

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
C & H Power Plant - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region V

**Subject:** POLREP #3  
C & H Power Plant

Lake Linden, MI  
Latitude: 47.1940924 Longitude: -88.4073392

**To:**  
**From:** Ralph Dollhopf, OSC  
Andrew Maguire, OSC  
**Date:** 10/29/2012  
**Reporting Period:**

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	B5WF	<b>Contract Number:</b>	
<b>D.O. Number:</b>		<b>Action Memo Date:</b>	
<b>Response Authority:</b>	CERCLA	<b>Response Type:</b>	PRP Oversight
<b>Response Lead:</b>	PRP	<b>Incident Category:</b>	Removal Action
<b>NPL Status:</b>	Non NPL	<b>Operable Unit:</b>	Site wide
<b>Mobilization Date:</b>	10/24/2011	<b>Start Date:</b>	10/24/2011
<b>Demob Date:</b>		<b>Completion Date:</b>	
<b>CERCLIS ID:</b>	Pending	<b>RCRIS ID:</b>	
<b>ERNS No.:</b>		<b>State Notification:</b>	MDEQ Notified
<b>FPN#:</b>		<b>Reimbursable Account #:</b>	

#### 1.1.1 Incident Category

CERCLA Incident Category: Inactive Production Facility

#### 1.1.2 Site Description

The Site encompasses approximately 14 acres and contains one dilapidated building; the former C&H Power Plant building (the Power Plant). The Site historically contained several primary buildings including the power plant, a centrally located boiler house, and the "Hecla" Stamp Mill along the water front. Smaller buildings located north of the power plant and boiler house included a "Filter House" and a "Still House." The Site currently contains foundations and floors from these buildings which no longer exist, although remnants of some of the buildings remain. The Site also contains former rock bins and bermed rubble and debris piles.

The Power Plant was established in 1905 to meet the electrical demands of the evolving industrial complex and mining operations. The Power Plant was one of two electrical generating stations that operated in parallel and supplied electricity throughout the region. By 1931, the Power Plant was connected to the electrical grid through transformers and eight outgoing feeders that exited the west side of the building overhead.

The topography of the Site is relatively flat, with building foundations and debris scattered at various locations. The eastern Site boundary has a steep sloping grade towards Torch Lake, which is approximately twenty feet lower than the ground surface of the center of the Site, and below the elevation of the basement floor of the Plant. Groundwater flow in the Site area is unknown; however, based on the proximity of the Site to Torch Lake, EPA presumes that the groundwater flows east toward Torch Lake.

##### 1.1.2.1 Location

The Site is located on Highway M-26 south of the Village of Lake Linden, in Houghton County, Michigan. The geographical coordinates for the Site are latitude 47.1850924 North and longitude, -88.4133392 West. The Site is bounded to the east by Torch Lake; to the north by the Houghton County Historical Museum, a public park, and a marina; to the south by residential properties; and to the west by Highway M-26.

The Site is composed of a distinct parcel of property which was surveyed in 2002. EPA has adopted the legal description of the Property contained in the 2002 survey to establish the boundaries of the Site.

### 1.1.2.2 Description of Threat

Widespread bulk Asbestos Containing Material (ACM) contamination has been detected throughout the Site and inside the Power Plant. Asbestos fibers have also been detected in surface soil and air samples. Contaminated soils contain concentrations of arsenic, antimony, copper, iron, and lead that are greater than Michigan Department of Environmental Quality (MDEQ) Part 201 Residential Direct Contact Criteria (RDCC). Polychlorinated Biphenyls (PCBs) have also been detected in the water in the basement of the Power Plant.

### 1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

At the request of the MDEQ, the EPA performed a three-phase site assessment (SA) beginning on April 15, 2010. The SA was composed of the following activities:

- A visual assessment of Site features, and exposed debris and materials;
- An asbestos survey consisting of collecting bulk samples, soil samples, and performing activity-based sampling of air;
- X-ray fluorescence analyzer soil screening for metals;
- A gamma radiation survey to screen for radiological contaminants; and,
- Soil and water sample collections for laboratory analysis for potential contaminants of concern (COC).

The SA indicates the presence of uncontrolled hazardous substances at the Site, including: inorganic COCs in surface soils; lead and ACM on the surface soil, interior building foundations and exterior debris piles; and, possible PCB contamination in the water and basement of the Power Plant.

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

AMEC mobilized to the Site on Monday July 23, 2012.

On July 24, 2012, AMEC conducted a Pre-bid kickoff meeting for potential abatement and removal contractors at the Lake Linden City Hall Lake Linden, MI. Specifications and bidding documents included the abatement and demolition of the Power Plant building and the removal, transportation, and disposal of bermed soils at the Site. Following the meeting, AMEC escorted potential bidders on an inspection of the Site. Following the site-walkthrough AMEC conducted site preparation activities in support of the planned assessment activities including soil boring and sampling. Site preparation activities included utility clearance, setup of a mobile weather station, staging and inventorying PPE, and establishment of the contaminant reduction zone and support zone. Coleman Engineering Company of Iron Mountain, MI provided direct push drilling support and mobilized a Geoprobe to the Site. mobilizing the direct push drill rig, setup of the perimeter air monitors, and marked the drilling locations in each planned grid cell.

AMEC/Coleman initiated soil boring and sampling activities at the Site on Wednesday July 25, 2012. Soil borings were installed in predetermined grid cells in the northeast section of the Site. Approximately 14 soil borings were advanced in grid cells 39, 40, 48, 49, and 58. Soil samples were collected from three subsurface intervals in accordance with approved planning documents. Grab samples were analyzed for inorganic constituents and composite samples were collected from each grid for asbestos and waste characterization analyses. AMEC also conducted perimeter air sampling using six air sampling units established at the work limits and adjacent to off-site receptors. One entry team member donned personal air sampler for the collection of air samples.

AMEC/Coleman continued soil boring and sampling activities at the Site on Thursday July 26, 2012. Soil borings were installed in predetermined grid cells in the southern portion of the Site. Approximately 28 soil borings were advanced in grid cells 2, 3, 5, 6, 7, 8, 9, 12, and 13. Soil and air samples were collected the same as previous days and in accordance with planning documents.

AMEC/Coleman continued soil boring and sampling activities at the Site on Friday July 27, 2012. Soil borings were installed in predetermined grid cells in the southern portion of the Site. Approximately 28 soil borings were advanced in grid cells 11, 14, 15, 17, 18, 19, 20, 21, 27, and 28. Soil and air samples were collected the same as previous days and in accordance with planning documents.

AMEC/Coleman continued soil boring and sampling activities at the Site on Saturday July 28, 2012. Soil borings were installed in predetermined grid cells in the southern portion of the Site. Approximately 24 soil borings were advanced in grid cells 35, 36, 37, 42, 43, 45, 54, 71, and 30. Soil and air samples were collected the same as previous days and in accordance with planning documents.

AMEC/Coleman continued soil boring and sampling activities at the Site on Sunday July 29, 2012. Soil borings were installed in predetermined grid cells in the southern portion of the Site. Approximately 12 soil borings were advanced in grid cells 44, 53, 62, and 63. Soil and air samples were collected the same as previous days and in accordance with planning documents.

AMEC/Coleman continued soil boring and sampling activities at the Site on Sunday July 30, 2012. Soil borings were installed in predetermined grid cells in the southern portion of the Site. Approximately 4 soil borings were advanced in grid cells 47, 57, and 66. A usable soil core was not recovered from grid 47. Soil

and air samples were collected the same as previous days and in accordance with planning documents.

Between July 31, 2012 and August 1, 2012 AMEC/Coleman advanced hand auger soil borings in the soil berms at the Site. Composite soil samples were collected in accordance with the approved planning documents. Following completion of the hand augering and sampling activities AMEC/Coleman personnel decontaminated and equipment and demobilized from the Site.

### 2.1.2 Response Actions to Date

The assessment activities summarized above will be utilized by AMEC to develop planned removal actions at the Site. The proposed work by the PRP includes transport and disposal of the existing Site berms and characterization of asbestos and metals contaminated soil for planned excavation and disposal.

### 2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

A PRP has been identified for the Site. An Administrative Order on Consent (AOC) is in-place.

### 2.1.4 Progress Metrics

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>
Decontamination Waste	Liquid	1 Drum		Filtration	
Decontamination Waste	Solid	1 Drum		None	
Decontamination Waste	PPE	1 Drum		None	

## 2.2 Planning Section

### 2.2.1 Anticipated Activities

The following is a summary of the PRP's next phase of work at the Site:

- Activity Based Sampling for Asbestos: Week of September 10, 2012 (Tentative)
- Berm Removal/Building Abatement and Demolition: Week of September 30, 2012 (Tentative)

#### 2.2.1.1 Planned Response Activities

##### ACTIVITY BASED SAMPLING - ASBESTOS

Following receipt of analytical results for asbestos in soil at the Site, AMEC will rank grid cells for proposed activity based sampling activities. Proposed sampling areas will be provided to the USEPA for review and approval prior to the initiation of activities at the Site.

##### BERM REMOVAL

Following receipt of waste characterization data, waste acceptance by the approved landfill, and procurement of a removal contractor, AMEC will excavate, transport, and dispose of bermed soils at the Site.

##### BUILDING ABATEMENT/DEMOLITION

Following procurement of a removal contractor, AMEC will initiate abatement activities on the Power Plant building. In addition, floor openings will be covered to prevent debris from falling into the basement and to protect workers in the building. Following abatement activities, the building will be razed leaving the concrete floor and covered openings at the Site until removal activities resume in Spring 2013.

#### 2.2.1.2 Next Steps

Following receipt of data summaries, review of the analytical results and approval of the proposed work outlined above will be required prior to resuming field work.

#### 2.2.2 Issues

Inclement weather, specifically significant snow accumulation, would potentially delay or postpone the proposed work activities.

## 2.3 Logistics Section

Personnel trained and certified in asbestos awareness will be assigned for field oversight when activity based sampling and disposal activities are underway.

## 2.4 Finance Section

No information available at this time.

## 2.5 Other Command Staff

No information available at this time.

## 3. Participating Entities

No information available at this time.

#### **4. Personnel On Site**

1 START - Weston Solutions, Inc.

#### **5. Definition of Terms**

ACM	Asbestos-containing material
ACWM	Asbestos-containing waste material
C&H	Calumet and Hecla
COC	Chemical of concern
MDEQ	Michigan Department of Environmental Quality
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NESHAP	National Emission Standards for Hazardous Air Pollutants
OSC	On-Scene Coordinator
OSHA	Occupational Safety and Health Administration
PCB	Polychlorinated biphenyls
RACM	Regulated asbestos-containing material
RDCC	Residential Direct Contact Criteria
SA	Site assessment
START	Superfund Technical Assessment and Response Team
TSI	Thermal system insulation
U.S. EPA	United States Environmental Protection Agency
XRF	X-ray fluorescence

#### **6. Additional sources of information**

##### **6.1 Internet location of additional information/report**

For additional information refer to "Documents" on [www.epaosc.org](http://www.epaosc.org)

##### **6.2 Reporting Schedule**

The next Polrep will be submitted on September 4, 2012.

#### **7. Situational Reference Materials**

Refer to the attached photographs for additional information related to the PRP assessment activities performed at the Site.