

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Boarhead Farms - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region III

Subject: POLREP #208
Performance of Removal Action
Boarhead Farms
03Y2
Bridgeton Township, PA
Latitude: 40.5442983 Longitude: -75.1286907

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Date: 9/27/2018

Reporting Period: 09/01/2018 - 10/05/2018

1. Introduction

1.1 Background

Site Number:	03Y2	Contract Number:	
D.O. Number:		Action Memo Date:	6/1/2018
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	NPL	Operable Unit:	
Mobilization Date:	8/28/2018	Start Date:	8/28/2018
Demob Date:		Completion Date:	
CERCLIS ID:	PAD047726161	RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

This removal action relates to a suspected release of TCE and other organic vapors to indoor air of an occupied residence.

1.1.2 Site Description

The Site consists of approximately 124 acres of land currently owned by a Boarhead Corporation, an inactive private entity. The Site is on the National Priorities List and performance of a long-term remedial response action to address contaminated groundwater is on-going. The focus of this removal action is a single-family residence located on the Site in areas where numerous releases of hazardous substances, including VOCs, occurred. The residence is located over a cut-stone, loosely mortared foundation that is believed to have been constructed in the late 18th or 19th century, and may be the remnants of a root cellar. A spring enters the basement in the western corner and is connected to a sump located in the southern corner through a trench drain. A second sump located in the north corner does not appear to be connected to the spring. Pumps in both sumps prevent groundwater accumulation in the basement. Staining on the basement walls indicates that water may seasonally rise as high as approximately 2 feet above the floor if not regularly pumped out. The basement is separated from the upper floors by floor doors and is not currently used as a living space.

1.1.2.1 Location

The Site is located in Bridgeton Township, Bucks County, Pennsylvania, southwest of the intersection of Lonely Cottage Road and Birch Road. The approximate street address of the Site is 1310 Lonely Cottage Road. Access to the Site by vehicle is obtained solely through an unpaved road located an estimated 2,000 feet south of the intersection of Lonely Cottage Road and Bridgton Hill Road.

1.1.2.2 Description of Threat

The residence is located within an area of the Site where releases of hazardous substances, primarily VOCs and inorganic elements, historically occurred. The releases occurred through leaking from drums or containers stored on the ground surface or buried underground. While all known sources were removed from the Site during past removal and remedial response actions, residual contamination in groundwater remains. No monitoring wells are located in close proximity to the residence, although several sources known to contain VOCs were located within 100 feet up gradient of the residence. TCE in groundwater in basement sumps has been recorded at concentrations as high as 3,300 µg/L and in basement air as high as 1,200 µg/m³.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

On March 22 and 23, 2016, EPA mobilized to the Site to observe conditions in the residence and collect samples from indoor air, basement air, ambient outdoor air, and groundwater in the sumps. Air samples were collected over a period of nearly 24 hours. The ambient temperature ranged from 40°F to 55°F over the 24-hour sampling period and no precipitation occurred. Analytical results indicated TCE was present in air in the living space at a maximum concentration of 3.6 µg/m³ and in basement air at a maximum concentration of 79 µg/m³. TCE was present in all five indoor air samples above the current EPA risk management benchmark of 2 µg/m³. No hazardous substances were detected in ambient outdoor air above Regional screening levels. TCE was present at concentrations of 2,200 µg/L and 350 µg/L in water samples collected from the northern and southern sumps, respectively. (The northern sump sample result was reported from the designated field duplicate sample collected at this location; TCE was present in the normal field sample collected from the northern sump at a concentration of 2,000 µg/L.) Vinyl chloride was detected in basement air at a concentration of 0.25 µg/m³ and was the only other Site-related hazardous substance detected in air above its Regional screening level. In addition to TCE, several hazardous substances were detected in the northern sump at concentrations above Site groundwater cleanup levels: PCE (13 µg/L), vinyl chloride (10 µg/L), 1,1-DCE (29 µg/L), and cis-1,2-DCE (230 µg/L).

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

A removal action was conducted between 2009 and 2014 that reduced the concentrations of TCE in indoor air below a target goal of 10 µg/m³. Maximum indoor air concentrations at the end of the removal action were 6.4 µg/m³. After EPA reduced the chronic non-cancer reference concentration (RfC) to 2 µg/m³ at HQ=1, EPA initiated remedial site evaluation activities under 40 CFR § 300.420 and subsequently, 40 CFR § 300.410, to determine conditions and determine whether additional response actions were necessary and warranted.

2.1.2 Response Actions to Date

- A. On June 1, 2018, the Director of the Hazardous Sites Cleanup Division signed an action memorandum to address high concentrations of vapor-phase TCE in indoor air of the on-site residence.
- B. On August 2, 2018, EPA and ERRS visited the Site to plan the implementation of the scope of work outlined in the action memorandum.
- C. On August 28, 2018, EPA and ERRS mobilized personnel and equipment to the Site for the start of the removal work specified in the action memorandum.
- D. On August 28 and August 29, 2018, both sump pumps and portions of the water discharge lines in the basement that were found to be leaking were replaced. Major openings on the walls between the basement and crawl spaces were sealed. The opening to the crawl space on the northeast side of the basement was not closed. Templates cut from plywood were cut and fitted over both sumps. The plywood templates also served as temporary covers over the sumps.
- E. On September 18, 2018, acrylic sheets were cut and placed over each sump. The plywood templates were laid over the acrylic covering. The edges of each covering and opening where discharge piping exits the sump were sealed with spray foam to provide an air-tight seal. The existing thick rubber matting was determined to be the best option for sealing the channel between the spring and southern sump. Spray foam was installed in the openings along all edges to provide an air-tight seal. A 259 CFM high-capacity ventilation fan was installed between joists and connected to the existing pipe that ventilates to the residence exterior. The new fan replaced the existing 125 CFM fan.
- F. On September 20, 2018, the ventilation pipe on the exterior of the residence was extended from the eave between the first and second floor to the eave above the third (uppermost) floor of the residence.
- G. On October 2, 2018, an EPA contractor began air sampling to determine the effectiveness of the response action. Sample canisters with regulators that will collect air slowly over a period of one diurnal cycle (24 hours) were placed in the basement, on the first floor, on the second floor, and at ambient (outdoor) locations. Sample collection was completed on October 3, 2018.

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

These activities are described in POLREP #206. No additional enforcement activities are planned for the duration of the on-site activities. On April 20, 2018, the owner provided access to EPA for the purposes of performing removal site evaluation and removal action activities.

2.1.4 Progress Metrics

Waste Stream	Medium	Quantity	Manifest #	Treatment	Disposal
None					

2.2 Planning Section

2.2.1 Anticipated Activities

No additional activities are currently anticipated.

2.2.1.1 Planned Response Activities

The need for further response actions will be determined upon receipt and assessment of the air analytical

results.

2.2.1.2 Next Steps

The next step is to evaluate air sampling results to determine whether indoor air concentrations have been satisfactorily mitigated.

2.2.2 Issues

No issues to report at this time.

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

2.4.1 Narrative

An action memorandum was signed on June 1, 2018. The ceiling for this action is \$26,340, the entirety of which was drawn from the Site Special Account.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	\$26,340.00	\$0.00	\$26,340.00	100.00%
Intramural Costs				
Total Site Costs	\$26,340.00	\$0.00	\$26,340.00	100.00%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

None.

3. Participating Entities

None.

4. Personnel On Site

On August 28, 2018, EPA and ERRS mobilized to the Site to begin the removal action. Personnel were on the Site on August 29, September 18, and September 20 to perform the tasks in the action memorandum. No permanent presence was established or is planned to be established during the duration of the action.

On October 2 and October 3, 2018, EPA and EPA Environmental Response Team (ERT) contractor Tetra Tech mobilized to the Site to perform confirmatory air sampling.

5. Definition of Terms

No information available at this time.

6. Additional sources of information

6.1 Internet location of additional information/report

https://response.epa.gov/site/site_profile.aspx?site_id=12762

6.2 Reporting Schedule

POLREPs will be generated for the duration of the response action as significant events and milestones occur.

7. Situational Reference Materials

No information available at this time.