

United States Environmental Protection Agency
Region V
POLLUTION REPORT

Date: Monday, June 8, 2009

From: Steven Renninger

To: Mila Bensing, EPA 5

Subject: FINAL

Rose Exterminator Site
5421 Carthage Avenue, Norwood, OH
Latitude: 39.1048300
Longitude: -84.2733900

POLREP No.:	2	Site #:	B5QY
Reporting Period:	May 12 through June 3, 2009	D.O. #:	0025
Start Date:	4/29/2009	Response Authority:	CERCLA
Mob Date:	4/29/2009	Response Type:	Time-Critical
Demob Date:	6/8/2009	NPL Status:	Non NPL
Completion Date:	6/8/2009	Incident Category:	Removal Action
CERCLIS ID #:	OHN 000 510 327	Contract #	EP-S5-08-02
RCRIS ID #:			

Site Description

The Site is located at 5421 Carthage Avenue, Norwood, Hamilton County, Ohio. The site consists of a 0.055-acre parcel located in a primarily mixed land use area that includes commercial and residential properties. The site is bounded by a former automobile repair garage and restaurant to the north; Carthage Avenue to the east; a residence to the south; and residences to the west. One vacant cinder-block building is located at the Site approximately 100 feet from Carthage Avenue. The building measures approximately 35 by 25 feet, has 9-foot-tall cinder-block walls, and a collapsed roof. The building structure is damaged. Debris including concrete blocks, wood beams, toys, vegetation, and trash is scattered inside the building, which contains evidence of trespassing. White staining (arsenic contamination) is visible on the inside walls of the building.

The Site has been vacant since 1974. According to the City of Norwood, approximately 65 years ago, the founder of the Rose Exterminator Company (a local exterminating company) used the building for small-scale production of a rodenticide containing arsenic. According to Site records, the product was mixed and packaged in the building until the 1940s. The company ceased operations in 1974, and the building has remained unoccupied since.

The Norwood Health Department (NHD) conducted a site investigation on April 29, 1974, with assistance from the National Institute for Occupational Safety and Health (NIOSH). Based on available documentation, samples were collected and analyzed for arsenic only. NIOSH personnel sampled the building rafter wood and collected wipe grab samples from the floor, walls, and other surfaces in the building. Sample results indicated elevated arsenic concentrations, prompting the submittal of a letter dated 1974 to the Rose Exterminator Company requesting the proper cleanup and decontamination of the building. NHD continued to conduct site inspections in 1977, 1978, and 1980, with no apparent response from the Rose Exterminator Company.

A new owner acquired the Site property in 1981 and expressed an interest in demolishing the Site building. NHD contacted the new owner regarding past contamination and recommended decontamination before building demolition. In 1981, NIOSH completed a health hazard evaluation report in response to an NHD request to determine the extent of arsenic contamination in the building. A total of 14 dust wipe samples were collected from various surfaces in the building. Sample results indicated arsenic contents as high as 41 percent and laboratory analytical results ranging from 1.4 to 2,100 micrograms per square inch. NIOSH recommended the decontamination and demolition of the Site building. In September 1982, the property owner received a permit to decontaminate and demolish the Site building. No further correspondence is available until September 2004, when an NHD Nuisance Investigation Report was initiated.

On September 14, 2004, NHD conducted a site inspection. NHD observations include an old oil tank at

the rear of the Site and a large dumping area containing dirt, concrete, and asphalt. In a report dated June 25, 2008, Tetra Tech EM Inc. (Tetra Tech) completed a Phase I environmental site assessment (ESA) at the Site. The Ohio Environmental Protection Agency (Ohio EPA) Division of Emergency and Remedial Response tasked Tetra Tech to perform the Phase I ESA of the vacant building.

In a letter dated January 29, 2009, the Ohio EPA requested U.S. EPA assistance in conducting a removal site evaluation and potential time-critical removal action at the Site due to elevated arsenic and lead concentrations.

On December 30, 2008, U.S. EPA conducted a site assessment to document Site conditions and evaluate the Site for a time-critical removal action. During the site assessment, U.S. EPA documented total arsenic and total lead concentrations high as 73,101 and 1,795 milligrams per kilogram (mg/kg), respectively, in Site surface soils. Inside wall screening results indicated total arsenic at concentrations as high as 2,529 mg/kg.

U.S. EPA on-site soil samples contained total arsenic concentrations of 68,800, 45,300, 17,800 and 2,980 mg/kg, respectively, and Sample No. S-4 contained a total lead concentration of 1,420 mg/kg, which exceed the Ohio Department of Health (ODH) residential arsenic action level of 20 mg/kg and the ODH residential lead action level of 400 mg/kg.

On April 17, 2009, the ODH completed a Health Consultation for the Rose Exterminator Site. The Health Consultation concluded: The unsecured Rose Exterminator Site is highly contaminated with arsenic. At present, the site poses a public health hazard.

The ODH Health Consultation recommended the following:

1. Additional soil samples should be collected on-site and from adjacent residences to fully define the extent of arsenic and lead contamination.
2. Access to the property should be restricted to prevent exposure to contaminated building and soils.
3. Future exposure to arsenic and lead contamination at the site can be eliminated by removing the arsenic-contaminated building and contaminated soils from the site.

In April, 2009, the City of Norwood posted the site and secured the building door. U.S. EPA and the City of Norwood completed a Site Emergency Contingency Plan in April, 2009.

On May 11, 2009, EPA initiated excavating arsenic-contaminated soil and building demolition. Site security and perimeter air monitoring was initiated.

Current Activities

May 12 thru May 15:

ERRS (EPA removal contractor) excavated and loaded trucks/rolloff boxes with hazardous arsenic-contaminated soil and building debris. A total of 8 loads of hazardous arsenic-contaminated soil and building debris were transported for off-site disposal to EQ-Michigan Disposal, located in Belleville, Michigan.

WESTON START utilized an XRF instrument to check the bottom of the excavation areas for total arsenic to determine if additional soil required excavation. The total arsenic residential action level of 20 ppm was established by the Ohio Department of Health (ODH). The base of the final excavation depth did not reveal total arsenic concentrations ≥ 20 ppm. WESTON START collected soil samples to verify the XRF results. Both soil samples showed total arsenic concentrations < 20 ppm.

Following completion of property owner access agreements, EPA tasked WESTON START to sample the adjacent residential locations on the western perimeter of the site for arsenic contamination. Sampling did not reveal any XRF sample locations exceeding the residential arsenic action level of 20 ppm in lots (west) behind the former site building.

EPA and WESTON START used the XRF to locate the northern perimeter of arsenic contamination behind the vacant commercial buildings adjacent to the site. The commercial arsenic action level was set at 80 ppm by ODH. Surficial arsenic soil contamination was removed at this location.

EPA tasked WESTON START to check the soil in the backyard of the residential home on the southern perimeter of the site. Total arsenic concentrations ranged from non-detect to 137 ppm. EPA met with the owner and the owner requested that EPA remove the arsenic contaminated soil, and to restore the backyard.

WESTON START collected personal and perimeter air samples for total arsenic and total lead analysis. All air samples showed non-detect for total arsenic and total lead.

Site security conducted during non-working hours.

May 18 thru 20, 2009

A total of 12 loads of arsenic-contaminated soil were transported for off-site disposal to Rumpke Landfill, located in Cincinnati, Ohio.

ERRS initiated excavating arsenic-contaminated soil in the backyard of the residential property south of the site. WESTON START verified the excavation depths using the XRF instrument.

ERRS completed spreading backfill and topsoil on the site. The site was hydro-seeded.

WESTON START collected perimeter air samples for total arsenic and total lead analysis. All air samples showed non-detect for total arsenic and total lead.

Site security conducted during non-working hours.

May 26 thru 29, 2009:

EPA identified elevated arsenic concentrations (>20 ppm) within a 10-foot radius of a 60-foot tall walnut tree located in the backyard of the residential property south of the site. EPA and Norwood Health Dept met with the owner and explained the results. The owner requested the tree to be removed to ensure all site related arsenic-contaminated soil could be removed from the property. Removal of arsenic contaminated soil included removal of the large walnut tree and underlying arsenic contaminated soil.

ERRS completed removing the tree and completed excavating the arsenic-contaminated soil in the backyard. Excavation depths in the backyard ranged from 6 inches to 30 inches below ground surface. WESTON START checked the bottom of all excavation areas with the XRF instrument and total arsenic concentrations were all less than the 20 ppm arsenic residential action level.

A total of 5 loads of arsenic-contaminated soil and debris were transported for off-site disposal to Rumpke Landfill, located in Cincinnati, Ohio.

Site security conducted during non-working hours.

June 1 thru June 5, 2009:

ERRS completed backfilling the residential property south of the site with backfill and topsoil, reset the chain-link fence separating the two properties and hydroseeded the entire site.

A total of 2 loads of arsenic-contaminated soil were transported for off-site disposal to Rumpke Landfill, located in Cincinnati, Ohio.

All personnel and equipment demobilized from the site.

Planned Removal Actions

None.

All personnel and equipment have demobilized from the site.

Next Steps

None.

Key Issues

EPA transported 8 loads (~160 cubic yards) of hazardous arsenic-contaminated soil and building debris for off-site disposal to EQ-Michigan Disposal, Belleville, Michigan.

EPA transported 19 loads (~380 cubic yards) of nonhazardous arsenic-contaminated soil for off-site disposal to Rumpke Landfill, Cincinnati, Ohio.

Post excavation soil sampling (using the XRF or commercial laboratory) showed total arsenic concentrations less than the 20 ppm action level in all areas where excavation was conducted.

All perimeter air samples collected during excavation activities did not show any measurable total arsenic

or total lead concentrations.

Disposition of Wastes

Waste Stream	Quantity	Manifest #	Disposal Facility
Arsenic-Contaminated Soil and Building Debris - Hazardous	8 loads (160 yd3)		EQ - Michigan Disposal Belleville, Michigan
Arsenic-Contaminated Soil and Tree Parts - NonHazardous	19 loads (380 yd3)		Rumpke Landfill Cincinnati, Ohio

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