

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Woodbury Coal Tar - Removal Polrep
Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region I

Subject: POLREP #4
POLREP 4 & FINAL
Woodbury Coal Tar
01HB
Salem, MA
Latitude: 42.5273590 Longitude: -70.8933580

To:
From: Richard Haworth, On-Scene Coordinator
Date: 6/7/2012
Reporting Period: 1/20/12 - 05/3/2012

1. Introduction

1.1 Background

Site Number:	01HB	Contract Number:	EP-W-08-061
D.O. Number:	0030	Action Memo Date:	4/13/2011
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	5/13/2011	Start Date:	5/13/2011
Demob Date:	5/3/2012	Completion Date:	5/3/2012
CERCLIS ID:	MAN000106037	RCRIS ID:	
ERNS No.:		State Notification:	Yes
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

On-shore, non-transportation, fund-lead, CERCLA time-critical removal action.

1.1.2 Site Description

Woodbury Court is a short, narrow, dead end road descending south off Northey Street at a right angle. Twelve Woodbury Court is at the dead end of the road. It is the only empty lot on a street where homes are otherwise spaced closely together on small lots. It is located at the southern end of the site. Brush along the perimeter provides a deterrent, but does not prevent access along the west and south side. Access is not restricted from Woodbury Court. The property is generally level entering from Woodbury Court, but eventually slopes upward to a common property line with Gonyea Park where there is a weathered stockade fence.

Gonyea Park is accessed from Northey Street. Limited parking is available on Northey Street for perhaps six cars. It is an L-shaped property that is generally level. On the south side, a stockade fence runs along the property line with 12 Woodbury Court. However on the east side, the fence is at the top of a slope. The Gonyea Park parcel continues downward to the houses on Woodbury Court creating the unusual situation where the property line is literally at the edge of two houses on Woodbury Court. The Park property between the fence at the top of the slope and the two houses on Woodbury Court is used as the back yard for these two residences.

There are no structures at Gonyea Park other than a children's play set towards the north end of the parcel/site, close to the parking area. The parcel is planted with grass, and is free of trees or shrubs except along the south and west perimeter. There is a retaining wall on the west side of the Park/Site, creating an estimated 15-foot vertical drop down to Rt 107. Access is unrestricted from Northey Street.

The combined area of Gonyea Park and the Woodbury Court residential properties is approximately 0.91 acres. There are several closely spaced residential dwellings on Northey Street. The apartment complex to the south has dozens of units. There are approximately 1,850 people within one-quarter mile of the site.

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

1.1.2.1 Location

Twelve Woodbury Court, Salem, Massachusetts has been selected as the site address, as this is the location where

contamination was first discovered. The coordinates for this address are approximately 42.53E north latitude, 70.89E west longitude. The site is bounded to the west by Route 107 (Bridge Street Bypass) and residential property on all other sides.

1.1.2.2 Description of Threat

Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants.

High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

The investigation was begun in July 2010, and consisted of collecting surface and subsurface soil samples to a maximum depth of three feet. In addition, the concentration of total volatile organic compounds (soil gas) was measured at each sample station in the field using a direct reading instrument. The three points with the highest concentrations nearest to adjacent residential properties were sent to a laboratory to identify the specific compounds present, and the concentration of each. An evaluation by DEP personnel revealed vapor intrusion is not an immediate concern, however DEP plans to carry out confirmation sampling under residences and paved areas.

Based on the lab results of tests run on soil, a second round of sampling was scheduled for the first week of January 2011 to better define the extent of contamination at Gonyea Park and 12 Woodbury Court, determine if other adjacent residential properties were impacted, and identify how much of the chromium detected present in the first round of sampling is trivalent chromium, and how much is the more toxic, hexavalent chromium. Analysis revealed that the chromium present at this site is the less toxic trivalent form.

Data generated from both sample events shows that one or more hazardous substances are present at a concentration above Massachusetts' standards at 45 of 48 sample locations. On the land used as Gonyea Park, at least one state standard is exceeded at 40% of the surface samples analyzed; at one foot, 73%; two feet, 81%; and at three feet, 66%. In addition, while they do not exceed state standards, dozens of other hazardous substances have also been identified in soil at the site.

A Closure Memorandum dated 16 March 2011 formally documents the conclusion of the removal evaluation of this Site. It recommends that a removal action is appropriate because conditions at this Site meet the criteria in the National Contingency Plan (NCP) for initiating a removal action.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

The owners of the Jefferson at Salem Station apartments addressed contaminated soil on their property abutting 12 Woodbury Court in the manner agreed upon with the OSC and DEP representative. EPA's START contractor was on site each day to monitor work and report to the OSC. Landscaping has been completed on both the area addressed by the apartments and the area addressed by EPA. This removal action is complete.

1.2 Response Actions to Date

Week of 9 Apr 12

The OSC met at the site with the local landscaper subcontracted to EPA's ERRS contractor. Final landscaping requirements were agreed upon and documented via email with the ERRS contractor.

Week of 16 Apr 12

Contractors retained by the owners of Jefferson at Salem Station apartments mobilized to the site and removed trees and a chain link fence in the area to be excavated. Temporary chain link fence was set up to prevent access. Crushed stone was delivered and spread to create a truck loading area.

Week of 23 Apr 12

Contractors retained by the owners of Jefferson at Salem Station apartments excavated and shipped off site 364.96 tons of contaminated soil. Soil was sent to the same disposal facility used by EPA for soil it excavated previously from other properties. The excavated area was backfilled with soil that had been tested previously. Air monitoring performed during excavation revealed that concentrations of contaminants remained below the established action level.

EPA's landscaper removed silt fence from the perimeter of the site and repaired small erosion gullies (approximately 3 inches deep) that had developed over the winter due to grass being unable to fully take hold during the winter. Stone was installed along the paved parking area for apartments on Northey Street to prevent gullies from re-occurring before grass is fully established.

Week of 30 Apr 12

Hydroseed was applied to Gonyea Park on 2 May, and grass sod was applied for final cover at the apartments on 3 May. Therefore 3 May 2012 is the final demobe and completion date for this project.

Week of 28 May 12

Information necessary to complete this report was received from the contractor addressing the apartment property.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

Enforcement actions have not been initiated. This has principally been a fund-lead removal action, however the OSC obtained a voluntary cleanup of contaminated soil by the owners of Jefferson at Salem Station apartments (adjacent to 12 Woodbury Court). In addition, an existing Activity and Use Limitation will be updated to address this area of apartment property.

2.1.4 Progress Metrics

All contaminated soil that was excavated has been shipped to Environmental Soil Management, Incorporated (ESMI) in Loudon, New Hampshire.

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>
contaminated soil (PAHs, lead, cyanide) by EPA	soil	5274.81 tons	1 - 222	None	Landfill
contaminated soil (PAHs, lead, cyanide) by landowner	soil	364.96 tons		None	Landfill
TOTAL		5,639.77 tons			

2.2 Planning Section

2.2.1 Anticipated Activities

See Section 2.1.1 below.

2.1.1 Planned Response Activities

The following planned actions are taken directly from the action memorandum.

The OSC will guide the EPA's Emergency and Rapid Response Services (ERRS) contractor personnel on their initial site visit for the purpose of identifying first hand to the contractor, the scope and objectives of the project.

The OSC anticipates using heavy equipment to excavate soil to a depth of not more than three feet where any of the ten hazardous substances identified exceed the state standards listed above in this action memorandum, and then restoring the impacted area to the extent practical. In addition to soil, waste material (coal tar, drums, or other containers) that may be encountered will also be excavated. Restoration includes, but is not necessarily limited to, backfilling excavated areas, re-establishing a lawn, correcting response-related damage that may occur, and re-planting existing vegetation with plants that are commonly available. The replacement for adult, fully-grown trees will be much smaller, commonly available nursery stock. For residential properties, prior to initiating work, a list of all existing plants must be generated, and the building and grounds videotaped and photo-documented with specific attention to existing deficiencies.

A limited number of test pits will be dug to provide information about subsurface conditions at depths greater than three feet. Excavation below three feet may be undertaken in a limited area to remove a discrete source of contamination, such as a pocket of coal tar waste or a drum.

The limits of excavation will be identified for future reference with snow fence. A barrier of soil, stone, and/or man-made materials will be employed to prevent contact with hazardous substances if not all contaminated soil can be excavated from depths less than three feet, for example, to save old-growth trees at the request of the property owner, if the water table, bedrock, or foundation remnants are encountered, to prevent damage to residential foundations, or for other reasons.

Based on the impact to residents of homes where a cleanup takes place, residents will have the opportunity to be temporarily relocated while work is taking place. Temporary relocation or other accommodation will be accomplished via an interagency agreement (IAG) with the U.S. Army Corps of Engineers (USACE). Related costs can be expected to include, but are not necessarily limited to, housing, meals, day care, laundry, and boarding pets. Should residents be temporarily relocated while contaminated soil is addressed, a security guard will be posted outdoors at the home during their absence.

The project will employ temporary fence and warning signs to secure work areas, and security guards posted if warranted by circumstances other than the relocation of residences. To document that contaminants are not migrating off site as a result of cleanup activities, air will be monitored as work progresses, and compared to OSHA standards and background data collected prior to beginning excavation activities. Wetting soil will be carried out as needed to supplement existing soil moisture to minimize if not eliminate dust from being generated, and thereby the potential for off-site migration of contaminants. Additional preventative measures or alternative work practices will be implemented if concentrations reach one-half the OSHA standard.

Samples will be collected of waste, soil, water, and air to comply with the requirements of the Site's health and safety plan, characterize waste, document the effectiveness of the cleanup or final conditions, and assure the quality of backfill obtained from off-site vendors, and for other reasons that may arise.

Additional sampling is necessary to fully define the extent of contamination. If additional properties beyond those

identified to date are discovered to be part of this site, it is likely a additional funding will be required.

In the event that the state's soil gas sampling indicates residences are being impacted, it may be appropriate to expand the scope of this project to include vapor intrusion abatement. Should this situation arise, it would be addressed by a Change-In-Scope Action Memorandum that outlines the nature of the threat and the recommended response action, and likely include a request for additional funds.

2.2.1.2 Next Steps

All planned removal actions are complete.

EPA's landscaper may return to the site if necessary to fulfill warantee obligations.

The City plans to install a new play set at Gonyea Park. The City may conduct a dedication event.

EPA may issue a press release.

2.3 Logistics Section

This site is complete.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

The OSC is the Safety Officer for this site. A site-specific health and safety plan was adhered to while conducting the removal action.

2.6 Liaison Officer

The OSC is the Liason Officer for this site, and maintained an open line of communication with counterparts at DEP, the City of Salem, and residents.

2.7 Information Officer

2.7.1 Public Information Officer

A PIO was not required for this site.

2.7.2 Community Involvement Coordinator

The OSC worked with an EPA Community Involvement Coordinator to develop and distribute Community Updates for the neighborhood around the Site. The OSC delivered Community Update #3 to 100 homes on 13 April 2012. No additional Community Updates are anticipated.

Note that EPA's Community Updates were not delivered by EPA to Jefferson at Salem Station apartment residents during the course of this cleanup as the owners of the apartment complex established at the start of EPA's involvement at this site, that they would take responsibility for informing apartment residents about cleanup actions.

3. Participating Entities

3.1 Unified Command

Site work is complete.

3.2 Cooperating Agencies

Massachusetts Department of Environmental Protection.
Agency for Toxic Substances and Disease Registry
City of Salem Mayor's Office
 Planning & Engineering Department
 Department of Public Works

4. Personnel On Site

The OSC, EPA contractors, and contractors working for Jefferson at Salem Station apartments.

5. Definition of Terms

OSC - On-Scene Coordinator
ERRS - Emergency and Rapid Response Services
PA/SI - Preliminary Assessment/Site Investigation
START - Superfund Technical Assistance Response Team
ATSDR - Agency for Toxic Substances and Disease Registry
DEP - Massachusetts Department of Environmental Protection
POLREP/SITREP - Pollution Report/Situation Report
CERCLA - Comprehensive Environmental Response Compensation and Liability Act

IAG - Interagency Agreement
NCP - National Contingency Plan
ppm - parts per million
ppb - parts per billion

6. Additional sources of information

6.1 Internet location of additional information/report

Additional information can be found on the web at [epaosc.net](http://epaossc.net).

6.2 Reporting Schedule

Periodic.

7. Situational Reference Materials

None.