

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
The Former Bendix Property Site - Removal Polrep
Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region I

Subject: POLREP #5
Final
The Former Bendix Property Site
01GR
Greenfield, MA
Latitude: 42.5772900 Longitude: -72.6182460

To:
From: Athanasios Hatzopoulos, OSC
Date: 3/19/2012
Reporting Period: 9/12/2011 to 2/9/2012

1. Introduction

1.1 Background

Site Number:	01GR	Contract Number:	
D.O. Number:		Action Memo Date:	2/22/2011
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	4/13/2011	Start Date:	4/13/2011
Demob Date:	2/9/2012	Completion Date:	2/9/2012
CERCLIS ID:	MAD041490673	RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Inactive industrial/storage facility

1.1.2 Site Description

The Former Bendix Property Site (the Site) is an abandoned industrial facility that was primarily used for metalworking, including the milling and grinding of steel drill bits and taps. The Treadwell Tool Co. built the facility in 1961. In 1982, Bendix Corp., a predecessor to Honeywell International Inc. (Honeywell), purchased the property and sold it to B.C. Acquisition, a subsidiary of Besly Products, in 1984. Besly Products merged with Allied Signal Inc., which is known as Honeywell International, Inc., (Honeywell). Besly Products operated the Site from 1984 to 1998, when it was sold to Repal Inc., a wood pallet storage and processing company. In June of 2008 the Town took the property for back taxes.

Currently, the Site is partially fenced, inactive, abandoned for approximately 10 years, and consists of a single parcel of land totaling 17.3 acres. The land is developed with two buildings. The first is an approximate 94,000 square-foot (sq ft) single-story, slab on grade concrete block industrial building that is located along the south-central region of the Site. General public access is unrestricted as evidenced by the presence of burned debris piles within the building, and graffiti inside and outside of the building. The Town of Greenfield is the current owner of the Site.

Approximately 85% of the 94,000 sq ft building is filled with various materials including wood pallets (stacked from 5 to 15 ft high or to ceiling height), other bins containing building debris and/or plastic LEGOS, machinery, drums and various other size containers, and numerous ½ cubic yard plastic bags containing a white powder. The buildings inoperative heat and water piping system is currently on the ceiling and walls, and is wrapped by asbestos containing insulating wrap. Because of the deterioration of the roof, severe water damage has occurred throughout the entire building. This has caused a great deal of the pipe wrap to fall on the floors and cross-contaminate whatever material exists directly underneath. Approximately 380 discarded metal and/or plastic 55 gallon drums, and other various sizes containers, exist throughout the entire (interior/exterior) grounds of the Site.

Due to the conditions and potential threat of release of the hazardous materials from the Site, on July 20, 2010, the EPA Brownfields Program referred the Site to the Emergency Planning and Response Branch (EPRB) for further investigation.

The PA/SI was concluded and based on Site conditions and analytical results, a Time Critical Removal Action was recommended in a closure memorandum dated December 15, 2010. On February 22, 2011, an

Action Memorandum to conduct the Removal Action was signed by the Acting Office Director of the Office of Site Remediation and Restoration.

1.1.2.1 Location

The Site is located at 180 Laurel Street, Greenfield, Franklin County, Massachusetts (Longitude/Latitude 42E 34' 36.85"N, 72E 37' 4.71"W). The Site is more fully described as Map R41 Lot 2 in the Town of Greenfield Tax Assessor's Office. The Site is in a residential area and is zoned "GI-General Industrial." Residential properties and a public storage building abut it to the north, interstate 91 to the west, a cemetery and residences to the south, and woodlands followed by residential properties are located east.

1.1.2.2 Description of Threat

Hazardous substances involved in the release or threat of release at the Site include, but are not limited to: friable asbestos and ACM within the building, chromium contamination within the cubic yard bags containing the white talcum like powder, and VOCs in drums. The areas that were sampled are exposed to the elements. Friable asbestos and chromium may pose a health threat to anyone walking on, traveling by, or living near the Site. Because the building roof has openings, the threat of release of the friable asbestos and chromium to adjacent areas and other receptors exists, particularly during adverse weather conditions. In addition, the building is abandoned and lacks a functioning fire suppression system. In the event of a fire, aforementioned substances will become airborne and migrate to the surrounding areas. The VOCs were detected in drums that are abandoned on the exterior grounds of the Site. The Site currently has a partial fence around its perimeter. However, the Town officials have stated that the Site is being accessed by unauthorized individuals.

According to the 2000 census 2,420 people live within one mile radius. Within one mile are also a public school, and two nursing homes.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

On November 4, 2010, the EPRB and its Technical Assessment and Response Team, Weston Solutions, Inc., conducted a Preliminary Assessment and Site Investigation (PA/SI). The PA/SI revealed the following but not limited to, hazardous substances pollutants or contaminants:

MEDIA	HAZARDOUS SUBSTANCES OR POLLUTANTS OR CONTAMINANTS	MAXIMUM CONCENTRATION	APPLICABLE MassDEP SOIL CLEANUP STANDARDS MCP S-1
Pipe insulation from the overhead water and heat piping systems that has disintegrated and fallen on the floors	Friable asbestos (amosite and chrysotile)	>1%	
Liquids in drums located on the exterior grounds of the Site	Volatile organic compounds (VOCs)		
	Acetone	67 mg/Kg	6 mg/Kg
	Toluene	150 mg/Kg	30 mg/Kg
	Methyl Tert Butyl Ether	69 mg/Kg	.1 mg/Kg
White powder in cubic yard bags	Inorganic contaminants (chromium)	370 mg/Kg	30 mg/Kg

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

2.1.2 Response Actions to Date

On April 13, 2011, EPA, and ERRS initiated the Removal action by conducting a site walk to discuss upcoming removal activities.

April 25 to 29, 2011

Activities for the week included:

- Mobilizing the ERRS crew and equipment.
- Reviewing and signing the site health and safety plan (HASP)
- Close off the perimeter of the Site Installing high-visibility fencing to
- Establishing markers to delineate work zones
- Clearing paths in the building and parking lot for safer walking and equipment access
- Staging all empty drums and containers dumped throughout the property in one central location
- Screening bags of powder in-situ with an Innox-X-Ray Fluorescence (XRF) Analyzer throughout the bulding to confirm chromium contamination.
- Consolidating all white powder material from the outside into one central location in the western parking lot.
- Preparing for the asbestos-containing material (ACM) removal activities.

Under the direction of the OSC, START personnel conducted in-situ analysis by XRF for chromium, bags of powder for chromium levels. The results were of varying levels ranging from non-detect to over 700 parts per million (ppm) for chromium. On site screening of the bags of powder continued for another week to better

determine transport and disposal (T&D) options and sampling possibilities.

START photo documented the removal areas prior to the commencement of removal activities. START will also photodocument daily removal activities during the duration of the removal action. START at the direction of the OSC will perform air monitoring, every day at four locations around the perimeter of the Site, to ensure that asbestos particulates are not escaping into the environment as a result of the removal activities. START will follow this protocol during the entire duration of the removal action.

May 2 to 6, 2011

Activities for the week included:

- Removing pallets and other debris from inside the building and relocating the material to the parking lot, so the workers can access all asbestos inside the building.
- Staging all empty drums and containers and some containing liquid dumped throughout the property in one central location on site.
- Collecting samples of powder from bags inside the building to screen with an XRF Analyzer and determine where some of the highest levels of chromium are located.
- Consolidating all white powder material from the outside into one central location in the western parking lot.
- Performing ACM removal inside the building.
- Conducting air sampling for asbestos both around the perimeter of the site and on personnel.

All drums and containers from the entire site were staged in one central location. The emptied containers were turned upside down. Any drums with liquid were separated, so hazardous categorization (HazCat) can be performed. Any additional drums found in the building were added to this area throughout the removal action.

At the beginning of asbestos removal, three initial days of air sampling for asbestos at four locations was conducted along the perimeter of the Site and on two personnel performing the asbestos removal tasks, per the site HASP. After laboratory analysis had non-detect results for asbestos, personal sampling was conducted once a week.

May 9 to 13, 2011

Activities for the week included:

- Continuing to remove pallets and other debris from inside the building and relocate the material to the parking lot, so the workers can access all asbestos inside the building.
- Overpacking four leaking drums and placing them in the drum staging area.
- Collecting four samples of powder from bags inside the building for T & D analyses.
- Covering all the consolidated white powder material that is located outside with polyethylene (poly) until further notice.
- Performing ACM removal inside the building.
- Conducting air monitoring for particulates at four locations around the perimeter of the site while debris was being transported daily.

The powder that was outside when ERRS arrived was all consolidated to the western side of the property in the parking lot, where most of the powder originally was located. All of this powder comprised of two piles, approximately 1,350-cubic-yard (yd3) that were covered with poly. Approximately 1,200 additional yd3 of powder remained inside the building.

May 16 to 20, 2011

Activities for the week included:

- Continuing to remove pallets and other debris from inside the building and relocate the material to the parking lot.
- Performing ACM removal inside the building.
- Placing all double-bagged ACM into the lined roll-off container for off site disposal.
- Collecting additional powder samples and sending them to NERL for XRF analysis.

All friable ACM removed from the building was double-bagged and sealed. The bags of asbestos were placed in a double-lined 30 (yd3) roll-off container for disposal. The container remained on site daily until it was full.

On May 19, 2011, the EPA OSC held a meeting on site with US Agency for the Toxic Substances and Disease Registry (ATSDR) Perlman, MassDEP Fish, Greenfield Fire Department Jarvis, and Greenfield Health Department Zabko. A Site walk was conducted and the large quantity of powder was discussed during the meeting.

On May 20, 2011, 10 powder samples were collected and sent to NERL for metal analysis by XRF.

May 23 to 27, 2011

Activities for the week included:

Continuing to remove pallets and other debris from inside the building and relocate the material to the parking lot.

- Performing ACM removal inside the building.
- Placing all double-bagged ACM into the lined roll-off container for off site disposal.
- Conducting air monitoring for particulates at four locations around the perimeter of the site while debris was being transported daily.

This week the weather changed drastically from the weeks past, and it was drier with much higher temperatures. To minimize any dust or particulates created from the work area, all of the debris was wetted

down prior to leaving the building area and the roadway that the dump truck traveled was sprayed with water periodically.

On May 31, 2011, EPA requested ATSDR to review the public health implications of the white powder located at the Site.

May 31 to June 3, 2011

Activities for the week included:

- Continuing to remove pallets and other debris from inside the building and relocate the material to the parking lot.
- Performing ACM removal inside the building.
- Placing all double-bagged ACM into the lined roll-off container for off site disposal.
- Conducting air monitoring for particulates at four locations around the perimeter of the site while debris was being transported daily.

On May 31, 2011, NERL confirmed the presence of chromium in 9 of the 10 samples. The highest level was 640 ppm.

On June 1, 2011 ATSDR in a letter to EPA concluded that the piles of powder represented a public health hazard and recommended that exposure to all piles be prevented.

On June 1, 2011, the Greenfield area was on tornado watch and a severe thunderstorm came through the area. There was no destruction to the Site, and the piles of powder remained covered with poly without damage.

June 6 to 10, 2011

Activities for the week included:

- Continuing to remove pallets and other debris from inside the building and relocate the material to the parking lot.
- Performing ACM removal inside the building.
- Placing all double-bagged ACM into the lined roll-off container for off site disposal.
- Conducting air monitoring for particulates at four locations around the perimeter of the site while debris was being transported daily.
- Conducting air sampling for asbestos at four locations around the perimeter of the Site.

Another three days of asbestos air sampling around the perimeter of the Site was conducted this week. ACM removal was taking place in areas of an open warehouse instead of in an area filled with debris.

By the end of this week, the majority of the western half of the building has been cleared of debris excluding the office area and areas covered with powder. The powder has not been disturbed until the off site disposal plan has been finalized.

In addition to a known pit within the building an additional pit was discovered during the removal action. Both pits are currently full of water. Asbestos debris, ACM and drums/containers are visible within. Samples will be collected next week and will be analyzed for content.

June 13 to 17, 2011

Activities for the week included:

- Continuing to remove pallets and other debris from inside the building and relocate the material to the parking lot.
- Performing ACM removal inside the building.
- Placing all double-bagged ACM into the lined roll-off container for offsite disposal.
- Conducting air monitoring for particulates at four locations around the perimeter of the Site while debris was being transported daily.
- Collecting water samples from the two pits and sending the samples to NERL for analysis.

On June 16, 2011, three water samples plus one duplicate sample was collected and sent to NERL to be analyzed for VOCs, SVOCs, pH, oil identification, metals, cyanide, pesticides, and PCBs. The liquid samples were collected from pits located in two different rooms of the building that had previously been boarded up.

June 20 to 24, 2011

Activities for the week included:

- Continuing to remove pallets and other debris from inside the building and relocate the material to the parking lot.
- Performing ACM removal inside the building.
- Placing all double-bagged ACM into the lined roll-off container for offsite disposal.
- Conducting air monitoring for particulates at four locations around the perimeter of the site while debris was being transported daily.
- Conducting hazardous categorization (HazCat) on drums with product to determine the proper disposal necessary.

On June 20, 2011, 51 containers were HazCat tested for disposal. One 30-gallon fiber drum full of a solid product was found to contain caustic material (sodium hydroxide). It was overpacked and prepped for disposal. The remaining 50 containers contained nonhazardous product.

On June 22, 2011, NERL provided the VOC and SVOC results for the liquid samples collected. (for results see Document Section of the Pol/SitRep)

June 27 to July 1, 2011

Activities for the week included:

- Removing the last of the clean pallets and other debris from inside the building and relocating the material to the parking lot.
- Performing ACM removal inside the building.
- Placing all double-bagged ACM into the lined roll-off container for offsite disposal.
- Removing all switches containing mercury from inside the building for offsite disposal.
- Conducting air monitoring for particulates at four locations around the perimeter of the site while debris was being transported daily.

On June 28, 2011, a health and safety audit was conducted on site by the US EPA Health and Safety Manager.

July 5 to 8, 2011

Activities for the week included:

- Performing ACM removal inside the building.
- Placing all double-bagged ACM into the lined roll-off container for offsite disposal.
- Continuing to conduct air monitoring for particulates at four locations around the perimeter of the site while the debris is staged outside and work continues inside the building.

On July 5, 2011, NERL provided the pH results for the liquid samples collected. (for results see Document Section of the Pol/SitRep)

On July 8, 2011, one 30 cubic yard roll-off container with friable asbestos was sent to the CERCLA approved landfill facility, Minerva Enterprises Landfill of Waynesburg, Ohio.

July 11 to 15, 2011

Activities for the week included:

- Performing ACM removal inside the building.
- Placing all double-bagged ACM into the lined roll-off container for offsite disposal.
- Loading the lined roll-off container with ACM debris that was previously consolidated inside the building.
- Continuing to conduct air monitoring for particulates at four locations around the perimeter of the site while the debris is staged outside and work continues inside the building.
- Sending ACM debris to the CERCLA approved disposal facility in Waynesburg, Ohio.

On July 12, 13 and 14, 2011, NERL provided the Pesticide, PCB, Cyanide, and Oil ID results for the liquid samples collected. (for results see Document Section of the Pol/SitRep).

On July 13 and 14, 2011, four- 30 cubic yard roll-off containers with friable asbestos were sent to the CERCLA approved landfill facility, Minerva Enterprises Landfill of Waynesburg, Ohio.

July 18 to 22, 2011

Activities for the week included:

- Performing ACM removal inside the building.
- Placing all double-bagged ACM into the lined roll-off container for off site disposal.
- Loading the lined roll-off container with ACM debris that was previously consolidated inside the building.
- Continuing to conduct air monitoring for particulates at four locations around the perimeter of the Site while the debris was staged outside and work continued inside the building.
- Sending ACM debris to the CERCLA approved disposal facility in Waynesburg, Ohio.

On July 18, 2011, two 30 cubic yard roll-off containers with friable ACM were sent to the CERCLA approved landfill facility, Minerva Enterprises Landfill of Waynesburg, Ohio.

On July 19, 2011, the Town of Greenfield Department of Planning and Development arrived on Site to show potential buyers the location of the property.

July 25 to 29, 2011

Activities for the week included:

- Performing ACM removal inside the building.
- Loading the lined roll-off container with ACM debris that was previously consolidated inside the building.
- Moving bags of powder and powder debris within the building to access additional ACM.
- Consolidating additional empty drums from inside the building that were previously inaccessible behind debris and relocating them to the drum staging area located outside on the north side of the building.
- Continuing to conduct air monitoring for particulates at four locations around the perimeter of the Site while the debris was staged outside and work continued inside the building.
- Sending ACM debris to the CERCLA approved disposal facility in Waynesburg, Ohio.

On July 25 2011, two 30 cubic yard roll-off containers with friable ACM were sent to the CERCLA approved landfill facility located in Waynesburg, Ohio.

August 1 to 5, 2011

Activities for the week included:

- Performing ACM removal inside the building.
- Placing all double-bagged ACM into the lined roll-off container for off site disposal.

- Loading the lined roll-off container with ACM debris that was previously consolidated inside the building.
- Sending ACM debris to the CERCLA approved disposal facility in Waynesburg, Ohio.

On August 2, 2011, two 30 cubic yard roll-off containers with friable ACM were sent to the CERCLA approved landfill facility located in Waynesburg, Ohio.

On August 5, 2011, one 30 cubic yard roll-off container with friable ACM was sent to the same CERCLA approved landfill facility located in Waynesburg, Ohio.

August 8 to 12, 2011

Activities for the week included:

- Performing ACM removal inside the building.
- Loading the lined roll-off container with ACM debris that was previously consolidated inside the building.
- Conducting air monitoring for particulates around the perimeter of the Site while the debris was moved outside and the last of the work continued inside the building.
- Sending ACM debris to the CERCLA approved disposal facility in Waynesburg, Ohio.
- Sending powder and powder debris to the CERCLA approved disposal facility, New England Waste Services of Vermont Landfill in Coventry, Vermont.

Engineering controls were implemented during the powder disposal to control and contain air migration. The powder piles were water misted with a fire hose, as the powder was loaded onto the trucks. Wood chip berms were built along the edge of the parking lot to control any powder run-off from the misting. The disposal trucks went through a decontamination line and had their tires hosed off so the powder would not migrate off site and not be transported down the street.

Starting on August 9, 2011, lined roll-off containers of powder were filled and sent to the CERCLA approved landfill facility, New England Waste Services of Vermont Landfill of Coventry, Vermont. During the week, 15 roll-off containers of the powder material were transported to the landfill for disposal.

On August 11, 2011, Eric Twarog of Greenfield Planning and Development, and MassDEP representative Ben Fish arrived on Site for a progress report.

On August 11, 2011, two 30 cubic yard roll-off containers with friable ACM were sent to the CERCLA approved landfill facility located in Waynesburg, Ohio. A total of 14 roll-off containers and 420 cubic yards of ACM was disposed off site.

Week of August 15 to 19, 2011

Activities for the week included:

- Sending powder and powder debris to the CERCLA approved disposal facility in Coventry, Vermont.
- Staging drums and overpacks inside the building for disposal at a later date.

During the week, 23 roll-off containers of the powder material were transported to the Coventry landfill for disposal.

August 22 to 29 2011

Activities for the week included:

- Sending powder and powder debris to the CERCLA approved disposal facility in Coventry, Vermont.
- Prepping the Site for demobilization.

During the week, 6 roll-off containers of the powder material were transported to the Coventry landfill for disposal. A total of 44 roll off containers and approximately 650 tons of powder was disposed off site.

As of August 25, 2011, the following tasks have been accomplished:

- The asbestos removal is complete. All visible asbestos and ACM has been disposed from the Site.
- All of the powder and powder debris has been consolidated. Approximately 70% has been disposed off site. The remaining powder and debris is staged in the building and is additional waste material that was discovered in areas of the building during the Removal Action. These areas could not be accessed during the PA/SI.
- All of the waste solids/liquids, PCB capacitors, lead batteries, and elemental mercury discovered during the Removal Action have been overpacked and are currently staged for disposal.

Because additional funding was needed to consolidate and remove the additional powder, debris, and other hazardous wastes discovered during the removal action, on August 25, 2011, the EPA OSC temporarily shut down all work activities and demobed equipment and personnel from the Site. The demobilization is temporary until additional funding is secured.

On August 29, 2011, NERL provided the metal results for the liquid samples collected. (for results see Document Section of the Pol/SitRep)

September 12 to 30, 2011

Activities for the weeks included:

- Re-establishing work-delineated zones, and preparing the site for T&D.
- Transporting powder from inside the building and placing it into lined roll-off containers.
- Completing the transportation and disposal of the powder and powder debris to the CERCLA-approved disposal facility in Coventry, Vermont.

On September 13, 2011, EPA OSRR Division Director signed the Action Memorandum Addendum approving

an additional \$200,000 to continue the removal action.

On September 14, 2011, the ERRS crew remobilized to the site to continue loading out white powder from inside the building.

On September 27, 2011, the Greenfield Planning and Development, Greenfield Fire Department, MassDEP, EPA, START, and ERRS attended a site walk to review the work completed on site.. During the visit, EPA informed the Town of Greenfield that because of a current dispute it had with the proposed accepting disposal facility, the drums that contained the PCB capacitors, mercury waste, sodium hydroxide, cutting oil/water, and batteries, would be staged and secured within the building until final resolution. EPA also informed the Town that their responsibility would be to remove the non-hazardous wastes such as drummed cutting oils.

On September 30, 2011, ERRS fully demobilized its crew and equipment from the site. ERRS would return to the site to complete the disposal of the staged drums after EPA resolves the disposal facility issue.

January 23 to February 9, 2012

In early January, EPA resolved the disposal facility issue.

On January 23, 2012, EPA and ERRS returned to the site for the load out of the drums stored in the building. Once there, it was noticed that the drums were not in the building. The OSC contacted the Town of Greenfield and was informed by Town officials that on December 6, 2011, the Town hired Bridgeport United Recycling, of Bridgeport, CT, and disposed the wastes that EPA planned to dispose.

In late January, the Town of Greenfield contacted and informed the EPA OSC, that their disposal contractor transported the batteries, sodium hydroxide, cutting oil, and and mercury switches and left the PCB capacitors behind because of a weight issue. In turn, the Town asked EPA to assist with disposal of the PCB capacitors.

On February 9, 2012, EPA and ERRS returned to the site to dispose the PCB wastes. United Industrial Services transported 1,145 kilograms of hazardous PCB waste off site to Veolia, Port Arthur, Texas. After the load out was completed, EPA and ERRS demobilized from the site.

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

2.1.4 Progress Metrics

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>
Asbestos and ACM	Insulation pipe and debris	204,160 pounds		Landfill	Minerva Enterprises Landfill, Waynesburg, Ohio
White powder and debris (chromium contaminated)	Loose in bags and debris	1,138 tons		Landfill	New England Waste Services of Vermont, Coventry, Vermont
PCB	Capacitors	1,145 kg		Incineration	Veolia, Port Arthur, Texas
Lead acid batteries	Batteries	2,300 pounds		Recycle/Reclamation	WTE, Greenfield, MA
Elemental mercury	Thermostat switches	24 switches		Retort/Reclamation	Tradebe Treatment & Recycling East Chicag, IN
Sodium hydroxide	Drum	400 pounds		Stabilization/Landfill	Tradebe Treatment & Recycling, Millington, TN
Cutting oil/water	Drum	775 gallons		Reclamation/used for fuel in kilns	Norlite Corp., Cohoes, NY

2.2 Planning Section

2.2.1 Anticipated Activities

None

2.2.1.1 Planned Response Activities

None

2.2.1.2 Next Steps

None

2.2.2 Issues

2.3 Logistics Section

No information available at this time.

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

No information available at this time.

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.