

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Bonair Avenue Vapor Intrusion Investigation - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region III

**Subject:** POLREP #6  
Bonair Avenue Vapor Intrusion Investigation  
A35J  
Hatboro, PA

**To:** Melissa Linden, US EPA R3  
R3 RRC Response Center, USEPA  
Duncan Semmens, PADEP  
Michael Towle, EPA

**From:** Kelley Chase, On-Scene Coordinator

**Date:** 7/24/2018

**Reporting Period:** 3/17/18 through 7/24/2018

## 1. Introduction

### 1.1 Background

|                            |           |                                |                |
|----------------------------|-----------|--------------------------------|----------------|
| <b>Site Number:</b>        | A35J      | <b>Contract Number:</b>        |                |
| <b>D.O. Number:</b>        |           | <b>Action Memo Date:</b>       | 8/15/2017      |
| <b>Response Authority:</b> | CERCLA    | <b>Response Type:</b>          | Time-Critical  |
| <b>Response Lead:</b>      | EPA       | <b>Incident Category:</b>      | Removal Action |
| <b>NPL Status:</b>         | Non NPL   | <b>Operable Unit:</b>          |                |
| <b>Mobilization Date:</b>  | 2/19/2018 | <b>Start Date:</b>             | 12/28/2017     |
| <b>Demob Date:</b>         |           | <b>Completion Date:</b>        |                |
| <b>CERCLIS ID:</b>         |           | <b>RCRIS ID:</b>               |                |
| <b>ERNS No.:</b>           |           | <b>State Notification:</b>     |                |
| <b>FPN#:</b>               |           | <b>Reimbursable Account #:</b> |                |

#### 1.1.1 Incident Category

#### 1.1.2 Site Description

EPA's Removal Program is conducting sampling to further evaluate the potential for vapor intrusion (VI) at properties located on or near Bonair Avenue in Hatboro, Montgomery County, PA.

VI is the term used to describe the migration of volatile chemicals from subsurface contaminated soils and groundwater into the indoor air spaces of overlying buildings through openings in the building foundation. Common sources of VI include petroleum products, dry cleaning solvents, and other industrial solvents and degreasers.

Groundwater in the area has historically been contaminated with trichloroethylene (TCE) and other volatile organic compounds (VOCs) due to the nearby Raymark Superfund Site, Hatboro, PA (Raymark Site) and other potential sources in the surrounding area.

The Raymark Site includes a 7-acre facility located at 220 Jacksonville Road in Hatboro (approximately 500 feet east/southeast of Bonair Avenue) where TCE and other VOCs were released. Metal-fabrication operations, including rivet manufacturing and electroplating, began at the Raymark Site in 1948. Historically, solvents containing TCE were used in the manufacturing process to clean and degrease metal parts. Over a period of several decades, TCE reportedly leaked or spilled in areas where it was used and/or stored at the former Raymark facility.

EPA is coordinating with the Borough of Hatboro, the Pennsylvania Department of Environmental Protection (PADEP) and the Centers for Disease Control and Prevention (CDC)/Agency for Toxic Substances and Disease Registry (ATSDR).

#### 1.1.2.1 Location

The Site is located in Hatboro, Montgomery County, Pennsylvania.

#### 1.1.2.2 Description of Threat

Certain residential properties were initially sampled in 2013 as part of investigations by EPA's Remedial Program at the Raymark Site and found to have elevated levels of TCE in sub-slab vapor. Based on the results of the initial sampling of indoor air, ambient (outdoor air) and sub-slab vapor, further investigation was recommended. EPA's Removal Program is conducting sampling to determine whether VI is occurring, and if so, whether any of the chemicals detected present a potential health risk to the residents.

### **1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results**

#### Activities for reporting period beginning March 15, 2016 through April 11, 2016 included the following:

Based on previous VI sampling efforts at the Raymark Site, five homes on Bonair Avenue were targeted for re-sampling during the 2016 heating season. Access was granted to sample three homes.

On April 5, 2016, with the permission of the property owners, OSC Chase, a representative from EPA's Environmental Response Team (ERT) and ERT's Scientific, Engineering, Response & Analytical Services (SERAS) contractor personnel visited three residences on Bonair Avenue to install new sampling ports for the upcoming sub-slab vapor sampling. One home still had sub-slab ports that were installed during the previous sampling event. The ports were checked and cleaned and were found to be in good condition. EPA oversaw the installation of sub-slab sampling ports at the other two residences by SERAS personnel. In addition, a pre-sampling walkthrough was conducted at each residence to identify and document potential indoor air background sources of VOCs. Where possible, identified potential sources were removed prior to sampling of each location.

On April 7, 2016, OSC Chase, EPA ERT and SERAS personnel returned to the residences to set up SUMMA canisters to collect 24-hour samples of sub-slab vapor, indoor air and ambient (outdoor) air. Air monitoring was conducted to evaluate conditions at the time of the sampling and to identify any potential indoor sources of volatile organic compounds (VOCs). No elevated levels of VOCs were detected during the air monitoring of the residences.

On April 8, 2016, EPA ERT and SERAS personnel returned to pick up the Summa canisters. The samples were later prepared for shipment to an approved laboratory for analysis.

#### Activities the reporting period beginning April 12, 2016 through August 2, 2016 included the following:

The samples were analyzed by ALS Laboratory in Simi Valley, CA. The samples were analyzed for a reduced list of VOCs, based on the results of previous sampling conducted in at the nearby Raymark Site.

EPA ERT SERAS contractor performed a Quality Assurance / Quality Control review of the laboratory data and prepared a final analytical report for EPA.

EPA reviewed the results of the April 2016 sampling and provided those results to ATSDR.

EPA provided the final validated sampling results to PADEP and to the property owners.

In summary, VOCs were found in the samples collected from the ambient (outdoor) air, indoor air and sub-slab vapor. VOCs, including TCE, were detected in the sub-slab vapor and indoor air of all three homes. TCE levels were elevated in the sub-slab vapor of all three homes. EPA did not identify TCE or other VOCs at concentrations in indoor or ambient air that present a health concern to adult or children occupants of the residences sampled. In general, the results were lower than those reported by EPA's Remedial Program in 2013.

#### Activities for the reporting period beginning August 3, 2016 through August 7, 2017 included the following:

Efforts were made to expand sampling to other homes on Bonair Avenue and to homes on North Penn Street, to the west of Bonair Avenue. A total of fourteen homes were targeted for sampling during the 2017 heating season. Access was granted to sample five additional homes.

On February 15, 2017, with the permission of the property owners, EPA and SERAS personnel visited five residences to install sub-slab sampling ports. In addition, a pre-sampling walkthrough was conducted at each residence to identify and document potential indoor air background sources of VOCs. Where possible, identified potential sources were removed prior to sampling of each location.

On February 16, 2017, EPA and SERAS returned to the residences to set up SUMMA canisters to collect 24-hour samples of sub-slab vapor, indoor air and ambient (outdoor) air. Air monitoring was conducted. No elevated levels of VOCs were detected during the air monitoring of the residences.

On February 17, EPA and SERAS personnel returned to pick up the Summa canisters. The samples were prepared for shipment to an approved laboratory for analysis. The samples were analyzed by ALS Laboratory in Simi Valley, CA. The samples were analyzed for a reduced list of VOCs, based on the results of the sampling conducted in 2016.

The laboratory later reported that one of the SUMMA canisters containing a sub-slab vapor sample had lost pressure. The sample was analyzed and found to have elevated levels of TCE. The home was re-sampled to confirm results. On April 5, 2017 through April 6, 2017, EPA and SERAS personnel returned to re-sample the home. The samples were sent to the SERAS Laboratory in Edison, NJ for analysis.

EPA ERT SERAS contractor performed a Quality Assurance / Quality Control review of the laboratory data and prepared a final analytical report for EPA.

EPA reviewed the results of the 2017 sampling and provided those results to ATSDR, PADEP, and to the property owners.

Sampling conducted in 2017 identified VOCs, including TCE, in the sub-slab vapor and indoor air of all five homes. TCE levels were elevated in the sub-slab of two of the five homes. TCE found in the air sample collected from the unfinished basement of one of the two homes slightly exceeded the residential indoor air health-based level. The sampling did not identify TCE or other VOCs at concentrations in the indoor living spaces or in the ambient air that present an immediate health concern to adult or children occupants of the residences sampled.

## **2. Current Activities**

### **2.1 Operations Section**

#### **2.1.1 Narrative**

Based upon information obtained during the removal site evaluation and upon consideration of the factors in the NCP, the OSC recommended a response action be conducted to mitigate potential threats posed by the TCE contamination at the Site. The OSC participated in meetings with management and staff regarding the proposed response action. The OSC coordinated with management, attorneys and other staff to help finalize a decision document and compile documents that supported the selection of a response action.

On August 15, 2017, an Action Memorandum was signed by Region 3 which selected a response action for the Site and approved the necessary funding. The August 15, 2017 Action Memorandum includes a detailed description of activities conducted during the removal site evaluation and the selected response action. The selected response action calls for mitigation of vapor intrusion at several residential structures located on or near Bonair Avenue in Hatboro, PA. Mitigation is expected to include installation of vapor-abatement systems, such as sub-slab depressurization systems and/or other appropriate measures (i.e., sealing cracks in basements, sealing sump pumps, etc.).

The OSC contacted the owners of homes that have been identified for installation of mitigation systems to discuss possible installation of systems. The OSC also provided fact sheets and additional information about the vapor abatement systems to homeowners. The OSC explained that typically installation of residential sub-slab depressurization systems would be expected to involve sealing cracks in basements and installing piping and a small in-line fan to vent vapors from below the slab or foundation to the outside to prevent the vapors from entering the home.

On August 24, 2017, EPA issued a Task Order and Statement of Work to Guardian Environmental Services, Inc. (GES), one of its Emergency and Rapid Response Services Contractor (ERRS) contractors, to conduct the response actions identified in the August 15, 2017 Action Memorandum. GES responded on August 28, 2017 to indicate acceptance of the Task Order.

On September 25, 2017, ERRS's issued a request for proposals (RFP) to secure a subcontractor to conduct vapor-abatement mitigation.

On September 26, 2017, ERRS's issued an amendment to RFP to correct property addresses and proposed dates for a bid walk.

On September 29, 2017, ERRS's issued a second amendment to RFP to change the date for the bid walk and extend the date for proposals.

On October 11, 2017, the OSC participated in a bid walk with ERRS and four potential bidders.

On October 13, 2017, ERR's issued a third amendment to the RFP to provide additional information to bidders in response to questions that came up during the bid walk.

On October 19, 2017, ERRS provided initial feedback to EPA regarding responses it received from the four bidders.

On October 26, 2017, following its review of the bids, EPA provided feedback to ERRS regarding the bidder's technical qualifications and asked for clarification regarding what work included in each of the individual bids.

On November 13, 2017, GES provided follow-up to EPA regarding the status of their bid review and indicated that they were prepared to move forward with award of the subcontract.

On November 28, 2017, GES awarded a subcontract for vapor-abatement mitigation to Safe Shelter Environmental.

On December 28, 2017, EPA conducted a Site visit with GES and Safe Shelter Environmental.

#### **Activities for this reporting period beginning March 17, 2018 through July 24, 2018 included the following:**

During the week of April 16, 2018, with the permission of the property owners, EPA and its Superfund Technical Assessment and Response Team (START) contractor resampled indoor air at the two homes where mitigation systems were recently installed. EPA also re-sampled indoor air and sub-slab vapor at a third home in the area. The samples were sent to EPA's laboratory in Fort Meade, Maryland for analysis. Plans to re-sample a fourth home were postponed due to flooding in the basement.

On April 23, 2018, the OSC attended the Hatboro Borough Council meeting and provided an update regarding recent activities at the Bonair Avenue VI Site. The EPA Remedial Project Manager (RPM) and Community Involvement Coordinator (CIC) provided updates regarding the Raymark Superfund Site. PADEP personnel also attended the meeting.

In May 2018, the EPA laboratory provided preliminary results to the OSC. During a quality assurance / quality control review of the laboratory data, an issue at the laboratory was identified that may have impacted certain sample results. As a result, the impacted samples were reanalyzed. In June, the EPA laboratory provided the final results for all of the samples to the OSC. TCE levels in the samples that were re-analyzed were significantly higher than in the initial analysis. Of most concern, were the TCE levels in the re-analyzed samples collected from the indoor air of two residences. The TCE results for the re-analyzed samples were not consistent with results from previous sampling efforts which had, to date, identified only trace levels of TCE at these locations. Due to the discrepancies in the results, the EPA laboratory recommended that these locations be resampled.

### 2.1.2 Response Actions to Date

On February 19, 2018, GES and Safe Shelter mobilized materials, equipment and personnel to the Site. Activities included the installation of a residential vapor-abatement mitigation system in one home. The mitigation system was primarily composed of a sub-slab depressurization system. Activities included the installation of suction points, piping and a fan/blower to vent vapors from beneath the concrete basement floor to the outside of the home above the roof-line. A vapor barrier was installed in a small crawl space area, openings in the basement floor were sealed, and the sump was covered and sealed. Following installation, pressure field measurements were collected to confirm that the system was achieving sufficient sub-slab vacuum across the basement.

On April 11, 2018, GES and Safe Shelter mobilized materials, equipment and personnel to the Site. Activities included the installation of a residential vapor-abatement mitigation system in one home. The mitigation system was composed of a sub-slab depressurization system. Activities included the installation of suction points, piping and a fan/blower to vent vapors from beneath the concrete basement floor to the outside of the home above the roof-line. In addition, some openings in the basement floor were sealed. Following installation, pressure field measurements were collected to confirm that the system was achieving sufficient sub-slab vacuum across the basement.

On April 11th, GES and Safe Shelter made a minor adjustment to the vent pipe installed at another home in February. On April 25th, Safe Shelter returned to make a minor repair to an electric connection at the home.

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

The OSC will continue to coordinate with EPA staff as needed regarding potentially responsible party (PRP) search efforts.

### 2.1.4 Progress Metrics

| <i>Waste Stream</i> | <i>Medium</i> | <i>Quantity</i> | <i>Manifest #</i> | <i>Treatment</i> | <i>Disposal</i> |
|---------------------|---------------|-----------------|-------------------|------------------|-----------------|
|                     |               |                 |                   |                  |                 |
|                     |               |                 |                   |                  |                 |
|                     |               |                 |                   |                  |                 |

## 2.2 Planning Section

### 2.2.1 Anticipated Activities

EPA plans to resample the two residences where discrepancies in the April 2018 sampling results were identified.

Assessment activities will continue in an effort to confirm the source and extent of TCE contamination. Additional residential structures and/or commercial properties may be included in the response action, based on the results of future sampling as assessment activities proceed.

The OSC will continue to coordinate with the RPM for the Raymark Superfund Site to evaluate data collected as part of ongoing groundwater and vapor intrusion investigations at Raymark.

#### 2.2.1.1 Planned Response Activities

#### 2.2.1.2 Next Steps

EPA will be conducting air monitoring and sampling in several residences in the neighborhood and of businesses located at the former Raymark facility during the last weekend in July 2018. EPA also plans to conduct air monitoring along streets in the area.

The effort will include the use of one of EPA's mobile laboratories known as the Trace Atmospheric Gas Analyzer (TAGA). This mobile laboratory allows EPA to conduct real-time monitoring and has the capability of detecting very low levels of VOCs in air.

As part of this effort, EPA will resample the two residences where discrepancies in the April 2018 sampling results were identified.

#### 2.2.2 Issues

The owners of a home where a mitigation system has been proposed have not responded to requested to discuss the system installation. The OSC will continue with efforts to contact the homeowners.

### 2.3 Logistics Section

No information available at this time.

### 2.4 Finance Section

#### 2.4.1 Narrative

On March 16, 2016, EPA Region 3 issued a procurement request to EPA ERT to provide technical assistance in conducting a vapor intrusion investigation of several residences located on Bonair Avenue in Hatboro, PA.

In January 2017, EPA Region 3 issued another procurement request to EPA ERT to provide continued technical assistance in conducting the vapor intrusion investigation.

On August 24, 2017, EPA issued a Task Order and Statement of Work to GES, EPA R3 ERRS contractor, to conduct the response actions identified in the August 15, 2017 Action Memorandum. On November 28, 2017, GES awarded a subcontract for vapor-abatement mitigation to Safe Shelter Environmental.

On February 5, 2018, EPA issued a Technical Direction Document (TDD) to its Superfund Technical Assessment and Response Team (START) contractor to provide technical assistance.

#### Estimated Costs \*

|                           | Budgeted            | Total To Date      | Remaining           | % Remaining   |
|---------------------------|---------------------|--------------------|---------------------|---------------|
| <b>Extramural Costs</b>   |                     |                    |                     |               |
| ERRS - Cleanup Contractor | \$120,000.00        | \$17,235.00        | \$102,765.00        | 85.64%        |
| TAT/START                 | \$18,675.00         | \$8,455.00         | \$10,220.00         | 54.73%        |
| <b>Intramural Costs</b>   |                     |                    |                     |               |
|                           |                     |                    |                     |               |
| <b>Total Site Costs</b>   | <b>\$138,675.00</b> | <b>\$25,690.00</b> | <b>\$112,985.00</b> | <b>81.47%</b> |

\* 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

No information available at this time.

## 3. Participating Entities

### 3.1 Unified Command

### 3.2 Cooperating Agencies

EPA continues to coordinate with the following regarding the implementation of the response action:

Hatboro Borough  
Pennsylvania Department of Environmental Protection (PADEP)  
Centers for Disease Control and Prevention (CDC) /Agency for Toxic Substances and Disease Registry (ATSDR)

## 4. Personnel On Site

No information available at this time.

**5. Definition of Terms**

No information available at this time.

**6. Additional sources of information**

No information available at this time.

**7. Situational Reference Materials**

No information available at this time.

POLREP #6 Last Updated 7/24/2018