MEMORANDUM

DATE: August 21, 2008

SUBJ: Request for a Removal Action at the O'Sullivan’s Island Site, Derby, New Haven County, Connecticut - Action Memorandum

FROM: Wing Chau, 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: 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 O’Sullivan’s Island Site (the Site), which is located at the confluence of the Housatonic and Naugatuck Rivers in Derby, New Haven County, Connecticut. Hazardous substances present in 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.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID#: CTD980667992
SITE ID#: 0144
CATEGORY: Time-Critical

A. Site Description

1. Removal site evaluation

On June 18, 2008, Arthur Bogen of the Valley Council of Governments contacted James Byrne of EPA’s Brownfields Program requesting assistance in the removal of polychlorinated biphenyl (PCB) contaminated soil at the O’Sullivan’s Island Site. Mr. Byrne subsequently
referred the Site to EPA's Emergency Planning and Response Branch (EPRB) for consideration as a potential time-critical removal action candidate. On July 21, 2008, On-Scene Coordinator (OSC) Wing Chau met with Mr. Arthur Bogen to review his site file and to observe current site conditions. There are two remaining PCB-contaminated soil piles resulting from two previous EPA removal actions conducted from 1983 through 1985 to address buried 55-gallon drums at the Site.

From 1948 to April 1963, the property was owned by the State of Connecticut. Since April 1963, the City of Derby has been the owner of the site. The Valley Fire Training School conducted drills and firefighter training at the site during the 1950's. From the early 1970's to 1976, the Beard Concrete Company used the Site as a source of sand and gravel. Also, the Site was used by contractors to excavate material for the Derby landfill from 1970 to 1983. During excavation operations in 1983, buried 55-gallon drums were uncovered. The discovery of these buried drums lead to the two EPA removal actions that addressed approximately 900 55-gallon drums. Due to the lack of appropriate disposal facilities during these removal actions, approximately 200 cubic yards of PCB contaminated soil remained on site within a fenced area.

Currently, the O'Sullivan’s Island area is used for recreational purposes which include fishing along the riverbanks and walking/jogging along nearby trails. Based upon current site conditions, the PCB contaminated soil poses a contact threat. The site investigation was concluded and a time-critical removal action was recommended in the Site Investigation Closure memo dated August 19, 2008.

2. Physical location

The Site is located at the confluence of the Housatonic and Naugatuck Rivers in Derby, Connecticut. Geographic coordinates of the Site are approximately 41° 18’ 48.07” north latitude and 73° 4’ 52.73” west longitude. The property is located 1500 feet due south of the City of Derby. It is bounded by the Housatonic River, the Naugatuck River, and Route 8. These boundaries form an approximate triangle which measures 1800ft by 1400ft by 2000ft.

3. Site characteristics

O'Sullivan’s Island consists of the southeastern portion of a peninsula located at the confluence of the Housatonic and Naugatuck Rivers. The area of the previous removal actions and Brownfields assessment activities were conducted on a portion of O'Sullivan’s Island which encompasses approximately 6 to 7 acres located southwest of the two lagoons located within the boundaries of the peninsula. The peninsula contains established vegetative growth with a few construction related debris piles scattered throughout the peninsula.

The surrounding area is used by the public for recreation and fishing activities along the river bank. The City of Derby is interested in redeveloping the area as a public open space area which
will include the construction of a nature trail and public dock facility. Based upon 2000 Census data, approximately 15,322 people live within a 1-mile radius of the Site. 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**

There are two soil piles contaminated with PCBs that pose a contact threat to the public. Analytical data shows PCB concentrations range from 50 to 115 parts per million (ppm).

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**

EPA conducted two removal actions from 1983 through 1985 to address approximately 900 drums containing various hazardous materials, including PCBs, solvents, and phenols. An estimated 200 cubic yards of soil with PCB concentrations as high as 115 ppm remained on site within a fenced area due to the lack of appropriate disposal facilities at the time of these removal actions.

In 1999, a Targeted Brownfields Assessment was initiated for this Site. The assessment was finalized documented through a Targeted Brownfields Assessment Final Report dated February 2001.

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

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

The City of Derby is actively pursuing the redevelopment of this area into a park. The City has already removed the abandoned fire training facility and is in the process of conducting an environmental assessment of the property. Upon completion of its assessment and cleanup of the property, the City will attempt to secure an enhancement grant to make the following improvements to the area: 1) install a fishing pier, 2) modify the boat ramp, 3) install a swale to capture non-point source runoff from the parking lot, 4) install a walkway, and 5) restore the riverbank.

2. **Potential for continued State/local response**
The Connecticut Department of Environmental Protection’s (CTDEP’s) PCB Program will provide technical assistance to EPA during the removal action.

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)];*

According to 2000 Census data, approximately 15,322 people live within a 1 mile radius of the Site. The Site and its adjacent areas are heavily used for recreational purposes, which include fishing along the riverbank, walking and jogging trails, and a boat launch area. The exposed PCB contaminated soil piles pose a contact threat to those who may enter the Site.

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

The Site is located at the confluence of the Housatonic and Naugatuck Rivers. The contaminated soil could potentially migrate into the rivers via erosion and surface water runoff.

*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)];*

There are two soil piles contaminated with PCBs that pose a contact threat to the public. Analytical data shows PCB concentrations range from 50 to 115 parts per million (ppm).

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

Under adverse weather conditions, the contaminated soil could potentially migrate into the Housatonic and Naugatuck Rivers via erosion and surface water runoff.

**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 studies of health effects of PCBs in the general population examined children of mothers who were exposed to PCBs. (*ATSDR ToxFAQ Fact Sheet, February 2001*)
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. PCBs are not known to cause birth defects. *(ATSDR ToxFAQ Fact Sheet, February 2001)*

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. Rats that ate food containing high levels of PCBs for two years developed liver cancer. The Department of Health and Human Services (DHHS) has concluded that PCBs may reasonably be anticipated to be carcinogens. The EPA and the International Agency for Research on Cancer (IARC) have determined that PCBs are probably carcinogenic to humans.¹

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.²

V. PROPOSED ACTIONS AND ESTIMATED COSTS

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 "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."

2) Secure the Site to prevent unauthorized access. Activities may include repairing existing fences and installation of new fencing. In addition, if determined necessary by EPA, 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) Remove and dispose PCB-contaminated soil piles. Conduct surface soil sampling to further delineate the extent of contamination. Remove and dispose of any PCB-contaminated surface soil determined necessary by EPA. 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 and safety considerations. Where practicable, final disposal of waste from the Site will utilize an alternative technology to landfiling. 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.

4) Repair response related damages.

5) Demobilize all personnel and equipment from the Site.

2. Community relations

Upon approval of the Action Memorandum, the OSC will coordinate 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:**

**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)

**40 CFR Part 761.60 and Parts 761.202-218** : TSCA requirements for disposal of PCBs

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


B. Estimated Costs

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<thead>
<tr>
<th>COST CATEGORY</th>
<th>CEILING</th>
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<td><strong>REGIONAL REMOVAL ALLOWANCE COSTS:</strong></td>
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<td>ERRS Contractor</td>
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<td>Interagency Agreement</td>
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<td><strong>OTHER EXTRAMURAL COSTS NOT FUNDED FROM THE REGIONAL ALLOWANCE:</strong></td>
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<td>TOTAL, REMOVAL ACTION CEILING</td>
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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 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 $300,000 (extramural costs) + $50,000 (EPA intramural costs) = $350,000 x 1.33 (regional indirect rate) = $465,500.³

³Direct Costs include direct extramural costs $300,000 and direct intramural costs $50,000. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site specific costs 33% x $350,000, 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
IX. RECOMMENDATION

This decision document represents the selected removal action for the O'Sullivan's Island Site in Derby, 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)];*

I recommend that you approve the proposed removal action. The total removal action project ceiling if approved will be $300,000.

APPROVAL:  

DATE: 8/25/08

DISAPPROVAL:  

DATE:

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.