



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

**CONTAINS ENFORCEMENT-SENSITIVE INFORMATION**

**MEMORANDUM**

**DATE:** June 15, 2006

**SUBJ:** Request for a Removal Action at the John J Riley Site,  
Woburn, Middlesex 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:** Susan Studlien, 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 John J Riley Site, (the Site), which is located at 228 Salem Street in Woburn, Middlesex County, Massachusetts. Hazardous substances present in surface 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. A potentially responsible party (PRP), site owner Organix, LLC, has indicated its willingness to perform the removal action under an Administrative Order on Consent (AOC).

**II. SITE CONDITIONS AND BACKGROUND**

**CERCLIS ID# :** MAD001035872  
**SITE ID# :** 01DE  
**CATEGORY :** Time Critical

## **A. Site Description**

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

The site was referred to the Emergency Planning and Response Branch on January 13, 2005 by the Superfund remedial program, which is working on the Wells G&H Superfund Site, which abuts the Site to the east. This Site was identified as a potential candidate for a removal action based on the potential presence of chromium-contaminated surface soils. On August 11, 2005, EPA and the Massachusetts Department of Environmental Protection (MassDEP) conducted a joint site investigation which included the collection of surface soils. These samples, which were analyzed at EPA's New England Regional Laboratory, documented the presence of high levels of chromium contamination at the surface. The site investigation documented that: 1) the chromium-contaminated soils pose a direct contact threat to those who may enter the Site, 2) unauthorized individuals have accessed the contaminated area, and 3) the chromium may pose a threat of downstream migration. The site investigation was closed on March 15, 2006 with the recommendation that a time critical removal action be conducted.

### **2. Physical location**

The Site is located in a mixed residential, commercial, and industrial area of Woburn and is the former location of the Riley Tannery. The Site is bounded by Wildwood Avenue to the west, Salem Street and residences to the south, railroad tracks to the east, and other commercial properties to the north. Geographic coordinates are 42° 29' 25.32" north and 71° 8' 3.12" west.

### **3. Site characteristics**

The Riley Tannery operated at the Site from approximately 1915 until 1989. According to MassDEP files, the tannery used hexavalent chromium as a raw material for a "chrome tanning" process to produce shoe leather from animal hides. The 15.8 acre site is highly developed and is characterized by level topography, except for a wooded, steeply sloped ravine/drainage swale in the north. This surface water pathway flows eastward toward the Wells G&H Superfund Site, the Aberjona River, and its associated wetlands within ¼ mile to the east.

As a result of the subdivision and redevelopment of the Site from 1994-1997 for commercial and industrial use, the Site currently consists of the following four active commercial and industrial properties: Charls Ice Cream, Organix, Inc., New England Industrial Truck, and W.A Kraft. The portion of the Site on which the chromium contamination is located is owned by Organix, LLC (Organix) and operated by Organix, Inc., a research and development company involved in organic chemistry. According to the EPA Region 1 Environmental Justice Mapping Tool, the Site is not in an environmental justice area.

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

Sampling conducted by EPA has documented the presence of total chromium in surface soils up to 86,000 mg/kg.

**5. NPL status**

The site is not currently on the National Priorities List, and has not received a Hazardous Ranking System rating. The Wells G&H Superfund Site abuts the Site to the east. Removal activities are being coordinated with the Wells G&H case team.

**B. Other Actions to Date**

**1. Previous actions**

In 1996, approximately 3,400 tons of arsenic- and chromium-contaminated soils were excavated and shipped off-site for disposal under the Massachusetts 21E program. This work was conducted by the Wedel Corporation, the owner of the Site during the period when it was being redeveloped.

**2. Current actions**

No cleanup activities are ongoing at the Site. Organix has hired a contractor and is currently preparing to conduct removal activities during this construction season.

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

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

MassDEP has coordinated closely with EPA throughout the site investigation, removal planning, and enforcement process. MassDEP is the lead agency with regard to defining the complete extent of contamination and conducting appropriate long-term site cleanup activities. On March 28, 2006, MassDEP issued a "Notice of Responsibility" to Organix requiring it to initiate these 21E activities. By virtue of MassDEP taking on this active role, EPA is able to focus its involvement to the limited removal activities discussed herein.

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

MassDEP has indicated that 21E-related investigation and cleanup activities will continue as needed after the completion of the time critical removal action.

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

#### A. Threats to Public Health or Welfare

*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)];*

The chromium-contaminated soils are located at the surface, where they may be accessible to those who may enter the Site. During the Site investigation, a hole cut in a chain-link fence and a worn footpath through this area indicated that unauthorized individuals had been accessing the Site. These conditions may pose a direct contact threat to local residents and others who may visit the Site. According to the 2000 census, 10,256 people live within 1 mile, and 80 people live within ¼ mile. Five schools are located within one mile.

Although chromium is a necessary human nutrient in trace levels, chromium can be toxic at high levels. Breathing high levels of chromium can cause asthma attacks to those who are allergic to it. By this pathway, hexavalent chromium can damage and irritate the nose, lungs, stomach, and intestines. Long term exposures to high or moderate levels of hexavalent chromium can cause damage to the nose (bleeding, itching, sores) and lungs, and can increase the risk of non-cancer lung diseases. Ingesting large amounts of chromium can cause stomach upsets and ulcers, convulsions, and kidney and liver damage. Dermal contact with hexavalent chromium(VI) may cause contact dermatitis or skin ulcers. Certain hexavalent chromium compounds are known carcinogens.<sup>1</sup>

*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)];*

Total chromium is present in surface soils at levels up to 86,000 mg/kg. Based on site background information, a significant portion of this chromium may be the hexavalent species. The MassDEP Method 3 Upper Concentration Limits are 10,000 mg/kg for trivalent chromium and 2,000 mg/kg for hexavalent chromium.

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

The contaminated soils are located along the steeply-sloped bank of a drainage swale. During periods of wet weather, water flowing through the swale may cause the chromium contamination to migrate downstream.

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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 Chromium*, 1993.

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

MassDEP is the lead agency for the long term site characterization and cleanup activities as required under the Massachusetts Contingency Plan 21E program. However, neither state nor local authorities have the resources to conduct the immediate removal activities discussed herein. Organix has indicated it is willing to conduct these removal activities under an AOC with EPA.

### **Threats to the Environment**

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

Surface water from the Site flows toward the Aberjona River and its associated wetland habitats on the Wells G&H Superfund Site, which abuts the Site to the east. If chromium contamination from the Site were to migrate down stream, it could adversely impact these wetland areas.

## **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>2</sup>

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

### **A. Proposed Actions**

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

This removal is expected to proceed as a PRP-lead action, as Organix has indicated in writing its willingness to conduct the work. Organix has already hired a cleanup contractor and developed a work plan and is in the process of negotiating an AOC with EPA. The proposed actions will protect public health, welfare and the environment by preventing direct contact with the chromium-contaminated soils and preventing them from migrating downstream. Removal activities may include a site walk with the cleanup contractor, sampling and analysis as needed to determine the species of chromium present (i.e trivalent

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<sup>2</sup>In accordance with OSWER Directive 9360.0-34, an endangerment determination is made based on relevant action level or clean-up standards promulgated by the federal government or the applicable state.

vs. hexavalent), a combination of limited excavation and/or covering in-place of the exposed contaminated soils, stabilization of the slopes of the swale to prevent further erosion, restricting access to the Site, off-site disposal of cleanup-generated wastes, and repairing response-related damage to areas disturbed by site activities.

## **2. Community relations**

EPA will remain involved with the local community throughout the removal action via press releases, fact sheets, and public meetings, as needed.

## **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. Removal activities will continue to be coordinated with the Wells G&H case team.

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

The use of alternative technologies with regard to disposal options will be further examined as the site work progresses. On-site field screening and analytical techniques will be utilized to the extent practicable.

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

Federal ARARs:

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 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)

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

The total project duration is estimated at less than nine months, weather permitting.

#### B. Estimated Costs

COST CATEGORY		CEILING
<b>REGIONAL REMOVAL ALLOWANCE COSTS:</b>		
ERRS <sup>3</sup> Contractor		\$100,000.00
Interagency Agreement		\$0,000.00
<b>OTHER EXTRAMURAL COSTS NOT FUNDED FROM THE REGIONAL ALLOWANCE</b>		
START <sup>4</sup> Contractor		\$30,000.00
Extramural Subtotal		\$130,000.00
Extramural Contingency	10%	\$13,000.00
<b>TOTAL, REMOVAL ACTION CEILING</b>		<b>\$143,000.00</b>

As this removal action proceeds as a Potentially Responsible Party (PRP) lead cleanup, EPA's expenditures will be limited only to START contractor and intramural costs. In the event the PRP fails to perform the cleanup, EPA is prepared to deploy the ERRS contractor for cleanup operations.

<sup>3</sup> Emergency Rapid Response Services

<sup>4</sup> Superfund Technical Assessment and Response Team

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

In the absence of the response action described herein, conditions at the Site can be expected to continue to deteriorate, and the threats associated with the presence of 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.

At this time, Organix has indicated that it intends to conduct the removal action as a PRP-lead cleanup. In the event the PRP fails to perform adequately, EPA is prepared to undertake the cleanup. 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 \$143,000 (extramural costs) + \$57,000 (EPA intramural costs) = \$200,000 X 1.3151 (regional indirect rate) = \$263,020<sup>5</sup>.

## **IX. RECOMMENDATION**

This decision document represents the selected removal action for the John J Riley Site in Woburn, Massachusetts, developed in accordance with CERCLA, as amended, and 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)];*

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<sup>5</sup>Direct Costs include direct extramural costs \$143,000 and direct intramural costs \$57,000. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site specific costs [31.51% x \$200,000, 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.


*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)];*

*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 removal action project ceiling if approved will be \$143,000. Of this total, no more than \$113,000 comes from the Regional removal allowance.

APPROVAL: 

DATE: 6-20-06

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

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