AVERY DENNISON

Avery Dennison Corporation
Environmental, Health & Safety
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Charlestown, RI 02813 USA
Office: 508/ 410-2470

July 6, 2017

Ms. Jessica Ritenour, P.G.
Geologic Specialist
Department of Environmental Protection
208 West Third Street, Suite 101
Williamsport, PA 17701

Re: Updated Scope of Work for Off-Property Vapor Intrusion Mitigation
Former Paxar Facility, 1 Wilcox Street, Sayre Borough, PA
PF ID #715430; LRP Activity #39873

Dear Jessica:

As a follow-up to the meeting held among Avery Dennison Corporation (ADC) representatives and the Pennsylvania Department of Environmental Protection (PADEP) at the PADEP Northcentral Region Office on June 29, 2017, please find attached an updated version of the *Vapor Mitigation Scope of Work* (SOW) document that outlines ADC's approach to its planned voluntary vapor intrusion mitigation efforts in the neighborhood of Hoover and Draper Streets in Sayre Borough, PA. The SOW document includes Public Fact Sheets as an attachment.

In addition, ADC will soon provide PADEP with an updated Questions and Answers document, along with a list of documents ADC recommends to be uploaded to PADEP's website link for the project.

If you have any questions or concerns, please do not hesitate to call.

Sincerely,

Bruce Martin

Bruce Martin
Manager, Remediation Services
Avery Dennison Corporation

Attachment: Vapor Mitigation Scope of Work, including Public Fact Sheets

cc: Randy Farmerie, PA DEP Northcentral Region
Chris Turner and Glen Kirkpatrick, The Johnson Company

INTRODUCTION

In the mid-1990s, with oversight by the Pennsylvania Department of Environmental Protection (PADEP) North Central Regional Office, Paxar Corporation (Paxar) began efforts to remediate soil and groundwater found to contain perchloroethylene (PCE), trichloroethylene (TCE), and similar substances known as volatile organic compounds (VOC) at the former Paxar facility located at and near 1 Wilcox Street in Sayre Borough, Pennsylvania. Avery Dennison Corporation (ADC) purchased the property from Paxar in 2007, and is working under PADEP oversight to investigate and remediate the soil and groundwater under the requirements of the Pennsylvania voluntary remediation program.

This Scope of Work (SOW) outlines the process proposed by ADC for installing vapor mitigation systems (Systems) in residences in the neighborhood of Hoover and Draper Streets in Sayre Borough, Pennsylvania. ADC will engage with the community to facilitate public understanding of the situation and how the proposed Systems will operate to prevent vapors from entering structures. Public fact sheets to inform the public about this process are provided as Attachment A.

Key steps in this process that are described in this SOW include:

- **Pre-Installation Activities** – Send letters to each property owner to offer installation of a System, and provide them with copies of the community fact sheets and access agreement. Meet individually with each interested property owner to describe the process and provide them an opportunity to ask questions. Obtain access agreements from the property owners requesting installation of a System in their residences. For homes occupied with tenants, and after contacting the homeowner, determine tenant contact information and offer information and an in-person one-on-one meeting.
- **Testing and System Design** – Conduct an initial residence visit to allow ADC contractors to see the residence interior and meet the property owner and, where appropriate, tenant(s), in the residence. The initial contractor visit will be followed by a detailed visual survey and diagnostic testing at a later date. Data collected will be used to develop a custom System design, which will be provided to the property owner for review and acceptance.
- **Installation Activities** – After receiving authorization to proceed from the property owner, obtain required permits and install the System. Start up the System, conduct performance testing, complete cleanup, and provide the property owner and tenant with an information packet.
- **Post-Installation Activities** – Periodic inspections and maintenance of the Systems will be the responsibility of ADC for the first two years; however, ADC will pay to operate the Systems for as long as they are needed. Property owners and tenants will be shown how to check that the System is operating within its normal range and who to call if they notice a problem with the System.

PRE-INSTALLATION ACTIVITIES

Step 1 - Contact Home Owners and Determine Interest

The property owners and tenants of residences in the neighborhood will be identified and contacted by overnight courier. The mailing will include a letter offering to install a System and requesting a one-on-one meeting at or nearby the residence, copies of the community fact sheets (Appendix A) and an access agreement. In addition to providing information about how the systems will operate to prevent vapors from entering structures, the mailed information will make clear that ADC will absorb design, installation, and operating costs associated with the systems. It will also indicate that no property owner is required to allow ADC to install a System in their residence. The one-on-one meeting in or nearby each

residence will describe the overall process, the responsibilities of property owners and tenants, and the terms of the access agreement the owners will need to sign if they want a System installed in the residence. The one-on-one meeting will also allow time to answer property owner and tenant questions about the System installation process, community fact sheets, and access agreement.

Step 2 – Obtain Access Agreements

The access agreement will provide ADC contractors with access to the property to conduct visual inspections, diagnostic testing, construction activities, and periodic System maintenance, as necessary. Copies of the access agreement will be sent to each property owner in advance by courier and will also be handed to them in person during the one-on-one meeting at their residence.

TESTING AND SYSTEM DESIGN

Step 1 – Initial Contractor Visit

After ADC receives a signed access agreement, ADC contractors will contact the property owner to schedule an appointment for the initial contractor visit to the residence. The contractors will explain the overall System installation process, answer questions, and perform a quick visual inspection of the residence. The focus during the initial contractor visit is to allow the contractors to meet the property owner and tenants, and identify the type of diagnostic testing appropriate for the residence. During the initial contractor visit, an appointment will be scheduled with the property owner for a more detailed visual survey and diagnostic testing.

Step 2 – Visual Survey and Diagnostic Testing

A detailed visual survey and diagnostic testing will typically be performed to collect data and information needed to design an appropriate custom System for each residence. The collected data and information will be used by the contractors to select and design a System based on the contractors' prior experience with installing Systems in similar type residences.

<u>Visual Survey</u>

The visual survey will allow the contractors to identify unique residence characteristics that may influence the System design. They will talk with the property owner and tenants to understand their current and planned future residence usage patterns. The contractors will try to determine if the property owner has information about how the residence was initially constructed and any subsequent remodeling work that may have been performed after the residence was built.

The common types of residence conditions that the ADC contractors will be looking for during the visual survey include:

- significant slab or wall openings that may require some form of sealing during System diagnostic testing/installation;
- wide gaps along the perimeter wall and floor joint(s), including if a perimeter channel drain exists;
- other significant openings in the concrete floor, such as sump holes, floor drains, cold joints, and utility penetrations;
- presence and condition of a block/fieldstone foundation wall that may require installation of a wall depressurization system;
- presence of a dirt floor and/or fieldstone walls that may require installation of a vapor barrier and depressurization system;
- difficult to access crawlspaces that may need to be included in the System design; and

- location of building utility lines, electrical service and outlets, and combustion appliances such as oil-fired or gas-fired boilers, gas-fired hot water heaters, etc.

The preferred location for suction points, routing of piping, location of the electric fan and exhaust stack, and location of System electrical wiring/outlets will be tentatively identified and discussed with the property owner. These tentative locations discussed with the property owner may change following diagnostic testing and System design.

Diagnostic Testing

Significant cracks or penetrations noted during the visual inspection that may affect the diagnostic testing may need to be sealed prior to starting the testing. Diagnostic testing typically involves drilling two suction holes and several surrounding smaller monitoring holes across the concrete floor. A variable speed fan will be used to extract air from one of the suction holes at several different vacuums and airflow rates while measuring the sub-slab vacuum at each of the surrounding monitoring holes. This testing process will allow the contractors to measure the resulting vacuum field induced beneath the concrete floor in several radial directions and at several distances away from the suction point. The diagnostic testing process will also measure the resulting vacuum field induced at the monitoring points when several different vacuums are applied at each suction point. The resulting data will be used to evaluate whether the induced vacuum field is uniform or irregular, select the location and number of suction points, determine the desired applied vacuum at each suction point, and select an electric fan capable of applying the desired vacuum while moving the induced airflow through the piping.

In some more complex residences, such as a basement with a dirt floor and/or fieldstone foundation, diagnostic testing may not be possible. In these residences a conservative design will be developed based on results from diagnostic testing at nearby residences and the contractor's experience with similar System installations. These more complex residences will likely incorporate a sealed vapor membrane with an electric fan to create a vacuum between the vapor barrier and dirt floor and/or fieldstone foundation.

Step 3 – System Design

The next step in the process will involve designing a custom System for each residence. The typical System will likely require only one electric fan; however, a more complex residence may require installing vapor membranes and/or additional electric fans. The data and home construction details collected during the visual survey and diagnostic testing will be used by the contractors to calculate the number and locations of suction points, size of the electric fan, and electrical circuit requirements. The contractors will also determine the location of the electric fan, and the route and size of suction piping and exhaust stack. The piping will be sloped to encourage condensate drainage back into the suction point(s) and the top end of the exhaust stack will terminate above the eave of the residence. The design will include the location of a vacuum monitoring gauge tapped into the suction pipe near the electric fan for easy verification that the mitigation system is operating properly. An electrical alarm may also be installed near the vacuum monitoring gauge that will emit an audible alarm if the System loses suction. The system design documents will include an estimate of the anticipated electrical use, based on the specific brand and model of the selected electric fan. The System design details will be illustrated in drawings that will be submitted to the PADEP for review.

Step 4 – Obtain Authorization to Proceed

Following PADEP review and approval of the System design, the ADC contractors will schedule an appointment with the property owner to review design drawings and System details. The contractors will explain the System design, point-out the various proposed locations of the System components to the

property owner, and provide the property owner an opportunity to ask questions about the System design and installation process, how the property owner or tenant will be reimbursed for electrical costs, and their role in monitoring the System while it is operating.

A copy of the design drawings and details will be left with the property owner along with an *Authorization to Proceed* form that will need to be signed by the property owner before System installation can be scheduled with the contractors. The ADC contractors will follow up with the property owner to answer additional questions, if any, and determine whether or not the property owner wishes to proceed with System installation. Following receipt of the signed *Authorization to Proceed* form from the property owner, the ADC contractors will schedule an appointment with the property owner to install the System in the residence.

INSTALLATION ACTIVITIES

Step 1 – Permitting

Following the visual survey and diagnostic testing, the contractor will determine if an electrical permit will be required for installing electric fan(s). If System installation work will require significant building modifications (i.e., install a new concrete floor, construct false walls, etc.), a building permit may be required. If an electrical and/or building permit is required, the contractors will obtain the necessary permits before beginning System installation work.

Step 2 – System Construction

The contractor will coordinate with the property owner to determine a mutually acceptable construction schedule to install the System. The typical System can usually be installed in one to three days, depending on complexity. The ADC contractors will take precautions to minimize dust and noise while installing the System. The System will be installed by personnel experienced in installing vapor mitigation systems. Electrical work will be inspected by a Pennsylvania-licensed electrician for compliance with the electrical code. The suction piping and the exhaust stack will be constructed with PVC piping that is joined with glue and supported following manufacturer recommendations.

Step 3 – System Start-up and Performance Testing

System start-up and performance testing may be conducted at the end of the day when the System is installed or it may be scheduled for a later day. The contractors will start up the System and collect vacuum readings and electric fan operational settings while the System is operating to evaluate whether it is operating as designed, and to confirm the fan is optimally sized to minimize electrical consumption and noise while effectively maintaining the desired vacuum response.

As part of the system start-up, a qualified technician will test the potential for the operating System to impact the draft of combustion appliances vented to the outside (i.e., oil-fired boiler, gas-fired hot water heater, etc.). Typical Systems are designed to have a minimal impact on indoor air pressures and a properly installed System is unlikely to affect the draft on combustion appliances. However, if testing indicates the System may be impacting the draft of combustion appliances, appropriate corrective measures will be identified and implemented (i.e, providing the appliance with outside air intake piping).

The ADC contractors will provide the property owner and tenant with an information packet for the System and show them the location of each of the key System components. The property owner and tenant will be shown how to check that the System is operating within its normal range and who to call if

they notice a problem with the System. The information packet will also include equipment manuals, periodic inspection frequency, and the electrical reimbursement process.

POST-INSTALLATION ACTIVITIES

Operational Monitoring and Maintenance

Post-installation monitoring and maintenance will include periodic inspections to check that the System is operating effectively and to perform necessary System maintenance. The contractor will schedule an appointment with the property owner in advance for the periodic inspection, which should only take about an hour. The periodic inspections will be performed at least annually by ADC contractors during the first two years of operation. After the first two years, inspections will be performed by ADC contractors at the request of the property owner. The periodic inspections will include:

- checking the electric fan for proper operation;
- recording the vacuum monitoring gauge reading;
- testing the electrical alarm responds to a loss in vacuum, if equipped; and
- recording the electrical sub-meter reading, if equipped.

Following the first two years of operation, ADC contractors may provide instructions to the property owner and/or tenant describing how to perform operational monitoring of the System, and ADC contractors will perform a periodic inspection no more than once per year upon request of the property owner and/or tenant.

Property Owner and Tenant Responsibilities

An informational label with a contact phone number will be mounted near the vacuum monitoring gauge. During System startup activities, the property owner and tenants will be instructed to call the contact number on the label if the:

- low-vacuum alarm is activated, where applicable;
- vacuum monitoring gauge reading is too low; or
- blower is not operating.

The ADC contractors will respond to calls from the property owner and/or tenants if they report a problem with the System. A contractor will gather information from the person reporting the problem and attempt to troubleshoot the problem over the phone. If the problem can't be corrected over the phone, the contractor will schedule an appointment to inspect and/or repair the System at ADC's cost.

ATTACHMENT A

Community Fact Sheets

1. Vapor Intrusion – An Explanation
2. Residential Vapor Intrusion Mitigation – The Proposed Approach
3. Typical Residential Vapor Intrusion Mitigation System

COMMUNITY FACT SHEET 2017 FORMER PAXAR FACILITY Sayre, PA

Vapor Intrusion
An Explanation

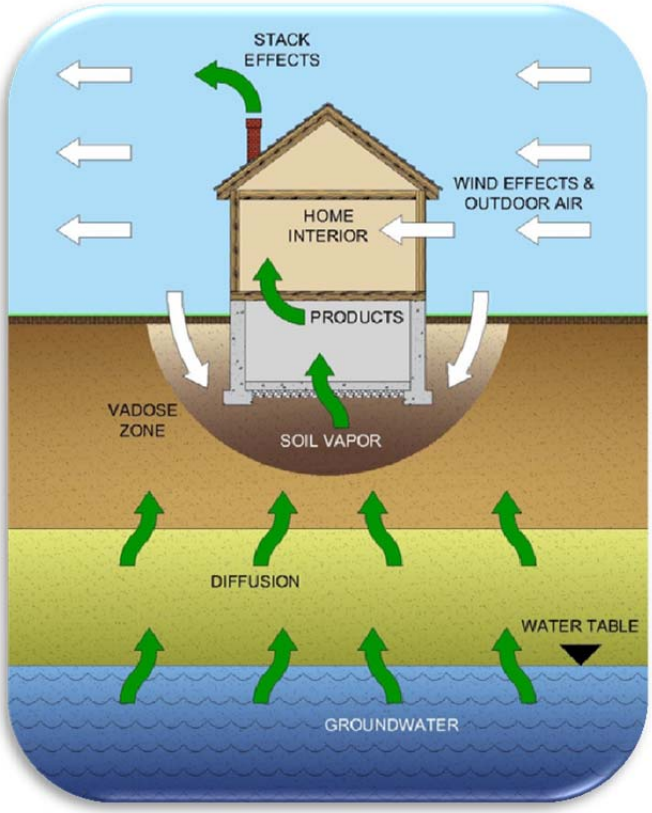
What is soil vapor?

Soil vapor, or soil gas, is the air found in the spaces between soil particles below the ground. If the soil, or the groundwater flowing near or through the soil, contains volatile chemicals (substances that readily evaporate), the soil vapor can contain those same chemicals. Soil vapor can be analyzed for volatile chemicals, just as soil and groundwater samples can be analyzed for those substances.

What is vapor intrusion?

Because of a difference in pressure, soil vapor can enter buildings through cracks in slabs or basement floors and walls, and through openings for utility lines. Heating, ventilation or air-conditioning (HVAC) systems may draw soil vapor into the building. This intrusion is similar to how radon gas can seep into buildings.

The drawing below shows the concept of the vapor pathway. There are many factors that can affect whether and how much vapor may enter a building, including the type of soil beneath the building, building size and construction, operation of HVAC systems, the difference in pressure between the air inside and outside the building, and weather. If groundwater is the source of volatile chemicals, the depth to groundwater and levels of chemicals present in the groundwater are also factors.



How is potential vapor intrusion investigated?

The first step is to identify whether volatile chemicals are present in the soil and/or groundwater near a building. If levels of chemicals in the sampled soil or groundwater exceed regulatory screening criteria, soil vapor can be measured to determine whether these same chemicals are present at a level that could potentially impact indoor air. The United States Environmental Protection Agency and the Pennsylvania Department of Environmental Protection generally do not recommend indoor air sampling as a first step because indoor air quality is also impacted by chemicals in outdoor air that can enter the building, and by common household products stored indoors. Examples of these products include cleaning fluids and lubricants, recently dry-cleaned clothes, and new carpeting or furniture. These products may emit vapors that could affect the sampling results.

If a chemical is found in soil vapor, does that mean it's entering nearby buildings?

Not necessarily. As noted above, many factors affect whether vapors from below the surface can make their way into structures. In some cases, the building foundation, or the presence of dense, clay-like soils can serve as a barrier to vapor intrusion, although there is no way to determine this by visually examining a building.

What steps can be taken to prevent vapor intrusion?

The most common solution is to install a vapor mitigation system (known as a sub-slab depressurization system). This system functions much like a radon mitigation system, removing soil vapor from below the basement or foundation before it enters the home. Soil vapor is then vented to the air outside the home at a point above the roof. The system uses minimal electricity and does not affect heating and cooling efficiency. It also prevents radon from entering the home.

For more information
Alison Spare, Community Contact
Phone: 717-919-4723

Avery Dennison Corporation
207 Goode Avenue, Glendale, California 91203

Residential Vapor Intrusion Mitigation

The Proposed Approach

Overview

In the mid-1990s, with oversight by the Pennsylvania Department of Environmental Protection (PADEP) North Central Regional Office, Paxar Corporation (Paxar) began efforts to remediate soil and groundwater found to contain perchloroethylene (PCE), trichloroethylene (TCE), and similar substances known as volatile organic compounds (VOC) at the former Paxar facility located at and near 1 Wilcox Street in Sayre, Pennsylvania.

Avery Dennison Corporation purchased the property from Paxar in 2007, and is working under PADEP oversight to conduct voluntary efforts to investigate and remediate the soil and groundwater under the requirements of the Pennsylvania voluntary remediation program.

This fact sheet provides neighborhood residents and homeowners with information about Avery Dennison's offer to install vapor mitigation systems in homes within the neighborhood of Hoover and Draper Streets in Sayre, Pennsylvania. Area groundwater and soil vapor sampling results indicate that systems are needed to eliminate the possibility of vapor intrusion in these homes. It is important to note that the Borough of Sayre is providing safe drinking water from AquaAmerica.

Mitigation system description

With your permission and input, a vapor mitigation system (System), similar to a radon mitigation system, will be installed in your home. The System will collect air containing vapors from the soil beneath the concrete slab in your basement or crawl space, and transfer the collected air and vapors through airtight piping to an exhaust vent above the eave on the outside of your home. The figure on the right illustrates a typical System, which is simple, effective, and the most common vapor mitigation solution used in homes.

What is my cost?

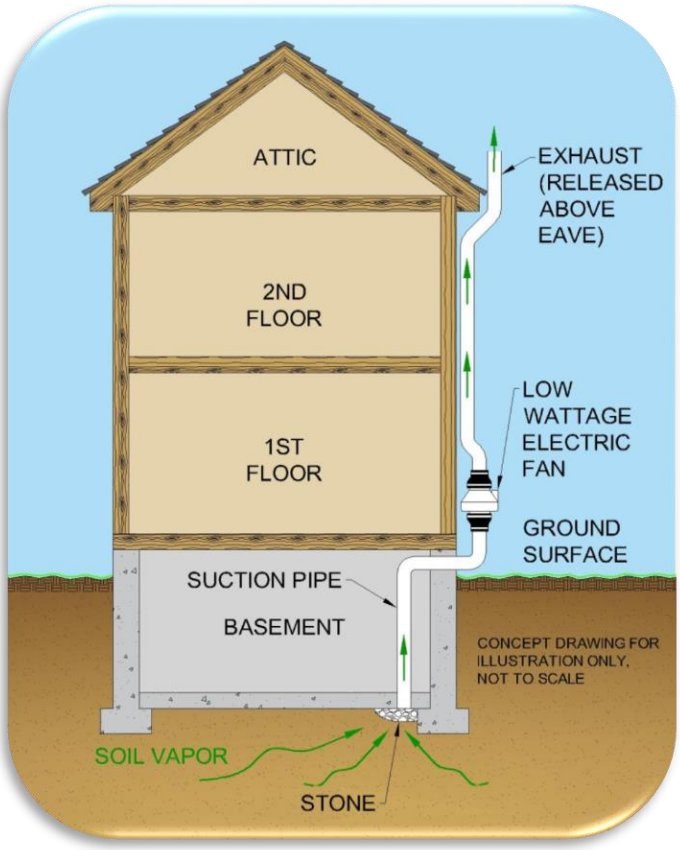
There is no cost to the homeowner or resident. Avery Dennison Corporation will cover the costs for System design, installation, maintenance, and operation, including the cost of electricity to operate the system.

What are the key steps in the process?

For most homes, the process for installing a System will involve the following key steps, which will only be performed with your permission:

- Initial Home Visit & Review of Access Agreement
- Diagnostic Work
- System Design
- System Installation and Tuning
- Maintenance, as Needed

The entire process for installing a typical System in most homes takes approximately three to four visits, depending on the construction of the home. Every effort will be made to arrange convenient appointments for the owners.



What happens during the initial home visit and diagnostic testing?

The initial home visit will allow Avery Dennison's contractor to enter your home, answer your questions, and review the access agreement, while they also review your home construction and determine the type of diagnostic work appropriate to design and build a system specific to your dwelling. The initial home visit takes less than an hour.

Once you have agreed to the installation, the contractors will schedule the next visit. The purpose of the Diagnostic visit is to determine how well the air moves under your basement slab. This involves drilling several small holes in the basement floor and using a blower to extract air

- continued on next page

Residential Vapor Intrusion Mitigation

The Proposed Approach

while measuring the vacuum created – a necessary step for designing an appropriate system for homes with basements. The diagnostic work does not involve collecting air samples for laboratory analysis. All holes are properly patched when completed. During the diagnostic visit, the contractors will also:

- Record specific information related to the construction of your home.
- Prepare a scaled sketch of the lowest level within your home, which is typically your basement or crawlspace.
- Photograph the area in your home where the System will be installed.

This visit will take from 2 to 4 hours depending on the size and construction of the home.

How is the system designed?

The data and home construction details collected during the diagnostic visit allow the contractor to calculate the required number and location of suction points, size of the electric fan, and electrical circuit requirements. The contractor will also determine the location of the blower, and the route and size of the suction piping and discharge stack. Then, the contractors will work with you to review the proposed System design and receive your sign-off on the design.

How is the system installed?

A typical System can be installed in a single day. The contractors will install the suction points and assemble the suction piping inside your home, attach the fan and exhaust stack to the outside wall, and install the required electrical circuit. A more complicated home, such as an older home without concrete foundation walls or floors, may require more time and additional visits to prepare the home for the installation. Avery Dennison Corporation will cover the cost of necessary modifications, such as the installation of a subfloor, if needed. The contractors will comply with applicable building and permitting requirements, and the electrical connections will be inspected by a Pennsylvania-licensed electrician.

How is the system tuned?

The System will be tuned after it is installed, passes the electrical inspection, and is turned on. This may happen at the end of the day when the System is installed or it may be scheduled for a later day. Tuning includes:

- Measuring the vacuum created at the surrounding monitoring holes installed during the diagnostic testing visit and/or System installation.
- Testing for possible backdrafts (i.e., air flow reversal) from operating the furnace.
- Photographing the installed System Components.
- Showing you the System layout and components.
- Providing you with an information packet describing the System, how to check that the System is operating, and who to call with questions about the System.

How is the system maintained?

The System will be designed to operate continuously for many years. Avery Dennison Corporation will continue to maintain the System as long as needed and annually cover the electrical costs of operating the system. For the first two years, a contractor will inspect the System at least annually to verify that it is operating properly and to identify any necessary repairs. After the first two years, Avery Dennison Corporation will conduct routine annual inspections only at the request of the property owner. The System inspection takes about one hour and will be scheduled with you at a convenient time. Avery Dennison Corporation or its contractors will also respond to your calls, at no cost, if you notice a problem with the System.

Need more information?

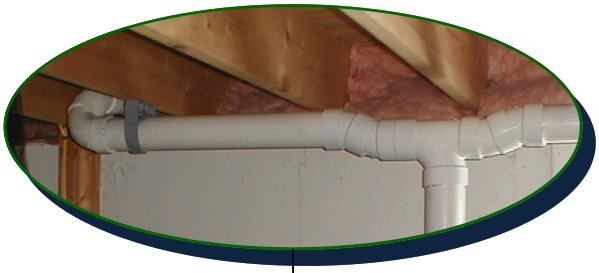
Alison Spare, the project's Community Contact is available at 717-919-4723. The PADEP Community Relations Coordinator, Megan Lehman, can be reached at 570-327-3659.

For more information
Alison Spare, Community Contact
Phone: 717-919-4723

Avery Dennison Corporation
207 Goode Avenue, Glendale, California 91203

COMMUNITY FACT SHEET 2017 FORMER PAXAR FACILITY Sayre, PA

Typical Residential Vapor Intrusion Mitigation System



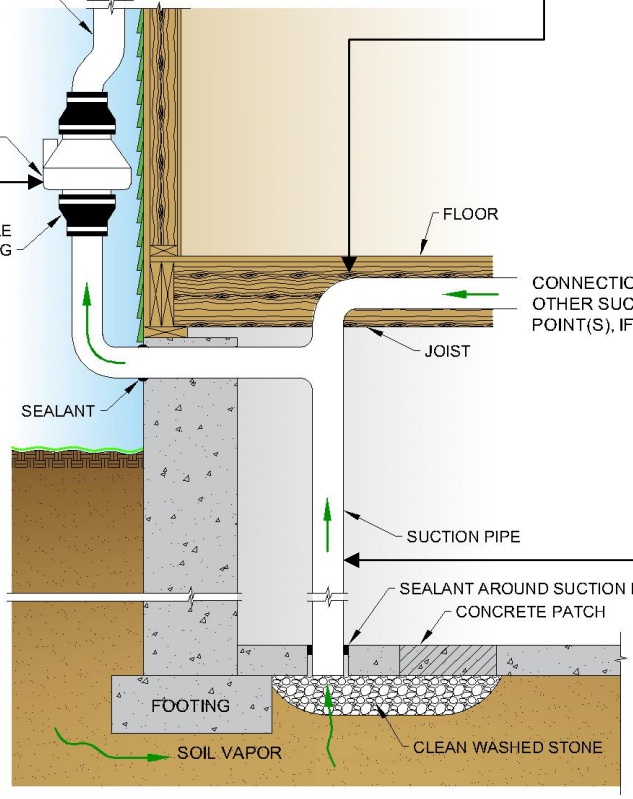


ILLUSTRATION OF SUB-SLAB DEPRESSURIZATION (SSD) SYSTEM
NOT TO SCALE, MODIFIED FROM PUBLICATION EPA/625/R-93/011

For more information
Alison Spare, Community Contact
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