



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

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

**CONTAINS ENFORCEMENT-SENSITIVE INFORMATION**

**MEMORANDUM**

**DATE:** May 25, 2005

**SUBJ:** Request for a Removal Action at the Somers Plating Inc. Site,  
Somers, Tolland County, Connecticut - **Action Memorandum**

**FROM:** Janis K. Tsang, On-Scene Coordinator  
Emergency Response and Removal Section I

**THRU:** David McIntyre, Chief  
Emergency Response and Removal Section I

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 Somers Plating, Inc. Site, (the Site), which is located at 58 – 60 Springfield Road in Somers, Tolland County, Connecticut. 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 OSC's \$200,000 warrant authority.

**II. SITE CONDITIONS AND BACKGROUND**

**CERCLIS ID# :** CTN000103776

**SITE ID# :** 01CB

**CATEGORY :** Time Critical

## **A. Site Description**

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

At the request of the CT Department of Environmental Protection (CT DEP), the EPA Removal Program conducted a Preliminary Assessment/Site Investigation (PA/SI) at the Somers Plating, Inc. Site in July 2004. The PA/SI included collecting surface soil, subsurface soil, and groundwater samples on site, and drinking water samples from nearby residences. The sampling results confirmed the presence of high levels of heavy metals including cadmium and chromium in surface and subsurface soil. The PA/SI was complete with the recommendation that a time critical removal action be conducted.

### **2. Physical location**

The Somers Plating, Inc. Site is located at 58 – 60 Springfield Road (Connecticut Route 83), in Somers, Tolland County, Connecticut. Geographic coordinates of the Site are 41°59' 23.0" north latitude, and 72° 26' 51.5" west longitude. The Site is bordered to the east by a wooded area and a cornfield; to the south by residential properties; to the west by Springfield Road; and to the north by a cornfield, a portion of which extends onto the Site. The cornfield is leased and operated by an out-of-town farmer. There is a herb supplier/grower located immediately adjacent to the Site.

### **3. Site characteristics**

The Site, currently owned by two retirees, consists of approximately 3.62 acres of land with two unoccupied one-storey buildings in a mixed residential/commercial. It was formerly operated as a metal working shop/plating facility, a gasoline service station, an ecumenical school, and a daycare center. Two former metal hydroxide sludge lagoons associated with the plating operation are located on site. Underground storage tanks (USTs) were reportedly used by the gasoline service station. The status of the USTs is unknown.

An asphalt-paved parking area largely surrounds the western building, and borders the eastern building on the western and northern sides. Three discrete areas of grass surrounded by pavement are located adjacent to eastern and western sides of the western building, and north of the eastern building. The area of grass located north of the eastern building appears to be co-located with one of the metal hydroxide sludge lagoons. The eastern portion of the Site ranges from wooded near the southern boundary, to partially clear in the central portion, to cornfield in the northern portion.

The Site topography is generally level. The average depth to the groundwater table in the former lagoon area is 8 to 10 feet. The groundwater classification for the general area is GA. Fuller-Hurd Well, a public drinking water supply well owned by the Connecticut Water Company is located approximately 1,500 feet south of the Site. According to the Town Sanitarian, groundwater in the bedrock aquifer generally flows southerly through the Site. Access is unrestricted.

According to the 2000 census, approximately 1,692 people live within 1 mile. Three public schools are located within 1 mile, and the closest residence is located within 50 feet.

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 revealed that the concentrations of cadmium, chromium and total cyanide in soil samples are as follows:

Soil Sample depth	Total cadmium <sup>1</sup> (ppm)	TCLP <sup>2</sup> cadmium (ppm)	Chromium (ppm)	Total cyanide (ppm)
0" – 12"	Non-detect (ND) - 230	1.05 - 2.8	ND - 581	23.8 – 450
12" – 24"	ND - 175	Not available (N/A)	ND -277	0.67 – 119
24" – 36"	ND – 762	1.5 - 12	ND - 1600	ND – 341
36" – 48"	ND – 916	3.0	ND - 68	ND
48" – 60"	ND – 421	N/A	ND	N/A

The standards under the CT DEP Residential Direct Exposure Criteria (DEC) for cadmium, chromium and total cyanide are 34 ppm, 100 ppm<sup>3</sup> and 1,400 ppm respectively.

Heavy metals such as cadmium, chromium and total cyanide were found in surface and subsurface samples on site. Cadmium, chromium and cyanide are hazardous substances/pollutants/contaminants as defined by Section 101(14) of CERCLA. Evidence of individuals trespassing and vandalism were observed throughout the property. Heavy metals and cyanide found in the surface and subsurface soil could continue to be released into the environment via surface erosion and runoff, infiltration to groundwater and/or weather conditions.

#### **5. NPL status**

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

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<sup>1</sup> Part-per-million

<sup>2</sup> Toxicity Characteristic Leaching Procedure

<sup>3</sup> For Hexavalent chromium

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

### **1. Previous actions**

There have been no previous removal actions at the Site.

### **2. Current actions**

EPA is currently conducting the extent-of-contamination study at the Site.

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

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

In October 2000, the Town of Somers Sanitarian collected five surface soil samples at the playground area of the then-operating daycare center. Analytical results indicated the presence of cadmium, copper and zinc. Cadmium was detected at a concentration of 75 ppm, which exceeds the CT DEP Residential DEC of 34 ppm. The playgrounds at the Site were temporarily closed and daycare center attendees were eventually relocated to another town.

CT DEP conducted surface soil sampling and referred the Site to EPA Emergency Planning and Response Branch (EPRB) for removal assessment.

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

CT DEP will provide state ARARs as well as community relations and technical support, and regulatory guidance.

## **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 Site is accessible to nearby commercial and residential areas creating a potential threat for exposure to humans from hazardous substances and pollutants contained in soil through direct contact, inhalation, and ingestion of heavy metals such as cadmium, chromium and cyanide.

Cadmium is a carcinogen. Cadmium dust is toxic by inhalation. Exposure to cadmium could cause irritation to eyes, skin and respiratory system, headache, dizziness, giddiness, confusion, convulsions, breathing difficulties, abdominal pain, nausea and vomiting.

Exposure to chromium metal could cause irritation to eyes and skin and lung fibrosis. Hexavalent chromium compounds are carcinogenic and corrosive on tissue. Prolonged exposure to hexavalent chromium may cause ulcers and dermatitis.

The public could come in contact with hazardous substances/pollutants/contaminants in surface soil around the building and at the waste lagoon area. The Site poses a public health threat due to potential public exposures via trespassing.

*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)];*

As indicated in Section II.A.4, TCLP cadmium found exceed the maximum concentration of contaminants for the toxicity characteristic of 1 mg/L and is considered RCRA-hazardous by definition.

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

Stormwater, highway runoff and erosion could continue to release hazardous substances/pollutants/contaminants to the environment, contaminating the neighboring cornfield and herb garden and creating opportunities for public exposure.

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

State and local governments do not have the resources to address the contamination. CT DEP referred the Site to EPA Emergency Planning and Response Branch (EPRB) and requested that EPA conduct the proposed actions.

## B. Threats to the Environment

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

Fuller-Hurd well owned by the Connecticut Water Company is a local public drinking water supply source and is located approximately 1,500 feet south of the Site. According to the Town Sanitarian, groundwater in the bedrock aquifer generally flows southerly through the Site. The contaminated soil at the Site could impact groundwater and pose a threat to nearby drinking water supply.

#### **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>4</sup>

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

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

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

EPA plans to conduct a fund-lead removal action, as the PRPs identified to date are not technically and financially capable of performing the cleanup. The proposed actions will protect public health, welfare and the environment by removing the contaminated surface and subsurface soils. The removal activities will include the following:

- Conduct site walk with the cleanup contractor for removal planning.
- Conduct topographical (land and aerial) survey to establish base line reference (e.g., elevation) for further removal planning.
- Conduct additional sampling as needed. Sampling may include, but not be limited to, conducting additional soil sampling and/or soil gas survey to further delineate the extent of contamination on site, and installing monitoring wells. The result of the sampling will be used to estimate the volume of the waste that needs to be removed or otherwise stabilized/treated. Off-site activities may include conducting drinking water sampling at the nearby public and private drinking water wells.
- Evaluate cleanup methods. Data obtained from sampling soil and water will be used to determine the appropriate removal cleanup methods. The removal methods to be considered include capping, removing (via excavation, treatment and disposal), or otherwise stabilizing the contaminated soils and/or a combination of all of the above. The method selected will eliminate the threat of direct public contact with contaminated soil and will also reduce the potential for off-site migration.
- Stabilization/restoration activities will be conducted at areas disturbed by the removal activities.
- Provide erosion control measures when deemed necessary.

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<sup>4</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.

- Perform applicable air monitoring.
- Perform applicable environmental sampling and monitoring including soil and/or water testing during the removal.
- Perform a boundary/topographic survey when deemed necessary.

## **2. Community relations**

Upon the approval of the Action Memorandum, the OSC will coordinate with EPA Public Relations Coordinator to prepare and implement the following community relations activities, depending upon Agency's resources and/or community preferences:

- draft press releases;
- conduct a public meeting; and/or
- draft removal newsletters.

The OSC will also be available by appointment to meet with citizens and news reporters or by phone to answer their questions regarding the removal action.

## **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 not be inconsistent with and will not impede any future responses.

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

The use of alternative technologies with respect to disposal options will be evaluated as the site work progresses.

## **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

EPA plans to issue a Task Order to the cleanup contractors immediately upon the approval of this action memorandum and will commence the cleanup activities within next four to six weeks. The removal action is anticipated to take up to nine months to complete.

#### B. Estimated Costs

COST CATEGORY		CEILING
<b>REGIONAL REMOVAL ALLOWANCE COSTS</b>		
ERRS Contractor		\$1,214,000.00
Interagency Agreement		\$ 0.00
<b>OTHER EXTRAMURAL COSTS NOT FUNDED FROM THE REGIONAL ALLOWANCE</b>		
START Contractor		\$200,000.00
Extramural Subtotal		\$1,414,000.00
Extramural Contingency	20%	\$282,800.00
<b>TOTAL, REMOVAL ACTION CEILING</b>		<b>\$1,696,800.00</b>



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

Delayed action will increase public health risks to nearby public as well as environmental risks to the public drinking water supply. The conditions at the Site are expected to continue to deteriorate, and the threats associated with the presence of hazardous substances/pollutants/contaminants will persist. Further delays in this action will add to the likelihood of further release through a number of circumstances, i.e., unrestricted site access and weather conditions.

**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 \$1,696,800 (extramural costs) + \$125,000 (EPA intramural costs) = \$1,821,800 X 1.3151 (regional indirect rate) = **\$2,295,849.18<sup>5</sup>**.

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<sup>5</sup>Direct Costs include direct extramural costs \$1,696,800 and direct intramural costs \$125,000. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site specific costs [31.51% x \$1,696,800, 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.

## IX. RECOMMENDATION

This decision document represents the selected removal action for the Somers Plating, Inc. Site in Somers, Connecticut 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)];*

*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 \$1,696,800. Of this total, no more than \$1,456,280 comes from the Regional removal allowance.

APPROVAL: Sum Stedler

DATE: 05/26/05

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

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