



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1  
1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

**CONTAINS ENFORCEMENT-SENSITIVE INFORMATION**

**MEMORANDUM**

**DATE:** August 8, 2008

**SUBJ:** Request for a Removal Action at the Old Bondsville Factory Site,  
Belchertown, Hampshire County and Palmer, Hampden County, Massachusetts - **Action Memorandum**

**FROM:** Frank Gardner, On-Scene Coordinator  
Emergency Response and Removal Section II

**THRU:** Steven R. Novick, Chief  
Emergency Response and Removal Section II

Arthur V. Johnson III, Chief  
Emergency Planning & Response Branch

**TO:** James T. Owens III, Director  
Office of Site Remediation and Restoration

**I. PURPOSE**

The purpose of this Action Memorandum is to request and document approval of the proposed removal action at the Old Bondsville Factory Site (the Site), which is located off of River Street in Belchertown, Hampshire County and Main Street in Palmer, Hampden County, and a small part of the Town of West Ware, Hampshire County, Massachusetts. Hazardous substances present in the soils at the Site, if not addressed by implementing the response actions selected in this Action Memorandum, will continue to pose a threat to human health and the environment. There are no nationally significant or precedent-setting issues associated with this Site, and there has been no use of the OSC's \$200,000 warrant authority.

**II. SITE CONDITIONS AND BACKGROUND**

**CERCLIS ID# :** MAD0000034215  
**SITE ID# :** 015P  
**CATEGORY :** Time-Critical

**A. Site Description**

**1. Removal site evaluation**

Due to high levels of lead and arsenic observed in surface soils during an April 2008 Targeted Brownfields Assessment, EPA's Brownfields program referred the Site to the Emergency Planning and Response Branch (EPRB) in May 2008. EPA conducted a removal site investigation on July 8-11, 2008 which included collection of approximately 160 soil samples. This site investigation confirmed the presence of high levels of arsenic and lead in surface soils. The site investigation was closed on July 25, 2008 with the recommendation that a time critical removal action be conducted.

**2. Physical location**

The Site is located off of Main Street in Palmer and River Street in Belchertown, Massachusetts and includes 8 parcels, totaling about 12 acres. The Site is defined in Book 8573, Page 154 at the Hampden County Registry of Deeds. The Site is in a residential area bordered by residential properties and open space to the north and west, a dam across the Swift River to the east, and Main Street in Palmer and River Street in Belchertown to the south. The focus of this removal action is the island between the Swift River and the canal parallel to Main Street in Palmer, MA at latitude 42.219263 and longitude -72.342019.

**3. Site characteristics**

The 12-acre Site is the former location of a textile mill which included about 12 buildings, built along both sides of the Swift River. The Site was originally owned and operated by the Boston Duck Company from 1845 to 1936 to manufacture cotton and woolen goods. When the Boston Duck Company moved out of state in 1936, Otis Mill of Three Rivers in Palmer took over as owner and operated the mill until 1941. In 1941, Warren Textile Print Works (later incorporated as Bondsville Realty, Inc.) operated a textile business in a portion of the mill, and leased other portions to several industrial tenants including printing and screening companies, a finishing company, and a tissue paper manufacturer.

A large fire destroyed the entire mill complex in 1968, and most of the Site has remained vacant and inactive since the fire. Starting in 1988 a condominium development was built on a portion of the Site along Main Street in Palmer. The Belchertown Land Trust took ownership of the remainder of the Site in 2006 with the goal of converting the property to public open space and recreational use. The proposed removal action will focus on the island which is formed between the Swift River and the canal which had formerly been used to provide water to the mill. An overhead railroad trestle formerly crossed the river at the northern portion of the island.

According to the 2000 Census, 2173 people live within 1 mile. According to the EPA Region 1 Environmental Justice Mapping Tool, the Site is not in an environmental justice area. The Site is publicly-accessible open space and is used for hiking, picnicking, fishing, and other outdoor recreation activities. The presence of well-worn footpaths, campfire circles, fishing tackle, and beverage containers demonstrate that the area is well-used by the public. The Swift River is a recreational water body stocked with trout for sport fishing.

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

Hazardous substances on the Site include lead and arsenic in surface soils as follows:

<b>Contaminant</b>	<b>Observed Maxima (mg/kg)</b>	<b>State Standard (mg/kg)</b>	<b>Background<sup>1</sup> (mg/kg)</b>
arsenic	528	20	20
lead	32,200	300	600

**5. NPL status**

The site is not currently on the National Priorities List, and has not received a Hazardous Ranking System rating.

**B. Other Actions to Date**

**1. Previous actions**

EPA conducted a fund-lead removal action in 1998 to address arsenic- and lead-contaminated soils at the Site. Approximately 700 cubic yards of contaminated soils were removed and replaced with clean fill. Contaminated soils were shipped off-site to an approved landfill. This prior removal action was also focused on the island, but was restricted to the area north of the former railroad trestle. The proposed removal action will address contaminated soils which extend to the south of the former railroad trestle.

**2. Current actions**

EPA conducted a Targeted Brownfields Assessment, which found the contaminated soils remaining on the island to the south of the former trestle, during sampling in April 2008. There are no other current EPA actions at the Site.

<sup>1</sup> MassDEP Technical Update to WSC/ORS #95-141: Background Levels of PAHs & Metals in Soil and Fill with Ash, May 2002.

### C. State and Local Authorities' Roles

#### 1. State and local actions to date

Massachusetts Department of Environmental Protection (MassDEP) has been involved at the Site since October 1987. MassDEP removed two leaking 40,000 gallon above ground storage tanks and 187 cubic yards of associated oils in 1987. In 1991, after complaints of skin rashes by trespassers onto the property, MassDEP removed drums of alkaline solids and liquids. Surface soils were found to contain heavy metals, PAHs, VOCs, and other hazardous substances. In May 1992 MassDEP installed a fence in the area of the Site where the contamination was found. In November and December 1994, an asbestos removal project was conducted at the Site. MassDEP performed several rounds of sampling for the construction of the condominium development.

#### 2. Potential for continued State/local response

MassDEP is currently sampling and evaluating sediments in the Swift River, in coordination with EPA site investigation activities. EPA and MassDEP will continue to coordinate throughout the proposed removal action, and MassDEP will continue to be the lead agency for the site upon completion of EPA's removal action.

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

*Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants; [§300.415(b)(2)(i)];*

Lead and arsenic in surface soils pose a direct contact threat to local residents and those who may enter the Site. Access to the Site is unrestricted, and the Site is heavily used as a public outdoor recreation area.

*Actual or potential contamination of drinking water supplies or sensitive ecosystems [§300.415(b)(2)(ii)]*

The area of contaminated soils is adjacent to the Swift River, a recreational surface water stocked with trout and heavily used for sport fishing. The Swift River flows into the Ware River about 4 miles downriver. The Ware River generally runs south, joining the Quaboag River, then the Chicopee River on its way to the Connecticut River. Before the Swift River joins it, The Ware River is part of the Massachusetts Water Resource Authority (MWRA) drinking water system serving the greater Boston area. If the contaminated soils migrate into the river, they could pose a threat to fish and other aquatic receptors.

*High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate [§300.415(b)(2)(iv)];*

Surface soils are contaminated with high levels of lead and arsenic, exceeding the applicable Massachusetts cleanup standards for surface soils in a residential/commercial setting: 300 ppm for lead and 20 ppm for arsenic.<sup>2</sup> These contaminated soils are exposed and accessible to those who may enter the Site. Sparse vegetation in some of the contaminated areas and periodic river flooding may make these soils prone to migration via erosion.

*The availability of other appropriate Federal or State response mechanisms to respond to the release [§300.415(b)(2)(vii)];*

State and local authorities do not have the resources to address the Site and have requested EPA's support in conducting this removal action.

Exposure to lead through either ingestion or inhalation can damage the nervous systems, kidneys, and immune systems. Unborn children can be exposed to lead through their mothers. Harmful effects to children include premature births, smaller babies, decreased mental ability, learning difficulties, and reduced growth in young children. In adults, lead may decrease reaction time, cause weakness in fingers, wrists, or ankles, and possibly affect the memory. Lead may cause anemia, a disorder of the blood. Certain forms of lead have been determined to cause cancer in laboratory animals.<sup>3</sup>

Arsenic can be dangerous either inhaled or ingested. Skin contact with inorganic arsenic may cause redness and swelling. Exposure to lower levels can cause nausea and vomiting, and damage circulatory, and/or nervous systems. Long-term effects include a darkening of the skin and the appearance of small "corns" or "warts" on the palms, soles, and torso. Breathing high levels of inorganic arsenic can result in a sore throat or irritated lungs, and ingesting high levels of arsenic can be fatal. Inorganic Arsenic is classified as a human carcinogen. Arsenic can accumulate in the fatty tissue of fish and shellfish.<sup>4</sup>

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<sup>2</sup> Massachusetts Contingency Plan, MCP Method 2: Direct Contact Exposure-Based Soil Concentrations, 310 CMR 40.0985(6), Table 5, Soil Category S-2 Standards.

<sup>3</sup> Agency for Toxic Substances and Disease Registry (ATSDR), U.S. Department of Health and Human Services, Public Health Service, *Toxicological Profile for Lead*, 2007.

<sup>4</sup> Agency for Toxic Substances and Disease Registry (ATSDR), U.S. Department of Health and Human Services, Public Health Service, *Toxicological Profile for Arsenic*, 2007.

#### **IV. ENDANGERMENT DETERMINATION**

Actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.<sup>5</sup>

#### **V. PROPOSED ACTIONS AND ESTIMATED COSTS**

##### **A. Proposed Actions**

##### **1. Proposed action description**

The current owner of the Site does not appear to have the financial resources to undertake the required actions at the Site. Therefore, it is anticipated that the removal will proceed as a fund-lead action. The removal action will protect public health, welfare and the environment from the threats identified in Section III by removing the hazardous substances from the Site. Specific removal activities will include the following:

- conduct a site walk with the cleanup contractor;
- provide Site security and install security fencing as needed;
- conduct additional sampling as needed to define the extent of contamination in surface soils;
- clear vegetation as needed;
- excavate lead- and arsenic-contaminated surface soils;
- cap in-place contaminated soils (if any) which may remain at depth or which cannot otherwise be safely excavated;
- backfill and grade excavated areas;
- dispose of hazardous substances at EPA-approved off-site disposal facilities.
- Repair response-related damages.

##### **2. Community relations**

EPA will coordinate closely with state and town officials on community relations activities. EPA will issue a press release announcing the cleanup. EPA plans to distribute a fact sheet to the condominium development and other local residents. EPA will also consult with town officials regarding the best time and place to conduct a public meeting.

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<sup>5</sup> In accordance with OSWER Directive 9360.0-34, an endangerment determination is made based on relevant action levels, cleanup standards, risk management guidance, or other relevant information published and relied upon by the State of Massachusetts.

### **3. Contribution to remedial performance**

The cleanup proposed in this Action Memorandum is designed to mitigate the threats to human health and the environment posed by the Site. The actions taken at the Site would be consistent with and will not impede any future responses.

### **4. Description of alternative technologies**

The use of alternative technologies with regard to off-site disposal options will be examined as the site work progresses. On-site field screening and analytical techniques may also continue to be utilized for on-site field characterization purposes.

### **5. Applicable or relevant and appropriate requirements (ARARs)**

#### Federal ARARs:

#### 40 CFR Part 262 Standards Applicable to Generators of Hazardous Waste:

##### Subpart B - The Manifest

- 262.20 : General requirements for manifesting
- 262.21 : Acquisition of manifests
- 262.22 : Number of copies of manifests
- 262.23 : Use of the manifest

##### Subpart C - Pre-Transport Requirements

- 262.30 : Packaging
- 262.31 : Labeling
- 262.32 : Marking

##### Subpart D - Recordkeeping and Reporting

- 262.40 : Recordkeeping

#### 40 CFR Part 264 Standards for Owners and Operators of Hazardous waste Treatment, Storage, and Disposal Facilities:

##### Subpart I - Use and Management of Containers

- 264.171 : Condition of containers
- 264.172 : Compatibility of waste with containers
- 264.173 : Management of containers
- 264.174 : Inspections
- 264.175 : Containment
- 264.176 : Special requirements for ignitable or reactive waste
- 264.177 : Special requirements for incompatible wastes

#### 40 CFR Part 264 Hazardous Waste Regulations - RCRA Subtitle C:

- 268-270 : Hazardous and Solid Waste Amendments Land Disposal Restrictions Rule

#### 40 CFR Part 300.440 Procedures for Planning and Implementing Off-Site Response Actions (Off-Site Rule)

State ARARs:

The OSC will coordinate with State officials to identify additional State ARARs, if any. In accordance with the National Contingency Plan and EPA Guidance Documents, the OSC will determine the applicability and practicability of complying with each ARAR which is identified in a timely manner.

**6. Project schedule**

Removal activities are expected to begin within four to six weeks. The overall removal action is anticipated to be complete within nine months.

**B. Estimated Costs**

<b>COST CATEGORY</b>		<b>CEILING</b>
<i>REGIONAL REMOVAL ALLOWANCE COSTS</i>		
ERRS Contractor		\$600,000.00
Interagency Agreement		\$ 0.00
<i>OTHER EXTRAMURAL COSTS NOT FUNDED FROM THE REGIONAL ALLOWANCE</i>		
START Contractor		\$200,000.00
Extramural Subtotal		\$800,000.00
Extramural Contingency	20%	\$160,000.00
<b>TOTAL, REMOVAL ACTION CEILING</b>		<b>\$960,000.00</b>

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

In the absence of the removal action described herein, conditions at the Site can be expected to remain unaddressed, and threats associated with the abandoned hazardous substances will persist.

**VII. OUTSTANDING POLICY ISSUES**

There are no precedent-setting policy issues associated with this site.

**VIII. ENFORCEMENT ... For Internal Distribution Only**

See attached Enforcement Strategy.

The total EPA costs for this removal action based on full-time accounting practices that will be eligible for cost recovery are estimated to be \$960,000 (extramural costs) + \$100,000 (EPA intramural costs) = \$1,060,000 X 1.33 (regional indirect rate) = **\$1,409,800<sup>6</sup>**.

## IX. RECOMMENDATION

This decision document represents the selected removal action for the Old Bondsville Factory Site in Belchertown and Palmer, Massachusetts developed in accordance with CERCLA, as amended, and is not inconsistent with the National Contingency Plan. The basis for this decision will be documented in the administrative record to be established for the Site.

Conditions at the Site meet the NCP Section 300.415 (b) (2) criteria for a removal action due to the following:

*Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants [§300.415(b)(2)(i)];*

*Actual or potential contamination of drinking water supplies or sensitive ecosystems [§300.415(b)(2)(ii)];*

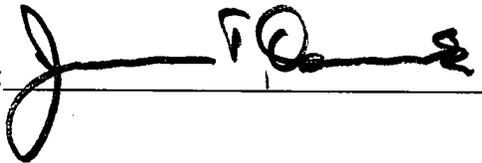
*High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate [§300.415(b)(2)(iv)]; and*

*The availability of other appropriate Federal or State response mechanisms to respond to the release [§300.415(b)(2)(vii)].*

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<sup>6</sup> Direct Costs include direct extramural costs \$960,000 and direct intramural costs \$100,000. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site specific costs [33% x \$1,060,000, consistent with the full accounting methodology effective October 2, 2000. These estimates do not include pre-judgement interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States' right to cost recovery.

I recommend that you approve the proposed removal action. The total removal action project ceiling if approved will be \$960,000.

APPROVAL: 

DATE: 8.11.08

DISAPPROVAL: \_\_\_\_\_

DATE: \_\_\_\_\_