

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



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: POLREP #7
C & H Power Plant

Lake Linden, MI
Latitude: 47.1940924 Longitude: -88.4073392

To:
From: Andrew Maguire, OSC
Date: 5/5/2014
Reporting Period:

1. Introduction

1.1 Background

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

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 exceed 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

In March 2012, EPA and Honeywell Specialty Materials, LLC entered into an Administrative Agreement and Order on Consent that scoped out the assessment and removal work to be performed by Repondent and their contractors.

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.

In May 2013, AMEC collected additional soil samples via hand auger and/or geoprobe in the areas of the former berms around the building, north of the support zone, and on the east side of the Site near Torch Lake. In June 2013, AMEC conducted activity-based sampling (ABS) in grid cells 26/34, 43, 24/25/32/33, 2, 3, 9, 11, 17, 54, 44, 30/38, 47/56, 40, 70, 71, 64/72, 48, 49, 57, and 58.

2.1.2 Response Actions to Date

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

On 10/10/12, AMEC received their SESC permit, and their subcontractor, Brandenburg, began placing silt fence at the site around the area that will become the Support Zone. They also began preparing the area by removing trees, and added a privacy screen to the fence along highway M-26.

During the week of 10/08/2012, Brandenburg continued preparation of the Support Zone, removing the soil berms & stockpiling them in one area for eventual loading & disposal. They also began ACBM abatement inside the building, starting with the ground level floor first, scraping the material off & containing it in plastic bags.

During the week of 10/15/2012, Brandenburg continued to prepare the the Support Zone by cutting it down to the designated depth (except for the area at the West Gate, due to concerns over the grade for loaded trucks exiting), and Brandenburg began placing the orange demarcation fabric, and began hauling in gravel for the haul road. Brandenburg subcontracted to B&B to finish the haul road with a bulldozer and compactor, which was on-going throughout the day. On Friday, 10/19/2012, Brandenburg began moving the soil stockpile, as the plan was adjusted to extend the support zone to the east by approximately 100 feet, so that the trucks with double-trailers can get in and out of the Site, and get more of a straight shot out of the west gate. Abatement in the building continued intermittently throughout the week as they occasionally needed the crew outside to place the fabric.

During the week of 10/22/2012, Brandenburg finished relocating the soil stockpile. It is now on poly sheeting east of the current support zone. They began to place additional orange demarcation fabric into the extended Support Zone area. They received the analytical results for the common fill (sand), and the first load arrived at the site late in the afternoon. They used crushed concrete on the upper part of the haul road near the gate. Thunderstorms and over 2 inches of rain created saturated conditions at the Site. They finished abating the office area of the building, and moved up to the mezzanine level.

During the week of 10/30/2012, Brandenburg continued to work on the construction of the Support Zone. Asbestos abatement continued in the southern portion of the power plant building. Hauling of the contaminated soil commenced on 11/03/2012.

During the week of 11/05/2012, Soil continued to be loaded & hauled off-site for disposal throughout the week. Brandenburg finished removing the soil berms on the west, south, and east sides of the power plant building, removed soil/debris from the foundation east of the building, and removed the soil berms along the northern property line near the Support Zone. The last loads of soil went out on 11/08/2012, with an approximate total of 5,700 tons of soil hauled off-site for disposal. A MIOSHA inspector visited the Site on 11/05/12, and did not find any violations. Brandenburg began washing down the inside of the power plant building on 11/09/2012. AMEC and Brandenburg demobilized the week of 11/12/2012, with all equipment and personnel off-site on or before 11/15/2012.

Real-time air monitoring and perimeter air sampling were conducted on a daily basis at the Site, with real-time readings collected every half-hour. The perimeter air sampling results have been non-detect for the results received to date. Real-time monitoring was generally zero or below the action level to date, due to all of the rain & the wet conditions. A summary of the perimeter air sampling results, along with a map depicting the sampling locations, was posted at the Lake Linden Village Hall on 11/28/2012.

On 6/17/2013, AMEC mobilized to the Site with their subcontractor, Brandenburg. They began to prepare the Site for demolition, including placing orange demarcation fabric in the depression around the power plant building, and placing clean fill in it to bring it up to grade. In addition, they cleared trees from around the former stamp mill foundation and southern portion of the boiler house foundation. AMEC monitored the perimeter for dust during these activities. AMEC/Brandenburg continued to clear trees and clean the former stamp mill foundation until 7/12/2013, when they stopped work due to SHPO concerns.

On 8/19/2013, AMEC and Brandenburg re-mobilized to the Site. They subsequently began demolition of the power plant building. They completed the demolition and sorting/hauling of debris the week of 9/2/2013, and placed temporary orange fencing around the foundation/open basement. The week of 9/23/2013, AMEC and Brandenburg returned to the Site with a fencing company to install a chain-link fence with barbed wire around the foundation/basement.

In October 2013, AMEC mobilized to the Site to cover and secure the openings in the first floor (ground level) of the building. The openings in the floor were covered to further restrict access to the former building and to secure the property for the winter.

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

In March 2012, EPA and Honeywell Specialty Materials, LLC entered into an Administrative Agreement and Order on Consent..

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 Honeywell Specialty Materials, LLC (Respondent's) scheduled upcoming work at the Site:

- Basement Dewatering and Characterization: Spring/Summer 2014
- Basement Decontamination and Cleaning: Spring/Summer 2014
- Foundation Cleaning: Spring/Summer 2014
- Excavation and Disposal of Asbestos Contaminated Soil: Spring/Summer 2014

2.2.1.1 Planned Response Activities

SITE CHARACTERIZATION - ASBESTOS

Additional soil sampling will be conducted in the Spring of 2014 to characterize previously unsampled areas of the property for the presence of asbestos in soils.

FOUNDATION CLEANING

The foundations of the former stamp mill and other structures at the Site were found to be contaminated with waste materials and asbestos. The respondent will remove accumulated waste deposits and wash the foundations to clean the contaminated structures in Spring/Summer 2014. Access to these areas of the Site are being completed in accordance with guidance from the Michigan State Historic Preservation Office (SHPO).

CONTAMINATED SOIL EXCAVATION AND DISPOSAL

Previous characterization activities at the Site confirmed that hazardous materials, including asbestos, were present in the soil at the Site at concentrations that exceed regulatory criteria. The respondent will conduct excavation and disposal activities at the Site, removing identified contaminated soil to mitigate future releases to the environment and to eliminate potential exposure pathways for the contaminated media to effect users of the property.

BASEMENT CHARACTERIZATION AND CLEANING

The power plant building was abated in 2012, and demolished in 2013. The basement remains, and will be dewatered in 2014. The basement covers the entire footprint of the former power plant building and is in a flooded state, containing up to 8 feet of water. Previous visual inspections of the basement indicate that abandoned equipment, building materials, and containers are present. The materials and debris in the basement are submerged or partially submerged, requiring additional analytical screening and characterization upon gaining access to the basement. Debris and sediment from the basement will be removed, and the basement will be washed. The respondent is re-evaluation the final

2.2.1.2 Next Steps

Approved work activities will be initiated in the Spring/Summer of 2014. The respondent is considering alternative disposal methods for asbestos contaminated soil and alternative grading plans than those that were previously submitted. If the respondent proposes alternative plans be implemented at the Site, a Work Plan addendum will be developed that presents the means and methods for executing the alternative work activities. It is not anticipated that the development of a Work Plan Addendum will delay the current project schedule.

2.2.2 Issues

Additional coordination will be required by the respondent to ensure that work is not delayed due to local/regional construction projects scheduled to be completed in a similar timeframe. The Portage Lake Lift Bridge will be under construction and has scheduled outages planned. Similarly, stretches of M26 will be under construction and will include lane closures resulting in changed traffic patterns and delays.

2.3 Logistics Section

Personnel trained and certified in asbestos awareness will be assigned for field oversight when activity based sampling and excavation 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

3.1 Unified Command

EPA
Honeywell Specialty Materials, LLC

3.2 Cooperating Agencies

Michigan Department of Environmental Quality (MDEQ) - Remediation and Redevelopment Division (RRD)
AMEC (Respondent's Environmental Consultant)
Weston Solutions of Michigan, Inc. (EPA Superfund Technical Assessment and Response Team [START] Contractor)
Michigan State Historic Preservation Office (SHPO)

4. Personnel On Site

None currently

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/CHPowerPlant

6.2 Reporting Schedule

An update will be provided after work resumes in Spring/Summer 2014

7. Situational Reference Materials

For additional information refer to "Documents" or "Images" on www.epaosc.org/CHPowerPlant