



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

77 W. JACKSON BLVD
CHICAGO, IL 60604

14 JUN 2013

MEMORANDUM

SUBJECT: Enforcement Action Memorandum – Determination of Threat to Public Health and/or the Environment at the Chemetco Site, Madison County, Hartford, Illinois (Site ID #B5HB)

FROM: Kevin Turner, OSC
Emergency Response Branch 1

THRU: Jason H. El-Zein, Chief
Emergency Response Branch 1

TO: Richard C. Karl, Director
Superfund Division

I. PURPOSE

This Action Memorandum documents the determination of an imminent and substantial threat to public health and the environment and is necessary for approval to conduct a time-critical removal action at the Chemetco Superfund site in Hartford, Madison County, Illinois (the Site). The location of the Site within Illinois is depicted in Figure 1, attached hereto. The response actions proposed herein are necessary in order to mitigate threats to public health, welfare, or the environment posed by the presence of slag and scrubber sludge contaminated with lead, cadmium, copper, and zinc compounds at the Site. EPA has documented the release of heavy metals at concentrations which necessitate this removal action.

The time-critical removal action proposed herein includes the following activities, to be implemented by the Trustee for the Estate of Chemetco (“bankruptcy Trustee” or “Trustee”):

- Take all necessary steps to implement source control of the slag and scrubber sludge. Source control may include surface water and storm water control measures to control off-Site migration; and
- Backfill any excavated areas to effectuate storm water control with clean fill and grade Site as necessary.

The Chemico Metals Corporation was established on June 9, 1969, and was merged into a Delaware corporation of the same name on March 23, 1970. Smelting operations began at the facility in 1970. In March 1972, the company began production of copper in cathode form and

in the next year changed its name to Chemetco. The Chemetco plant was an interim status Resource Conservation and Recovery Act (RCRA) facility, containing several RCRA Hazardous Waste Management Units, including a 900,000 ton and approximately 450,000 cubic yard (cy) slag pile and a 35,000 ton and approximately 62,000 cy scrubber sludge bunker, both of which tested hazardous for lead and cadmium. Four other Hazardous Waste Management Units are known to still exist at the Site, the zinc oxide (dirt) pits, the acid pits, the cooling canals, and the north and east perimeter canals¹.

During its operation, Chemetco had a long history of criminal and civil environmental non-compliance at its facility, and lengthy dealings with both the State and federal environmental agencies. In 1999, the United States obtained criminal convictions of Chemetco and six of its managers for charges related to causing the unpermitted discharge of untreated zinc oxide slurry waste ("zinc oxide release") from its facility into adjacent Long Lake. The company was sentenced to pay a penalty of \$3,327,500 and implement a State approved zinc oxide release closure plan for Long Lake.

After the criminal action on October 16, 2001, the United States and State of Illinois filed a consolidated civil Complaint against Chemetco to address the Clean Water Act (CWA) violations, the zinc oxide release, and RCRA waste handling noncompliance at the Site.² In this Complaint, the United States sought RCRA corrective action to address releases from the Site, compliance with applicable CWA storm water and Section 404 requirements, and civil penalties. Illinois sought to recover response costs under the State's Superfund law at 415 ILCS 5/1 (2002) that it incurred in responding to the unpermitted Long Lake zinc oxide release, among other claims for injunctive relief and penalties.

Chemetco filed a petition for Chapter 7 bankruptcy in 2001 and the bankruptcy Trustee for the Site is currently liquidating the assets of the estate. Between 2002 and 2008, the Trustee engaged in negotiations with slag reprocessors to sell on-Site materials for metals reclamation or scrap, with limited success. In 2008, the Trustee negotiated the terms of an Interim Order filed in the District Court and signed by the State of Illinois to govern work plans related to the demolition of the smelter and to allow the sale of accumulated scrap assets on the Site. The Illinois EPA (IEPA) is the lead oversight agency for work at the Chemetco Site under the Interim Order. The proposed Consent Decree with the Trustee and a reprocessor (see Enforcement Addendum attached) will replace the Interim Order, with EPA in the lead for all actions at the Site.

¹ See Closure and Post-Closure Plans, Chemetco, Inc. Facility, Hartford, Illinois by ENSR Consulting and Engineering, January 1991 and approved by Illinois EPA.

² On September 29, 1997, EPA Region 5 transmitted a Litigation Report to the Department of Justice (DOJ) documenting Chemetco's CWA and RCRA liability stemming from its unauthorized discharge of zinc oxide slurry and unpermitted disposal/storage of other hazardous wastes on its facility. DOJ filed the October 16, 2001 complaint pursuant to Sections 301(a) and 309(b) and (d) of the CWA, 33 U.S.C. §§ 1311(a) and 1319(b) and (d), and Section 3008(a), (g) and (h) of the RCRA, 42 U.S.C. § 6928(a), (g) and (h). In particular, the complaint alleged that Chemetco: (1) violated the provisions of a National Pollution Discharge Elimination System ("NPDES") storm water permit; (2) discharged pollutants into waters of the U.S. without an NPDES permit; (3) discharged pollutants into wetlands without a CWA Section 404 permit; (4) failed to comply with an CWA Administrative Order; (5) disposed of hazardous waste, in the form of (a) cadmium- and lead-bearing slurry and (b) lead-hazardous refractory brick and gunning material, without obtaining a permit, in violation of RCRA; (6) failed to determine whether certain lead-bearing solid waste slag stored at the Chemetco facility was a hazardous waste; and (7) stored and/or disposed of hazardous waste, in the form of lead-bearing slag, without obtaining a permit, in violation of RCRA.

The time-critical removal response actions will be conducted by the bankruptcy Trustee, in accordance with Section 104(a)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9604(a)(1) and Section 300.415 of the National Oil and Hazardous Substance Pollution Contingency Plan (NCP, 40CFR 300.415, to abate or eliminate the immediate threat posed to public health and/or the environment by the presence of the hazardous substances on the Site. The uncontrolled conditions of the hazardous substances present at the Site require that this action be classified as a time-critical removal action. This action of preventing storm water and migration from the Site will be implemented so long as metal bearing material sales or processing take place on the Site, a period planned to be five years but which could last as long as seven. At that time, the Region anticipates that a potentially responsible party will conduct these actions and/or other remedial actions required by EPA.

There are no nationally significant or precedent setting issues associated with the Site. The Chemetco Site is listed on the National Priorities List (NPL).

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID: ILD 048843809

Category: Removal Action

Chemetco was a secondary copper smelter. Heavy metals (primarily lead, cadmium, copper, and zinc) are found throughout the Site, including groundwater, in adjacent wetlands, and in sediments of Long Lake from past waste handling practices at Chemetco's plant in Hartford, Illinois. Contamination extends approximately two miles downstream of the Chemetco facility, in Long Lake. Long Lake is a tributary of the Mississippi River. These contaminants have been attributed to Chemetco. In 2002 and 2008, IEPA performed Preliminary Assessments/Expanded Site Inspections (PA/SI), and in 2008 the Site was scored for inclusion on the National Priorities List (NPL). EPA listed the Site in March 2010; it scored based on the surface water pathway overland flow migration mechanism for three contaminant sources (slag piles, zinc oxide scrubber sludge bunker, and truck parking lot). Probable points of wetland contamination to Long Lake and/or contiguous wetlands are indicated on the attached Figure 3.

A. Site Description

1. Removal Site Evaluation

The Chemetco facility is just south of the Village of Hartford, Madison County, Illinois, in the southwestern portion of the state. The former Chemetco property occupied over 230 acres of land, but operated the smelter facility on 41 acres. For the purposes of this Action Memo the facility will be defined as the 41 acres where the company operated. The company filed for Chapter 7 bankruptcy and is currently being managed by a court appointed trustee. The property contains a tank house, former dome building, fines building, receiving building, laboratory, commercial offices, plant offices, and the mobile shop. The 41-acre property is currently fenced and is sealed by order of IEPA (Figure 2).

Although Chemetco had the capabilities for producing copper cathodes from copper oxide ores or precipitates, its major function was secondary processing of copper-bearing scrap and manufacturing residues. Much of the raw material consisted of electrical devices or equipment or cable, but a certain percentage was composed of such items as skimmings, slag, turnings, grindings and other residues from foundries and factories, auto parts and building components. A premix consisting of the copper-bearing raw material and other ingredients was smelted in one of the furnaces in the first step of the process, producing black copper (containing small amounts of lead, tin and zinc). The black copper was further refined in the same type furnace utilizing blown oxygen, producing copper along with zinc oxide and a refining slag that was rich in lead and tin and contained some nickel.

Slag/Scrubber Sludge

Approximately 450,000 cubic yards of slag material have been stockpiled on the northeast corner of the facility property, covering approximately 13 acres. Approximately 62,000 cubic yards of zinc oxide (scrubber sludge) has been located on the facility property, including a 2.5 acre concrete bunker at the north end of the facility. In May 1998, EPA collected 20 slag samples and four scrubber sludge samples. All slag samples failed the lead TCLP regulatory limit of 5 mg/L (range 12-80 mg/L), and two failed the cadmium TCLP regulatory limit of 1 mg/L (1.1 and 1.3 mg/L). All four scrubber sludge samples failed TCLP for lead (9-213 mg/L) and cadmium (8-24 mg/L). In 2002 and 2008, IEPA data showed elevated levels of total lead and total cadmium. Total lead ranged from 7,800 to 27,900 mg/kg in the slag pile and 29,400 to 152,000 mg/kg in scrubber sludge. Total cadmium ranged from 793 to 3660 mg/kg in scrubber sludge. One sludge sample from the Estate of Chemetco showed lead to be at 102,698 mg/kg and cadmium to be at 5,350 mg/kg.

The former truck parking lot located just south of the main facility property is composed of slag material and possibly spent refractory brick. The parking lot was built in 1980 and occupies approximately 8 acres of land just north of Long Lake.

Surface Water

The data support that Site contaminants have or have the potential to migrate off Site via a surface water pathway. Three surface water samples collected from the wetland area south of the facility contained a mean lead concentration of 9,194 µg/L lead and 291 µg/L cadmium. One of the surface water samples which were collected from the east agricultural field runoff area near to the slag pile contained 4,350 µg/L lead and 20 µg/L cadmium. The final surface water sample was collected from a storm water and non-contact cooling water pond on the Site. This storm water pond contained 9,040 µg/L lead and 405 µg/L cadmium.

Sediments

In May 1998, EPA collected eight sediment samples. Three Long Lake sediment samples contained a mean concentration of lead of 712 mg/kg and a mean concentration of cadmium of 324 mg/kg. Three sediment samples were collected from the wetland area south of the facility and contained a mean concentration of 270 mg/kg lead and 7 mg/kg cadmium. One of the

sediment samples which were collected from the east agricultural field runoff area near to the slag pile contained 1,490 mg/kg lead and 9 mg/kg cadmium. The final sediment sample was collected from a storm water and non-contact cooling water pond on the Site. This pond contained 22,600 mg/kg lead and 3,450 mg/kg cadmium.

In 2002, IEPA took 10 sediment samples in Long Lake and observed concentrations of lead from 42-403 mg/kg and concentrations of cadmium from 8-77 mg/kg. The background sediment sample contained 50 mg/kg lead and 1 mg/kg cadmium.

In May 2008, IEPA collected 24 sediment samples from Long Lake and observed concentrations of lead from 20-9,410 mg/kg and concentrations of cadmium from 1-3,760 mg/kg. The background sediment sample contained 50 mg/kg lead and 6 mg/kg cadmium. Cadmium was elevated (three times background concentration) approximately two miles downstream of the facility.

Farm Fields

Soil sampling from the farm fields near the Site revealed that lead and cadmium have migrated off Site. The highest lead concentration was 2,380 mg/kg and cadmium at 19 mg/kg. During these 1998 sampling events, EPA measured background for lead at 56 mg/kg and cadmium at 1 mg/kg, thereby demonstrating off-Site migration.

2. Physical Location

Main Site operations were conducted within a 41-acre area, but Chemetco also owned hundreds of acres of surrounding farm land. Over the 30 years of plant operations, some of this property was acquired to settle disputes with nearby farmers. The Mississippi River and two tributaries, the Cahokia Canal and Long Lake, are within 1 mile of the Site (Figure 1).

The Chemetco Site is in the American Bottoms flood plain near the Mississippi River in Madison County, Illinois. The village of Hartford (population 1,429), Madison County, Illinois, approximately 1 mile north of the Site (Bureau of the Census 2010), was the former mailing address of the Site. The geographical coordinates for the Site are 38.799° North latitude and -90.098° West longitude. The nearest residential area is Mitchell, a small community approximately ½ mile southeast. The Site is above an aquifer that is a source of municipal, industrial, and agricultural water for several nearby communities including Edwardsville, Hartford, Roxana, and Wood River.

The area surrounding the Site was screened for Environmental Justice (EJ) concerns using Region 5's EJ Assist Tool (which applies the interim version of the national EJ Strategic Enforcement Assessment Tool (EJSEAT)). Census tracts with a score of 1, 2, or 3 are considered to be high-priority potential EJ areas of concern according to EPA Region 5. The Site is in a census tract with a score of 5. Therefore, Region 5 does not consider this Site to be a high-priority potential EJ area of concern. Please refer to the attached analysis for additional information (Attachment A).

3. Site Characteristics

As shown through IEPA's PA/SI sampling, heavy metals have been detected in storm water and soil throughout the Site at concentrations that may pose a potential risk to human health or the environment under some exposure conditions. The slag pile poses an exposure risk to human populations of heavy metals and acts as a continuing source of contaminant release to the environment.

There are no caps or liners on the slag pile, sludge bunker, or parking area to help prevent the contaminants from being spread off- Site via surface water migration pathways.

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

As shown through IEPA's PA/SI sampling, heavy metals have been detected in storm water and soil throughout the Site at concentrations that may pose a potential risk to human health or the environment under some exposure conditions. The slag pile poses an exposure risk to human populations of heavy metals and acts as a continuing source of contaminant release to the environment. The Chemetco Hazard Ranking System (HRS) score was based solely on the surface water pathway and was due to overland flow migration from three principal contaminant sources, referred to as probable points of contaminant entry. The slag pile(s) was one of those sources. As evidenced within this HRS documentation record, slag and zinc oxide material contained cadmium, copper, lead and zinc. The slag piles do not have a complete, maintained, engineered cover. Run-off from the slag piles is allowed to drain to the west and south. Surface water draining to the west enters the cooling lagoons. The surface water draining to the south enters a concrete lined ditch which diverts the surface water to a holding basin. During IEPA's April 1, 2008 reconnaissance, the water holding basin was overflowing and surface water was draining into the wetlands adjacent to Long Lake. Wetlands are present along Long Lake and its tributary. A portion of Long Lake is located alongside a residential neighborhood. Analytical data from the 2008 PA/SI sampling event support observed releases to Long Lake. Cadmium, copper, lead and zinc were present in the sources associated with Chemetco and were also documented to be present in the release samples of sediment. According to the HRS score, leached cadmium presents the greatest risk for ecosystem toxicity, persistence, and bioaccumulation in the sensitive wetlands environment adjacent to the Chemetco facility. The probable point of contaminant entry associated with the documented release from the slag pile is in a designated wetland.

5. NPL status

The Chemetco Site was listed on the National Priorities List ("NPL") pursuant to CERCLA Section 105, 42 U.S.C. § 9605, on March 4, 2010 (75 Fed. Reg. 9782 (March 4, 2010)).

6. Maps, pictures and other graphic representations

Figure 1 - Site Location Map; Figure 2- Site Aerial Map; Figure 3 - Wetlands Map:

**Figure 4 – Chemetco Photo Log: Attachment A - Environmental Justice (EJ) Analysis:
Attachment B – Administrative Record Index**

B. Other Actions to Date

1. Previous Actions

The following is a chronological list of recent significant actions that have taken place at the Chemetco Site:

- a. In September 1996, IEPA discovered during a RCRA inspection a secret, unpermitted 10-inch drain pipe discharging zinc oxide slurry from the Chemetco facility. The zinc oxide slurry release was reported to National Response Center and Illinois Emergency Management Agency.

The following is an excerpt from the State of Illinois complaint regarding the illegal 10-inch drain pipe:

“...in 1996 the government discovered a ten-inch discharge pipe illegally discharging process wastewater and contaminated storm water into an area which entered a tributary of Long Lake. This discharge contained zinc oxide slurry. The discharge area is approximately 300 feet long by 450 feet wide. Wetlands which are located along Long Lake have been impacted by the contamination. During excavation activities in response to the discovery of the illegal discharge, layers of zinc oxide material were found to a depth of 6 feet in Long Lake indicating the area appeared to be impacted from historical mismanagement of zinc oxide. In 2002, Illinois EPA documented significant contamination of the facility and two miles of contamination in the sediments downstream of the facility in Long Lake. Contaminants of initial concern include heavy metals such as cadmium, copper, lead, and zinc. In early 2008, Illinois EPA documented high levels of heavy metals in soils on and near the facility.”

- b. In 2002, IEPA conducted a PA/SI in order to gain a basic understanding of any risks posed to human health and/or the environment by releases or threatened releases from the Site.
- c. In 2008, IEPA conducted an Expanded Site Inspection to further characterize any risks posed to human health and/or the environment by releases or threatened releases from the Site, and to support scoring the Site with EPA’s Hazard Ranking System for proposal to the National Priorities List.

2. Current Actions

On September 16, 2008, the Trustee and State of Illinois entered into an Interim Order which authorized the Trustee to undertake certain work at the Facility, in an effort to continue liquidation of the Facility Assets. Under the Interim Order, the Trustee, with Paradigm as performing contractor, demolished and scrapped the main foundry building and the interior of

the tank house, involving the salvage of over 3,700 tons of metals associated with the former structures and disposal of over 26,000 gallons of oils and liquids in addition to over 1,100 tons of waste; executed asset sales that significantly reduced the presence of over 11,000 tons and 4,000 gallons of potentially contaminated source material; sold three of the facility's four furnaces; and clean closed two RCRA solid waste management units at the facility (the American Air Filter System and Brick Shop). Though this Interim Order is still currently active, it is anticipated to be closed once the proposed Consent Decree is in place.

These current actions related to liquidating Site assets (including metal bearing materials) reduce contamination source areas as well as enable the Trustee to continue to fund actions designed to prevent releases at the Site. Without such funding, the Trustee likely would be obligated to abandon the Site under applicable bankruptcy laws, leaving the Site unsecured and prone to causing releases of hazardous substances present on the Site.

C. State and Local Authorities' Roles

On December 4, 2001, IEPA issued a Seal Order for the Site, pursuant to Section 34 of the State Act. This Order was filed with the Bankruptcy Court on December 8, 2001. IEPA responded to the criminal discharge of scrubber sludge into Long Lake in 1996, and conducted the Site inspections to provide data for scoring the Site for inclusion on the NPL (2002, 2008). IEPA will be responsible for closing out completed work plans initiated under the Interim Order. EPA will continue to consult with IEPA as a co-plaintiff in the government's civil action and a support agency.

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

The conditions at the Chemetco Site present a threat to the public health or welfare, and the environment, and meet the criteria for a time-critical removal action as provided for in the NCP, 40 CFR § 300.415(b)(2). These criteria include, but are not limited to, the following:

Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;

Based on the sampling results, hazardous substances have been found in the slag and scrubber sludge at the Site. These constituents are considered hazardous based on the RCRA characteristics of toxicity for lead (D008) and cadmium (D006). These heavy metals are documented to have leached from the Site and have spread to downstream locations within the Long Lake stream channel (which is a tributary of the Mississippi River). These constituents may be deposited in locations where people and/or wildlife can come into direct contact with the contaminated sediments. Land immediately adjacent to the Site on the north and east sides is used for agriculture. Analytical data from these fields documented that contamination from Chemetco's waste migrated there. Chemetco has a history of trespassers coming onto the Site to vandalize or steal. Trespassing could result in contact with these hazardous substances. Potential exposure could occur through each of these contaminant migration pathways and cause imminent endangerment to human health and the environment.

Hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate or pose a threat of release;

Hazardous substances in the form of leached heavy metals from the slag have contaminated surface soils at the Site, as documented in the PA/SI reports. The extent of off-site surface soil contamination that may have migrated from the slag piles may be as large as 8 to 12 acres.

Actual or potential contamination of drinking water supplies or sensitive ecosystems;

Actual contamination from the Site has migrated and entered Long Lake and impacted sensitive wetland ecosystems, as documented in the HRS Summary.

Weather conditions that may cause hazardous substances, pollutants, or contaminants to migrate or be released;

Hartford, Illinois, receives an average yearly precipitation of 37.5 inches and an average yearly snowfall of 19.5 inches. In 2012, average temperatures ranged from 21 to 89 degrees Fahrenheit (°F). Exposure pathways include direct contact with heavy metals in the slag and/or scrubber sludge. Because of the extensive distribution of on-Site wastes, exposure to hazardous substances could occur from human activities and weather-influenced distribution, redistribution, and suspension of heavy metal dust.

Rain and storms leach metals from the slag into soils, groundwater, and surface water through sheet flow. Flooding events are not uncommon at the Site. IEPA and EPA observed Chemetco's storm water system overflowing and water draining into the wetlands adjacent to Long Lake. During precipitation events, storm water runoff is causing significant migration of contamination from the slag pile to the designated wetlands and downstream to Long Lake.

The availability of other appropriate federal or state response mechanisms to respond to the release;

IEPA does not have the resources to respond to the imminent threats at this Site. In 2009, EPA, DOJ, the Trustee and a metals reprocessor began to negotiate a settlement requiring actions to reduce hazardous waste source areas at the Site and to implement actions to prevent releases from the Site with oversight from the EPA Region 5 Superfund Division Removal Program.

IV. ENDANGERMENT DETERMINATION

Given the Site conditions, the nature of the known hazardous substances on-Site, and the potential exposure pathways described in Sections II and III above, actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response actions selected in this Memorandum, may present an imminent and substantial endangerment to public health, welfare, or the environment.

V. PROPOSED ACTIONS

A. Proposed Actions

1. Proposed action description

The response actions described in this memorandum directly address actual or potential releases of hazardous substances on-Site, which may pose an imminent and substantial endangerment to public health, welfare, or the environment. The OSC proposes the following actions to mitigate threats posed by the presence of hazardous substances at the Chemetco Site.

Removal activities on Site will include:

- a. Developing and implementing a Site Health and Safety Plan, including a Site contingency plan;
- b. Developing and implementing a Site security plan which may include access control measures (fencing, physical barriers, lighting, cameras, alarm systems, and patrols) as appropriate; and
- c. Developing and implementing a storm water source control plan sufficient to prevent migration of hazardous substances off Site.
- d. Storm water control measures may include operating sumps, pumps, perimeter canals, and retention ponds. Additional measures may be used or developed as needed to control storm water migration from the Site.

The removal action will be conducted in a manner not inconsistent with the NCP. The threats posed by the slag piles and scrubber sludge meet the criteria listed in 40 CFR § 300.415(b)(2) of the NCP and the response actions proposed herein are consistent with any long-term remedial actions which may be required. However, source controls of hazardous substances, pollutants and contaminants and solid wastes that pose a substantial threat of release are likely to reduce or eliminate the need for any long-term remedial actions. Moreover, elimination of hazardous substances, pollutants and contaminants and solid wastes that pose a substantial threat of release should greatly minimize requirements for substantial post-removal Site controls and would be consistent with the provisions of 40 CFR § 300.415(l) of the NCP.

Off-Site Rule

All hazardous substances, pollutants, or contaminants removed off-Site pursuant to this removal action for treatment, storage, and disposal shall be treated, stored, or disposed of at a facility in compliance, as determined by EPA, with the EPA Off-Site Rule, 40 CFR § 300.440.

2. Contribution to remedial performance:

The proposed removal action is in conjunction with long-term remedial action.

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

Not Applicable

4. Applicable or relevant and appropriate requirements (ARARs)

All applicable and relevant and appropriate requirements (ARARs) of Federal and State law will be complied with to the extent practicable. The choice to implement surface water source control as a response action allows EPA more control over the Site because it authorizes the application of ARARs to the Trustee's actions on the Site. Applying ARARs regulates activity on an NPL Site so that conditions are not worsened. ARARs will apply, at a minimum, to materials handling, waste disposal, and air emissions on the Site. Having this regulatory framework embodied in the proposed Consent Decree will ensure that actions taken on Site are in compliance with applicable laws and that the Trustee and metals reprocessor takes due care in their work on the Site. Additionally, if Paradigm does not follow the established ARARs, EPA has direct recourse under the terms of the decree, including imposition of stipulated penalties. This time-critical removal action is appropriate because the response action (source control) is already known; the slag acts as a continuing source of contaminant release, and contaminants already exist in the environment at unacceptable risk levels for human health and the sensitive ecosystem.

5. Project Schedule

The removal action required in this Action Memorandum will be implemented by the Trustee so long as metal bearing material sales or processing take place on the Site, a period planned to be five years but which could last as long as seven. At that time, the Region anticipates that a potentially responsible party will conduct these actions and/or other remedial actions required by EPA will be implemented.

The response actions described in this memorandum directly address actual or threatened releases of hazardous substances, pollutants or contaminants at the Site which may pose an imminent and substantial endangerment to public health and safety, and to the environment. These response actions do not impose a burden on the affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

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

Given the Site conditions, the nature of the hazardous substances and pollutants or contaminants documented on Site, and the potential exposure pathways to nearby populations described in Sections II, III and IV above, actual or threatened release of hazardous substances and pollutants or contaminants from the Site, failing to take or delaying action may present an imminent and substantial endangerment to public health, welfare or the environment. This will increase the potential that hazardous substances will be released, thereby threatening the adjacent population and the environment. Delayed or non-action may result in the increased likelihood of exposure

to hazardous substances through inhalation, ingestion or direct contact by human populations and/or environmental receptors at or near the Site.

VII. OUTSTANDING POLICY ISSUES

None.

VIII. ENFORCEMENT

For administrative purposes, information concerning confidential enforcement strategy for this Site is contained in the Enforcement Confidential Addendum.

IX. RECOMMENDATION

This decision document represents the selected removal action for the Chemetco Site, Hartford, Madison County, Illinois, developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP. This decision is based upon the Administrative Record for this Site (Attachment B). Conditions at the Site meet the 40 CFR § 300.415(b)(2) criteria for a removal action and I recommend your approval of the proposed removal action. Region 5 expects that the potentially responsible party will perform all removal actions under the oversight of the OSC. You may indicate your decision by signing below.

APPROVE Richard C Karl DATE: 6-14-13
Richard C. Karl, Director
Superfund Division

DISAPPROVE _____ DATE: _____
Richard C. Karl, Director
Superfund Division

Enforcement Addendum

Figures:

1. Site Location Map
2. Aerial Photo Map
3. Wetlands Map
4. Photo Log

Attachments:

- A. Environmental Justice Analysis
- B. Index to the Administrative Record

cc: S. Fielding EPA, 5203-G
L. Nelson, U.S. Department of Interior, **w/o Enf. Attachment**
(Lindy_Nelson@ios.doi.gov)
T. Crause, Illinois EPA, **w/o Enf. Addendum**
Illinois EPA
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

BCC PAGE HAS BEEN REDACTED

NOT RELEVANT TO SELECTION OF

REMOVAL ACTION

**ENFORCEMENT ADDENDUM
CHEMETCO SITE
HARDFORD, MADISON COUNTY, ILLINOIS
JUNE 2013**

**ENFORCEMENT SENSITIVE – DO NOT RELEASE –
NOT SUBJECT TO DISCOVERY – FIOA EXEMPT**

**HAS BEEN REDACTED
FIVE PAGES**

**ENFORCEMENT SENSITIVE
NOT APPLICABLE TO DISCOVERY
NOT RELEVANT TO SELECTION OF REMOVAL
ACTION**

ATTACHMENT A

**ENVIRONMENTAL JUSTICE ANALYSIS
CHEMETCO SITE
HARTFORD, MADISON COUNTY, ILLINOIS**

ATTACHMENT B

**U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION**

**ADMINISTRATIVE RECORD
FOR
CHEMETCO SITE
HARTFORD, MADISON COUNTY, ILLINOIS**

**ORIGINAL
MARCH 2013**

<u>NO.</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
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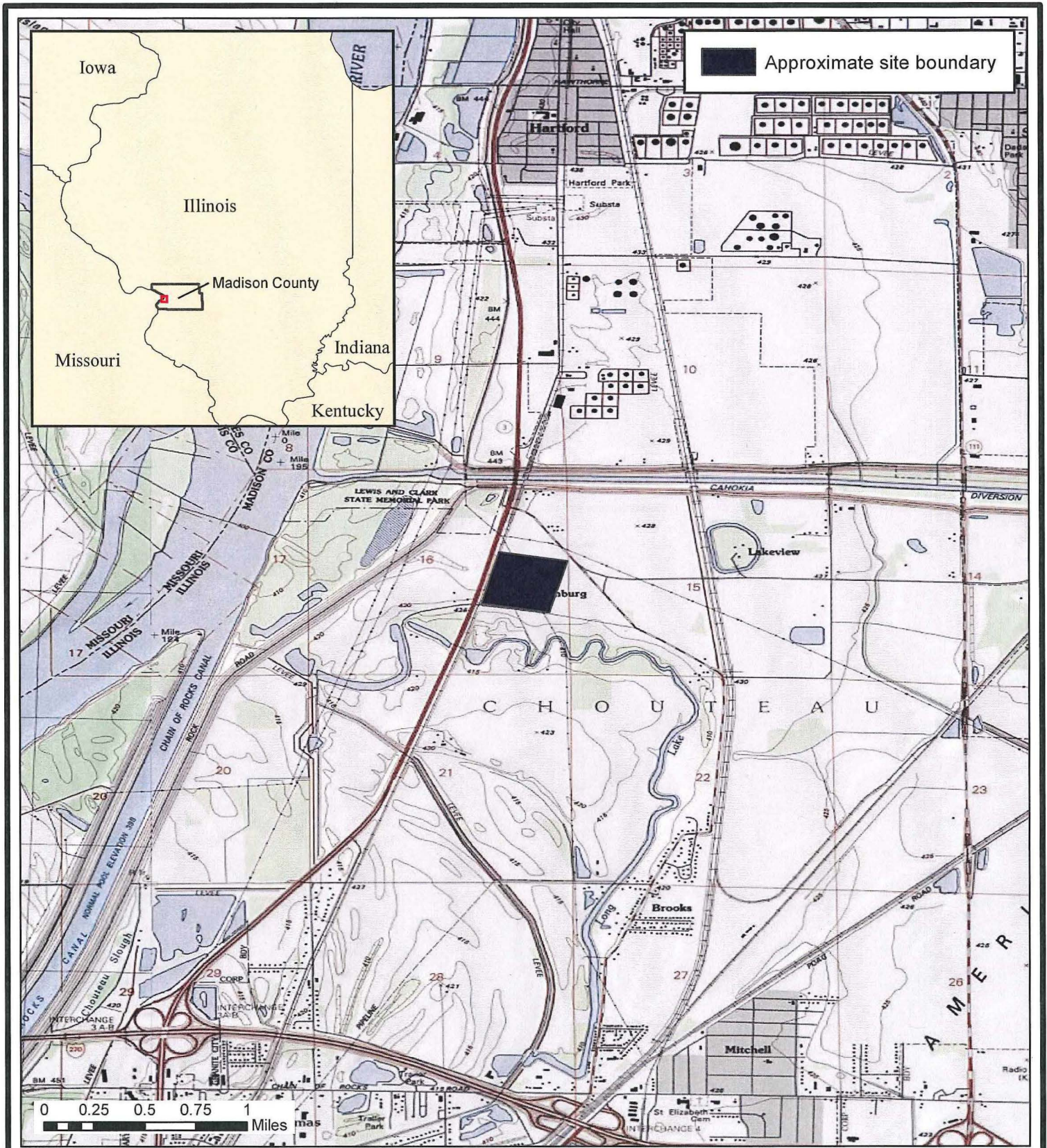


Figure 1
Site Location Map

Chemetco Superfund Site, Hartford, Illinois

Seagull Environmental Technologies, Inc.

Source: U.S. Geological Survey

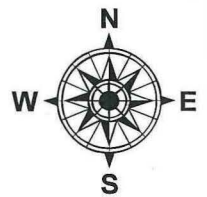


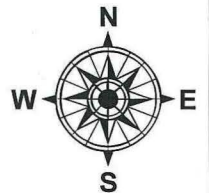


Figure 2
Site Aerial Map

Chemetco Superfund Site, Hartford, Illinois



Seagull Environmental Technologies, Inc.



Source: U.S. Geological Survey



U.S. Fish and Wildlife Service National Wetlands Inventory

Designated Wetlands Near Chemetco Site

Dec 17, 2011



Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

Status

- Digital
- Scan
- Non-Digital
- No Data

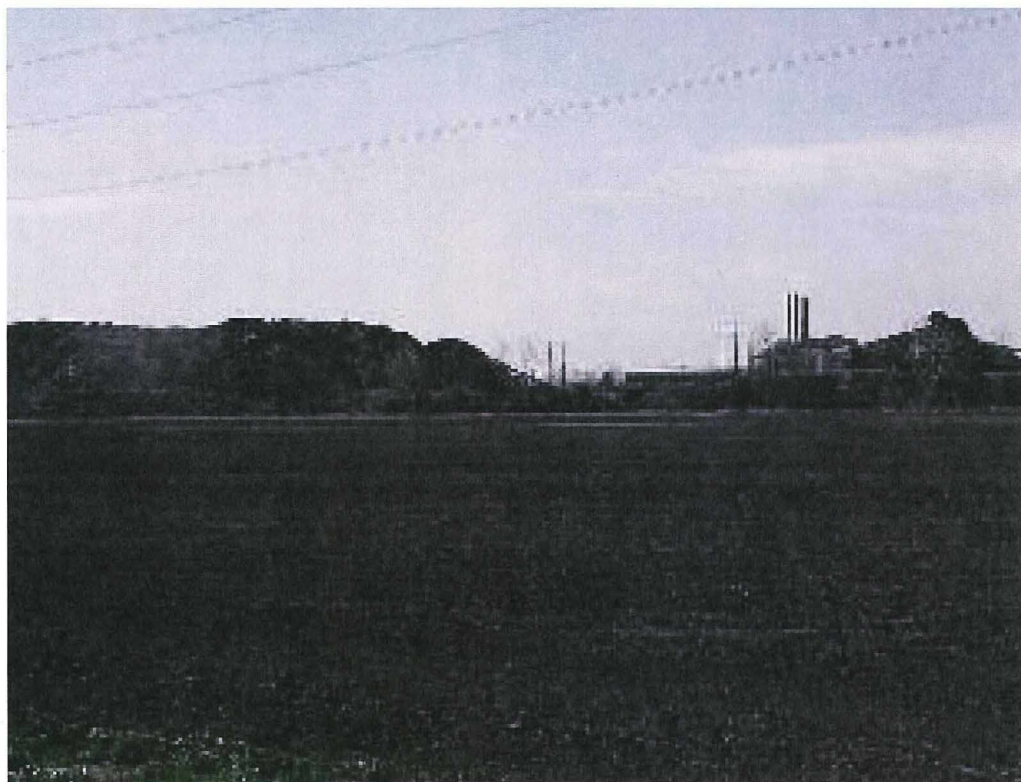
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:

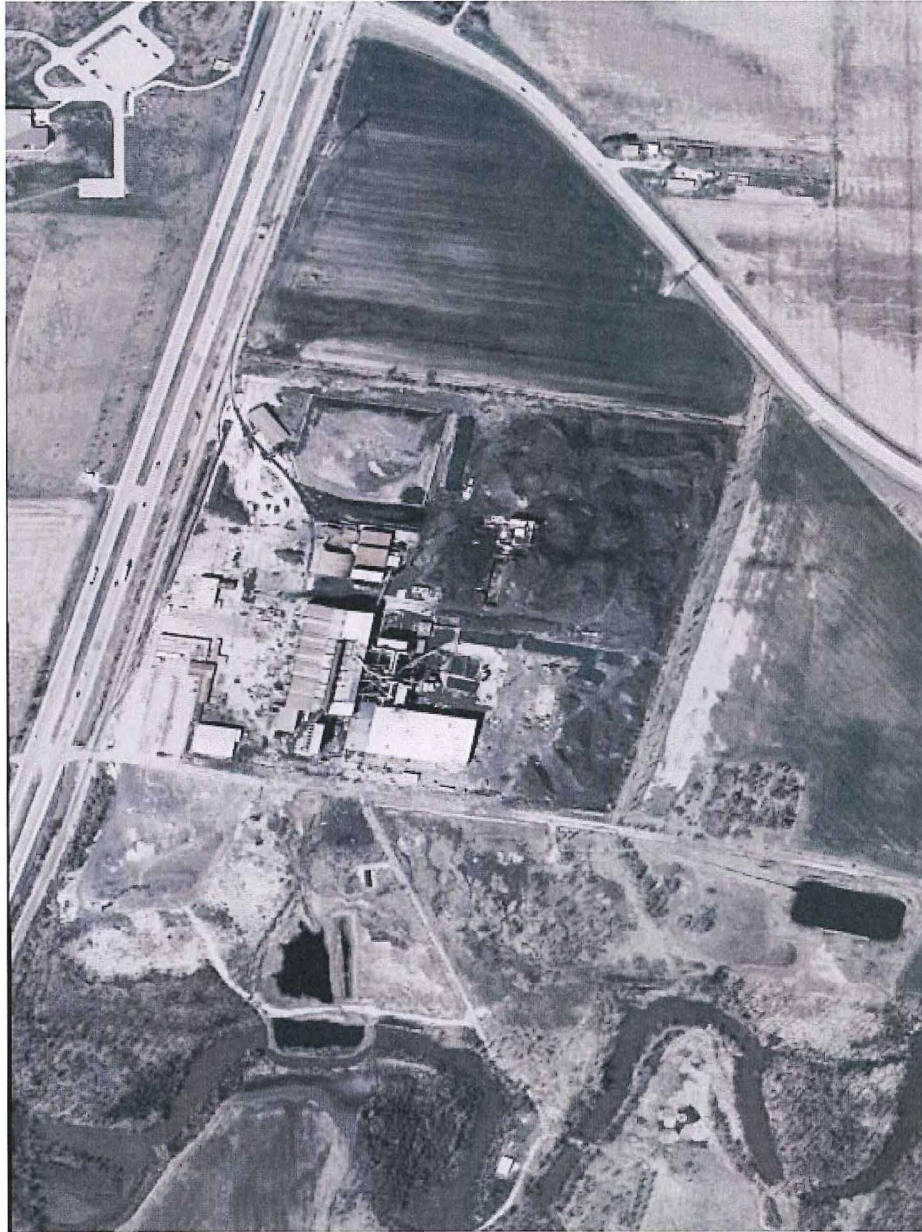
Figure 4. Photo Log



Agricultural land use adjacent to Chemetco facility, 2010.



Slag pile and smelter, 2002.



Facility aerial, 2009. Facility square is ~40 acres, slag pile estimated at ~13 acres.



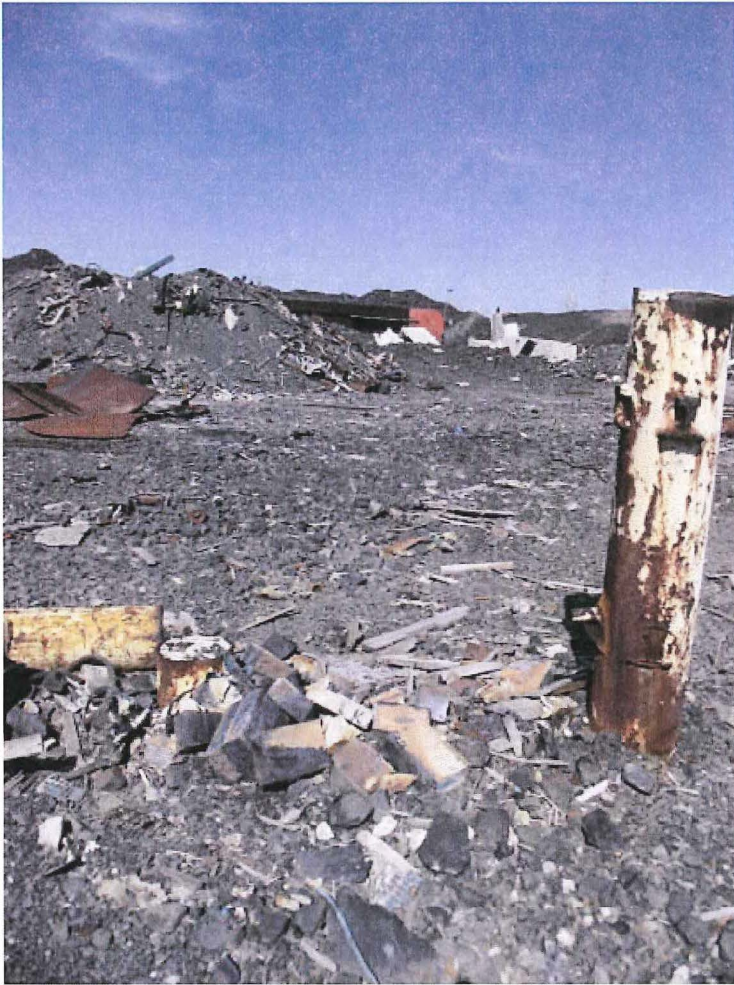
Smelter and slag pile, 2002.



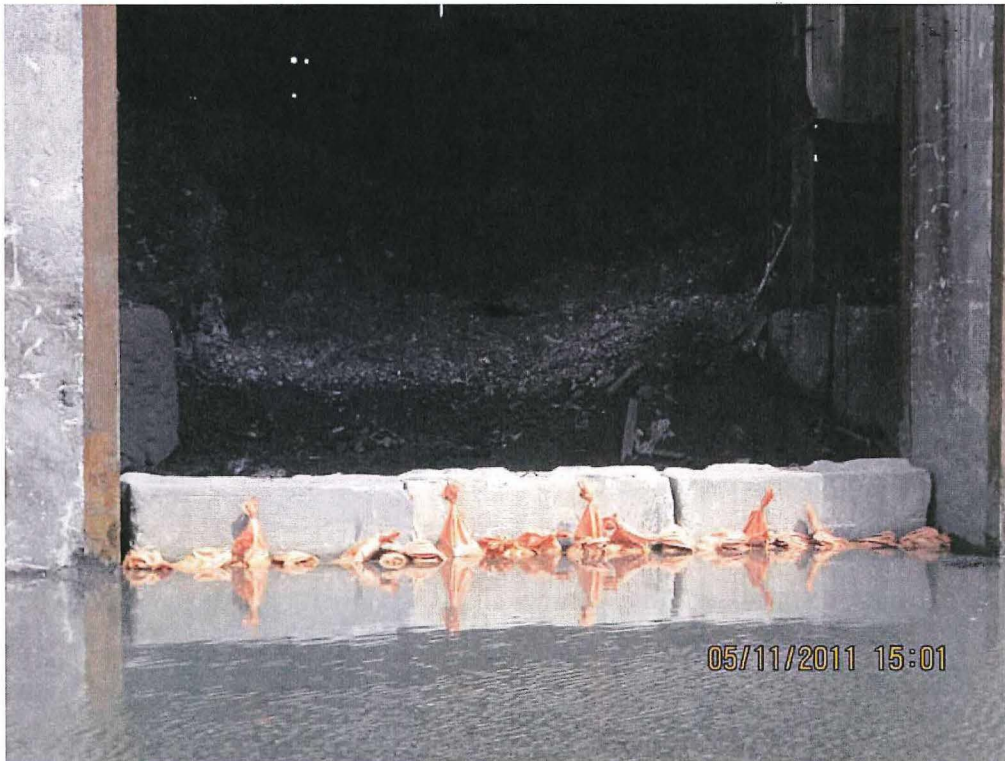
Smaller slag piles (west) at Chemetco facility, 2010.



Smaller slag piles (south) at Chemetco facility, 2010.



Slag and debris at Chemetco, 2010.



Scrubber sludge and flooding at Chemetco, 2011.



Truck parking lot made of slag and fill, 2010.



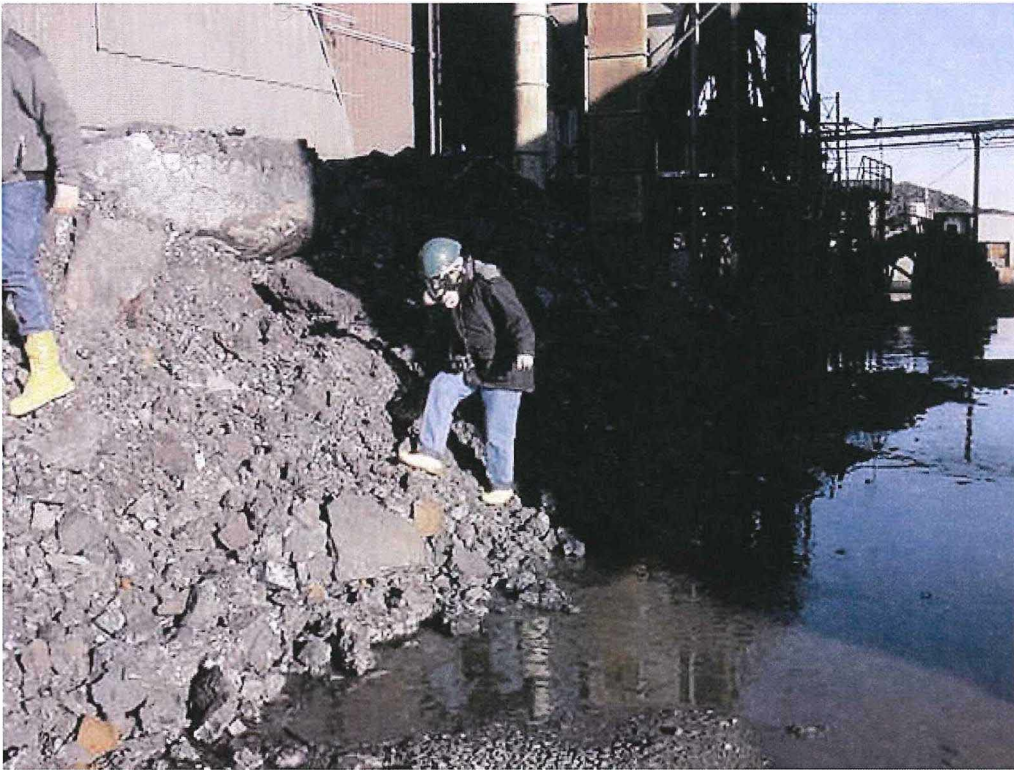
Discharge of zinc oxide to wetlands and Long Lake, 1996.



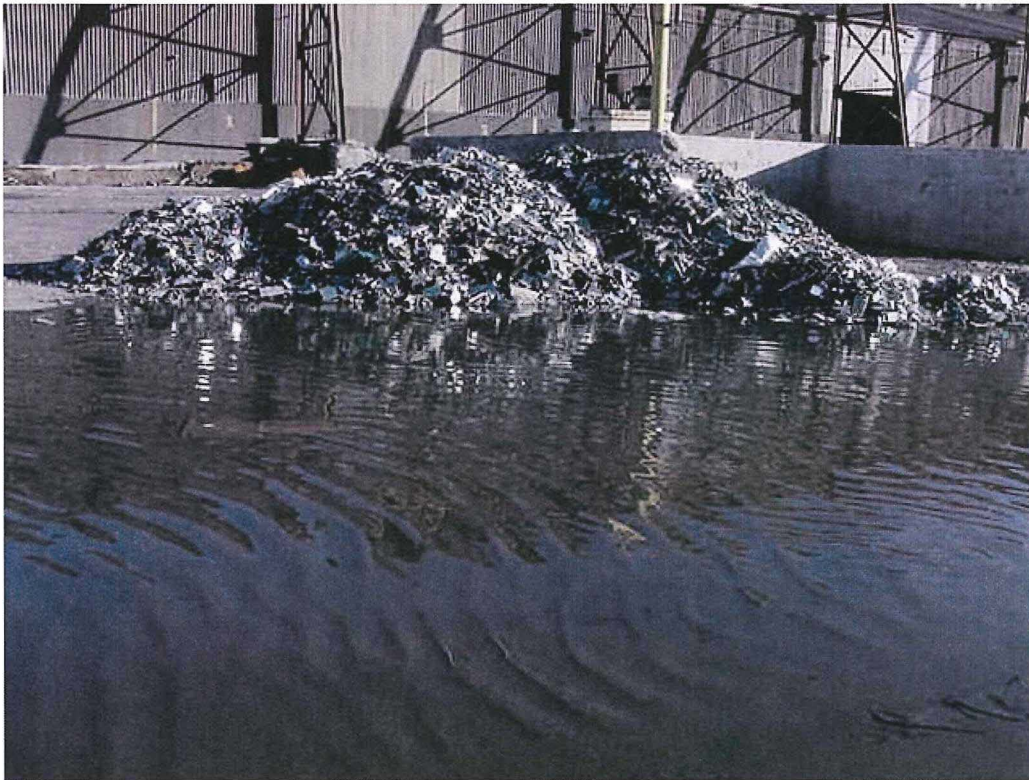
Impacted wetlands, 1996.



Impacted wetlands, 2010.



Slag and flood, site center, 2002.



Flooding at Chemetco site, 2002.



Flooding at Chemetco site, 2012.



Flooding, scrap, and sludges at site, 2010.

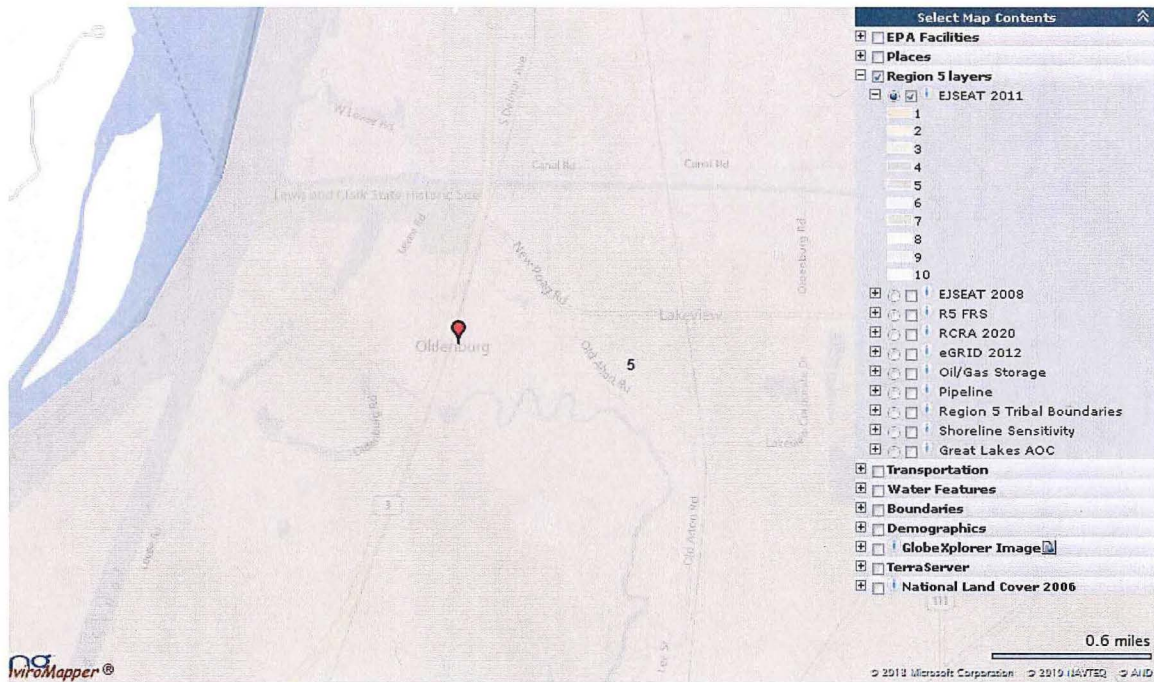
ATTACHMENT A

**ENVIRONMENTAL JUSTICE ANALYSIS
CHEMETCO SITE
HARTFORD, MADISON COUNTY, ILLINOIS**

R5 Superfund EJ Analysis for the Chemetco Site

The area surrounding the Chemetco Site was screened for Environmental Justice (EJ) concerns using U.S. EPA Region 5's EJ Assist Tool (which applies the interim version of the national EJ Strategic Enforcement Assessment Tool (EJSEAT)). Census tracts with a score of 1, 2, or 3 are considered to be high-priority potential EJ areas of concern according to U.S. EPA Region 5. The Chemetco Site is in a census tract with a score of **5** (Figure 1). Therefore, Region 5 does not consider this site to be a high-priority potential EJ area of concern.

Figure 1.
Chemetco Site Map Showing EJ SEAT Values For Surrounding Area.



ATTACHMENT B
U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION

ADMINISTRATIVE RECORD
FOR
CHEMETCO SITE
HARDFORD, MADISON COUNTY, ILLINOIS

ORIGINAL
APRIL 23, 2013
SEMS ID:

<u>NO.</u>	<u>SEMS ID</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
1	904750	00/00/00	Agency for Toxic Substances and Disease Registry	File	Health Consultation For Chemetco	18
2	902240	01/22/91	ENSR Consulting & Engineering	File	Closure And Post-Closure Plans For The Chemetco Site	117
3	902241	09/10/98	Tech Law, Inc	Freeman, B., U.S. EPA	Final Field Sampling And Analysis Report Tasks 06 And 08 At The Chemetco Site	42
4	902242	06/01/99	Cahnovsky, C., U.S. EPA	File	Final Field Sampling And Analysis Report For Sediment And Slag Samples	6
5	902243	06/01/99	Cahnovsky, C., U.S. EPA	File	Compilation Of Analytical Results Of Slag At Chemetco Site	55
6	904755	12/06/01	Southern District of Illinois	File	U.S Bankruptcy Court Southern District Of Illinois Notice Of Entry Of Seal Order Pursuant To Section 34 Of The Illinois Environmental Protection Agency Case No. 01-34006	14
7	298237	09/01/02	Illinois EPA	File	IL EPA- CERCLA Expanded Site Inspection (Analytical Results) - Vol 2	257

8	298164	09/01/02	Illinois EPA	File	IL EPA - CERCLA Expanded Site Inspection - Vol 1	56
9	902244	09/16/08	U.S. EPA	Chemetco, Inc.	U.S. District Court Southern District Of Illinois - Interim Order	59
10	904757	11/13/08	Davis, G., Estate of Chemetco	File	Security Plan For The Estate Of Chemetco, Inc.	6
11	902245	11/20/08	Davis, G., Estate of Chemetco	File	Stormwater Management Plan For The Chemetco, Inc. Estate	14
12	347276	01/20/09	U.S. EPA	File	IL EPA - Expanded Site Inspection (Reference #24)	103
13	902246	09/01/09	Range, L., Illinois EPA	File	HRS Documentation Record For The Chemetco Site	45
14	904758	05/11/10	Kerr, M., U.S. EPA	Sampson, D., Chemetco, Inc	Letter Re: Status Update For The Estate Of Chemetco	2
15	902247	05/18/10	Kerr, M., U.S. EPA	File	Field Notes Chemetco Site Visit	2
16	904756	05/25/10	Davis, G., Estate of Chemetco	Kerr, M., U.S. EPA	Letter Re: Security Plan And Status Of Action Items At The Chemetco Site	2
17	902249	03/31/11	Kerr, M., U.S. EPA	Sampson, D., Chemetco, Inc	Letter Re: Water And Soil Sampling At The Chemetco, Inc. Site	116