



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

**MEMORANDUM**

**DATE:** May 8, 2024

**SUBJ:** Request for a Second Removal Action at the Temple Stuart Site,  
Baldwinville, Worcester County, Massachusetts- **Action Memorandum**

**FROM:** Wing Chau, On-Scene Coordinator  
Emergency Response and Removal Section II

**THRU:** Valerie Jurgens, Acting Manager  
Emergency Response and Removal Section II

William Lovely, Acting Manager  
Emergency Planning and Response Branch

**TO:** Bryan Olson, Director  
Superfund and Emergency Management Division

**I. PURPOSE**

The purpose of this Action Memorandum is to request and document approval of the proposed removal action at the Temple Stuart Site (the Site), which is located at 24 Holman Street in Baldwinville, Worcester County, Massachusetts. Hazardous substances present in soil 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 On-Scene Coordinator's \$200,000 warrant authority.

**II. SITE CONDITIONS AND BACKGROUND**

**CERCLIS ID# :** MAD985297969  
**SITE ID# :** 01AC  
**CATEGORY :** Time-Critical

## **A. Site Description**

### **1. Removal site evaluation**

The site was acquired in 2022 by MacVallee, Inc. from the town of Templeton, Massachusetts.

In June 2023, the U.S. Environmental Protection Agency (EPA) Region 1 removal program received a letter from the Massachusetts Department of Environmental Protection (MassDEP), dated May 10, 2023, requesting assistance to address polychlorinated biphenyl (PCBs) contaminated soils located at the Temple Stuart Site. The request indicated that during a site investigation performed as part of a Targeted Brownfields Assessment in February and March 2023, high concentrations of PCBs were detected in surface soils. Due to the PCB concentrations in surficial soils, MassDEP had requested that EPA's brownfields contractor restrict access to these areas with temporary fencing to limit exposure.

The EPA removal program reviewed the Phase I Environmental Assessment Report dated March 2022, the Targeted Brownfields Assessment sampling results, and historical reports related to past Site activities. To further define the extent of PCB contamination, the removal program requested the EPA brownfields program to conduct additional sampling near the identified PCB-contaminated areas. The EPA brownfields' contractor conducted the additional sampling in September 2023. This additional sampling confirmed elevated PCB levels in and around the restricted area and by an adjacent concrete slab which had been used for staging of PCB-contaminated soil during a prior EPA removal action initiated in 2002.

Based on the review of historical reports, including the 2022 Phase I Environmental Assessment and the sampling results from EPA's brownfield assessments, the removal site evaluation was concluded with the signing of the Site Investigation Closure Memorandum dated December 13, 2023, which indicates that site conditions warrant a time-critical removal action to address the release or threat of release of hazardous substances into the environment.

### **2. Physical location**

The Site is located at 24 Holman Street (previously 4 Holman Street) in Baldwinville, Massachusetts which is an unincorporated village of Templeton, Worcester County, Massachusetts. It is identified as Lot 4 on Tax Map 6 by the Town of Templeton Tax Assessors.

**Latitude:** 42.613545

**Longitude:** -72.075699

### **3. Site characteristics**

The 23-acre Site includes the remnants of the former Temple Stuart Mill complex and is located in a largely residential area, approximately three-eighths of a mile from the center of Baldwinville. Approximately 8,200 people live in Baldwinville, of which several hundred live within a quarter mile of the Site. Located within a mile are an elementary school and a nursing home. The public has access through the Site between Route 202 and local residential areas.

An unnamed subsurface stream flows along the southwest Site boundary, parallel to the railroad tracks and beneath Route 202, and an unnamed surface stream flows southwest along the northern Site boundary.

Based on information in EPA's EJSCREEN environmental justice screening tool, zero out of 12 Environmental Justice Indexes for the area within a one-mile radius of the Site exceed the 80th percentile on a national basis.

Based on information in the [Climate Mapping tool for Resilience and Adaptation](#) (CMRA), none of the Climate Hazards exceed a National Risk Index Rating of Relatively Moderate in Worcester County.

From 1884 until 1909, Holman & Harris used the Site to commercially manufacture wooden pails, tubs, and buckets. The Temple Stuart Company operated at the Site from 1910 until 1990, manufacturing wooden furniture. Starting in 1992, American Tissue Mills of Massachusetts, Inc. transitioned operations to tissue manufacturing until 2001.

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

The sampling events performed by EPA's brownfields contractor in February, March and September 2023 documented the presence of hazardous substances as defined by Section 101(14) of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 42 U.S.C. §9601(14), and 40 CFR § 302.4, including but not limited to PCBs in concentrations up to 362 parts per million (ppm) in surficial soils. The PCBs were also found in excess of 10 ppm in soil from zero to six feet below ground surface. In accordance with the Massachusetts Contingency Plan (MCP), 310 CMR 40.0000, PCBs in excess of 10 ppm from zero to twelve inches below surface grade trigger an imminent hazard condition. PCBs were also found on an adjacent concrete pad that had previously been used by EPA to stockpile PCB-contaminated soil during a removal action in 2002.

Further delineation of the PCB-contaminated soil was requested by the EPA removal program; and on September 25 to 27, 2023, EPA's brownfields contractor conducted further sampling of the soil and adjacent concrete pad. PCBs were confirmed on concrete and the adjacent surface soils. As the concrete was previously used to stockpile PCB-contaminated soil, it is likely that it

is the source of PCBs in the soil and if left in place, will continue to migrate into the environment and pose an exposure risk to the nearby population. Additional soil sampling will be needed to further define the extent of contamination. Based upon current available information, it is estimated that potentially 1,500 cubic yards of PCB-contaminated soils may need to be removed to address this release to the environment.

### 5. NPL status

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

### 6. Maps, pictures, and other graphic representations

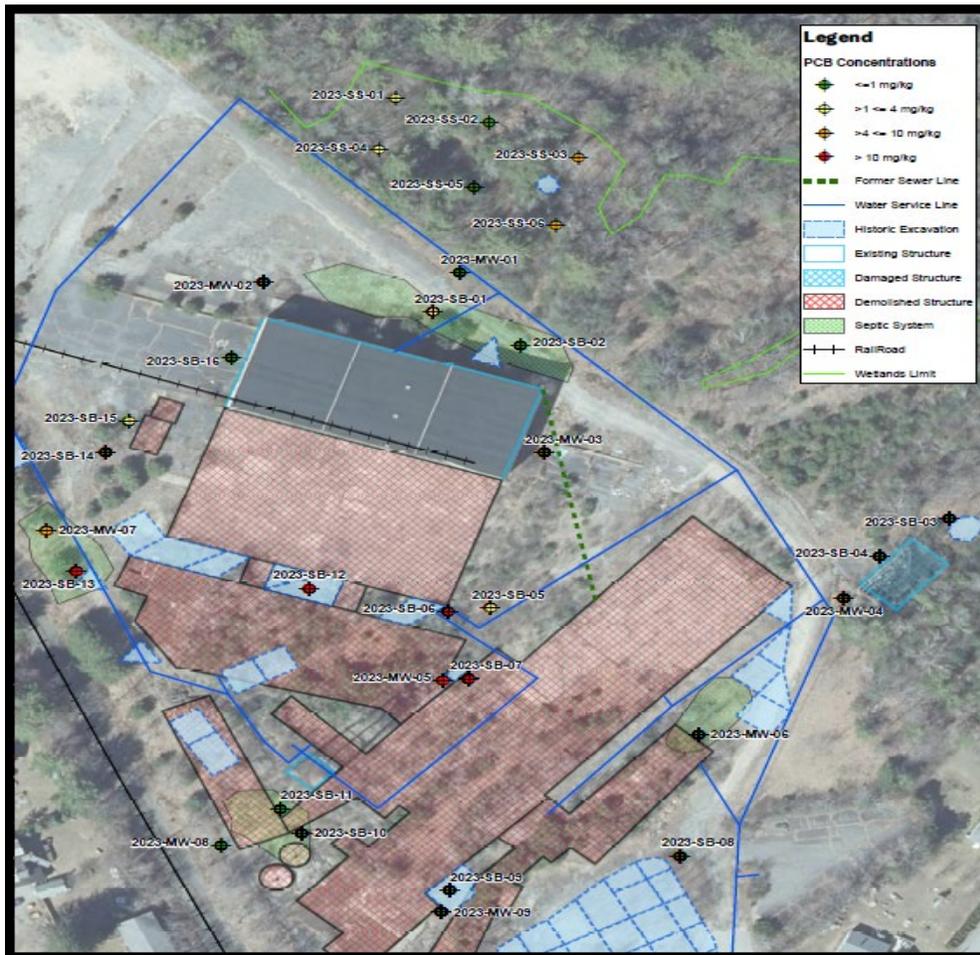


Figure produced as part of Brownfields assessment with boring locations containing PCBs in excess of 10 ppm shown in red.



Figure produced as part of Brownfields assessment with concrete sampling locations containing PCBs in excess of 10ppm shown in red.

## **B. Other Actions to Date**

### **1. Previous actions**

In 2002, EPA conducted a removal action which involved the removal of friable asbestos and other hazardous substances at the facility. The structurally unsafe conditions of most of the buildings required their demolition as part of the removal action. While performing sampling in and around the former "landfill" area, EPA identified PCB-contaminated soils. EPA excavated and removed soils with the most contamination.

Following the 2002 removal action, EPA began sampling of surrounding residential properties, revealing widespread PCB contamination. Between 2004 and 2007, EPA sampled 113 residential properties and removed PCB-impacted soil from 67 in the area surrounding the Site. In 2005, a chain link fence was installed around the northern part of the Site to restrict access to high levels of PCBs

in the former landfill area. Control of the property was remanded to the MassDEP and the town of Templeton upon completion of the second removal action.

## **2. Current actions**

In 2022, the town received EPA brownfields funding for additional Site assessment, specifically to address issues related to potential contaminants in soil and groundwater. EPA's brownfields contractor completed soil and groundwater sampling with preliminary results indicating high concentrations of PCBs in shallow soil samples from previously remediated areas.

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

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

MassDEP first listed the Site as a *Location to be Investigated* in January 1993 when American Tissue Mills of Massachusetts, Inc. reported an oil release. MassDEP assigned Release Tracking Number 2-0000924 and determined it a *Priority Disposal Site* in May 1994. Massachusetts Contingency Plan Phase II and Phase III reports were submitted to MassDEP in February and March 2001.

In June 2023, MassDEP, in a letter dated May 10, 2024, asked the EPA removal program to address the elevated concentrations of PCBs in Site soil. MassDEP continues to coordinate with EPA's removal and brownfields programs and the property owner to ensure the temporary security of contaminated soil and to address additional contamination found on-site.

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

MassDEP staff will continue to work with the town and property owner to ensure the remediation of other site contamination through the use of brownfields grants.

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

PCBs are the primary contaminants found at the Site that presents a release or threat of release of hazardous substances into the environment. Hazardous substances present pose a significant threat to public health, welfare, and the environment due to the on-going release from the unprotected concrete pad and migration to adjacent soils. Additionally, uncontrolled access and evidence of trespassing indicates an exposure risk to the nearby population. As described below, the conditions at the Site meet the general criteria for a removal action, as set forth in 40 C.F.R. §300.415(b)(1), in that "there is a threat to public health or welfare of the United States or the

environment,” and in consideration of the factors set forth in 40 C.F.R. §300.415(b)(2) as described below.

**PCBs** - The most commonly observed health effects in people exposed to large amounts of PCBs are skin conditions such as acne and rashes. Studies in exposed workers have shown changes in blood and urine that may indicate liver damage. PCB exposures in the general population are not likely to result in skin and liver effects. Most of the studies of health effects of PCBs in the general population examined children of mothers who were exposed to PCBs. Animals that ate food containing large amounts of PCBs for short periods of time had mild liver damage and some died. Animals that ate smaller amounts of PCBs in food over several weeks or months developed various kinds of health effects, including anemia; acne-like skin conditions; and liver, stomach, and thyroid gland injuries. Other effects of PCBs in animals include changes in the immune system, behavioral alterations, and impaired reproduction. The Department of Health and Human Services has concluded that PCBs may reasonably be anticipated to be carcinogens. EPA and the International Agency for Research on Cancer have determined that PCBs are probably carcinogenic to humans.<sup>1</sup>

*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)];*

PCBs present a hazard to public health and the environment. Residential properties located near the Site creates a significant threat of exposure to nearby residents. PCBs are hazardous substance as defined by Section 101(14) of CERCLA, 42 U.S.C. §9601(14) and 40 C.F.R. §302.4. Due to the unsecured nature of the Site, PCBs cannot be adequately contained and pose an exposure risk to trespassers and may migrate via heavy winds and rain to adjacent residential properties and/or groundwater.

*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)];*

PCBs are present in surface soils and on concrete pads in high concentrations. Exposure to rain and wind will likely cause the contamination to migrate.

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

PCBs are present in surface soils and on concrete pads in high concentrations. Exposure to rain and wind will likely cause the contamination to migrate.

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<sup>1</sup> Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs for Polychlorinated Biphenyls (PCBs), July 2014.

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

MassDEP has indicated that currently it does not have the necessary resources to address Site contamination; therefore, MassDEP has asked that EPA mitigate the threat.

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

The sampling events performed by EPA brownfield's contractor in February, March 2023 and September 2023 documented that there was 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. In accordance with OSWER Directive 9360.0-34 (August 19, 1993), 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, relevant action level or clean-up standards, Agency for Toxic Substances and Disease Registry documents or personnel, or staff toxicologists.

In this case, in making an endangerment determination for this Site, EPA's removal program relied on extensive sampling data collected by EPA's brownfields program which documents elevated levels of hazardous substances. More specifically, the existing soil sampling data confirmed that high concentrations of PCBs are above EPA Removal Management Levels, Toxic Substances Control Act, or TSCA, standards, and the MassDEP's Standards for Soil Remediation.

In addition to the exceedance of state and federal standards as described above, Agency for Toxic Substances and Disease Registry's, Toxicological Profile for PCBs (Section III of this Action Memorandum) support EPA's endangerment determination.

Since PCBs are the contaminants of concern, EPA will use the EPA Removal Management Levels (23 milligrams per kilogram [mg/kg] for residential soil) to initiate cleanup, and the MassDEP standard for S-1 soil remediation (1 mg/kg for residential soil) as the target cleanup. Decisions for the hot spot depth excavations will be made, based on in-situ data and regulatory limits at the time of excavation.

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

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

## **1. Proposed action description**

The proposed action will protect public health, welfare, and the environment by removing the hazardous substances from accessible areas of the Site. As outlined below, the proposed action will involve the removal of PCB-contaminated soil, concrete and other potential hazardous substances that may be encountered during this removal action.

The specific removal activities will include, but are not necessarily limited to the following:

- Developing and implementing a site-specific health and safety plan.
- Arranging and conducting a Site tour with contractor personnel.
- Establishing security as necessary based on site conditions.
- Mobilizing personnel and equipment.
- Establishing command post area and delineating work zones and decontamination area.
- Planning and conducting air monitoring and dust control and suppression for worker protection and public health, as needed.
- Conducting an extent of contamination survey to define scope of surface soil contamination.
- Excavating soil contaminated with PCBs and other collocated contaminants.
- Evaluating and addressing PCB contamination on concrete slab structures as needed.
- Transporting and disposing of PCB-contaminated soils and other site related waste streams to EPA-approved disposal facilities.
- Backfilling excavated areas.
- Assessing and characterizing any additional hazardous materials discovered during the removal action.
- Concluding removal actions; performing any necessary and appropriate Site restoration; and demobilizing resources.

Upon completion of EPA's removal action, the Site will be returned to MassDEP and the Town to oversee any other cleanup activities.

## **2. Community relations**

The on-scene coordinator will coordinate with the community involvement coordinator, and state, town, property owner, and community representatives to prepare and implement relevant community relations activities such as press releases, fact sheets, or public availability sessions or 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 will be consistent with and will not impede any future responses.

### **4. Description of innovative technologies and sustainable approaches**

In accordance with the December 23, 2013 Memorandum, updated August 02, 2016, issued by Office of Land and Emergency Management as well as the Region 1 Clean and Greener Policy for Contaminated Sites, greener cleanup practices should be considered for all cleanup projects. Greener cleanup is the practice of incorporating practices that minimize the environmental impacts of cleanup actions and maximize environmental and human benefit. Alternative technologies and sustainable approaches will be considered and incorporated, as appropriate, throughout the implementation of the removal action.

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

Federal ARARs:

Clean Water Act, National Pollutant Discharge Elimination System (NPDES), 40 C.F.R. Parts 122 – 125; 122.26: Establishes the specifications for discharging pollutants from any point source into the waters of the U.S. Also, includes storm water standards for construction sites over one acre. Removal activities will be managed to prevent stormwater discharge from the Site. To the extent water generated from the removal action needs to be discharged to the river, applicable discharge standards will be met.

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

Clean Air Act, 40 C.F.R. Part 61, 42 U.S.C. Section 112(b)(1): standards for controlling dust. The regulations establish emissions standards for 187 hazardous air pollutants. Standards set for dust and release sources. If the removal of contaminated soils generates regulated air pollutants, then measures will be implemented to meet these standards.

40 C.F.R. Part 761.61: TSCA requirements for cleanup and disposal of PCBs.

40 C.F.R. 761.61(a): requirements for off-site disposal of bulk PCB remediation wastes and porous and non-porous PCB remediation waste – bulk remediation waste will be managed and disposed of off-site in accordance with these standards.

40 C.F.R. 761.65: Requirements for temporary TSCA regulated waste storage, including design requirements. Proper design considerations will be implemented to ensure that all temporary storage of TSCA-regulated waste satisfies the requirements of the regulations.

40 C.F.R. Section 761.79: TSCA Decontamination standards and procedures for removing PCBs, which are regulated for disposal.

State ARARs:

**Massachusetts:**

40 C.F.R. Parts 260-262 and 264 Resource Conservation and Recovery Act, Subtitle C-Hazardous Waste Identification and Listing Regulations; Generator and Handler Requirements, Closure and Post-Closure - Massachusetts has been delegated the authority to administer these RCRA standards through its state hazardous waste management regulations. Waste generated will be tested to determine whether it exceeds hazardous waste thresholds and, if so, the hazardous waste will be managed on-site and until such time as it is shipped to an EPA-approved off-site disposal location.

310 CMR 6.00: Ambient Air Quality Standards Massachusetts Ambient Air Quality Standards sets primary and secondary standards for emissions of certain contaminants including particulate matter. Removal activities, including excavation and management of soil will be implemented in accordance with these rules.

310 CMR 7.00: Massachusetts Air Pollution Regulations stipulate that during construction and/or demolition activities, air emissions (i.e., dust, particulates, etc.) must be controlled to prevent air pollution. Construction activities will be managed to meet standards for visible emission (310 CMR Section 7.06): dust, odor, construction, and demolition. During the removal action, appropriate measures would need to be taken to comply with these regulations.

314 CMR 4.05: Massachusetts Surface Water Quality Standards: These regulations limit or prohibit discharges of pollutants to surface water to assure that surface water quality standards of the receiving waters are protected and maintained or attained. This may pertain to both discharges to surface water as a result of removal activities and any on-site waters affected by site conditions. On-site discharges to surface waters and adjacent wetlands, shall meet these substantive discharge standards.

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

**6. Project schedule**

The duration of the removal action shall be approximately nine months from the day EPA mobilizes its contractor.

**B. Estimated Costs**

<b>COST CATEGORY</b>		<b>CEILING</b>
<i>REGIONAL REMOVAL ALLOWANCE COSTS:</i>		
ERRS Contractor		\$1,300,000.00
Interagency Agreement		\$ 0.00
<i>OTHER EXTRAMURAL COSTS NOT FUNDED FROM THE REGIONAL ALLOWANCE:</i>		
START Contractor		\$300,000.00
Extramural Subtotal		\$1,600,000.00
Extramural Contingency	20%	\$320,000.00
<b>TOTAL, REMOVAL ACTION CEILING</b>		<b>\$1,920,000.00</b>

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

A delayed removal action or the absence of a removal action described herein will cause conditions at the Site to remain unaddressed, and threats associated with the presence of hazardous substances will continue to pose a threat to human health and the environment.

**VII. OUTSTANDING POLICY ISSUES**

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

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

See attached Confidential Enforcement Strategy.

The total EPA costs for this removal action that will be eligible for cost recovery are estimated to be \$1,920,000 (extramural costs) + \$300,000 (EPA intramural costs) = \$2,220,000 X 1.3933 (regional indirect rate) = **\$3,093,126.00**<sup>2</sup>.

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<sup>2</sup>Direct Costs include direct extramural costs \$1,200,000 and direct intramural costs \$200,000. Indirect costs are calculated by using regional indirect rate in effect at time cost estimate is prepared and is

## IX. RECOMMENDATION

This decision document represents the selected removal action for the Temple Stuart Site in Templeton, 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 National Contingency Plan 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)];*

I recommend that you approve the proposed removal action. The total extramural removal action project ceiling if approved will be \$1,920,000.

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

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

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expressed as a percentage of the 39.33% (effective January 11, 2024) x \$1,400,000, consistent with EPA's full cost accounting methodology. 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.