



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

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BOSTON, MASSACHUSETTS 02114-2023

CONTAINS ENFORCEMENT-SENSITIVE INFORMATION

MEMORANDUM

DATE: June 10, 2008

SUBJ: Request for a Removal Action at the Capehart Mill Site,
Norwich, Connecticut - **Action Memorandum**

FROM: Wing Chau, On-Scene Coordinator
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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 the proposed removal action at the Capehart Mill Site, (the Site), which is located off North Main Street and at the end of Fifth Street in Norwich, New London County, Connecticut. Hazardous substances present in soils and floor sweepings, as well as friable asbestos 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. Although asbestos removals are considered nationally significant, no precedent setting issues are associated with this Site. There has been no use of the OSC's \$200,000 warrant authority.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID# : CTN000015855
SITE ID# : 01EF
CATEGORY : Time Critical

A. Site Description

1. Removal site evaluation

On 12 July 2007, the Connecticut Department of Environmental Protection (CTDEP) responded to a report from the Norwich Fire Department concerning a release of oil to the Shetucket River off of Fifth Street. CTDEP notified EPA of the release to initiate the coordination of response activities. EPA arrived on-scene to provide CTDEP with assistance on evaluating the source of the oil release. Additional parties that responded to this incident include: Norwich Police Department, fire departments from surrounding communities, and the U.S. Coast Guard. CTDEP determined that the source of the release originated from transformers located at the former Capehart Mill Site (Site). It was estimated that approximately 200 gallons of transformer oil, containing PCBs, were released into the environment. The Site straddles a canal that feeds into the Shetucket River. The Site includes a total of three buildings that range from 3100 ft² to 72,000 ft² in size. The abandoned mill building is located on the parcel east of the canal.

On 18 July 2007, EPA met with CTDEP to discuss ongoing EPA projects in Connecticut. During this meeting, CTDEP indicated to EPA that the Site was a high priority and requested EPA's assistance to evaluate the Site as a potential time-critical removal action candidate.

On 9 September 2007, EPA and its Superfund Technical Assessment and Response Team III (START) contractor conducted a site reconnaissance as part of the removal program's preliminary assessment/site investigation (PA/SI). During the site reconnaissance, sample locations were identified and site conditions were noted for the subsequent sampling event. On 26 September 2007, EPA and START remobilized to the Site to conduct sampling activities. The sampling event included collection of seventeen surface soil samples, five sediment samples, two floor sweeping samples, and thirty samples of suspected asbestos containing material (ACM) for analysis. Analytical results for these samples indicated the following: 1) Polycyclic aromatic hydrocarbons (PAHs) in the surface soil samples were above Connecticut Remediation Standards, 2) Floor sweeping samples contained high levels of polychlorinated biphenyls (PCBs), and 3) Friable asbestos was present in twenty of the thirty ACM samples collected for analysis. Based upon the analytical results, the PA/SI was concluded and a time-critical removal action was recommended in the closure memorandum dated January 16, 2008.

2. Physical location

The Capehart Mill Site is located off North Main Street, near the end of Fifth Street in Norwich, New London County, Connecticut. Geographic coordinates of the Site, as measured from its approximate center, are 41° 31' 57.7" north latitude and 72° 03' 14.2"

west longitude. The Site is bordered to the north by a vacant, overgrown parking lot and an industrial property; to the east and south by the Shetucket River; and to west by a mixed residential and commercial area, including active rail tracks and a canal that discharges into the Shetucket River.

3. Site characteristics

The Site consists of three buildings located on an approximately 6.05 acre property. The main mill complex is comprised of two major sections. The 72,428 ft² southern section is a predominantly three-story structure with a concrete and wood floor. The first floor contains several small floor drains that discharge to a 5 feet high crawl space area below this section of the building. The 23,158 ft² northern section of the mill complex is predominantly a single-story structure with a concrete floor and no basement. There is a small, three-story section located along the building's western wall. The mill building is accessible to the public via broken windows and open doors. In addition, a portion of the roof has already collapsed. The Site also includes a paved parking area located to the north of the building. Other property features include several 6- to 8- foot diameter concrete and brick lined water tunnels that run underneath the mill building and discharge into the Shetucket River. The Shetucket River flows north to south, and feeds the canal that runs along the west side of the property. The canal is used by the Norwich Public Utilities to generate power.

According to available information regarding the Site, the Capehart property and the canal were developed in the mid- to late- 1800s. Activities conducted on the property prior to 1892 are unknown. From approximately 1892 to 1963, the property was utilized by several companies conducting dyeing and finishing operations, including the Gera Corporation, the United States Finishing Company, and the Norwich Dyeing, Bleaching, and Finishing Company. From approximately 1963 to 1981, various companies operated on the property as cabinet manufacturers, including Wakefield Industries, the Capehart Corporation, and the Connecticut Cabinet Corporation. The most recent company to conduct manufacturing operations on the property is the Capehart Corporation, also known as Wakefield-Capehart, who ceased operations in 1981. The property has remained vacant since that time.

Based upon 2000 US Census data, the numbers of people living within 1 mile, 0.5 mile, and 0.25 mile of the site are 9,227; 4,279; and 1,914, respectively. 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

Below is a table identifying the samples collected during the PA/SI with the highest concentration of hazardous substances compared to the applicable State of Connecticut Remediation Standards. Samples SS-07 and SS-08 are surface soil samples collected from the courtyard area of the Site. Samples FS-01 and FS-02 are floor sweeping samples collected from within the building; one of the floor sweeping sample location is adjacent to wall-mounted transformers. The analytical results for the soil and floor sweeping samples with elevated levels of hazardous substances indicate that a release has occurred and a direct contact threat exists at the Site.

Hazardous Substance	Sample Location				CT Remediation Standards – Industrial / Commercial Criteria
	FS-01	FS-02	SS-07	SS-08	
PCB (aroclor-1254)	210 ppm	96 ppm			10 ppm
Benzo(a)anthracene			160000 ppb	700000 ppb	7800 ppb
Benzo(a)pyrene			140000 ppb	600000 ppb	1000 ppb
Benzo(a)fluoranthene			200000 ppb	840000 ppb	7800 ppb

In addition, twenty of the thirty suspected asbestos containing material samples tested positive for asbestos. The analytes detected in these 20 samples were amosite and/or chrysotile asbestos. The percent volume of asbestos in these samples ranged from 1 percent to 70 percent. The analytical results for these samples document the presence of friable asbestos that potentially could be released into the environment, thus impacting the surrounding community.

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

Pursuant to a grant issued to the City of Norwich by EPA, in association with a Brownfields Pilot Cooperative Agreement, GEI Consultants, Inc. (GEI) completed Phases II and III Field Investigations in August 2000 and January 2001, respectively. These investigations involved various areas throughout the property.

2. Current actions

On 8 April 2008, EPA, START, and START's subcontractor, GV Engineering, LLC of Keene, New Hampshire conducted a structural assessment of the Capehart Mill Building. The structural assessment was conducted to identify whether site conditions were safe to conduct a limited removal action that will, at a minimum, reduce the source of contamination being released into the environment. The structural assessment identified several areas of concern. The assessment also provided recommendations on improving the worker-safety environment of the accessible areas where removal activities could be conducted. No previous removal action has been conducted at this Site.

C. State and Local Authorities' Roles

1. State and local actions to date

As mentioned previously, on 12 July 2007, CTDEP responded to a report from the Norwich Fire Department concerning a release of oil to the Shetucket River off of Fifth Street. Additional parties that responded to this incident include: Norwich Police Department, fire departments from surrounding communities, and the U.S. Coast Guard. In response to this release, CTDEP has identified the source of release and secured the release with a series of sorbent booms and hard booms. CTDEP also excavated contaminated soils around the origin of the release.

2. Potential for continued State/local response

CTDEP will continue to maintain their sorbent and hard booms placed in the Shetucket River and will provide technical support as the project moves forward.

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

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)];

EPA has documented the presence of high levels of PCBs in floor sweepings inside of the building and high levels of PAHs in surface soil. In addition, there is friable asbestos located throughout the building. Because the building is abandoned and highly accessible to the general public, there is not only a direct contact threat to people entering the Site, but there is also a threat of release of friable asbestos into the surrounding community and PCBs into the environment.

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

The Shetucket River flows along the south-side of the property. In addition, the canal located west of buildings and the brick and concrete lined water tunnels that run underneath the buildings discharge into the Shetucket River. Contamination can migrate into the Shetucket River through this canal and water tunnels. During their response on 12 July 2007, CTDEP has documented the release of PCB contaminated oil originating from the Site into the Shetucket River.

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)];

High levels of semi-volatile organic compounds (SVOCs) are present in surface soils at levels which exceed state standards for commercial and industrial properties.

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

Hazardous substances present in surface soils may further migrate due heavy precipitation leading to surface runoff. Due to on-site drainage features such as the several brick-lined water tunnels that run underneath on-site buildings which discharge to the Shetucket River, off-site migration of contamination would further be exacerbated. Wind can cause friable asbestos to migrate to the surrounding community.

Threat of fire or explosion; [§300.415(b)(2)(vi)];

The buildings are abandoned and have no active fire suppression systems. Interior graffiti and litter suggest trespassers are getting into the buildings due to the lack of access controls. If a fire were to occur, the friable asbestos would be released into the surrounding communities.

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

CTDEP has identified this Site as a priority for the State. CTDEP has indicated that due to current funding and staffing limitations, they do not have the resources currently available to address the Site. CTDEP has requested EPA's assistance in addressing the environmental hazards present at the Site.

ASBESTOS- Studies in humans and animals indicate that inhalation of asbestos fibers may lead to fibrotic lung disease (asbestosis). Exposure to high levels of asbestos has caused workers who breathed in asbestos to develop a slow buildup of scar-like tissue in the lungs and in the

membrane that surrounds the lungs. This scar-like tissue does not expand and contract like normal tissue and so breathing becomes difficult. Blood flow to the lungs may also be decreased and this causes the heart to enlarge. Several government offices and regulatory agencies have considered all of the evidence regarding the carcinogenicity of asbestos. The Department of Health and Human Services (DHHS), EPA, and the International Agency for Research on Cancer (IARC) have determined that asbestos is carcinogenic to humans.¹

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. A few studies of workers indicate that PCBs were associated with certain kinds of cancer in humans, such as cancer of the liver and biliary tract. DHHS has concluded that PCBs may reasonably be anticipated to be carcinogens. The EPA and IARC have determined that PCBs are probably carcinogenic to humans.²

Polycyclic Aromatic Hydrocarbons (PAHs)- DHHS has determined that some PAHs may reasonably be expected to be carcinogens. Some people who have breathed or touched mixtures of PAHs and other chemicals for long periods of time have developed cancer. Some PAHs have caused cancer in laboratory animals when they breathed air containing them (lung cancer), ingested them in food (stomach cancer), or had them applied to their skin (skin cancer).³

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.⁴

V. PROPOSED ACTIONS AND ESTIMATED COSTS

¹ Agency for Toxic Substances and Disease Registry (ATSDR), U.S. Department of Health and Human Services, Public Health Service, *Toxicological Profile for Asbestos*, September 2001.

² Agency for Toxic Substances and Disease Registry (ATSDR), U.S. Department of Health and Human Services, Public Health Service, *Toxicological Profile for Polychlorinated Biphenyls*, February 2001.

³ Agency for Toxic Substances and Disease Registry (ATSDR), U.S. Department of Health and Human Services, Public Health Service, *Toxicological Profile for Polycyclic Aromatic Hydrocarbons*, September 1996.

⁴ In accordance with OSWER Directive 9360.0-34, an endangerment determination is made based on relevant action levels, cleanup standards, risk management guidance, or other relevant information published and relied upon by the State of Connecticut.

A. Proposed Actions

1. Proposed action description

The actions required to mitigate the threats outlined herein, are given below. At this time, indications are that the potentially responsible party (PRP) will not perform this work. The proposed actions will protect public health, welfare, and the environment by removing the hazardous substances from accessible areas of the Site.

- 1) Conduct site walk with the Emergency Rapid Response Services (ERRS) contractor.
- 2) Secure the Site to prevent unauthorized access. Site security will be provided during non-working hours to ensure adequate surveillance until the waste is transported off site. Should an extended period of storage be required, some other means of securing the Site may be implemented.
- 3) Continue evaluating the structural integrity of the on-site buildings to determine their stability and potential for collapse.
- 4) If necessary, stabilize the work areas to enable response personnel to conduct the removal action.
- 5) Conduct the removal and disposal of asbestos and asbestos containing materials (ACMs) in areas deemed structurally safe to enter. The process shall include provisions for on site decontamination of larger debris, and segregation of asbestos-free debris from inside the buildings.
- 6) Excavate PAH-contaminated surface soils, provided that the areas of concern are stable and safe for response personnel to work.
- 7) Containerize PCB contaminated floor sweeping wastes from the abandoned building.
- 8) Cleanup-generated waste streams will be packaged, documented and shipped off-site for disposal at EPA-approved facilities. Wastes will be staged in a secure area on-site while awaiting shipment to CERCLA compliant off-site disposal facilities. Depending on anticipated storage duration prior to shipment for ultimate disposal, the OSC will determine whether waste will be staged on-site or shipped to a properly permitted temporary storage facility. Waste staging options will be evaluated based on cost. Where practicable, final disposal of waste from the Site will utilize an alternative technology to landfilling. The specific treatment and disposal technology will depend on factors such as the quantity and hazardous characteristics, as well as the availability of alternate technologies.

9) Repair response related damages.

10) Demobilize all personnel and equipment from the Site.

2. Community relations

Upon approval of the Action Memorandum, the OSC will continue coordination with the EPA Community Involvement Office to disseminate information regarding the project to the City and the impacted residents.

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 with regard to disposal options will be further examined as the site work progresses. On-site field screening and analytical techniques may be utilized during the removal action.

5. Applicable or relevant and appropriate requirements (ARARs)

Federal ARARs will be met to the extent practicable considering the exigencies of the situation. The OSC will coordinate with State officials to identify additional State ARARs, if any, and will meet, to the extent practicable, each ARAR identified in a timely manner.

6. Project schedule

The removal action is expected to be completed with 6 months from the day of its commencement.

B. Estimated Costs

COST CATEGORY		CEILING
REGIONAL REMOVAL ALLOWANCE COSTS		
ERRS Contractor		\$750,000.00
Interagency Agreement		\$ 0.00
OTHER EXTRAMURAL COSTS NOT FUNDED FROM THE REGIONAL ALLOWANCE		
START Contractor		\$250,000.00
Extramural Subtotal		\$1,000,000.00
Extramural Contingency	10%	\$100,000.00
TOTAL, REMOVAL ACTION CEILING		\$1,100,000.00

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

Although asbestos removals are considered nationally significant, no precedent setting issues are 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 \$1,100,000 (extramural costs) + \$200,000 (EPA intramural costs) = \$1,300,000 X 1.33 (regional indirect rate) = **\$1,729,000⁵**.

⁵Direct Costs include direct extramural costs \$1,100,000 and direct intramural costs \$200,000. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site specific costs [33% x \$1,300,000, 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

IX. RECOMMENDATION

This decision document represents the selected removal action for the Capehart Mill Site in Norwich, Connecticut 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)];

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)];

Threat of fire or explosion; [§300.415(b)(2)(vi)];

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 \$1,100,000.

APPROVAL: _____

DATE: _____

DISAPPROVAL: _____

DATE: _____

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.