engineering controls may be used to control fugitive dust, if warranted.

Waste Management

Hazardous Waste: Personnel protective equipment (PPE) may be used during loading activities, but is not required. Will be placed in an open top drums on a daily basis. The drums will be properly, labeled, handled, stored and manifested according to RCRA disposal requirements.

Health & Safety

Hazards: No MSDS forms for Circuitry Boards and Shredded Circuitry Board Material are available, since the material is inert and does not pose a hazard in its current state. Because some scrubber sludge may be commingled with the circuitry boards, a copy of the Estate of Chemetco MSDS for scrubber sludge is included as Attachment 1.

Compliance: The Estate requires that all workers comply with OSHA regulations for exposure to lead, cadmium and nickel, including wearing PPE such as hard hats, safety glasses or goggles, gloves, long sleeve shirt and long pants, boots, and respirator (if warranted) and are medically monitored for lead and cadmium exposure. All workers are also required to have current 40-hr HAZWOPER training certification.

Closure

Upon completion of all work, the Estate will summarize all shipments of CB and SCBM Materials in the Interim Order quarterly report.

HANWA CO., LTD.

NON-FERROUS METALS DEPT.SEC-3
6-18-2, GINZA, CHUO-KU, TOKYO, JAPAN 104-8429
TEL:81-3-3544-2284 FAX:81-3-3544-2119

To Interco Trading Company

Hanwa Company., Ltd., headquartered in Tokyo, Japan, is one of the global purchasing agents for JX Nippon Mining & Metals Corporation(JX Nippon), one of the world's largest refiners of precious and secondary metals. As their agent, it is Hanwa's mission to procure metal feed for JX Nippon by purchasing scrap directly from suppliers like Interco Trading Company(Interco).

Hanwa negotiates the terms of these purchases with Interco and JX Nippon, helps coordinate shipments of Interco's secondary materials such as circuit boards to JX Nippon for smelting, shares JX Nippon's assays for each scrap lot with Interco, and issues payment based on the metals recovered from each lot.
All payable metals contained in the circuit boards are recovered during the smelting process and turned into ingot, powder, and cathode which can then be sold directly to manufactures.

For more information regarding JX Nippon, please visit their website at http://www.nmm.jx-group.co.jp/english/.
For more information regarding Hanwa and its relationship with JX Nippon and Interco, please contact Mami Jones in Hanwa's Los Angeles office at (949)955-2780 Ext, 104.

Hanwa Company, Ltd.

Name: Tetsuya Tagawa
Title: Manager
Date: 17. Nov. 2010

JX Nippon Mining & Metals Corporation

Name: Naoki Kojima
Title: Manager
Date: 18. Nov, 2010

Phone: 877 887-9602
Fax: 618 798-9501

Interco Trading Company
10 Fox Industrial Park Bldg 3
Madison, IL 62060

PURCHASE ORDER

NUMBER: **4327**

EFFECTIVE DATE: 07/08/2011
COMPLETION DATE: 08/07/2011

PURCHASED FROM:
Estate of Chemetco
3754 Chemetco Lane
Hartford, IL 62048

FREIGHT BASIS: Supplier Plant
TERMS: Net 3

SHIP FROM:
3754 Chemetco Lane
Hartford, IL 62048

SHIP TO:
Interco Trading Company

YOUR ORDER#: Elliot

CONFIRMING BETWEEN: Rob Feldman
AND YOUR: Duane McVey

Quantity	U/M	Description	Unit Price
80,000	LB	Flex Circuits and Green Boards	$.0100

Special Instructions: Weights are estimated for contract entry purposes only/we will accept more weight or the entire weight even if less than stated amount

Suitable and acceptable to consumer. Consumers weights and grades govern. This contract is subject to the terms and conditions stipulated herein.

THANK YOU

Accepted for Estate of Chemetco

By_____

Interco Trading Company

By_____

ESTATE OF CHEMETCO, INC.
MATERIAL SAFETY DATA SHEET

4/17/2008

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Estate of Chemetco, Inc.
3574 Chemetco Lane
Hartford, IL USA 62048

Company Phone Number: (618) 254-4381 Ext 332
Emergency Phone Number: (618) 254-4381 Ext 230

Product Name **Scrubber Sludge Filter Cake**

Issue Date: 4/17/2008

Section 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance/Odor: Gray, mud-like granular solid. Odorless.

WARNING

Product contains significant inorganic compounds of lead, a toxic substance, and <1% by wt. of inorganic compounds of cadmium and silver, toxic substances. Inorganic lead compounds are listed by the International Agency for Research on Cancer (IARC) as Group 2B, possibly carcinogenic to humans and lead is known by the State of California to cause reproductive harm to females and males and to cause birth defects. Nickel and Cadmium and their compounds have been identified as potential human carcinogens.

Potential Health Effects: See Section 11 for more information

Likely Routes of Exposure: Eye contact, skin contact, inhalation, and ingestion.

Eye: Minor irritation can occur due to mechanical action of granular materials. Lead Oxide: Eye contact can cause irritation.

Skin: Minor irritation can occur due to mechanical action of granular materials. Lead Oxide: Skin contact can cause irritation.

Inhalation: Zinc Oxide: Inhalation of high levels of zinc oxide may cause irritation to the respiratory tract. Inhalation may cause a flu-like illness (metal fume fever). This 24- to 48-hour illness is characterized by chills, fever, aching muscles, dryness in the mouth and throat and headache. Lead Oxide: Inhalation of high levels of inorganic lead compounds can have cumulative blood, neurologic, or reproductive hazards.

Ingestion: Lead Oxide: Ingestion of high levels of lead oxide may have cumulative blood, neurologic or reproductive hazards.

Medical Conditions Aggravated by Exposure:
May cause more significant respiratory tract problems in people with severe respiratory conditions, such as asthma or emphysema. Skin irritation may be more significant in people with pre-existing skin conditions.

Target Organs: Zinc Oxide: respiratory system; Lead Oxide: digestive tract, central nervous system, blood, and gingival tissue.

This product does contain Lead Oxide, a possible carcinogen, as listed by IARC. Cadmium and Nickel compounds are potential carcinogens as listed by OSHA.

This product is considered to be hazardous by the OSHA Hazard Communications Standard (29 CFR 1910.1200).

Potential Environmental Effects: (See Section 12 for more information)

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS #	% by Wt.	
Zinc Oxide (ZnO)	1314-13-2	21-31	
Silica (SiO_2)	7631-86-9	13-19	amorphous
Copper Oxide (Cu_2O)	1317-39-1	7-11	
Lead Oxide (Pb_3O_4)	1314-41-6	6-10	
Iron Oxide (Fe_2O_3)	1309-37-1	4-6	
Tin Oxide (SnO)	21651-19-4	2-4	
Nickel Oxide (NiO)	1313-99-1	<0.5	
Cadmium Oxide (CdO)	1306-19-0	<0.5	
Trace Components		<5.0	

Section 4: FIRST AID MEASURES

Eye Contact: Immediately flush eyes with water for at least 15 minutes. Get medical attention.

Skin Contact: Remove contaminated clothing and wash before reuse. Wash skin with soap and water. Get medical attention if irritation develops.

Inhalation: Move to fresh air. Get IMMEDIATE medical attention.

Ingestion: DO NOT induce vomiting. Get IMMEDIATE medical attention.

Section 5: FIRE FIGHTING MEASURES

Flammability: Non-flammable solid **Flash Point**: >200°F
Autoignition Temperature: N/A

Explosive Limits: Upper: N/A Lower: N/A

Extinguishing Media: Use suitable extinguishing media for surrounding materials and type of fire.

Protection of Firefighters: Firefighters must wear full face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. Fumes from fire are hazardous. Isolate runoff to prevent environmental pollution.

Products of Combustion: When heated to decomposition metal oxides may emit toxic fumes.

ESTATE OF CHEMETCO, INC.
MATERIAL SAFETY DATA SHEET

4/17/2008

Section 6: ACCIDENTIAL RELEASE MEASURES

Personal Protection: Use personal protection recommended in Section 8.
Environmental Precautions: This product contains components that are water pollutants. Do not let spilled or leaking product enter waterways.
Methods for Containment: Mist with water to keep damp. Avoid using too much water.
Methods for Clean-up: Sweep dry or semi-dry product into a pile and shovel into a container. If wet, use wet vacuum or slurry pump if large quantity involved and place in an isolated area or open container to dry.
Other Information: Spills of product do not need to be reported to the National Response Center.

Section 7: HANDLING AND STORAGE

Handling
Keep away from heat, open flame, strong acids, or strong oxidizers. Do not get in eyes. Do not breathe dust from product. Avoid contact with skin. Wash thoroughly after handling and especially before eating or smoking.
Storage
Keep container closed when not in use and stored in well ventilated area. Product residue may remain in empty Super Sacks. Observe all labeling precautions until container is cleaned, reconditioned or destroyed (For disposal, see Section 13: Disposal Considerations).

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

The scrubber sludge has not been evaluated as to exposure. The following chemicals in the scrubber sludge have exposure limits but the risk of exceeding these limits is based on the level of that chemical in the scrubber sludge and its availability for exposure.

Zinc Oxide:	TWA: 5.0 mg/m^3 (OSHA); TWA: 2.0 mg/m^3 (ACGIH)
Copper Oxide	TWA: 0.1 mg/m^3 (OSHA); TWA: 0.2 mg/m^3 (ACGIH)
Lead Oxide	TWA: 0.05 mg/m^3 (OSHA/ACGIH)
Iron Oxide	TWA: 10.0 mg/m^3 (OSHA); TWA: 5.0 mg/m^3 (ACGIH)
Tin Oxide	Not established (OSHA); TWA: 2.0 mg/m^3 (ACGIH)
Nickel Oxide	Not established (OSHA/ACGIH), Ni as dust: TWA: 1.0 mg/m^3 (OSHA); Ni as insoluble inorganic compounds: TWA: 0.1 mg/m^3 (ACGIH)
Cadmium Oxide	Not established (OSHA/ACGIH), Cd as dust: TWA: 0.005 mg/m^3 (OSHA); TWA: 0.002 mg/m^3 (ACGIH)

Engineering Controls: Provide local exhaust ventilation.
Eye/face Protection: Prevent eye/face contact, such as wearing chemical splash goggles and face shield.
Skin Protection: Prevent skin contact, such as wearing tightly woven clothing with long sleeves and pants to cover the lower body, boots or suitable coverage of ankles and feet, head cover, and impermeable gloves.
Respiratory Protections: Use NIOSH-approved air-purifying respirator with an air protection factor of at least 10 (APF=10) and that meets the air-purifying requirements of any other operation in the area where the product is being handled.
General Hygiene Considerations: Wash thoroughly after handling and especially before eating or use of tobacco products. Remove wet or contaminated clothing.

ESTATE OF CHEMETCO, INC.
MATERIAL SAFETY DATA SHEET

4/17/2008

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Color: Gray
Odor: Ordorless
Odor Threshold: Not available
Physical State: Damp, granular solid
pH: 7.5-8.0
Boiling Point: 1970°C
Melting Point: 1560°C
Flash Point: >200°F
Flammability (solid): Not applicable
Density: 104.0 lbs/ft^3 or 1,666 kg/m^3 (approximately)
Solubility in Water: Negligible

Section 10: STABILITY AND REACTIVITY

Stability: Stable under ordinary conditions of use and storage.
Conditions to Avoid: None
Incompatible Materials:

Zinc Oxide: Aluminum, chlorinated rubber, magnesium, linseed oil, strong oxidizers, hydrogen peroxide, and strong acids.

Lead, Nickel, Cadmium and Silver Oxides: Strong oxidizers, hydrogen peroxide, and strong acids.

Hazardous Decomposition Products: Toxic fumes from metal oxide decomposition.
Possibility of Hazardous Reactions: Remote possibility of hazardous reactions as long as product does not experience extreme heat or prolonged contact with incompatible materials.

Section 11: TOXICOLOGY INFORMATION

No toxicological information available on product but the following information is available for the components:

Immediately Dangerous to Life and Health (IDLH) Concentrations (ACGIH):
The scrubber sludge has not been evaluated as to IDLH. The following chemicals in the scrubber sludge have IDLH but the risk of exceeding these limits is based on the level of that chemical in the scrubber sludge and its availability for exposure.

Zinc Oxide:	500 mg/m^3
Copper Oxide	100 mg/m^3
Lead Oxide	Possible Carcinogen, Concentration not established
Iron Oxide	2,500 mg/m^3 as iron oxide fume or dust (ACGIH)
Tin Oxide	Not established
Nickel Oxide	Potential Carcinogen, 10 mg/m^3 (ACGIH)
Cadmium Oxide	Potential Carcinogen, 9 mg/m^3 (ACGIH)

ESTATE OF CHEMETCO, INC.
MATERIAL SAFETY DATA SHEET

4/17/2008

Section 12: ECOLOGICAL INFORMATION

The product has components that include toxic metals which could impact the ecology if spilled in significant quantities. Any spilled product should be contained and placed in sealed plastic containers or bags for recycling or disposal.

Section 13: DISPOSAL CONSIDERATIONS

Disposal: Spilled or contaminated product should be disposed according to local, state, and/or federal regulatory requirements. If spilled or contaminated product is disposed as a waste, USEPA Regulations and IEPA Regulations classify it as a hazardous waste and require disposal by a facility that is approved to dispose of hazardous waste.

Section 14: TRANSPORTATION INFORMATION

Hazardous Material:	Yes, if shipped in a vessel (See Section 15)
Hazardous Material Name:	Environmentally Hazardous Substance, n.o.s.
Hazard Class:	9
Reportable Quantity:	Not established
U.N. No.:	3077
ORM #.:	ORM-E
Placard Requirement:	Class 9 Placard
Shipping Label:	None required
Waste Manifest:	None required
Packaging:	Group III; Bulk containers are plastic lined
Net Wt. Per Package:`	Varies depending on packaging (e.g., 20 tons/ocean container or rolloff, 2 tons/Supersack, and 1 ton/Gaylord carton)

Section 15: REGULATORY INFORMATION

USEPA Hazardous Waste: No. This substance is a by-product, not a waste, of secondary copper smelting operations, therefore, it is not regulated under RCRA.

USDOT Hazardous Material?

YES, if transported in a vessel. Furnace Deck Solids can exhibit levels of soluble lead compounds that exceeds the Marine Pollutant limit of $\geq$1% by weight of a shipping container.

NO, if not transported in a vessel.

USEPA TSCA Inventory: Yes, this product is regulated under TSCA and must maintain records of shipments and report in the reporting year every four years of the quantity shipped that exceeded 10,000 lbs in the year prior to the reporting year.

USOSHA: This product is considered to be hazardous by the OSHA Hazard Communications Standard (29 CFR 1910.1200).

ESTATE OF CHEMETCO, INC.
MATERIAL SAFETY DATA SHEET

4/17/2008

Section 16: OTHER INFORMATION

Process Generating the Product: Pyrometallurgical copper refining where zinc is volatilized and blown out of the copper bath by the use of oxygen and air. The gases are cleaned by a wet scrubber system. Caustic is added to neutralize the slurry water and force precipitation of metals. Slurry is then run through a filter press to reduce the moisture level and form the filter cake, the commercial product.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

PAT QUINN, GOVERNOR JOHN J. KIM, INTERIM DIRECTOR

April 16, 2012

Mr. Jorge Y. Garcia, PG
Site Project/EH&S Manager
Estate of Chemetco, Inc.
3754 Chemetco Lane
Hartford, Illinois 62048

Re: LPC 1198010003 – Madison County
Hartford/Chemetco, Inc.
Conditional Approval of Circuitry Board and Shredded Circuitry Board Material Work Plan
Interim Order (Civil Case No. 00-670-DRH, 00-677-DRH (consolidated)) and (Civil Case No. 000-cv-670-DRH-DGW, 00-cv-670 DRH (consolidated))

Dear Mr. Garcia,

This letter is in response to your submittal of the Request for Circuitry Board and Shredded Circuitry Board Material Work Plan Approval dated January 25, 2012.

The Illinois Environmental Protection Agency (Illinois EPA) in consultation with United States Environmental Protection Agency (U.S. EPA) approves the Circuitry Board and Shredded Circuitry Board Work Plan provided the following conditions are met:

As discussed within the sections designated Handling, Packaging and Shipping, and Health and Safety; the Circuit Board Stockpile contains an estimated amount of Scrubber Sludge Filter Cake. The estimated amount of Scrubber Sludge Filter Cake was also a subject of discussion by telephone between myself and you on at least two occasions, the most recent being April 12 2012. During this most recent call, Illinois EPA's and U.S.EPA's concern of the presence of the Scrubber Sludge Filter Cake within the Circuit Board Stockpile was discussed and it was proposed that the Scrubber Sludge Filter Cake material could be removed from the Circuit Board Stockpile by using the vibrating screen currently onsite in use for the bagging procedure per the Scrubber Sludge Work Plan

Further, please note that there is a draft request to extend the expiration date of the Interim Order. With the approval of the request to extend the expiration date, all current work to be

completed in the context of the applicable Interim Order, and to submit and obtain the required Certificates of Completion will need to be complete by September 4, 2012.

Please submit a revised plan that incorporates these conditions. If there are any questions concerning the above, please do not hesitate to contact me at 217-785-8725.

Sincerely,

Erin J. Rednour

Erin J. Rednour, Project Manager

National Priorities List Unit

Federal Sites Remediation Section

Bureau of Land

Illinois Environmental Protection Agency

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

PAT QUINN, GOVERNOR JOHN J. KIM, INTERIM DIRECTOR

April 16, 2012

Corrected May 10, 2012

Mr. Jorge Y. Garcia, PG
Site Project/EH&S Manager
Estate of Chemetco, Inc.
3754 Chemetco Lane
Hartford, Illinois 62048

Re: LPC 1198010003 – Madison County
Hartford/Chemetco, Inc.
CORRECTED Conditional Approval of Circuitry Board and Shredded Circuitry Board Material Work Plan
Interim Order (Civil Case No. 00-670-DRH, 00-677-DRH (consolidated)) and (Civil Case No. 000-cv-670-DRH-DGW, 00-cv-670 DRH (consolidated))

Dear Mr. Garcia,

This letter is in response to your submittal of the Request for Circuitry Board and Shredded Circuitry Board Material Work Plan Approval dated January 25, 2012.

The Illinois Environmental Protection Agency (Illinois EPA) in consultation with United States Environmental Protection Agency (U.S. EPA) approves the Circuitry Board and Shredded Circuitry Board Work Plan provided the following conditions are met:

As discussed within the sections designated Handling, Packaging and Shipping, and Health and Safety; the Circuit Board Stockpile contains an estimated amount of Scrubber Sludge Filter Cake. The estimated amount of Scrubber Sludge Filter Cake was also a subject of discussion by telephone between myself and you on at least two occasions, the most recent being April 12 2012. During this most recent call, Illinois EPA's and U.S.EPA's concern of the presence of the Scrubber Sludge Filter Cake within the Circuit Board Stockpile was discussed and it was proposed that the Scrubber Sludge Filter Cake material could be removed from the Circuit Board Stockpile by using ~~the vibrating screen currently onsite in use for the bagging procedure per the Scrubber Sludge Work Plan~~ **Correction**: the BobCat that will have a pitch fork like adaptor that will be used to spear the circuitry board material while leaving and/or separating the solids via gravity. The second option is to use a crude angled grate where the material will be dumped on top of the crude angled grate, which will allow the scrubber sludge material to pass through and separating the circuitry board material.

Once the circuitry material becomes separated by using either one or both techniques; it will be loaded directly into a truck as described in the Circuitry Board Work Plan.

Further, please note that there is a draft request to extend the expiration date of the Interim Order. With the approval of the request to extend the expiration date, all current work to be completed in the context of the applicable Interim Order, and to submit and obtain the required Certificates of Completion will need to be complete by September 4, 2012.

Please submit a revised plan that incorporates these conditions. If there are any questions concerning the above, please do not hesitate to contact me at 217-785-8725.

Sincerely,

Erin J. Rednour

Erin J. Rednour, Project Manager

National Priorities List Unit

Federal Sites Remediation Section

Bureau of Land

Illinois Environmental Protection Agency

Phone: 877 801-0602
Fax: 618 798-9501

Interco Trading Company

10 Fox Industrial Park Bldg 3
Madison, IL 62060

interco TRADING COMPANY
A METALTRONICS RECYCLER

PURCHASE ORDER
NUMBER: 8667

EFFECTIVE DATE: 05/28/2013
COMPLETION DATE: 06/27/2013

PURCHASED FROM:
Estate of Chemetco
3754 Chemetco Lane
Hartford, IL 62048

FREIGHT BASIS: Supplier Plant
TERMS: Net Cash

SHIP FROM:
3754 Chemetco Lane
Hartford, IL 62048

SHIP TO:
Interco Trading Company

YOUR ORDER#: Zuber Email

CONFIRMING BETWEEN: Rob Feldman
AND YOUR: Duane McVey

Quantity	U/M	Description	Unit Price
90,000	LB	Flex Circuits and Board Trim	$.0100

Special Instructions: Contact Greg at 618 877 3560 to arrange pickup in DUMPS/Reference contract #/Certificate of Recycling sent under separate Copy

Suitable and acceptable to consumer. Consumers weights and grades govern. This contract is subject to the terms and conditions stipulated herein.

THANK YOU

Accepted for Estate of Chemetco

By_____

Interco Trading Company

By_____

HANWA AMERICAN CORPORATION
18100 Von Karman Ave. Suite 320 Irvine CA 92612
Tel: 949-95-2780 Fax: 949-955-2785

To Whom It May Concern:

This letter is in response to your inquiry regarding the utilization of precious metal and copper containing circuit boards for recycling sold to Interco Trading Co. The recycling raw materials purchased from Interco Trading Co. are totally utilized as an ingredient in our production process to produce copper cathodes, gold, silver, and palladium ingot at our facility in Naoshima, Japan or Saganoseki, Japan.

We are one of the largest primary and secondary smelters in the world. Our business consists of the recycling of copper refining scrap as well as the treatment of various types of complex copper and precious metal containing materials. Our technology is state-of-the-art, as is our environmental record and standards.

Best Regards

Hanwa American Corporation

Akihiko Baba

5/24/2013

Estate of Chemetco, Inc.

3754 Chemetco Lane • Hartford, IL 62048
Office: (618) 254-4381 •Fax: (618) 254-0138
www.chemetcoestate.com

VIA U.S. MAIL AND ELECTRONIC TRANSMISSION

September 24, 2009

Erin Rednour
State Project Coordinator
Illinois EPA RPMS/BOL
1021 North Grand Avenue East
Springfield, IL 62794-9276

James L. Morgan
Assistant Attorney General
Environmental Bureau
500 Second Street
Springfield, IL 62706

Re: Scrap Metal Shipment Notice
Scrap Metal Work Plan
Interim Order (Civil Case No. 00-670-DRH, 00-677-DRH (consolidated))

Dear Mrs. Rednour and Mr. Morgan:

In anticipation of approval of the Scrap Metal Work and as required by paragraph 35 of Section X. REPORTING REQUIREMENTS of the Interim Order, this letter serves as official notification of performance of work (loading of scrap metal for shipment for sale) effective October 9, 2009. I will email details on specific shipments as they are scheduled. We look forward to final approval of our Scrap Metal Work Plan before October 9, 2009 as our scrap metal customers are eager to received these materials.

If you have any questions, please do not hesitate to contact me at my office, 618/254-4381 x372 or by cell phone at 636/346-0413.

Sincerely
ESTATE OF CHEMETCO, INC.

Gary J. Davis, CHMM
Site Project/EH&S Manager

CC: Laura Grandy, Trustee
Penni Livingston, Livingston Law Firm
Chris Cahnovsky, Regional Mgr, IEPA-Collinsville Office
Sandra Bron, IEPA-Springfield

Estate of Chemetco, Inc.
Work Plan – Scrap Metal
Revised September 24, 2009

Subject: **Scrap Metal**

Purpose:
The purpose of this Work Plan is to document the handling, packaging and shipping of scrap metal to purchasers approved by the U.S. Bankruptcy Court, Southern District of Illinois for scrap metal sales by the Estate of Chemetco, Inc. (Estate).

Characterization of Material:
Scrap metal under this Work Plan is that defined by 35 IAC 721.101(c)6): "Scrap metal" is bits and pieces of metal parts (e.g., bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering (e.g., radiators, scrap automobiles, railroad box cars) that when worn or superfluous can be recycled." The scrap metal to be collected and sold by the Estate consists of readily marketable scrap metal, equipment, or spare parts. The Estate estimates that is currently over 20 tons of an assortment of iron, steel, stainless steel, and non-ferrous metals.

Handling, Packaging and Shipping:
Scrap metal will be handled, packaged and shipped in a manner consistent with RCRA and the requirements of the purchaser. Most scrap metal is expected to be loaded into open top freight trailers supplied by the purchaser.

Pollution Prevention
Decontamination: All scrap metal will be decontaminated per the Estate's Decontamination Procedure, dated January 29, 2008 and presented as Attachment A. All decontamination residues will be managed according to RCRA. Tires on wheeled vehicles will be washed before going off-site.
Containment: All sealed containers of Wastes, including Hazardous Waste drums of decontamination wash water and PPE, awaiting shipment will be temporarily stored on plastic in the Brick Shop. Large quantities of solid waste, including any Hazardous Waste solids, such as decontamination pad plastic lining, in a lined and covered rolloff and will be managed according to RCRA.
Fugitive Dust: Water spray and/or misters will be used to control fugitive dust but limited in volume to prevent run-off.

Waste Management
Hazardous Waste: Scrap metal is not a hazardous waste. The Estate expects to generate less than 1 ton of hazardous waste as decontamination wash water, contaminated decontamination pad plastic lining, and contaminated PPE. All wastes will be properly characterized, contained, labeled, handled, stored and manifested according to RCRA.
Non-Hazardous Waste: The Estate does not expect to generate any non-hazardous waste. Should any non-hazardous waste be generated, it will be properly characterized and disposed off-site in accordance with RCRA.

Health & Safety
Hazards: Scrap metal may be covered with dust and fines from the site that may contain hazardous levels of lead and cadmium and/or respirable levels of dust. Scrap metal may consist of heavy, bulk pieces that may require the use of forklifts, Bobcats, or other moving equipment during collection and decontamination that present a safety hazard to workers.
Compliance: All work performed will be by Estate personnel that are 40-hr HAZWOPER trained and under medical surveillance for lead and cadmium and medically qualified and fit tested to wear respirators. The Estate requires that all workers comply with OSHA regulations for exposure to lead, cadmium and nickel, including wearing protective equipment such as hard hats, safety glasses or goggles, gloves, tyveks, boots, and respirator.

Security
The Estate will provide 24-hr security monitoring of the site utilizing Estate personnel on work days, Monday thru Friday, and the use of its 24-hr security camera monitoring system. All work will normally be conducted during daylight hours, Monday thru Friday, unless notice has otherwise been made to IEPA and the Attorney General's Office.

Notification
Per the Interim Order, IEPA will be notified in writing 14 days in advance of loading scrap metal. Any changes in loading schedules will be made in writing and by email.

Closure
The Estate will include the status of all scrap work including documentation of all shipments off-site in the Quarterly Status Report.

Estate of Chemetco, Inc.

Decontamination Procedure

January 29, 2008

STANDARD FOR DECONTAMINATION

(Definition of clean debris surface as per 40 CFR §268.45)

'Clean debris surface' means the surface, when viewed without magnification should be free of all visible contamination and hazardous waste except that residual staining consisting of light shadows, slight streaks, or minor discolorations, and contamination in cracks, crevices, and pits may be present provided that such staining and contamination in cracks, crevices and pits should be limited to not more than 5% of each square inch of surface area.

1. **General**

   All visible scrubber sludge, slag, and other debris associated with the Chemetco site will be removed from the equipment in question on all exterior and interior surfaces, including inside cabs and engine compartments. All liquids and solids generated by the decontamination procedure will be handled as suspect hazardous waste in compliance with RCRA in satellite accumulation drums in the Brick Shop labeled as "Decon Waste Water" and "Decon Waste Solids."

2. **Containment**
   a. A containment pad will be constructed on an even concrete covered area of the site using at least two layers of 6 mil plastic sheeting, one layer of 10 mil plastic sheeting or better with at least 4" berms on all sides constructed using flexible drain pipe wrapped in plastic with sandbags on top to stabilize and with 4' of spacing around the equipment.
   b. A sump or low area will be created inside the containment to facilitate collection of waste waters and solids.
   c. To prevent puncturing the plastic, wood boards, plywood or other suitable material will be placed on top of the sheeting.

3. **Decontamination of Materials and Equipment**
   a. Gross and hard to remove contaminants will be removed by mechanical action (shovels, brushes, etc.)
   b. A pressure washer (less than 3000 psi) using well water will be used to remove any remaining contaminants.

4. **Collection of Decon Wastes/Hazardous Materials**
   a. Before the decontaminated materials or equipment are removed from the containment pad, all waste waters and solids will be collected from the surface of the containment area using mechanical action and/or a sump pump or wet/dry vacuum.
   b. Once the decontaminated materials or equipment are removed from the containment area, the pad will be decontaminated with a pressure washer and the waste water collected with a sump pump or wet/dry vacuum.
   c. Waste Waters will be placed in the satellite accumulation drum labeled "Decon Waste Water" and the volume documented as stated on the attached Decon Waste Water Inventory Sheet.

Estate of Chemetco, Inc.

Decontamination Procedure

January 29, 2008

d. Waste Solids will be placed in the satellite accumulation drum labeled "Decon Waste Solids" and the volume documented as stated on the attached Decon Waste Solids Inventory Sheet.
e. The waste drums will be sealed and returned to the Hazardous Storage Area in accordance with the instructions on the inventory sheets (full drums will be labeled and managed as hazardous waste until waste determinations and disposition are completed).

5. **Documentation of Decontamination**

Upon completion of the above actions, the lead person performing the decontamination will record evidence of this on the attached Decontamination Inspection Sheet, which will be filed by the EH&S Manager.

6. **Inspection of Containment Pad**

Prior to use of the containment pad for the next decontamination, the pad will be inspected to ensure that there are no punctures or other indications of failure of the intergrity, if so, it will be repaired or replaced. Used plastic sheeting will be disposed of as suspect hazardous waste.

7. **Personal Protection Equipment (PPE)**

a. All personnel conducting the decontamination of the equipment and the handling of suspect hazardous waste will be required to wear the following PPE:
   - Hard hat with face shield
   - Safety Glasses
   - Water resistant boots or goulashes
   - Rubber gloves
   - Water resistant apron or tyveks
   - Half-face respirator, if fugitive dust is present

b. PPE will be decontaminated or disposed of as suspect hazardous waste.

8. **Health and Safety**

All personnel conducting the decontamination of the equipment and the handling of hazardous wastes are required to:

a. Have current OSHA Hazwoper Certification (29 CFR 1910.120),
b. Comply with OSHA Standard for Lead Worker (29 CFR 1910.1025), and
c. Comply with OSHA Standard for Cadmium Worker (29CFR 1910.1027)

INSTITUTIONAL TRUST & CUSTODY

Fax Cover Sheet

To:	**Michelle Kerr**	**From:**	**Allyn Bennett**
Company:	**EPA Reg5 Superfund**	**Company:**	**US Bank**
Phone:	**312-886-8961**	**Phone:**	**314-418-2921**
Fax:	**312-697-2658**	**Fax:**	**314-418-2520**
Date:			

Total Pages Including Cover Page: ~~34~~ 35

Message:

All of us serving you℠

usbank.

Electronic Privacy Notice.
This facsimile and any attachments, contains information that is, or may be, covered by electronic communications privacy laws, and is also confidential and proprietary in nature. If you are not the intended recipient, please be advised that you are legally prohibited from retaining, using, copying, distributing, or otherwise disclosing this information in any manner. Instead, please reply to the sender that you have received this communication in error, and then securely discard it. Thank you in advance for your cooperation.

TRUST AGREEMENT

Trust Agreement, the "Agreement," entered into as of the 25th day of March, 1986, by and between CHEMETCO, INC., a Delaware corporation, the "Grantor," and FIRST NATIONAL BANK & TRUST COMPANY, a national banking association, with its banking house located in the City of Alton, County of Madison and State of Illinois, the "Trustee."

Whereas, the United States Environmental Protection Agency, "EPA," an agency of the United States Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator of a hazardous waste management facility shall provide assurance that funds will be available when needed for closure and/or post-closure care of the facility.

Whereas, the Grantor, has elected to establish a trust to provide all or part of such financial assurance for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, Therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities and Cost Estimates. This Agreement pertains to the facilities and cost estimates identified on attached Schedule A.

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of EPA. The Grantor and the Trustee intend that no third party

have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by EPA.

Section 4. Payment for Closure and Post-Closure Care. The Trustee shall make payments from the Fund as the EPA Regional Administrator shall direct, in writing, to provide for the payment of the costs of closure and/or post-closure care of the facilities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the EPA Regional Administrator from the Fund for closure and post-closure expenditures in such amounts as the EPA Regional Administrator shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the EPA Regional Administrator specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securites acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the

Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that;

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution unvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which

are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking insti-

tution affiliated with the Trustee, to the extent insured by an agency of the Federa or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the appropriate EPA Regional Administrator a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the EPA Regional Administrator shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be

entitled to reasonable compensation for its service as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the EPA Regional Administrator, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the EPA Regional Administrator to the Trustee shall be in writing, signed by the EPA Regional Administrators of the Regions in which the facilities are located, or their designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions.

The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or EPA hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or EPA, except as provided for herein.

Section 15. Notice of Nonpayment. The Trustee shall notify the Grantor and the appropriate EPA Regional Administrator, by certified mail within 10 days following the expiration of the 30-day period after the anniversary of the establishment of the Trust, if no payment is received from the Grantor during that period. After the pay-in period is completed, the Trustee shall not be required to send a notice of nonpayment.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the appropriate EPA Regional Administrator, or by the Trustee and the appropriate EPA Regional Administrator if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the EPA Regional Administrator, or by the Trustee and the EPA Regional Administrator, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the EPA Regional Administrator issued in accordance with this

Agreement. The Trustee shall be indemnified and save harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Illinois.

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: The parties below certify that the wording of this Agreement is identical to the wording specified in 40 CFR 264.151(a)(1) as such regulations were constituted on the date first above written.

CHEMETCO, INC., a Delaware corporation,

By _____
Its Vice President

ATTEST:

_____
Its _____ Secretary

FIRST NATIONAL BANK & TRUST COMPANY,

By _____
Its Senior Trust Officer

ATTEST:

_____
Its Assistant Cashier

STATE OF ILLINOIS)
) SS.
COUNTY OF MADISON)

On this 25th day of March, 1986, before me personally came JOHN SUAREZ (owner or operator) to me known, who, being by me duly sworn, did depose and say that he resides at Granite City, Illinois (address), that he is Vice President of CHEMETCO, INC., the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order.

Notary Public

STATE OF ILLINOIS)
) SS.
COUNTY OF MADISON)

I, the undersigned, a Notary Public in and for said County, in the State aforesaid, DO HEREBY CERTIFY that JOHN F. THEEN, personally known to me to be the Senior Trust Officer of FIRST NATIONAL BANK & TRUST COMPANY, a national banking association, and JOAN M. BRENELIUS, personally known to me to be the ASST Cashier of said association, and personally known to me to be the same persons whose names are subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that as such Senior Trust Officer and ASST Cashier, they signed and delivered the said instrument as Senior Trust Officer and ASST Cashier of said association, and caused the seal of said association to be affixed thereto, pursuant to authority given by the Board of Directors of said association, as their free and voluntary act, and as the free and voluntary act and deed of said association, for the uses and purposes therein set forth.

Given under my hand and notarial seal this 27 day of March, 1986.

Carla S. Ogle
Notary Public

MY COMMISSION EXPIRES OCTOBER [illegible]

I. CLOSURE AND POST-CLOSURE REQUIREMENTS

CLOSURE OF TANKS

STEP 1 - INITIAL SCOPE OF WORK

After reviewing processes, current and projected chemical use and accumulation, CEMATCO developed a closure plan specific for the storage and processing tanks according to 40 CFR Parts 264 and 265.

Cost: Paid Complete as of November 8, 1985

STEP 2 - SAMPLING OF TANKS

A sample is taken from each tank following methods recommended by the EPA.

Cost: $1,000 Estimated date of completion: week 2

STEP 3 - ANALYSIS

The following analysis is performed on each sample according to methods approved by the EPA.

pH
Concentration of acid or base
Total metals
Total suspended solids
Density and general parameters

Cost: $2,000 Estimated date of completion: week 6

STEP 4 - MANAGEMENT STRATEGY

The results of the previous steps are reviewed and the optimum processing strategy is determined.

Cost: $240 Estimated date of completion: week 7

STEP 5 - PROCESSING OF TANK CONTENTS

Cematco processes the tank contents on-site. Method of processing will be determined by the composition of the waste.

Cost: $2,000 Estimated date of completion: week 19

STEP 6 - DECONTAMINATION AND RECONDITIONING/DISPOSAL OF TANKS

Tanks that can be reconditioned and sold will be managed in the following way:

Old bulk residue will be removed. Then the tanks will be washed with high pressure hot water until all visible foreign material is removed. Afterwards the tanks will be sandblasted down to bare metal and painted inside and out.

Tanks that cannot be reconditioned and sold will be managed in the following way:

The tanks, discharge control equipment and discharge confinement structures will be washed with high pressure hot water until all visible foreign material has been removed. The tanks will be dismantled and disposed of as a nonhazardous waste.

Cost: $2,000 Estimated date of completion: week 40

In either case, the rinse water will be collected and contained for sampling and analysis.

STEP 7 - SAMPLING OF RINSE WATER

A sample of the rinse water is taken following methods approved by the EPA.

Cost: $100 Estimated date of completion: week 42

STEP 8 - ANALYSIS OF RINSE WATER

The following analysis is performed on the rinse water according to methods approved by the EPA:

Total metals
Total suspended solids
pH
Density and general parameters

Cost: $550 Estimated date of completion: week 46

STEP 9 - MANAGEMENT STRATEGY

The results of the previous steps are reviewed and the optimum processing strategy is determined.

Cost: $240 Estimated date of completion: week 47

STEP 10 - PROCESSING OF RINSE WATER

Chemetco processes the rinse water on-site by adding it to the water used in the scrubbers.

Cost: $2,000 Estimated date of completion: week 55

STEP 11 - MANAGEMENT AND REPORTING

Progress of the closure is monitored and documented through manifests, invoices, bills of sale, and reports to the EPA.

Cost: $1,600 Estimated date of completion: week 56

STEP 12 - CERTIFICATION

Chemetco and a registered professional engineer submit to the EPA certification that the tanks have been closed in accordance with the approved closure plan.

Cost: $1,000 Estimated date of completion: week 60

CLOSURE OF ZINC OXIDE SURFACE IMPOUNDMENT ("DIRT PITS")

PRECLOSURE PLANS - Preclosure of the zinc oxide surface impoundment consists of processing on-site or selling 90% of the existing volume, or 56,700 cubic yards.

STEP 1 - INITIAL SCOPE OF WORK

After reviewing processes, chemical use and accumulation CEMATCO developed a closure plan specific for a zinc oxide surface impoundment according to 40 CFR Parts 264 and 265.

Cost: Paid Complete as of November 8, 1985

SAMPLING, ANALYSIS AND PROCESSING

It has been estimated that 50% of the content of the surface impoundment is recoverable and will either be sold overseas or processed through Chemetco's mixing tank. The other 50% has a high slag content and will be fed gradually into Chemetco's smelter. It is estimated that the preclosure will be accomplished in about 5 years. The following steps outline the procedure that will be followed. The closure plan will go into effect when 10% of the material is left.

Estimate of total volume: 63,000 cubic yards

STEP 2 - SAMPLING

Samples will be taken from a designated area of the surface impoundment.

Cost: $2,000 On-going for 5 years

STEP 3 - ANALYSIS

The following analysis is performed according to methods approved by the EPA:

Total metals
Density and general parameters

Cost: $1,000 On-going for 5 years

STEP 4 - STRATEGY DETERMINATION

Chemetco will review the analytical results and determine if the material represented by the samples is recoverable or should be processed through the smelter.

Cost: $360 On-going for 5 years

STEP 5 - PROCESSING OF ZINC OXIDE

Option 1: Recoverable Material

If a market exists the material will be sold for profit. It will be transported to the buyer according to DOT regulations. If a market does not exist Chemetco will feed it gradually to the mixing tank.

Option 2: Non-recoverable Material

Chemetco will move the material to the smelter and process it according to standard operating procedures.

Cost: $10,000 On-going for 5 years

CLOSURE PLAN - The actual closure of the zinc oxide surface impoundment is based on 10% of the present volume, or 6,300 cubic yards.

STEP 6 - DECONTAMINATION OF CONTAINMENT SYSTEM COMPONENTS

The remainder of the zinc oxide will be put into containers appropriate for storage. The containment walls will be thoroughly washed down with high pressure hot water until all visible foreign material is removed. The rinse water will be contained for sampling and analysis.

Cost: $5,000 Estimated date of completion: week 4

STEP 7 - A sample is taken of the rinse water and the zinc oxide following methods approved by the EPA.

Cost: $250 Estimated date of completion: week 5

STEP 8 - ANALYSIS

The following analysis is performed on the rinse water according to methods approved by the EPA:

Total metals
Total suspended solids
pH
Density and general parameters

Cost: $550 Estimated date of completion: week 9

The following analysis is performed on the zinc oxide according to methods approved by the EPA:

EP toxicity
Total zinc
pH of a 10% solution
Density and general parameters

Cost: $500 Estimated date of completion: week 9

STEP 9 - REGULATORY CONSTRAINTS

Federal, state and local regulations are reviewed as they apply to the rinse waters and zinc oxide.

Cost: $200 Estimated date of completion: week 10

STEP 10 - MANAGEMENT STRATEGY

The results of the previous steps are reviewed and the optimum processing strategy is determined.

Cost: $120 Estimated date of completion: week 11

STEP 11 - PROCESSING OF RINSE WATER

Chemetco will process the rinse water by adding it to the water used in the scrubbers.

Cost: $1,000 Estimated date of completion: week 15

STEP 12 - PROCESSING OF THE ZINC OXIDE

Chemetco processes the zinc oxide by adding it to the smelter.

Cost: $24,000 Estimated date of completion: week 63

STEP 13 - MANAGEMENT AND REPORTING

The progress of the closure will be documented through bills of sale, operating reports, manifests, invoices and reports to the EPA.

Cost: $2,400 Estimated date of completion: week 64

STEP 14 - CERTIFICATION

Chemetco and a registered professional engineer submit to the EPA certification that the surface impoundment has been closed in accordance with the approved closure plan.

Cost: $1,640 Estimated date of completion: week 68

CLOSURE OF PROPOSED WASTE PILE

STEP 1 - INITIAL SCOPE OF WORK

After reviewing processes, present and proposed chemical use and accumulation CEMATCO develops a closure plan specific for the proposed waste pile according to 40 CFR Parts 264 and 265.

Cost: Paid Completed as of November 8, 1985

STEP 2 - SAMPLING

10 samples are taken from the waste pile following methods approved by the EPA.

Cost: $500 Estimated date of completion: week 2

STEP 3 - ANALYSIS

The following analysis is performed on the samples according to methods approved by the EPA:

Composite samples into one sample
EP toxicity
Total zinc
pH of a 1% solution
Density and general parameters

Cost: $600 Estimated date of completion: week 6

STEP 4 - MANAGEMENT STRATEGY

The results of the previous steps are reviewed and the optimum processing strategy is determined.

Cost: $240 Estimated date of completion: week 7

STEP 5 - PROCESSING OF WASTE PILE B

Chemetco processes the material in the waste pile by adding it gradually to the smelter or mixing tank.

Cost: $1,000 Estimated date of completion: week 11

STEP 6 - DECONTAMINATION OF CONTAINMENT AREA

The storage area is washed down with high pressure hot water until all visible foreign material is removed. The rinse water is collected and contained for sampling and analysis.

Cost: $1,000 Estimated date of completion: week 13

STEP 7 - SAMPLING OF RINSE WATER

A sample is taken of the rinse water following methods approved by the EPA.

Cost: $250 Estimated date of completion: week 14

STEP 8 - ANALYSIS OF RINSE WATER

The following analysis is performed on the rinse water according to methods approved by the EPA:

Total metals
Total suspended solids
pH
Density and general parameters

Cost: $550 Estimated date of completion: week 19

STEP 9 - MANAGEMENT STRATEGY

The results of the previous steps are reviewed and the optimum processing strategy is determined.

Cost: $120 Estimated date of completion: week 20

STEP 10 - PROCESSING OF RINSE WATER

Chemetco processes the rinse water by adding it to the water used in the scrubbers.

Cost: $1,000 Estimated date of completion: week 24

STEP 11 - MANAGEMENT AND REPORTING

The progress of the closure will be documented through manifests, invoices and reports to the EPA.

Cost: $2,400 Estimated date of completion: week 25

STEP 12 - CERTIFICATION

Chemetco and a registered professional engineer submit to the EPA certification that the waste pile has been closed in accordance with the approved closure plan.

Cost: $1,640 Estimated date of completion: week 29

CLOSURE OF EAST DRYING BUNKER

STEP 1 - INITIAL SCOPE OF WORK

After reviewing processes, chemical use and accumulation CEMATCO develops a closure plan specific for the drying bunker according to 40 CFR Parts 264 and 265.

Cost: paid Complete as of November 8, 1985

STEP 2 - SAMPLING

12 samples are taken from the drying bunker (splitting it into an 8' x 6' grid).

Cost: $600 Estimated date of completion: week 2

STEP 3 - ANALYSIS

The following analysis is performed on the samples according to methods approved by the EPA:

Composite samples into one sample
EP toxicity
Zinc
pH of a 1% solution
Density and general parameters

Cost: $740 Estimated date of completion: week 6

STEP 4 - MANAGEMENT STRATEGY

The results of the previous steps are reviewed and the optimum processing strategy is determined.

Cost: $240 Estimated date of completion: week 7

STEP 5 - PROCESSING OF MATERIAL FROM DRYING BUNKER

Chemetco will process the material on-site by adding it gradually to the mixing tank.

Cost: $1,000 Estimated date of completion: week 15

STEP 6 - SAMPLING OF SOIL

Once the waste is removed, 12 soil samples are taken from the perimeter of the bunker.

Cost: $600 Estimated date of completion: week 16

STEP 7 - ANALYSIS OF SOIL

The following analysis is performed on the soil samples according to methods approved by the EPA:

EP toxicity
pH of a 1% solution
Density and general parameters

Cost: $740 Estimated date of completion: week 20

STEP 8 - REGULATORY CONSTRAINTS

Federal, state and local regulations are reviewed as they apply to the soil.

Cost: $100 Estimated date of completion: week 21

STEP 9 - DISPOSAL APPLICATIONS

Applications are made to disposal facilities such as Chemical Waste Management for disposal of the soil.

Cost: $100 Estimated date of completion: week 22

STEP 10 - MANAGEMENT STRATEGY

The results of the previous steps are reviewed and the optimum disposal strategy is determined.

Cost: $240 Estimated date of completion: week 25

STEP 11 - LOADING, TRANSPORTATION AND DISPOSAL OF SOIL

The contaminated soil is excavated and loaded onto a permitted truck. The soil is transported to an approved disposal facility such as Chemical Waste Management. Cost is based on 50 cubic yards of soil.

Cost: $10,000 Estimated date of completion: week 27

STEP 12 - DECONTAMINATION OF STORAGE BUNKER AND EQUIPMENT

The storage bunker and equipment are washed with high pressure hot water until all visible foreign material is removed. The rinse water is collected and contained for sampling and analysis.

Cost: $1,000 Estimated date of completion: week 28

STEP 13 - SAMPLING OF RINSE WATER

A sample of the rinse water is taken following methods approved by the EPA.

Cost: $100 Estimated date of completion: week 28

STEP 14 - ANALYSIS OF RINSE WATER

The following analysis is performed on the rinse water according to methods approved by the EPA:

Total metals
Total suspended solids
pH
Density and general parameters

Cost: $550 Estimated date of completion: week 32

STEP 15 - MANAGEMENT STRATEGY

The results of the previous steps are reviewed and the strategy for processing the rinse water is determined.

Cost: $240 Estimated date of completion: week 33

STEP 16 - PROCESSING OF RINSE WATER

Chemetco processes the rinse water on-site by adding it to the water used in the scrubbers.

Cost: $1,000 Estimated date of completion: week 37

STEP 17 - MANAGEMENT AND REPORTING

Progress of the closure will be monitored and documented through manifests, invoices and reports to the EPA.

Cost: $800 Estimated date of completion: week 38

STEP 18 - CERTIFICATION

Chemetco and a registered professional engineer submit to the EPA certification that the east drying bunker has been closed in accordance with the approved closure plan.

Cost: $180 Estimated date of completion: week 42

CLOSURE OF PLATE FILTER PRESSES

STEP 1 - INITIAL SCOPE OF WORK

After reviewing processes, current and projected chemical use and accumulation, CEMATCO develops a closure plan specific for the plate presses according to 40 CFR Parts 264 and 265.

Cost: paid Completed as of November 8, 1985

STEP 2 - DECONTAMINATION OF PLATE PRESSES

The plate presses are washed with high pressure hot water until all visible foreign material is removed. The rinse water is collected and contained for sampling and analysis.

Cost: $1,000 Estimated date of completion: week 2

STEP 3 - SAMPLING OF RINSE WATER

A sample of the rinse water is taken.

Cost: $100 Estimated date of completion: week 4

STEP 4 - ANALYSIS OF RINSE WATER

The following analysis is performed according to methods approved by the EPA:

Total metals
Total suspended solids
pH
Density and general parameters

Cost: $550 Estimated date of completion: week 8

STEP 5 - MANAGEMENT STRATEGY

The results of the previous steps are reviewed and the optimum processing strategy is determined.

Cost: $120 Estimated date of completion: week 9

STEP 6 - PROCESSING OF RINSE WATER

Chemetco processes the rinse water by adding it to the water used in the scrubbers.

Cost: $1,000 Estimated date of completion: week 13

STEP 7 - MANAGEMENT AND REPORTING

Progress of the closure is monitored and documented through manifests, invoices and reports to the EPA.

Cost: $240 Estimated date of completion: week 14

STEP 8 - CERTIFICATION

Chemetco and a registered professional engineer submit to the EPA certification that the plate presses have been closed in accordance with the approved closure plan.

Cost: $180 Estimated date of completion: week 18

CLOSURE OF BELT PRESS

STEP 1 - INITIAL SCOPE OF WORK

After reviewing processes, current and projected chemical use and accumulation, CEMATCO develops a closure plan specific for the belt filter press according to 40 CFR Parts 264 and 265.

Cost: paid Complete as of November 8, 1985

STEP 2 - DECONTAMINATION OF BELT PRESS

The belt press is washed with high pressure hot water until all visible foreign material is removed. The rinse water is collected and contained for sampling and analysis.

Cost: $1,000 Estimated date of completion: week 2

STEP 3 - SAMPLING OF RINSE WATER

A sample of the rinse water is taken.

Cost: $100 Estimated date of completion: week 4

STEP 4 - ANALYSIS OF RINSE WATER

The following analysis is performed according to methods approved by the EPA:

Total metals
Total suspended solids
pH
Density and general parameters

Cost: $550 Estimated date of completion: week 8

STEP 5 - MANAGEMENT STRATEGY

The results of the previous steps are reviewed and the optimum processing strategy is determined.

Cost: $120 Estimated date of completion: week 9

STEP 6 - PROCESSING OF RINSE WATER

Chemetco processes the rinse water by adding it to the water used in the scrubbers.

Cost: $1,000 Estimated date of completion: week 13

STEP 7 - MANAGEMENT AND REPORTING

Progress of the closure is monitored and documented through manifests, invoices and reports to the EPA.

Cost: $240 Estimated date of completion: week 14

STEP 8 - CERTIFICATION

Chemetco and a registered professional engineer submit to the EPA certification that the belt press has been closed in accordance with the approved closure plan.

Cost: $180 Estimated date of completion: week 18

CLOSURE OF CONTAINER STORAGE AREA

STEP 1 - INITIAL SCOPE OF WORK

After reviewing processes, present and projected chemical use and accumulation CEMATCO develops a closure plan specific for the container storage area according to 40 CFR Parts 264 and 265.

Cost: paid Complete as of November 8, 1985

STEP 2 - SAMPLING

An estimated 120 drums will be sampled according to methods approved by the EPA.

Cost: $2,600 Estimated date of completion: week 3

STEP 3 - ANALYSIS

The following analysis is performed according to methods approved by the EPA:

Liquids
Total suspended solids
EP toxicity
Flashpoint
pH
Density and general parameters

Solids
EP toxicity
pH of a 1% solution
Density and general parameters

Cost: $10,000 Estimated date of completion: week 11

STEP 4 - REGULATORY CONSTRAINTS

Federal, state and local regulations are reviewed as they apply to the waste.

Cost: $100 Estimated date of completion: week 12

STEP 5 - RECYCLE/DISPOSAL APPLICATION

Applications are made to commercial recyclers and to disposal facilities such as Chemical Waste Management for the recycling and disposal of the solids and liquids.

Cost: $200 Estimated date of completion: week 16

STEP 6 - MANAGEMENT STRATEGY

The results of the previous steps are reviewed and the optimum disposal strategy is determined.

Cost: $1,200 Estimated date of completion: week 17

STEP 7 - LOADING, TRANSPORTATION AND RECYCLE/DISPOSAL

The waste is loaded into a permitted truck(s), either in containers or in bulk form, and is transported to an approved disposal facility(s) such as Chemical Waste Management. (Cost is based on 120 drums.)

Cost: $10,000 Estimated date of completion: week 20

STEP 8 - DECONTAMINATION OF CONTAINER STORAGE AREA

The container storage area is washed down with high pressure hot water until all visible foreign material is removed. The rinse water is collected and contained for sampling and analysis.

Cost: $1,000 Estimated date of completion: week 21

STEP 9 - SAMPLING OF RINSE WATER

A sample of the rinse water is taken following methods recommended by the EPA.

Cost: $100 Estimated date of completion: week 23

STEP 10 - ANALYSIS OF RINSE WATER

The following analysis is performed on the rinse water according to methods approved by the EPA:

Total metals
Total suspended solids
pH
Density and general parameters

Cost: $550 Estimated date of completion: week 27

STEP 11 - REGULATORY CONSTRAINTS

Federal, state and local regulations are reviewed as they apply to the container storage area rinse waters.

Cost: $100 Estimated date of completion: week 28

STEP 12 - MANAGEMENT STRATEGY

The results of the previous steps are reviewed and the optimum processing strategy is determined.

Cost: $120 Estimated date of completion: week 29

STEP 13 - PROCESSING OF RINSE WATER

Chemetco will process the rinse water on-site by adding it to the water used in the scrubbers.

Cost: $1,000 Estimated date of completion: week 33

STEP 14 - MANAGEMENT AND REPORTING

Progress of the closure is monitored and documented through manifests, invoices and reports to the EPA.

Cost: $1,200 Estimated date of completion: week 34

STEP 15 - CERTIFICATION

Chemetco and a registered professional engineer submit to the EPA certification that the container storage area has been closed in accordance with the approved closure plan.

Cost: $180 Estimated date of completion: week 38

CLOSURE OF SETTLING PONDS

STEP 1 - INITIAL SCOPE OF WORK

After reviewing processes, current and projected chemical use and accumulation CEMATCO develops a closure plan specific for the settling ponds according to 40 CFR Parts 264 and 265.

Cost: paid Complete as of November 8, 1985

STEP 2 - SAMPLING

Five samples are taken from each pond.

Cost: $250 Estimated date of completion: week 2

STEP 3 - ANALYSIS

The following analysis is performed on the samples according to methods approved by the EPA:

Composite samples into one sample
EP toxicity
Total suspended solids
pH
Density and general parameters

Cost: $575 Estimated date of completion: week 6

STEP 4 - MANAGEMENT STRATEGY

The results of the previous steps are reviewed and the optimum processing strategy is determined.

Cost: $240 Estimated date of completion: week 7

STEP 5 - PROCESSING OF SETTLING POND WATER

Chemetco will process the water on-site by adding it gradually to the mixing tank.

Cost: $1,000 Estimated date of completion: week 15

STEP 6 - DECONTAMINATION OF PONDS

The ponds are washed down with high pressure hot water until all visible foreign material is removed. The rinse water is collected and contained for sampling and analysis.

Cost: $800 Estimated date of completion: week 17

STEP 7 - SAMPLING OF RINSE WATER

A sample of the rinse water is taken following methods recommended by the EPA.

Cost: $100 Estimated date of completion: week 19

STEP 8 - ANALYSIS OF RINSE WATER

The following analysis is performed on the rinse water according to methods approved by the EPA:

Total metals
Total suspended solids
pH
Density and general parameters

Cost: $550 Estimated date of completion: week 23

STEP 9 - MANAGEMENT STRATEGY

The results of the previous steps are reviewed and the optimum processing strategy is determined.

Cost: $240 Estimated date of completion: week 24

STEP 10 - PROCESSING OF RINSE WATER

Chemetco processes the rinse water by adding it to the water used in the scrubbers.

Cost: $1,000 Estimated date of completion: week 32

STEP 11 - MANAGEMENT AND REPORTING

Progress of the closure will be monitored and documented through manifests, invoices and reports to the EPA.

Cost: $1,000 Estimated date of completion: week 20

STEP 12 - CERTIFICATION

Chemetco and a registered professional engineer submit to the EPA certification that the settling ponds have been closed in accordance with the approved closure plan.

Cost: $180 Estimated date of completion: week 24

CLOSURE OF CANAL

STEP 1 - INITIAL SCOPE OF WORK

After reviewing processes, chemical use and accumulation CEMATCO develops a closure plan specific for the canal according to 40 CFR Parts 264 and 265.

Cost: paid Complete as of November 8, 1985

STEP 2 - EXCAVATION OF CANAL BOTTOMS

Chemetco removes the bottoms from the canals and puts them into the zinc oxide surface impoundment for storage until they can be processed.

Cost: paid Complete as of November 8, 1985

STEP 3 - DECONTAMINATION OF EQUIPMENT

All visible material is scraped off the equipment and added to the zinc oxide surface impoundment.

Cost: paid Complete as of November 8, 1985

STEP 4 - SAMPLING OF SOIL

23 soil samples are taken from the canals, one every 100-150 yards.

Cost: paid Complete as of November 8, 1985

STEP 5 - ANALYSIS OF SOIL

The following analysis is performed on the soil samples according to methods approved by the EPA.

EP toxicity

Cost: $1,600 Estimated date of completion: week 4

STEP 6 - REGULATORY CONSTRAINTS

Federal, state and local regulations are reviewed as they apply to the canal.

Cost: $100 Estimated date of completion: week 5

STEP 7 - FILLING OF CANALS

The canals are filled with nonhazardous slag material.

Cost: paid Complete as of November 8, 1985

STEP 8 - MANAGEMENT AND REPORTING

Progress of the closure is documented by a report(s) to the EPA.

Cost: $360 Estimated date of completion: week 5

STEP 9 - CERTIFICATION

Chemetco and a registered professional engineer submit to the EPA certification that the canal has been closed in accordance with the approved closure plan.

Cost: $180 Estimated date of completion: week 11

Schedule Summary for Closure Plans

Facility Component	Weeks to Complete Closure
Zinc Oxide Surface Impoundment	Preclosure - 5 years Closure - 68 weeks
Waste Pile	29 weeks
Storage & Processing Tanks	60 weeks
East Drying Bunker	42 weeks
Plate Filter Presses	18 weeks
Belt Press	18 weeks
Container Storage Area	38 weeks
Settling Ponds	24 weeks
Canal	11 weeks

END OF SCHEDULE "A"

Cost Summary for Closure

Facility Component	Total Cost for Closure
Zinc Oxide Surface Impoundment	Preclosure - $13,360 Closure - $35,660
Waste Pile	$ 9,300
Storage & Processing Tanks	$12,730
East Drying Bunker	$18,230
Plate Filter Presses	$ 3,190
Belt Press	$ 3,190
Container Storage Area	$28,350
Settling Ponds	$ 5,935
Canal	$ 2,240

132185

$40,000.00 deposited with Trustee on March 25, 1986.

FIRST NATIONAL BANK & TRUST COMPANY

By _____
Its Senior Trust Officer

SCHEDULE "B"

EXHIBIT A

John Suarez

Joel McKell

Thomas McRaven