



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029

DEC 18 2018

**SUBJECT:** Request for Exemption from the 12-Month Statutory Limit for a Removal Action at the Bonair Avenue Vapor Intrusion Investigation Site  
Hatboro, Montgomery County, Pennsylvania  
Site ID # A35J

**FROM:** Kelley Chase, On-Scene Coordinator *KC*  
Eastern Removal Response Branch (3HS31)

**THRU:** Michael Towle, Chief *[Signature]*  
Eastern Removal Response Branch (3HS31)

Bonnie Gross, Associate Director *[Signature]*  
Office of Preparedness and Response (3HS30)

**TO:** Karen Melvin, Director  
Hazardous Site Cleanup Division (3HS00)

**I. PURPOSE**

The purpose of this Action Memorandum is to request an exemption from the 12-Month Statutory Limit for the ongoing Time-Critical Removal Action at the Bonair Avenue Vapor Intrusion Investigation Site (Bonair Avenue Site) located in Hatboro, Montgomery County, Pennsylvania. The response activities, which were intended to mitigate the threats posed by trichloroethylene (TCE) contamination at the Bonair Avenue Site, were selected and funded in a Request for Funding (Action Memorandum) for a Time-Critical Removal Action signed by the Director of the EPA Region III Hazardous Site Cleanup Division on August 15, 2017. Pursuant to Section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA), funding in the amount of \$180,000 was approved, of which \$120,000 are from the Regional Removal Allowance, to mitigate the threats identified in the August 15, 2017 Action Memorandum.

The Removal Site Evaluation (RSE) indicates that TCE is migrating and accumulating under the slabs of residential structures. The source of the TCE is not presently determined. TCE has also been detected in the indoor air of residential structures at the Bonair Avenue Site, indicating that TCE vapors from beneath these residential structures are entering the interior spaces of the structures and, therefore, vapor intrusion is occurring. Vapor intrusion (VI) is the term used to describe the migration of chemical vapors from subsurface contaminated soils and/or groundwater into the indoor air spaces of overlying buildings through openings in the building foundation.



The RSE has found that a potential release of TCE may result in unacceptable exposures. Continued response actions are needed to address the current threats from VI that pose an immediate risk of exposure to residents at the Bonair Avenue Site. Because some of the original threats existing at the time of the August 15, 2018 Action Memorandum still exist, an exemption from the 12-Month Statutory Limit imposed upon Removal Actions by CERCLA is required. The On-Scene Coordinator (OSC) has determined that the Site meets the emergency exemption criteria in Section 104(c)(1)(A) of CERCLA, 42 U.S.C. § 9604(c)(1)(A), as further discussed in this Action Memorandum. The actions identified herein are the same response actions selected in the August 15, 2017 Action Memorandum. There is some uncertainty regarding the full extent of contamination, as the RSE is ongoing. Estimated costs assume that up to ten vapor-abatement mitigation systems may be installed in residential structures at the Bonair Avenue Site. No revision to the scope or budget of the original response action is required.

## **II. BACKGROUND AND SITE CONDITIONS**

See the Action Memorandum dated August 15, 2017 for additional information.

### **A. Site Description**

#### **1. Physical Location**

The Bonair Avenue Site and the properties targeted for mitigation under this Action Memorandum are generally located on or near Bonair Avenue in a densely populated, mixed residential, commercial and industrial area of Hatboro, Montgomery County, Pennsylvania.

Several CERCLA National Priorities List (NPL) sites at which VOC-contamination has been documented, including the Raymark Superfund Site (approximately 500 feet east/southeast), the Fischer & Porter Company Superfund Site (approximately 1.25 miles northeast), and the Former Naval Air Warfare Center (approximately 3 miles northeast), are located in the vicinity of the Bonair Avenue Site.

#### **2. History**

Certain residential structures, initially sampled in 2013 as part of investigations by EPA's Remedial Program at the Raymark Superfund Site in Hatboro, Pennsylvania, were found to have elevated levels of TCE in sub-slab vapor. In March 2016, EPA's Removal Program initiated a RSE to further evaluate the potential for VI at several residential properties.

#### **3. Site Characteristics**

The Site is in a densely populated mixed-use area. Investigations at the Raymark Superfund Site have found that contaminated groundwater underlies residential, commercial and industrial properties in the area. There may be other sources of contamination in the surrounding area.

#### **4. Removal Site Evaluation (RSE)**

In March 2016, based upon review of available information and at the request of EPA's Remedial Program, the OSC initiated an RSE in accordance with Section 300.410 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. § 300.410. The OSC reviewed existing data from the Raymark Superfund Site investigations and met with EPA's Remedial Program to discuss the planned investigation.



In 2018, vapor-abatement mitigation systems were installed at two residences (Properties 20 and 3). In April 2018, these residences along with Property 21, located adjacent to Property 20, were sampled. Due to issues with certain data, the EPA laboratory recommended re-sampling. In July 2018, real-time monitoring by EPA's mobile Trace Atmospheric Gas Analyzer laboratory (TAGA) was conducted at four residences (Properties 3, 4, 20 and 21). Sub-slab samples were also collected and analyzed by the TAGA at Properties 4 and 21. In addition, 24-hour samples were collected and analyzed by an off-site laboratory. The monitoring and sampling results indicate that the mitigation systems installed at Properties 3 and 20 are functioning as intended. Sampling of the other two residences confirmed previous results. Property 4, which is the attached twin to Property 3, continues to have elevated levels of TCE in sub-slab vapor. Additionally, TAGA monitoring at Property 4 measured TCE at  $2.3 \mu\text{g}/\text{m}^3$  at a basement floor drain indicating that VI is occurring. The July 2018 investigations confirmed that VI is not a concern at Property 21.

RSE activities will continue. During the upcoming heating season, the OSC plans to expand sampling to other residential structures in the immediate area to determine whether VI is occurring, and if so, whether any of the chemicals detected present a potential health risk to the occupants. EPA will also continue to evaluate data collected as part of the investigation of the nearby Raymark Superfund Site and conduct additional investigations to attempt to identify the source(s) of the TCE in sub-slab vapors of the residences.

The following is a summary of findings based on sampling of residential properties during the RSE:

- Volatile organic compounds (VOCs), including 1,2-Dichloroethane, 1,4-Dichlorobenzene, Benzene, Carbon tetrachloride, Chloroform, Dichlorodifluoromethane, Ethylbenzene, Tetrachloroethene, and TCE, have been detected in sub-slab vapor and indoor air of residential properties.
- TCE is the primary contaminant presenting a health threat via the VI pathway at the residential properties sampled, and as such, is the driver for conducting the Removal Action.
- TCE was reported in the sub-slab vapor of all eight homes sampled to date. TCE levels in sub-slab vapor vary considerably from home to home. Sub-slab concentrations ranged from  $1.3 \mu\text{g}/\text{m}^3$  to  $2100 \mu\text{g}/\text{m}^3$ . This may be attributable to groundwater flow in the area being primarily through fractured bedrock. Fractures in the underlying bedrock have the potential to create preferential pathways, which may contribute to the buildup of vapors under certain homes, but not others.
- TCE in sub-slab vapor has been reported at levels in the order of 1000 times the Region's health-based level of  $2 \mu\text{g}/\text{m}^3$  for residential indoor air. TCE in indoor air in unfinished basements has been detected slightly above  $2 \mu\text{g}/\text{m}^3$ . TCE in samples collected from indoor air on the first-floor living spaces were less than  $2 \mu\text{g}/\text{m}^3$ .
- The RSE has found that a potential release of TCE may result in unacceptable exposures. Continued response actions are needed to address the current threats from VI that pose an immediate risk of exposure to residents. Further assessment and installation of vapor-abatement mitigation systems, as necessary, based on sampling results, are the appropriate response actions to mitigate threats at the Bonair Avenue Site.



## **B. Other Actions**

Response actions, to date, have included installation and subsequent testing of vapor-abatement mitigation systems in two residences. On February 19, 2018, EPA and its contractors mobilized equipment and personnel to the Site to install a residential vapor-abatement mitigation system at Property 20. 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 home outside 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. On April 11, 2018, EPA and its contractors re-mobilized equipment and personnel to the Site to install a residential vapor-abatement mitigation system at Property 3. The mitigation system was composed of a sub-slab depressurization system similar to the system installed at Property 20. Activities included the installation of suction points, piping and a fan/blower to vent vapors from beneath the home to the outside above the roof-line. Openings in the basement floor were sealed. Following installation of each system, pressure-field measurements were collected to confirm that the systems were achieving sufficient sub-slab vacuum across the basements.

As discussed above, additional monitoring and sampling were conducted at Properties 4 and 21. The results support the recommendation to install a vapor-abatement mitigation system at Property 4. Based on the sampling conducted, a vapor-abatement mitigation system is not needed at Property 21.

EPA's Remedial Program is conducting ongoing investigations in the area, including most recently, VI testing at commercial businesses currently operating at the former Raymark facility.

## **C. Quantities and Types of Hazardous Substances Present**

The Bonair Avenue Site is characterized by elevated levels of chlorinated VOCs, including TCE, in the groundwater, sub-slab vapor and indoor air. TCE is a hazardous substance under Section 101(14) of CERCLA since it is listed at 40 CFR 302.4. Sampling also identified other hazardous substances including: 1,2-Dichloroethane, 1,4-Dichlorobenzene, Benzene, Carbon tetrachloride, Chloroform, Dichlorodifluoromethane, Ethylbenzene, and Tetrachloroethylene. Based upon review of the sampling results, TCE is the primary contaminant presenting a health threat via the VI pathway at the residential properties sampled.

For non-carcinogenic chemicals, i.e., those that may have non-cancer health effects, screening levels for Removal Actions are typically compared to a hazard quotient or  $HQ = 3$ . The  $HQ$  is the ratio of the reasonable maximum exposure (chronic daily dose averaged over a lifetime) to a reference dose which is the concentration of the chemical where health effects are not expected. If the  $HQ$  is more than 1 there is a potential for concern. The  $HQ = 3$  concentration for TCE in residential indoor air is  $6 \mu\text{g}/\text{m}^3$ ; whereas the  $HQ$  of 1 corresponds to a general indoor air TCE concentration of  $2 \mu\text{g}/\text{m}^3$ . Due to the potential developmental effects (e.g., fetal cardiac malformations) from inhalation of TCE in residential air, the EPA Region 3 VI Workgroup recommends using the indoor air concentrations resulting in an  $HQ$  of 1 as a benchmark for consideration of early or interim response actions. In the case of the Bonair Avenue Site, an action to mitigate actual or potential threats from TCE exposure in indoor air is recommended, as the residential  $HQ$  exceeds 1. In addition, per EPA, Region 3 guidance, sub-slab TCE concentrations in the order of 1000 times the health-based indoor air actionable levels constitute an unacceptable threat to human health.



In 2016, sampling conducted at Properties 3 and 20 found elevated levels of TCE in the sub-slab vapor. TCE was also detected in indoor air. TCE in indoor air in the basement of Property 20 exceeded the Region's health-based level of  $2 \mu\text{g}/\text{m}^3$  for residential indoor air. Vapor-abatement mitigation systems have been installed at Properties 3 and 20.

In 2016, TCE concentrations at Property 4 were reported at a concentration of  $880 \mu\text{g}/\text{m}^3$  in the sub-slab,  $0.66 \mu\text{g}/\text{m}^3$  in the basement; and  $0.23 \mu\text{g}/\text{m}^3$  in the first floor. In 2018, additional sampling at this home found TCE concentrations in the sub-slab vapor at  $1500 \mu\text{g}/\text{m}^3$ ; TCE levels in the basement and first floor were below the laboratory's quantitation limits and were estimated at  $0.52 \mu\text{g}/\text{m}^3$  and  $0.63 \mu\text{g}/\text{m}^3$  respectively. In 2018, sampling and analysis by EPA's TAGA mobile laboratory reported TCE at a concentration of  $1800 \mu\text{g}/\text{m}^3$  in the sub-slab vapor. Real-time monitoring by the TAGA found low levels of TCE in indoor breathing air at concentrations below the mobile laboratory's quantitation limit. The highest average concentration of TCE detected by the TAGA monitoring was  $2.3 \mu\text{g}/\text{m}^3$  at a basement floor drain indicating that VI is occurring at Property 4.

The potential for additional VI at other properties remains a concern.

#### **D. National Priorities List Status**

The Bonair Avenue Site is not listed on the NPL, nor has it been proposed for NPL listing. The nearby Raymark Site is listed on the NPL. The OSC will continue to coordinate efforts with EPA's Remedial Program. Removal Actions proposed herein are not expected to impede any future Remedial Actions, should they occur at either the Bonair Avenue Site or the Raymark Site.

#### **E. State and Local Authorities' Role**

The OSC will continue to coordinate with the Pennsylvania Department of Environmental Protection (PADEP) and Hatboro officials concerning activities associated with the Removal Action, including implementation of any necessary post-removal site controls (PRSCs). PRSCs are expected to include long-term operation and maintenance of any vapor-abatement systems installed at the Bonair Avenue Site, as well as periodic testing to assure the systems are functioning and that the Removal Action continues to be protective of human health. Should EPA find that the TCE at the Bonair Avenue Site is associated with the Raymark Site, then PRSCs would be expected to be incorporated into the ongoing O&M at the Raymark Superfund Site. PADEP is responsible for ongoing O&M at the Raymark Superfund Site.

No other State or local authorities have indicated the availability of resources to conduct the Removal Action.

### **III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT**

Section 300.415 of the NCP lists the factors to be considered in determining the appropriateness of a Removal Action. Paragraphs (b)(2)(i) and (b)(2)(vii) of Section 300.415 directly apply as follows to the conditions at the Site:

**§ 300.415 (b)(2)(i) "Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants"**

The Site is characterized by elevated levels of chlorinated VOCs, including TCE, in the groundwater, sub-slab vapor and indoor air. TCE concentrations in nearby groundwater monitoring wells, installed as part of the investigation of the Raymark Superfund Site, currently exceed the MCL of 5 µg/L.

Elevated levels of hazardous substances, mainly TCE, have been detected in sub-slab vapor and indoor air in residential structures at the Site. TCE concentrations in the sub-slab vapor of residential structures at the Site have been measured at levels approximately three orders of magnitude higher than the Region's health-based level of 2 µg/m<sup>3</sup> for residential indoor air. The elevated levels of TCE in the sub-slab vapor of the homes presents a potential public health threat. TCE has also been detected in the indoor air of the homes, and VI is occurring. Should structural or environmental conditions change, TCE in indoor air are expected to increase to levels that present a health concern. The potential also exists for impacts to other nearby residences.

The most recent review of toxicological data published by the EPA in September 2011, showed fetal cardiac malformations, decreased immune system function and kidney impacts were present in animals exposed to TCE in laboratory studies. The National Toxicology Program has determined that TCE is "reasonably anticipated to be a human carcinogen," and the International Agency for Research on Cancer (IARC) has determined that trichloroethylene is "probably carcinogenic to humans."

**§ 300.415 (b)(2)(vii) "The availability of other appropriate federal or state response mechanisms to respond to the release"**

Currently, there are no other actions planned or being taken by any federal, State, or local agency to address VI at the Bonair Avenue Site. The OSC will continue to coordinate with EPA's Remedial Program and the Commonwealth of Pennsylvania.

**IV. ENDANGERMENT DETERMINATION**

Actual and/or potential releases of TCE, a hazardous substance, and other pollutants or contaminants at the Bonair Avenue Site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

**V. EXEMPTION FROM STATUTORY LIMITS**

The threats identified in the August 15, 2017 Action Memorandum have not been completely addressed. Without additional response actions, vapors now accumulated under homes at concentrations at levels above concern are expected to migrate into residential structures at the Bonair Avenue Site. Intrusion of TCE vapors into residential structures will pose unacceptable health threats. Sampling results support installation of a vapor-abatement mitigation system at Property 4. It is possible that further assessment may identify additional homes for mitigation. Because some of the original threats existing at the time of the August 15, 2018 Action Memorandum still exist and additional homes may be identified, exemption from the 12-Month Statutory Limit imposed upon Removal Actions by CERCLA is warranted for this Removal Action. The OSC has determined that conditions at the Bonair Avenue Site meet the "emergency exemption criteria" of Section 104(c)(1)(A) of CERCLA, 42 U.S.C. § 9604(c)(1)(A), for exceedance of the 12-Month Statutory Limit for Removal Actions as follows:



**A. Section 104(c)(1)(A)(i): “Continued response actions are immediately required to prevent, limit, or mitigate an emergency.”**

Response actions initiated by EPA to mitigate threats at the Bonair Avenue Site, as discussed herein, will not be accomplished within 12-months. Response actions at residential structures meeting the Region’s criteria for removal action have not been completed and additional residential structures that meet the criteria are likely to be identified by additional RSE. To be protective, the ongoing response action must extend beyond a 12-month period. Without continuation of the response action, TCE concentrations in indoor air at Property 4 are expected to increase to levels that present a health concern.

**B. Section 104(c)(1)(A)(ii): “There is an immediate risk to the public health or welfare or the environment.”**

Inaction or delay in activity at the Bonair Avenue Site would result in an increase in TCE levels in indoor air and the exposure of families to TCE vapors at levels that present a health concern in accordance with the Region’s VI guidance.

**C. Section 104(c)(1)(A)(iii): “Assistance will not otherwise be provided on a timely basis.”**

Currently, neither PADEP nor local authorities have indicated the availability of resources to conduct the response activities.

## **VI. ACTIONS AND ESTIMATED COSTS**

The actions identified below are the same response actions selected in the August 15, 2017 Action Memorandum. There is some uncertainty regarding the full extent of contamination, as the RSE is ongoing. Estimated costs assume that up to ten vapor-abatement mitigation systems may be installed pursuant to the response action.

**A. Actions**

1. Mobilize/demobilize necessary personnel and equipment to and from the Site. Provide field support facilities needed for the performance of tasks outlined below.
2. Prevent unauthorized access to the equipment needed for performance of the work activities described below.
3. Continue RSE activities, including groundwater, soil gas, and/or indoor air sampling of nearby residential and commercial structures to evaluate whether VI is a potential concern.
4. Design and install up to ten vapor-abatement mitigation systems in residential structures and commercial properties at the Site where results from the RSE show indoor air TCE concentrations exceeding  $2 \mu\text{g}/\text{m}^3$  and an  $\text{HQ} = 1$  for residences, or  $8 \mu\text{g}/\text{m}^3$  and an  $\text{HQ} = 1$  for commercial properties, or where sub-slab concentrations of TCE are approximately three orders of magnitude higher than the actionable levels for indoor air.

5. Conduct indoor air sample analyses, pressure-field measurements, and/or other appropriate measurements soon after installation of mitigation systems to ensure they are working effectively.
6. Conduct performance monitoring during the first year of operation, including at least one round of indoor air sampling during the heating season, to confirm the efficacy of the mitigation systems.
7. Identify, stage, transport and dispose of off-site in accordance with Section 121(d)(3) of CERCLA and Section 300.440 of the NCP any hazardous waste generated during performance of this work.
8. Arrange for the implementation of post-removal site controls (PRSCs) with any potentially responsible parties, PADEP, local authorities, EPA's Remedial Program, and/or property owners. PRSC activities shall include long-term operation and maintenance of the systems and periodic testing to assure the systems are functioning and that the Removal Action continues to be protective of human health.

#### **B. Contribution to Remedial Performance**

The Bonair Avenue Site, the subject of this Removal Action, is not listed on the NPL provided for by Section 105(a)(8)(B) of CERCLA, 42 U.S.C. § 9605(a)(8)(B). The Site has not been proposed for NPL listing. The nearby Raymark Site is listed on the NPL. EPA has not determined whether the TCE sub-slab contamination at the Bonair Avenue Site is related to the Raymark Site. The OSC will continue to coordinate efforts with EPA's Remedial Program. The Removal Action proposed herein is not expected to impede any future Remedial Actions at either site, should they occur.

#### **C. Compliance with ARARs**

In accordance with Section 300.415(j) of the NCP, 40 C.F.R. § 300.415(j), the proposed Removal Action will comply with applicable or relevant and appropriate requirements (ARARs), to the extent practicable considering the exigencies of the situation. EPA has communicated with PADEP concerning the identification of any State ARARs or other advisories, criteria, or guidance to be considered (TBC) for the releases at the Bonair Avenue Site.

#### **D. Project Schedule**

The OSC anticipates a vapor-abatement mitigation system could be installed at Property 4 within two months of the issuance of this Action Memorandum. Once scheduled, installation should be completed within one day. Additional sampling would be conducted this heating season to confirm the system is operating as intended. Further investigations and response actions will be conducted, as needed, as additional access to properties at the Bonair Avenue Site is obtained.

#### **E. Estimated Costs**

CERCLA funding in the amount of \$180,000 was approved, of which \$120,000 are from the Regional Removal Allowance, to mitigate the threats identified in the August 15, 2017 Action Memorandum. No revision to the scope or budget of the original proposed response action is required. The distribution of funding is as follows:



Extramural Costs	Total
Regional Removal Allowance Costs: (ERRS contractors and subcontractors)	\$120,000
Other Extramural Costs Not Funded from the Regional Allowance: (START Contractor, ERT/SERAS)	\$30,000
Extramural Cost Contingency (20%)	\$30,000
<b>TOTAL REMOVAL ACTION PROJECT CEILING</b>	<b>\$180,000</b>

## **VII. EXPECTED CHANGE IN SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN**

Inaction or delay in activity at the Bonair Avenue Site would result in an increase in TCE levels in indoor air and the exposure of families to TCE vapors at levels that would present a health concern in accordance with the Region's VI guidance.

## **VIII. OUTSTANDING POLICY ISSUES**

There are no known outstanding policy issues associated with the Site.

## **IX. ENFORCEMENT**

The OSC will work with the EPA Region III Office of Enforcement, as needed, to identify potential responsible parties as investigations proceed. See attached Enforcement Confidential Addendum.

The total EPA costs for this Removal Action, as described in procedures outlined in OSWER 9630.0-42, and based on full cost accounting practices that will be eligible for cost recovery are estimated:

Direct Extramural Costs	\$180,000
Direct Intramural Costs	\$ 20,000
Total, Direct Costs	\$200,000
Indirect Costs (89.42% x Direct Costs)	\$178,840
<b>Estimated EPA Costs for a Removal Action</b>	<b>\$378,840</b>

## **X. RECOMMENDATION**

Because conditions at the Bonair Avenue Site meet the NCP Section 300.415(b)(2) factors for a removal action, and the criteria for continuing response actions beyond 12 months under Section 104(c)(1)(A) of CERCLA, 42 U.S.C. § 9604(c)(1)(A), I recommend your approval of the Removal Action. The total project ceiling, if approved, will remain unchanged from the previously approved Removal Action Project Ceiling of \$180,000. Of this, an estimated \$120,000, comes from the Regional Removal Allowance. Please indicate your approval or disapproval below.

**Action by Approving Official:**

This Action Memorandum decision document represents the selected Time-Critical Fund-Lead Removal Action for the Bonair Vapor Intrusion Investigation Site in Hatboro, Pennsylvania, developed in accordance with CERCLA, as amended, and not inconsistent with the NCP. This decision is based on the Administrative Record for the Site.

Pursuant to Section 113(k) of CERCLA, 42 U.S.C. 9613(k), and EPA delegation No. 14-22, I hereby establish the documents identified in Attachment B hereto as the Administrative Record supporting the issuance of the Action Memorandum.

I have reviewed the above-stated facts and based upon those facts and the information compiled in the documents described above, I hereby determine that the release or threatened release of hazardous substances at Site presents or may present an imminent and substantial endangerment to the public health or welfare or to the environment. I concur with the Removal Action as outlined in the Action Memorandum.

**APPROVED:**



**DATE:** 12-18-18

Karen Melvin, Director  
Hazardous Site Cleanup Division  
EPA Region 3

**Attachments:**

- A. Enforcement Confidential Memo
- B. Administrative Record documents



**Action Memorandum Exemption Bonair Avenue Vapor Intrusion Investigation Site**  
**List of Documents to be included in the Administrative Record**

Pollution Reports

Analytical Results Tables for Residential Structures

Trip Report, prepared by Leidos Innovations Corporation (September 2018)

Trip report, prepared by Weston Solutions, Inc. (December 2018)