# HAVERTOWN PCP SUPERFUND SITE

## HAVERFORD TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

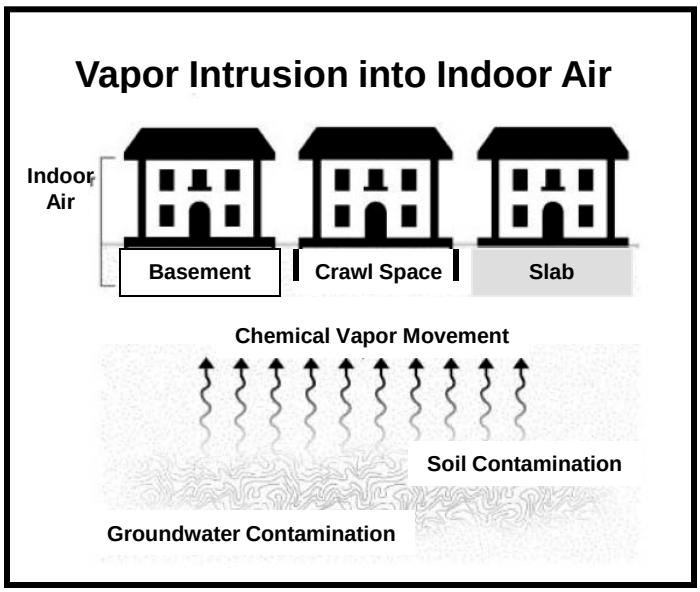
U.S. Environmental Protection Agency, Region 3 February 2006

## Vapor Intrusion – Summary

The issue of vapor intrusion is being looked at more closely at hazardous waste cleanup sites across the country. During the Five-Year Review for the Havertown PCP Superfund Site, which was completed in August 2005, vapor intrusion was identified as an issue that needed to be further investigated. EPA has evaluated the vapor intrusion issue and has determined that it does not present a problem at this time.

## What is vapor intrusion?

When chemicals or petroleum products are spilled on the ground or get into the groundwater, they can give off gases, or vapors, that can seep inside buildings. The vapors move through the cracks in basements, foundations, sewer lines and other openings. Vapor intrusion is a concern because vapors can build up to a point where the health of residents or workers in those buildings could be at risk.




## What are health concerns with vapor intrusion?

- The incidence of vapor intrusion is low at most cleanup sites.
- When vapor intrusion does occur, the health risk is often lower than the risk posed by radon or by household chemicals.
- Health effects vary, based on person, exposure and chemical type.
- Some may experience eye and respiratory irritation, headaches and/or nausea. These symptoms are temporary and should go away when moved to fresh air.
- Low-level chemical exposures over many years may raise lifetime risk of cancer or chronic disease.

## Why might vapor intrusion be an issue at the Havertown PCP site?

Common examples of materials that may cause vapor intrusion include:

- Gasoline
- Diesel Fuel
- Dry Cleaning Solvents
- Industrial De-Greasers

Some of these chemicals have been used at and around the site. The U.S. Environmental Protection Agency (EPA) has identified contamination associated with these types of materials in the site groundwater.

## How was the risk of vapor intrusion at the Havertown PCP site assessed?

The risk associated with vapor intrusion was analyzed in a three step process:

1. A Groundwater to Indoor Air Screening Model was used to analyze the potential vapor intrusion from the highest levels of groundwater contamination found at the site.

2. The EPA site toxicologist used the results from the modeling effort to calculate the associated risks. The toxicologist determined which chemicals in the groundwater were possible contaminants of concern from an indoor air exposure scenario.

3. A second analysis was performed by an EPA Environmental Scientist from the Air Protection Division. The analysis used current contaminant data from individual wells to refine the areas near the site that have a higher potential for vapor intrusion.

## What were the results?

Thirteen wells were analyzed that were located either in or near the residential neighborhood. Six of the thirteen wells did not have any measurable levels of contaminants that would give off vapors and all of the calculated indoor air concentrations were below EPA action levels. **Based on EPA's assessment, vapor intrusion is not an issue for the Havertown PCP site, at this time.**

For more information on indoor air quality, visit EPA's website at:
www.epa.gov/air/topics/comoria.html

or call the indoor air hotline at
1-800-438-4318.

## How will EPA know if vapor intrusion becomes a problem in the future?

Currently, EPA is pumping and treating the contaminated groundwater in an effort to stop the contaminants from moving through the groundwater. Two new extraction wells are being installed to speed up this process.

EPA has also established a risk-based screening level for trichloroethylene (TCE) in groundwater. TCE is the chemical which causes the greatest risk for vapor intrusion at this site. If TCE is detected in any site well near a residential area above the site specific risk-based screening level, further vapor intrusion evaluations will be done.

## What can I do to improve my indoor air quality?

Consider these tips to improve the overall indoor air quality in your home:

- Do not buy more chemicals than you need.
- Store unused chemicals in appropriate containers in well-ventilated areas.
- Do not make your home too air tight. Fresh air helps prevent chemical build-up and mold growth.
- Fix all leaks promptly, as well as other moisture problems that encourage mold.
- Check all appliances and fireplaces annually.
- Test your home for radon. Test kits are available at hardware and home improvement stores.

## For more information on the Havertown PCP Superfund Site, please contact: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Or visit the EPA website for this site at the following Internet address:

**www.epa.gov/reg3hwmd/super/sites/PAD002338010**


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