

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



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region I

Subject: POLREP #1
Situation Report 1
Woodbury Coal Tar
01HB
Salem, MA
Latitude: 42.5273590 Longitude: -70.8933580

To:
From: Richard Haworth, On-Scene Coordinator
Date: 4/21/2011
Reporting Period: 13 May - 3 June 2011

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:		Completion Date:	
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. A complete list of properties to be addressed by this removal action will not be available until the extent of contamination has been fully defined. 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 ERRS contractor has mobilized to the site and begun preparations to initiate excavating contaminated soil. This includes photo documenting existing conditions, documenting vegetation, and establishing subcontracts for equipment and services. The target date to initiate excavation is 13 June 11.

2.1.2 Response Actions to Date

3 May 11 - A task order was issued to the ERRS contractor selected upon completion of the Fair Opportunity process. The OSC discussed the site by phone with the ERRS Program Manager. Efforts to subcontract required resources began.

12 May 11 - The ERRS contractor mobilized to the site to collect a sample of backfill materials from the least cost vendor. Samples were shipped to a lab for contaminant analysis. An arborist began documenting plants, patio blocks, decorative edging, and related items at each site property.

Week of 16 May 11 - The ERRS Response Manager (RM) met with the OSC at the site to review planned operations, and to document conditions inside and outside the homes at 8 and 10 Woodbury Court. The focus of this activity is to document existing defects to protect against claims at a later date. As the tenant on the second floor of #10 was unavailable, only the basement and first floor of #10 was completed this week. A surveyor took measurements for the purpose of generating a topographic map.

Week of 23 May 11 - ERRS personnel installed temporary chain link fence to secure the park and 12 Woodbury Court. Warning signs were attached to the fence at various locations. At Gonyea Park, a copy of a Community Update (distributed door-to-door prior to starting work on site) was posted together with two 24-hour telephone numbers for urgent situations that might arise during non-work hours. The OSC also provided these numbers to the residents at 8 and 10 Woodbury Court.

The metal play set at Gonyea Park was dis-assembled. Benches, park signs, timber edging at the play area, and wooden fences bisecting the site were removed. Fences and edging were placed in a storage container delivered to the site this week. The play set and signs were set aside to be picked up and stored by the city.

The interior of the second floor at 10 Woodbury and the back yard of 4 Woodbury (city property) were documented with photos and video.

Outdoor items at 8 and 10 Woodbury Court were moved to a storage container located in the park. All items stored are given a tag identifying the property address. A second storage container was brought to the site to be used for site supplies and equipment. Temporary chain link fence was set up behind the homes on Woodbury Court.

ERRS personnel began cutting down small diameter trees. The arborist returned to view the site with the RM and OSC and discuss the draft deliverables received.

Week of 30 May 11 - Personnel completed cutting small trees as well as the vines and brush on a chain link fence running along Bridge Street Bypass. The concrete footings securing small play items at the park were dug out with hand shovels along with two remaining wood fence posts not taken out previously. The surveyor returned to the site to mark the property corners in common between 12 Woodbury Court and the adjacent Salem Station Apartments property.

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

This is a fund-lead removal action. Enforcement actions have not been undertaken.

2.1.4 Progress Metrics

All waste remains on site at this time.

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

Mobilize equipment beginning 8 June 2011 to install an access road from Northey Street into Gonyea Park, and otherwise be prepared to begin excavation on 13 June 2011.

2.2.2 Issues

1) The owner of 4 Woodbury Court has not granted access to perform a removal action.

2) As described in the Site Description section above, the residents at 4 and 8 Woodbury Court use the edge of Gonyea Park (city property) as their back yard. The location of existing plants, as well as decorative stone, timber, and the like, is being carefully documented, especially where the owner of #4 has created a terraced landscape of many plants on the city property behind this home. While the arborist was on site the second time, she was tasked to document the plants in the front yard of #4 without entering onto the property. The front yard is small, and is entirely a garden area without a lawn. Because of the small distance between the sidewalk and the house, documenting the front garden was accomplished from the street and/or from 8 Woodbury Court. This was done so that if access to perform a removal is made available, documenting existing conditions will not delay excavation. Also, providing a comprehensive list and sketch of plants to the homeowner may help to obtain access to perform the removal.

3) After on-site work began, a resident of 4 Woodbury Court informed the OSC that he was going to have a landscaper remove a few most-desired plants from their back yard (city property), store them at a remote location, and return them once the cleanup was complete. The OSC alerted the case attorney, who contacted the resident for the purpose of dissuading him. However, he remained resolute in carrying out his plan regardless. Consequently the OSC alerted the city and DEP, sent electronic mail to the resident outlining several issues of concern related to his plan, and erected temporary chain link fence affixed with a warning sign behind the home along the property line in common with the city. These preventative measures have been successful so far.

2.3 Logistics Section

The OSC is the Logistics Section Chief.

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 has been developed, and approved by EPA and the ERRS and START contractors.

2.6 Liaison Officer

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

2.7 Information Officer

2.7.1 Public Information Officer

A PIO is not needed at this time. The OSC will coordinate with the EPA Community Involvement Coordinator assigned to this site.

2.7.2 Community Involvement Coordinator

Kate Renahan is the Community Involvement Coordinator, and has assisted the OSC with generating and distributing a Community Update, setting up a location for a neighborhood meeting, and placing an advertisement in the local newspaper to alert the community about the neighborhood meeting.

Kate attended the neighborhood meeting held on 19 May 2011 at 7:00 p.m, at which the OSC provided a brief review of CERCLA, site history, and planned actions. ATSDR, DEP, and Salem representatives provided assistance with answers to questions in their respective areas of expertise. DEP also outlined its plan to take soil gas measurements in homes at and adjacent to the site as it is currently defined, to confirm that vapor intrusion is not a concern. This work will be undertaken concurrent with the removal action.

3. Participating Entities

3.1 Unified Command

The Environmental Protection Agency is responsible for this site at this time.

3.2 Cooperating Agencies

4. Personnel On Site

The OSC and the ERRS contractor and subcontractors.

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.

6.2 Reporting Schedule

Periodic.

7. Situational Reference Materials

None.