



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

1 CONGRESS STREET, SUITE 1100

BOSTON, MASSACHUSETTS 02114-2023

**CONTAINS ENFORCEMENT-SENSITIVE INFORMATION**

**MEMORANDUM**

**DATE:** March 24, 2009

**SUBJ:** Request for a Removal Action at the Merrimack Industrial Metals Site,  
Merrimack, Hillsborough County, New Hampshire - **Action Memorandum**

**FROM:** Brent England, On-Scene Coordinator *BRE*  
Emergency Response and Removal Section II

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

Arthur V. Johnson III, Chief *AVJ*  
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 Merrimack Industrial Metals Site (the Site), which is located at 740 Milford Road (Highway 101A) in Merrimack, Hillsborough County, New Hampshire. Hazardous substances present in surface soils and containers 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. EPA anticipates conducting the project as a fund-lead action. 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# :** NHD982745655  
**SITE ID# :** 01FM  
**CATEGORY :** Time-Critical

**A. Site Description**

**1. Removal site evaluation**

At the request of New Hampshire Department of Environmental Services (NH DES), the United States Environmental Protection Agency's (EPA's) Emergency Planning and

Response Branch (EPRB) conducted a Removal Program Preliminary Assessment and Site Investigation (PA/SI) of Merrimack Industrial Metals (the "Site") on 25 September 2008. The PA/SI consisted of collecting samples from surface soils. Samples were tested for hazardous materials and suspected contaminants. Hazardous substances found in the sampled media included (but are not limited to) lead and polychlorinated biphenyls. The PA/SI also documented the presence of hazardous substances in containers, including compressed gas cylinders and lead-acid car batteries. The site investigation was closed on 03 February 2009 with the recommendation that a time critical removal action be conducted.

## **2. Physical location**

The Site is located at 740 Milford Road (Highway 101A), in a mixed residential/commercial area of Merrimack, New Hampshire. The property is identified at the Hillsborough County Registry of Deeds Book 1865, Page 211. The Site is abutted by the Pennichuck River to the east, Milford Road (Highway 101A) to the West, an industrial building to the North, and a wooded area with active train tracks to the South.

## **3. Site characteristics**

The Site is approximately 5 acres and encompasses 2 remaining buildings: a main sorting building with adjacent offices and a repair shop building. According to the 2000 Census, 1,605 people live within 1 mile. The nearest school is located less than 0.25 miles away. The Site is directly adjacent to the Pennichuck River, a Class "A" water body and the main drinking water supply for the City of Nashua. The Site also abuts and is within the wellhead protection area for the Merrimack Village District (MVD) Municipal Supply Well Number 6 (Well #6). According to the EPA Region 1 Environmental Justice Mapping Tool, the Site is not in an environmental justice area.

The buildings are in disrepair, with many broken windows and doors ajar or missing. The Site is inactive and unattended. The Site is not adequately fenced to prevent access. The presence of extensive graffiti and paintball equipment indicate that unauthorized access occurs.

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

Hazardous substances involved in the release or threat of release at the Site include, but are not limited to; lead and polychlorinated biphenyls.

## **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 has not conducted any previous removal actions at the Site.

**2. Current actions**

There are no ongoing Site activities at this time.

**C. State and Local Authorities' Roles**

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

Several Investigations conducted by the New Hampshire Department of Environmental Services (NH DES) and others have documented a release of contaminants from the former Site operations, including metals (lead), and polychlorinated biphenyls (PCBs). Previous investigations concluded that relatively high groundwater withdrawal rates at Well 6 had drawn contaminants from the MIM Site to Well 6.

Because of the presence of contaminants, Merrimack Village District ceased using Well 6 in 1985, but because of increasing water supply demands, they are in the process of evaluating reactivation of the well.

The areas of stockpiled soil on site were created by MIM from October 1999 to December 1999 during the initial cleanup of the Site as part of negotiations for the sale of the property. Due to economic conditions, the transaction did not occur. The owner of the property, George Patterson, died in 2007.

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

NH DES plans to support the response by providing transportation and disposal of petroleum-based materials that may be encountered.

**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 polychlorinated biphenyls in waste piles and surface soils, abandoned lead/acid batteries, and pressurized cylinders pose a direct contact threat to local residents and those who may enter the Site. Access to the Site is unrestricted, and the abandoned structure may act as an attractive nuisance, bringing unauthorized individuals in close contact with the hazardous substances present.

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>1</sup> Health effects that have been associated with exposure to PCBs include acne-like skin conditions in adults and neurobehavioral and immunological changes in children. PCBs are known to cause cancer in animals.<sup>2</sup>

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

The Site is located adjacent to both Pennichuck River and Merrimack Village District (MVD) Municipal Supply Well Number 6. Pennichuck River is a Class A water body and the main water supply source for the City of Nashua. The Site is located within the wellhead protection area for the MVD Municipal Supply Well Number 6, a large source of water for the Village District of Merrimack. Contaminants on the Site have been shown by State and Local officials to be contaminating the water at Well 6. This forced the shutdown of the well in 1985. Increasing water demands have prompted reevaluation of the well for public use.

*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 and waste piles are contaminated with lead up to 2,800 mg/kg and polychlorinated biphenyls up to 72 mg/kg. The applicable New Hampshire cleanup standards for surface soils in

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<sup>1</sup> Agency for Toxic Substances and Disease Registry (ATSDR), U.S. Department of Health and Human Services, Public Health Service, *Toxicological Profile for Lead*, 1993.

<sup>2</sup> Agency for Toxic Substances and Disease Registry (ATSDR), U.S. Department of Health and Human Services, Public Health Service, *Toxicological Profile for PCBs*, 2001.

a commercial setting are 400 mg/kg for lead and 1 mg/kg for polychlorinated biphenyls.<sup>3</sup> These contaminated surface soils are exposed and accessible to those who may enter the Site. Sparse vegetation in these areas may make these soils prone to migration via erosion.

*Threat of fire or explosion [§300.415(b)(2)(vi)];*

Abandoned pressurized cylinders on the Site present a threat of fire, explosion and/or release of contents to atmosphere. The cylinders are located within an abandoned building. The utilities to the building are currently shut off. In the event of a fire or explosion, the fire suppression system would not function properly. A lack of security also presents opportunities for trespassing and vandalism.

*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 properly address the Site and have requested EPA's support in conducting this removal action.

#### **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>6</sup>

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

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

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

Specific removal activities will include the following:

- conduct a site walk with the cleanup contractor;

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<sup>3</sup>New Hampshire Code of Administrative Rules, Soil Remediation Criteria, Env-Or 606.19, Table 600-2, Soil Remediation Standards.

<sup>6</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 New Hampshire.

- provide Site security as needed;
- remove and dispose of lead-acid batteries and pressurized cylinders and other small containers of hazardous substances that may be encountered
- conduct additional sampling as needed to define the hazardous substances present and the extent of contamination in surface soils and waste piles;
- excavate and dispose of lead- and polychlorinated biphenyl-contaminated surface soils and waste piles;
- cap in-place contaminated soils (if any) which may remain at depth or which cannot otherwise be safely excavated;
- stage, and dispose off-site hazardous substances at EPA-approved disposal facilities;
- backfill and grade excavated areas;
- Repair response-related damages.

## **2. Community relations**

Since the Site is located within a well-travelled area, EPA will remain involved with the community throughout the cleanup. EPA will coordinate closely with state and local authorities on community relations activities such as press releases, fact sheets, or public meetings.

## **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)**

40 CFR Part 122-125 and 131: National Pollutant Discharge Elimination System (NPDES)

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

40 CFR Part 403: General Pretreatment for Existing and New Sources of Pollution

Federal ARARs will be met to the extent practicable considering the exigencies of the situation. The OSC will coordinate with State officials to identify additional State ARARs, if any, and will meet, to the extent practicable, each ARAR identified in a timely manner.

The following, while not ARARs, will be complied with during the removal action:

29 CFR Parts 1910, 1926, and 1904: OSHA Health and Safety Regulations

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 300.440 Procedures for Planning and Implementing Off-Site Response Actions (Off-Site Rule)

49 CFR Parts 171-179 : Department of Transportation Regulations for Transport of Hazardous Materials

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 of its commencement.

**B. Estimated Costs**

COST CATEGORY		CEILING
<i>REGIONAL REMOVAL ALLOWANCE COSTS:</i>		
ERRS Contractor		\$1,000,000.00
Interagency Agreement		\$ 0.00
<i>OTHER EXTRAMURAL COSTS NOT FUNDED FROM THE REGIONAL ALLOWANCE:</i>		
START Contractor		\$200,000.00
Extramural Subtotal		\$1,200,000.00
Extramural Contingency	25%	\$300,000.00
<b>TOTAL, REMOVAL ACTION CEILING</b>		<b>\$1,500,000.00</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 \$1,500,000 (extramural costs) + \$200,000 (EPA intramural costs) = \$1,700,000 X 1.361 (regional indirect rate) = **\$2,313,700**<sup>7</sup>.

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<sup>7</sup>Direct Costs include direct extramural costs \$1,500,000 and direct intramural costs \$200,000. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site specific costs [36.1% x \$1,700,000, 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



## IX. RECOMMENDATION

This decision document represents the selected removal action for the Merrimack Industrial Metals Site in Merrimack, New Hampshire 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)];*

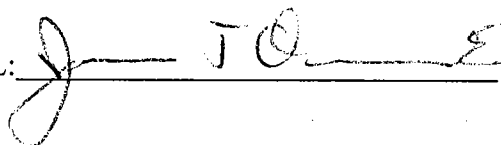
*High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate [§300.415(b)(2)(iv)];*

*Threat of fire or explosion [§300.415(b)(2)(vi)];*

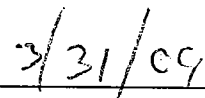
*The availability of other appropriate Federal or State response mechanisms to respond to the release [§300.415(b)(2)(vii)];*

I recommend that you approve the proposed removal action. The total removal action project ceiling if approved will be \$1,500,000.

APPROVAL: \_\_\_\_\_



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



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

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