



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1  
5 POST OFFICE SQUARE – SUITE 100  
BOSTON, MASSACHUSETTS 02109-3912

**CONTAINS ENFORCEMENT-SENSITIVE INFORMATION**

**MEMORANDUM**

**DATE:** 14 August 2014

**SUBJ:** Request for a Removal Action Ceiling Increase  
Fay Street Site, Lowell, Middlesex County, Massachusetts  
**Action Memorandum – Ceiling Increase** *by email + For MSB*

**FROM:** Elsbeth Hearn, Federal On-Scene Coordinator  
Emergency Response and Removal Section I

**THRU:** Michael Barry, Acting Chief  
Emergency Response and Removal Section I

Carol Tucker, 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 a ceiling increase at the Fay Street Site (the Site), which consists of properties at and adjacent to 86 Fay Street in Lowell, Middlesex County, Massachusetts. Hazardous substances present at the ground surface, if not addressed, will continue to pose a threat to human health and the environment.

The initial estimate of contaminated soil in the Action Memorandum dated 14 April 2014 was based solely on a preliminary site investigation performed in July 2013. This assessment delineated approximately half of the amount of contaminated soil that the June 2014 extent of contamination survey fully defined. In addition to this increase in quantity, the proposed transportation and disposal method may need to be altered due to the results of leachability tests performed on representative soil samples, indicating that a portion may need to be treated on-Site or sent to a hazardous waste landfill. The current ceiling is \$528,000, of which \$430,000 has been obligated to the Emergency and Rapid Response Services (ERRS) contract, and \$50,000 has been obligated to the Superfund Technical Assessment and Response Team (START) contract. There are no nationally significant or precedent-setting issues associated with this Site, and there has been no use of the OSC's delegation and warrant authority.

## II. SITE CONDITIONS AND BACKGROUND

**CERCLIS ID# :** MAN000106163  
**SITE ID# :** 01 LH  
**CATEGORY :** Time-Critical

### A. Site Description

#### 1. Removal site evaluation

*Please refer to the Action Memorandum dated April 14, 2014 for a more detailed history and past response actions at the Fay Street Site.*

The Fay Street Site consists of a Brownfields Site at 86 Fay Street, adjacent properties including 74 & 78 Fay Street, and a condominium complex at 106 Lundburg Street. Historic data indicate that these properties were the dumping location for ash and debris from the now defunct J. A. Ready Boiler Works and the Middlesex North Agricultural Fairgrounds.

#### 2. Physical location

The Fay Street Site, defined during the EPA Site Investigation consists of residential properties adjacent to 86 Fay Street. The geographic coordinates as measured from the center of 86 Fay Street are 42 degrees 37 minutes 26.3 seconds north latitude and 71 degrees 18 minutes and 10.2 seconds west longitude. The impacted properties cover an area of approximately 3 acres.

#### 3. Site characteristics

*Please refer to the Action Memorandum dated April 14, 2014 for a more detailed description of site characteristics.*

Properties in the vicinity of the Site have been mainly residential since the 1880s. The properties 86 Fay Street and 106 Lundberg Street were once a single property and historically were occupied by the J.A. Ready Boiler Works from approximately 1896 to the early 1900s. The property north of 86 Fay Street was occupied by the Middlesex North Agricultural Fairgrounds from 1860 to about 1910. This northern property is currently occupied by the O'Donnell Park, Shaughnessy Elementary and Butler Middle Schools.

In May 2013, MassDEP notified EPA's Removal Program that based on the Brownfields funded excavations at 86 Fay Street, hazardous material may be on adjacent properties.

On July 23-24, 2013, EPA completed field sampling which identified lead contaminated soil 0-2 feet below ground surface at 74 Fay Street and 106 Lundberg Street.

On June 10-12, 2014, EPA completed an extent of contamination survey on all impacted properties. Following that, EPA mobilized to the Site to begin removal work on July 14, 2014.

## **2. Current actions**

EPA mobilized to the Fay Street Site on July 14, 2014. Following the initial mobilization, a command post was established with all necessary components and excavation began on July 24, 2014 on the 78 & 74 Fay Street properties. Following the clean-up completion of the 78 & 74 Fay Street properties, removal activities will begin at the Condominium Complex at 106 Lundberg Street.

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

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

*Please refer to the Action Memorandum dated April 14, 2014 for more information regarding state and local actions to date.*

The City of Lowell has provided EPA with access of the Brownfields property at 86 Fay Street to be used as a staging area for EPA removal activities and to connect the abutting properties into the completed soil cap.

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

Neither MassDEP nor the City of Lowell has the resources to conduct a removal action, but will continue to provide active support, public outreach and a regulatory role.

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

*Please refer to the Action Memorandum dated April 14, 2014 for details regarding threats to public health or the environment, and statutory and regulatory authorities, including, but not limited to:*

Previous site investigations and historical data suggest that the area was used for land disposal of ash prior to 1938. Sometime between 1945 and 1950 the City of Lowell acquired the property, currently identified as 86 Fay St and 106 Lundberg Street, for tax purposes.

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

*Please refer to the Action Memorandum dated April 14, 2014 for more information regarding initial hazardous substance and contaminant data.*

The July 2013 estimate of contaminated soil was approximately half the amount the June 2014 extent of contamination survey determined is necessary to remove from the Site to abate the immediate threat to human health and the environment. More extensive sampling confirmed that soil contamination extended further into the impacted properties than the preliminary assessment indicated. In addition, the Massachusetts Contingency Plan S-1 Standard for lead contamination in soil has decreased from 300 ppm to 200 ppm since the initial Action Memorandum was signed.

Transportation and disposal (T&D) costs have both increased due to the increase in quantity and also the potential for increased disposal cost per disposal unit. Leachability tests performed on some of the contaminated soil indicate that some soil may need to be treated on-Site or sent to a hazardous waste landfill, instead of the original assumption that all soil would be transported offsite to a RCRA Subtitle D landfill. Representative samples were taken to determine whether the soil would pass the Toxicity Characteristic Leaching Procedure (TCLP) test. Of the three samples, one had a leachable lead concentration that came relatively close to the maximum allowable concentration. This is considered close to the "worst case" and therefore is assumed that the majority of soil will pass the leachability standard test for disposal at a Subtitle D landfill. However, due to the complexity of this soil, an estimated 30% will be considered potential hazardous waste for cost estimating purposes in this Action Memorandum.

**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**

- Excavate contaminated soil and debris not to exceed three feet below ground surface (*new estimated volume of 3,000 tons*); *Concrete from 1800 J.O.*
- Perform dust monitoring, control, and mitigation measures as necessary;
- Backfill excavated areas;
- Pre-treat hazardous substances if beneficial for off-site disposal options;
- Determine disposal options for contaminated material and dispose of hazardous substances at an EPA-approved off-site disposal facilities(s); and, *see A III 4 J.O.*
- Repair response-related damages including, but not limited to replacing fences, re-establishing vegetation/landscape in areas that were impacted by removal activities, and installing erosion/runoff control measures etc. (between 74 Fay Street/106 Lundberg Street properties and 86 Fay Street), as necessary.

This removal action will be conducted in a manner not inconsistent with the NCP.

*Please refer to the Action Memorandum dated April 14, 2014 for more detailed information on proposed actions. All proposed actions in the original Action Memorandum are consistent with the actions proposed here.*

## 2. Community relations

The OSC will coordinate and communicate cleanup activities during the removal action with the State, local authorities and the EPA Community Involvement Coordinator(s).

## 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 may be evaluated if beneficial for off-site disposal.

## 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

- 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)];
- 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)];
- Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released [§300.415(b)(2)(v)];
- The availability of other appropriate Federal or State response mechanisms to respond to the release [§300.415(b)(2)(vii)].

#### IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances or pollutants or contaminants 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, welfare, or the environment.<sup>1</sup>

#### V. PROPOSED ACTIONS AND ESTIMATED COSTS

##### A. Proposed Actions

##### 1. Proposed action description

The response actions described in this memorandum directly address actual or potential release of hazardous substances, which may pose an imminent and substantial endangerment to public health, welfare, or the environment. The removal contingency has been raised to 15% to account for potential variability in transportation and disposal costs. Removal activities that have been modified or are considered critical include the following:

- Mitigate safety concerns and coordinate field activities with residents at 74 Fay Street and 106 Lundberg Streets to allow for safe work on the residential properties;

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<sup>1</sup> In accordance with OSWER Directive 9360.0-34, an endangerment determination is made based on "appropriate Superfund policy or guidance, or on collaboration with a trained risk assessor," which is outlined and discussed in Section III above. "Appropriate sources include, but are not limited to, EPA relevant action level or clean-up standards, Agency for Toxic Substances and Disease Registry documents or personnel, or staff toxicologists." EPA relied on Connecticut Remediation Standard Regulations Standards for determining risk at the Site.

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:

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)

40 CFR Part 61: Clean Air Act standards for controlling dust

40 CFR Sections 122.26(c)(ii)(C) and 122.44(k): Clean Water Act NPDES regulations for storm water control and management

**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**

All work is expected to be completed within twelve months from the mobilization date.

**B. Estimated Costs**

COST CATEGORY		April 2014 CEILING		NEW CEILING
<i>REGIONAL REMOVAL ALLOWANCE COSTS:</i>				
ERRS Contractor		\$390,000.00		\$760,000.00
US Army Corps of Engineers		\$10,000.00		\$0.00
<i>OTHER EXTRAMURAL COSTS NOT FUNDED FROM THE REGIONAL ALLOWANCE:</i>				
START Contractor		\$50,000.00		\$118,000.00
Engineering Services		\$30,000.00		\$30,000.00
Extramural Subtotal		\$480,000.00		\$908,000.00
Extramural Contingency	10%	\$48,000.00	15%	\$136,000.00
<b>TOTAL, REMOVAL ACTION CEILING</b>		<b>\$528,000.00</b>		<b>\$1,044,000.00</b>

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

Delayed action will increase public health risks due to increased exposure to heavy metals. Without the removal action described herein, conditions at the Site will remain unaddressed, and threats associated with the hazardous substances will persist. If this request for ceiling increase is not approved, transportation and disposal activities will not be completed and therefore contaminated soil will remain stockpiled adjacent to residential properties.

**VII. OUTSTANDING POLICY ISSUES**

There is 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 \$1,044,000(extramural costs) + \$60,000 (EPA intramural costs) + (\$1,044,000 X 37.78%) (regional indirect rate) = **\$1,498,423**<sup>2</sup>.

## IX. RECOMMENDATION

This decision document represents the selected removal action for the Fay Street Site in Lowell, 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)];*

*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)];*

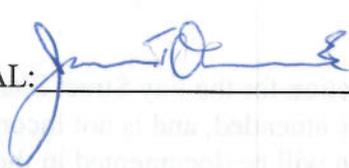
*Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released [§300.415(b)(2)(v)];*

*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>2</sup>Direct Costs include direct extramural costs \$1,044,000 and direct intramural costs \$60,000. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site specific costs 37.78% x \$1,044,000, consistent with the full accounting methodology effective October 1, 2013. These estimates do not include pre-judgment 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 extramural removal action project ceiling if approved will be \$1,044,000.

APPROVAL: 

DATE: 8/21/14

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

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