



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1  
1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

**CONTAINS ENFORCEMENT-SENSITIVE INFORMATION**

**MEMORANDUM**

**DATE:** September 18, 2003

**SUBJ:** Request for a Removal Action at Electrosonics Site,  
Chesterfield, Cheshire County, New Hampshire - **Action Memorandum**

**FROM:** Gilberto Irizarry, On-Scene Coordinator  
Site Evaluation and Response Section I *Gilberto Irizarry*

**THRU:** David McIntyre, Chief *D. McIntyre*  
Site Evaluation & Response Section I

Arthur V. Johnson III, Chief *Arthur V. Johnson III*  
Emergency Planning & Response Branch

**TO:** Susan Studlien, Acting Director  
Office of Site Remediation and Restoration

**I. PURPOSE**

The purpose of this Action Memo is to request and document approval of the proposed removal action described herein for the Electrosonics Site (the Site).

**II. SITE CONDITIONS AND BACKGROUND**

**CERCLIS ID# :** NHSFN0102995  
**SITE ID# :** 019N  
**CATEGORY :** Time-Critical Removal Action

**A. Site Description**

**1. Physical location**

The Site is located in a mixed commercial and residential area known as Spofford Village on Route 9A (Long. 72° 25' 13.3"W, Lat. 42° 54' 24.5"N) in Chesterfield, New Hampshire. The Town of Chesterfield is approximately 5 miles east of Brattleboro, VT

and encompasses an area of 48.1 square miles. Its population is approximately 3,290 with a density of 77.7 inhabitants per square mile. All properties in the area surrounding the Site (i.e., residences and businesses) are serviced by on-site private drinking water wells.

## **2. Site characteristics**

The approximately 0.4 acre Site is comprised of two separate and abutting parcels identified as Lots # 5 and 5.1 of Map 6A , Block D at the Chesterfield Tax Assessor's office. In total, the Site includes: two main commercial buildings, one small building that formerly housed a portion of an industrial wastewater treatment facility and a septic leachfield used by both parcels.

The Site is bounded by:

- North - Partridge Brook;
- South - Route 9A;
- East - Commercial Property; and
- West - Partridge Brook.

The site topography slopes to the north across the developed portion of the properties then steeply down a 15 to 20 feet embankment to the Partridge Brook.

## **3. Site history**

Historical records indicate that the main building in lot # 5.1, also known as "Old Mill Building" and "Spofford Place", was constructed in 1810 and was originally used for manufacturing of textile and various wood-based products until the late 1930's. Due to incomplete records, little is known about the use of the building from this time until 1946. It is known that starting in 1946, under new ownership, the building was used as a warehouse/storage facility until it was sold to Electro-Sonics, Inc. (Electro-Sonics) in 1966. The main building in lot # 5 was constructed in the early 1900's and was occupied by a Ford dealership until approximately 1940. Subsequently, the building was operated as a garage until the 1960's and it was acquired by Electro-Sonics in 1966.

The Electro-Sonics facility, which also included a third parcel (i.e., Lot # 2 of Block A in Map No. 10B) on the south side of Route 9A, conducted printed circuit board manufacturing until operations ceased in 1984. The buildings in lots # 5 and 5.1 comprised the main manufacturing area of the facility. It has been reported that between 1968 and 1974, Electro-Sonics discharged untreated wastewater contaminated with various volatile organic compounds (VOC's) and heavy metals into an on-site leachfield. This caused the leachfield to suffer frequent surface breakouts that resulted in waste effluent flows into Partridge Brook. Other reports have indicated that portions of the

wastewater were discharged into an area understood to be the earthen basement floor of the original mill building. It is believed that for several years, after a newly built wastewater treatment facility was brought on-line in 1974, there were no discharges into the ground or the Partridge Brook.

Over the 1980's and 1990's, the State conducted several inspections and studies to document site operational and environmental conditions. Observations of wastewater discharges into Partridge Brook made during an inspection in 1981 led the Water Supply & Pollution Control Commission [now New Hampshire Department of Environmental Services (NH DES)] to issue an Administrative Order against Electro-Sonics. Different environmental studies performed during the same timeframe provided findings of metals and VOC's contamination in soils. Another study conducted in 1998 provided results of elevated levels of metals and VOC's in groundwater samples collected from an on-site bedrock supply well, a surface water sample collected from Partridge Brook and groundwater samples collected from other on-site monitoring wells. Due to these findings NH DES sampled 25 private residential water supply wells located in proximity to the Site. Results from three (3) of these properties identified water supplies exceeding the New Hampshire Ambient Water Quality Standards (AGQS). Based on these results, NH DES installed point-of-entry (POE) water treatment systems on the three (3) residential properties in April of 1999.

After circuit board manufacturing operations ceased in 1984, different portions of the former Electro-Sonics facility were used for warehouse and office space by several owners/operators. At this time, the specific parcels that comprise the Site (i.e., lots # 5 and 5.1) have separate property owners. Lot # 5, although currently vacant, was until recently occupied by a business that assembled and sharpened hair cutting scissors. Various commercial tenants currently occupy and use different portions of the building in lot # 5.1. A largest portion of the building is utilized as a furniture refurbishing workshop with other smaller portions being used as storage/warehouse space by several small businesses.

#### **4. Removal site evaluation**

On 22 May 2002, U.S. EPA and Roy F. Weston Superfund Technical Assessment and Response Team (START) personnel conducted a Removal Program Preliminary Assessment/Site Investigation (PA/SI).

The following are the key findings:

- Surface and sub-surface soil samples collected from the earthen basement floor of the original mill building contained lead levels ranging up to 13,800 ppm. In addition, high levels of trichloroethene (TCE) and cis-1,2-dichloroethene were detected in soil samples collected from the basement floor area.

- High levels of volatile organic compounds (VOC's) were identified in soil samples collected from areas between the three (3) on-site building structures including the area of the septic leachfield. The highest VOC concentrations found included: 19 ppm of TCE, 75 ppm of 1,1,1-trichloroethane and 11 ppm of tetrachloroethene (PCE).

For additional details on the Site Investigation, refer to document entitled *Removal Program Preliminary Assessment/Site Investigation Report for the Electrosonic Site, Chesterfield, New Hampshire, July 2002*, by Roy F. Weston, Inc.

The Removal Evaluation was concluded and based on the PA/SI findings and a file review, the OSC recommended a time critical removal action in an August 16, 2002 closure memorandum.

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

Based on analytical results from samples collected and other documentation reviewed, CERCLA hazardous substances found on site include, but are not limited to:

<b>Substances</b>	<b>Media</b>
Lead	soil
Trichloroethene (TCE)	soil
1,1,1-trichloroethane	soil
tetrachloroethene (PCE)	soil
cis-1,2-dichloroethene	soil

The release of hazardous materials in soils create a threat for continued migration and contamination of sediment and surface waters of Partridge Brook and groundwater. All properties (i.e., residences and businesses) in the area are serviced by on-site private drinking water wells.

**6. National Priorities List (NPL) status**

The Site is not currently on the NPL, nor is EPA planning to propose the Site for NPL inclusion.

**B. Other Actions to Date**

**1. Previous actions**

In November 2000, in support of a request from NH DES EPA conducted a Sediment and Drinking Water Sampling study.

**2. Current actions**

Preparing to conduct removal activities at this site.

**C. State and Local Authorities Role**

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

NH DES files indicate that three separate oil releases occurred at the Site between 1984 and 1989. State and/or local officials responded to these separate incidents. Other actions pertinent to this section have been previously mentioned.

**2. Potential for continued state/local Response**

NH DES referred the Site to EPA for consideration as a CERCLA removal action. At this time, neither the properties owners or the NH DES are able to perform the removal action.

**III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT**

**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)];*

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

The contaminants in surface and subsurface soils, including the on-site leachfield, pose a direct contact threat to nearby populations that have access to this mostly unrestricted site. An on-site water supply well highly contaminated with VOC's continues to be used, although not for drinking water, and discharged to the on-site leachfield. Altogether, significant levels of lead and VOC's in soils pose a threat of continued migration and contamination of sediment and surface waters of Partridge Brook and groundwater that may impact nearby residential drinking water wells. Three (3) nearby residential drinking water wells have had POE water treatment systems installed due to high levels of contaminants believed to have emanated from the Site.

*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)]; and*

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

Typical snow melt and rain events will contribute towards continued migration of contaminants found in soils that threaten Partridge Brook and area groundwater.

## **B. Threats to the Environment**

All criteria listed in the previous section also apply to this section.

## **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.

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

### **A. Proposed Actions**

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

The OSC and EPA contractors will meet on the Site with State and Town officials to discuss the initial personnel, equipment, logistics and supply needs of the removal action.

The OSC and EPA contractors will mobilize to the Site and conduct additional sampling and on-site analyses to fully characterize areas of soil contamination. Results from this analyses, together with all other existing data, will be used to develop a site soil removal plan. The plan will include specifics on soil excavation, contaminated materials staging, shipment for off-site disposal and restoration. As necessary, restoration plans will include the design and construction of a replacement septic leachfield. In addition and as determined necessary, a building demolition plan will be developed and executed in order to access and excavate contaminated soils under the building in lot # 5.1 and the former waste treatment building in lot # 5. Because of the proximity to Partridge Brook, the removal plan will include any engineering necessary to maintain structural stability and integrity of the Site. As necessary, the U.S. Army Corps of Engineers (USACE) will be consulted during preparation and implementation of the soil removal plan and utilized to assist in vacating/relocating tenants from the building.

All soil areas found to be contaminated by hazardous substances and that pose an immediate threat to public health or welfare or the environment will be either properly removed where possible and transported to an off-site disposal facility, or otherwise addressed as seen fit by the OSC.

## **2. Community relations**

As part of the site mobilization activities, EPA will coordinate with the Town of Chesterfield and NH DES. If the OSC determines it to be necessary, EPA will coordinate a public informational meeting with the community surrounding the site. In addition and as determined necessary by the OSC, EPA will prepare and issue press releases and/or newsletters with removal action progress status for the public. The OSC will be available at the Site during removal activities to address questions and/or concerns from the public.

## **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 contaminated soils at the Site. This removal action will not impede any future remedial actions.

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

No alternative technology is currently planned for this site.

## **5. Applicable or Relevant and Appropriate Requirements (ARARs)**

Federal ARARs:

40 CFR 262 Subpart C, Pre-transport Requirements regarding packaging, labeling and marking.

40 CFR 265 Subpart I, Use and Management of Containers regarding conditions of containers, compatibility of waste with containers, management of containers, inspections, and special requirements of incompatible wastes.

State ARARS:

The OSC requested that the NH DES identify State ARARs. In accordance with the National Contingency Plan and EPA Guidance Documents, the OSC will determine the applicability and practicability of complying with each identified ARAR.

## **6. Project schedule**

Pending timely resolution of an access agreement and, if necessary, relocation of tenants from the building in lot # 5.1, response actions will commence within 30 days of the signing of this Action Memorandum. Completion of the proposed removal action is expected within 9 months of start date.

**B. Estimated Costs**

<b>Extramural Costs</b>	<b>Ceiling</b>
Regional Removal Allowance Costs	\$450,000 <sup>2</sup>
ERRS II <sup>1</sup> Contractor	\$ 25,000
USACE	
Other Extramural Costs Not Funded from the Regional Allowance	<u>\$100,000</u>
Total START <sup>3</sup> , including multiplier costs	
Subtotal, Extramural Costs	\$575,000
Extramural Costs Contingency	<u>\$115,000</u>
(20%, rounded to next dollar)	
<b>Total Removal Project Ceiling</b>	<b>\$690,000</b>

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

Delayed action will increase both environmental and health risks posed by the presence of contamination in soils that can continue to migrate and affect surface and groundwater in the area of the Site

**VII. OUTSTANDING POLICY ISSUES**

There are no known outstanding policy issues concerning this removal action.

**VIII. ENFORCEMENT**

The total EPA costs for this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be \$ 902,040<sup>4</sup>.

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<sup>1</sup>Emergency Rapid Response Services II

<sup>2</sup>This cost will be driven by the selected option(s). Should longer term options need to be implemented, additional funding may be required.

<sup>3</sup>Superfund Technical Assessment and Response Team

<sup>4</sup>Direct Costs include direct extramural costs [\$690,000] and direct intramural costs [\$70,000]. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs [27.9% x \$760,000], 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.

*Enforcement Strategy: For Internal Distribution Only, see attached.*

**IX. RECOMMENDATION**

This decision document represents the selected removal action for the Electrosionics Site, in Chesterfield, New Hampshire, 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)].*

I recommend that you approve the proposed removal action. The total removal action project ceiling if approved will be \$690,000. Of this, an estimated \$475,000 comes from the Regional removal allowance.

APPROVAL:           Susan Studler                                DATE:           9/19/03          

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