



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

**CONTAINS ENFORCEMENT-SENSITIVE INFORMATION**

**MEMORANDUM**

**DATE:** August 23, 2005

**SUBJ:** Request for a Removal Action at the Inter Royal Site,  
Plainfield, Windham County, Connecticut - **Action Memorandum**

**FROM:** *FG* Frank Gardner, On-Scene Coordinator (OSC) *W.C.C.*  
Emergency Response and Removal Section II

**THRU:** Steven R. Novick, Chief *SRN*  
Emergency Response and Removal Section II

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**TO:** *SS* Susan Studlien, Director *SS*  
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 Inter Royal Site (the Site), which is located at 20 Reservoir Street, Plainfield, Windham County, Connecticut. Hazardous substances present 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.

Emergency removal activities were initiated using OSC warrant authority on April 28, 2005 following a fire at the Site. Emergency removal activities addressed airborne hazardous substances in the smoke plume, asbestos-contaminated fallout in downwind residential areas, and demolition and sampling activities within the footprint of the fire-damaged structure and were completed on June 17, 2005. There are no nationally significant or precedent-setting issues associated with this Site.

## II. SITE CONDITIONS AND BACKGROUND

**CERCLIS ID#:** CTD045110913  
**SITE ID#:** 012U  
**CATEGORY:** Time Critical

### A. Site Description

#### 1. Removal site evaluation

During the emergency removal action, EPA, the Superfund Technical Assessment and Response Team (START) contractor, and the Connecticut Department of Environmental Protection (CT DEP) conducted sampling activities to determine whether contaminated building materials, debris, soils, ash, and/or firefighting water were present within the footprint of the former 3-story mill structure. Samples were collected from May 19, 2005 through May 25, 2005 and analyzed at EPA's New England Regional Laboratory (NERL), except for the water samples which were analyzed by the CT DEP mobile laboratory.

Analytical results from NERL indicate that friable asbestos (up to 80%) is present in the vicinity of the former boiler room and several other isolated areas within the footprint of the former three-story structure. In addition, lead-contaminated ash and surface soils are present (up to 6,200 mg/kg) within the same area. The lead-contaminated ash and soils are principally located inside the building foundation and beneath the fallen timbers and rubble that remained after the fire. (The 3-story mill building had been constructed with an earthen floor and crawlspace, rather than a full basement.) Based on these findings, EPA closed this site investigation on August 23, 2005 with the conclusion that a removal action was warranted.

#### 2. Physical location

The Site is located at 20 Reservoir Street in Plainfield, Connecticut and described on page 421 of Deed Book 55. The Site is bounded to the east by Reservoir Street, to the west by railroad tracks, to the south by a warehouse, and to the north by State Route 14A. This removal action is limited to the northern portion of the Site where the remains of the fire-damaged three-story structure are located. The surrounding area is mainly residential with numerous private residences and a play field adjacent to the Site.

#### 3. Site characteristics

The Site is the location of a large former mill complex originally constructed in the early 1900s and most recently used by the Inter Royal Corporation to manufacture office furniture. Inter Royal shut down operations in 1985 due to bankruptcy, and except for a plastic recycling operation by another party in a portion of the Site in 1991-1992, the Site has been inactive since then. The Site had been without electricity, heat, water, and fire

protection since it was abandoned, and the entire mill had fallen into an advanced state of decay. In 2000-2001, a demolition contractor razed portions of the mill complex in an effort to recover usable building materials. This demolition work was halted when it was discovered that asbestos-containing material had been mixed in with the other building debris.

On April 26, 2005 a fire destroyed the three-story section of the mill, located on the northern portion of the property. The single-story section of the mill, located on the southern portion of the property, was not affected by the fire.

Adjacent to the Site are at least 20 homes, a nursing home, and several businesses. One public school is 0.2 miles distant, and a second is located 3.5 miles away. The population within one-quarter mile of the facility is 589 and within one mile is 2973. According to the EPA Region I Environmental Justice Mapping Tool, the Site is not in an environmental justice area.

The Inter Royal Corporation is the Site owner. Except for the Site itself, all assets of Inter Royal have been liquidated under Chapter 7 bankruptcy proceedings. The operational status of the site is inactive. The incident type is non-oil spill. The incident category is abandoned manufacturing plant.

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

The contaminants of concern are asbestos and lead. EPA's sampling efforts documented the presence of friable asbestos in the area of the former boiler room at up to 80% and lead in ash and surface soils up to 6,200 mg/kg.

#### **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**

Between November 1995 and August 1996, EPA conducted a time critical removal action to address drums, vats, and other containers of hazardous materials that had been abandoned at the site. Hazardous substances removed during the first removal action included acids, bases, cyanides, solvents, paints, PCBs, metal plating solutions, and other hazardous substances. These materials were shipped off-site for disposal at approved facilities.

From 2000-2002, the EPA Brownfields program conducted extensive site characterization work to evaluate asbestos, PCBs, and other hazardous substances in building materials at the site and attempted to facilitate re-development of the site.

EPA conducted a second removal action from January 2003 to July 2003 to address friable asbestos and PCBs. This action consisted of securing the site with a fence and warning signs, excavating PCB-contaminated surface soils, and removing asbestos-containing roofing material that had fallen off of the roof and threatened to migrate off site. In accordance with the Superfund statute, the action did not address asbestos-containing material that was part of the building structure.

From April 26, 2005 through June 17, 2005, EPA conducted an emergency removal action to respond to the fire in the northern three-story section of the mill. Response activities included monitoring and sampling for hazardous substances in the smoke plume, cleanup and disposal of asbestos-contaminated fallout from 681 residential properties downwind of the fire, demolition of fire-damaged remnants of the three-story structure as needed to allow for safe entry by sampling crews, and extensive sampling activities within the footprint of the fire-damaged structure.

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

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

State and local authorities worked closely with EPA in responding to the fire in the spring of 2005. Responding agencies worked together using the principles of the Incident Command System (ICS). CT DEP integrated into the Unified Command with EPA and actively supported all components of the emergency removal action. CT DEP provided personnel to assist in all field activities, including sample collection and analysis and hired a cleanup contractor to begin collecting asbestos-containing debris. ATSDR, the Connecticut Department of Public Health, and the Northeast District Department of Health (NDDH) provided support with respect to health-based action levels for airborne contaminants and extensive public health outreach efforts. NDDH also provided one of the chief Public Information Officers for the response. The Plainfield Fire Department (with mutual aid support from surrounding towns) led the firefighting activities and provided the Incident Commander (the Plainfield Fire Chief) during the first two days of the response, until the fire was extinguished. Town of Plainfield officials also staffed a 24-hour hotline for affected residents and provided office space at the town hall for the Incident Command Center.

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

CT DEP and the Connecticut Office of Management and Budget (OMB) have committed to providing substantial funding for the off-site disposal of brick, timber, and other solid waste streams that do not meet the removal criteria. CT DEP will also provide staff to assist EPA in the day-to-day management of the project following the ICS model used so effectively during this spring's emergency response. The Town of Plainfield will provide support in the areas of traffic control, site access, and clean backfill.

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

#### 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)]*

Friable asbestos in pipe and boiler insulation and lead in ash and surface soils in the area of the fire-damaged, former three-story structure pose a direct contact threat to local residents and those who may enter the Site. Although a perimeter fence is present, the Site has a well-documented history of trespassing and unauthorized access. The fire-damaged ruins may also act as an attractive nuisance, bringing unauthorized individuals in close contact with the hazardous substances present. As the Site is located in the center of the Town, potential receptors could include the entire nearby community. The estimated population within a one-quarter mile radius of the Site is 589 people, and within a one-mile radius, 2973 people.

Asbestos fibers may enter the body by inhalation or ingestion. Breathing asbestos can cause asbestosis, a buildup of scar-like tissue in the lungs and in the membrane that surrounds the lungs. Symptoms of asbestosis include shortness of breath, coughing, and sometimes heart enlargement. Asbestosis is a serious disease that can lead to disability or death. Asbestos is also a known human carcinogen. Inhalation of high levels of asbestos can cause cancer of the lung tissue itself and mesothelioma, a cancer of the membrane that surrounds the lung and other internal organs.<sup>1</sup>

Exposure to lead through either ingestion or inhalation can damage the nervous systems, kidneys, and immune systems. Unborn children can be exposed to lead through their mothers. Harmful effects to children include premature births, smaller babies, decreased mental ability, learning difficulties, and reduced growth in young children. In adults, lead may decrease reaction time, cause weakness in fingers, wrists, or ankles, and possibly affect the memory. Lead may cause anemia, a disorder of the blood. Certain forms of lead have been determined to cause cancer in laboratory animals.<sup>2</sup>

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

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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, *Tox FAQs Fact Sheet for Asbestos*, September 1996.

<sup>2</sup> Agency for Toxic Substances and Disease Registry (ATSDR), U.S. Department of Health and Human Services, Public Health Service, *Toxicological Profile for Lead*, 1993.

The Site is located within a drinking water aquifer (Ground Water Quality Class GB). The nearest community drinking water well is located about 1500 feet to the southwest. The presence of the lead-contaminated ash and surface soils in the former crawlspace of the three-story structure, near the water table, could pose a threat to the water quality in this drinking water aquifer.

*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)]*

The lead-contaminated ash and surface soils are not vegetated and only partially covered with rubble from the fire. During dry weather conditions, lead-contaminated ash and fine soil particles could pose a threat of airborne migration. During wet weather conditions, the same contaminants could migrate via water runoff.

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

The State of Connecticut has committed to providing substantial funding toward the project to pay for the off-site disposal of brick, wood, and other solid waste streams that do not meet EPA's removal criteria. By undertaking the proposed removal action at this time, EPA can partner with the State and collectively achieve a more comprehensive cleanup at the Site.

#### **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**

The actions required to mitigate the threats outlined herein are given below. At this time, indications are that Potentially Responsible Parties (PRPs) will not perform this work. The proposed actions will protect public health, welfare and the environment by

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<sup>2</sup> In accordance with OSWER Directive 9360.0-34, an endangerment determination is made based on collaboration with trained risk assessors and relevant action levels or cleanup standards promulgated by the federal government or applicable state.

removing the asbestos and the lead-contaminated ash and surface soils from the Site. Removal activities will be confined to the northern portion of the Site, where the three-story section of the mill was located, and will include:

- 1) Collection of asbestos from the vicinity of the former boiler room and other areas as encountered within the debris field produced by the fire;
- 2) Removal of brick, wood, metal, and other building debris so that work crews can safely access the lead-contaminated ash and surface soils. (Completion of this task is contingent upon the transportation and off-site disposal of the building debris waste streams being provided by CT DEP and OPM, as discussed in Sections II and III.);
- 3) Excavation of lead-contaminated ash and surface soils. (If, after excavation, lead contamination is found to remain at depth, capping in-place may also be used as an alternative measure.)
- 4) Off-site disposal of asbestos and lead-contaminated ash and soil at EPA-approved facilities;
- 5) Sampling and air monitoring as needed to support the above activities; and
- 6) Grading and backfilling as needed to secure the Site. (Completion of this task is contingent upon clean backfill being provided by the Town of Plainfield or another stakeholder of the project.)

## 2. Community relations

EPA will continue to actively convey information about the Site to the community by preparing press releases, issuing leaflets and fact sheets, and participating in public meetings. EPA will closely coordinate all community relations activities with CT DEP and NDDH. Pollution Reports will be generated on the [epaos.org](http://epaos.org) web site, and distributed directly to federal, state, and local officials.

## 3. Contribution to remedial performance

The response action 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

EPA anticipates utilizing X-ray fluorescence technology for rapid field screening to determine the extent of the lead-contaminated ash and surface soils.

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

The cleanup standards, standards of control, and other substantive requirements that have been identified to-date, are listed below, and are applicable within the confines of EPA Publication 540/P-91/011, "Superfund Removal Procedures: Guidance on the Consideration of ARARs During Removal Actions."

### Federal, Action-specific

29 CFR Parts 1910, 1926, and 1904: OSHA Health and Safety Regulations

Federal: Resource Conservation and Recovery Act (RCRA)

40 CFR 260-272: Hazardous Waste Management System

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 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

### Federal, Chemical-specific

40 CFR Part 61- National Emission Standards for Hazardous Air Pollutants

Subpart M - National Emission Standard for Asbestos

61.145(c) : Standard for demolition and renovation

61.150 (except d): Standard for waste disposal for manufacturing, fabricating, demolition, renovation, and spraying operations

61.151 (except d and e); Standard for inactive waste disposal sites for asbestos mills and manufacturing and fabricating operations

61.154 (except e through j): Standard for active waste disposal sites

### Federal, Location-specific

There are no location-specific ARARs at this time.

**State**

Section 19a-332a-1 through 16  
Standards for Asbestos Abatement

Section 20-440-1 through 20-440-9  
Licensure and Training Regulations for Persons Engaged in Asbestos Abatement & Asbestos Consultation Services

Section 20-441  
Refresher Training

The OSC will continue to coordinate with State officials to identify potential state ARARs. In accordance with the National Contingency Plan and the above-referenced guidance, the OSC will determine which state regulations are applicable or relevant and appropriate.

**6. Project schedule**

EPA plans to mobilize its contractors to initiate these cleanup activities within the next four to six weeks. The removal action is anticipated to be complete within nine months of its commencement.

**B. Estimated Costs**

Below is the independent government cost estimate to initiate the proposed actions outlined above.

<b>COST CATEGORY</b>		<b>CEILING</b>
<i>REGIONAL REMOVAL ALLOWANCE COSTS:</i>		
ERRS <sup>3</sup> Contractor		\$1,000,000.00
Interagency Agreement		\$ 0.00
<i>OTHER EXTRAMURAL COSTS NOT FUNDED FROM THE REGIONAL ALLOWANCE:</i>		
START <sup>4</sup> Contractor		\$100,000.00
Extramural Subtotal		\$1,100,000.00
Extramural Contingency	10%	\$110,000.00
<b>TOTAL REMOVAL ACTION CEILING</b>		<b>\$1,210,000.00</b>

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

<sup>4</sup> Superfund Technical Assistance and Response

**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 will persist. Asbestos will remain on-site, and continue to pose the threats to public health, welfare, or the environment outlined above.

**VII. OUTSTANDING POLICY ISSUES**

There are no precedent-setting policy issues at this Site at this time.

**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 \$1,210,000 (extramural costs) + \$100,000.00 (EPA intramural costs) = \$1,310,000 X 1.3151 (regional indirect rate) = **\$1,722,781.00<sup>5</sup>**.

**IX. RECOMMENDATION**

This decision document represents the selected removal action for the Inter Royal Site in Plainfield, Connecticut, developed in accordance with CERCLA, as amended, 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 as 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 \$1,210,000.00 and direct intramural costs \$100,000.00. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific costs [31.51% x \$1,310,000.00 = 412,781.00], consistent with the full accounting methodology effective October 2, 2000. These estimates do not include pre-judgment 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)]; and*

*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 \$1,210,000.00. Of this total, no more than \$1,110,000.00 comes from the Regional removal allowance.

APPROVAL: 

DATE: 8-30-05

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

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