



TCE HAVERTOWN EPA TO STUDY SOIL VAPOR

HAVERFORD TOWNSHIP, DELAWARE COUNTY, PA

JANUARY 2011

INTRODUCTION

The EPA will conduct a *vapor intrusion study* next month in the vicinity of the ongoing Havertown Superfund Site cleanup.

We're conducting this study because, during our work at the Havertown site, we found a chemical called trichloroethylene (TCE) in the groundwater. TCE is a volatile organic compound commonly used to degrease metal parts.

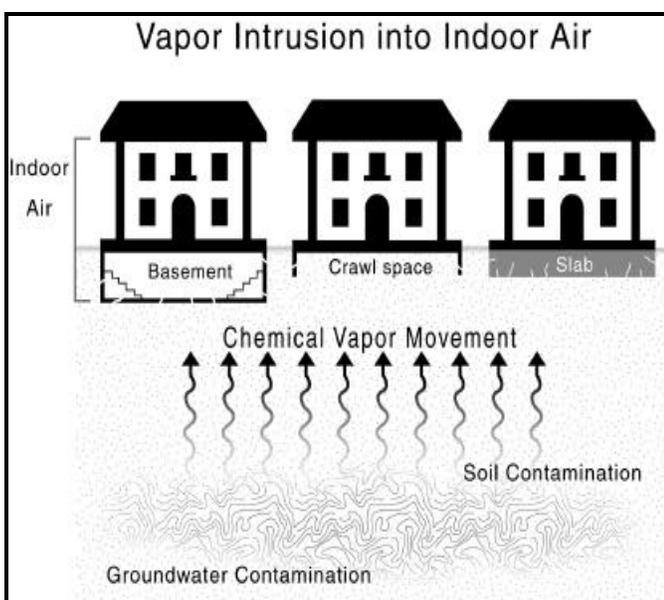
When TCE is present in the groundwater its vapors have the potential to "*volatilize*" or "*off-gas*" through the soil and into indoor air. **So, EPA wants to take extra precautions to ensure that vapor intrusion is not a risk to the neighborhood.**

As part of our vapor intrusion study, we plan to test a small number of homes, and install more monitoring wells in the neighborhood to find out what levels of TCE may exist in the groundwater.

WHAT IS VAPOR INTRUSION?

Vapor intrusion refers to contaminated vapors that seep into buildings from the earth below. It can occur when chemicals are spilled on the ground, down drains, or disposed of improperly. These chemicals, usually volatile organic compounds (VOCs), "gas off" easily into the groundwater.

As the groundwater moves through soil, it can carry the VOCs with it, releasing vapors into the soil. The vapors can seep into buildings through cracks in basements and foundations, posing a potential risk to residents in those buildings.



PUBLIC METING ON VAPOR STUDY

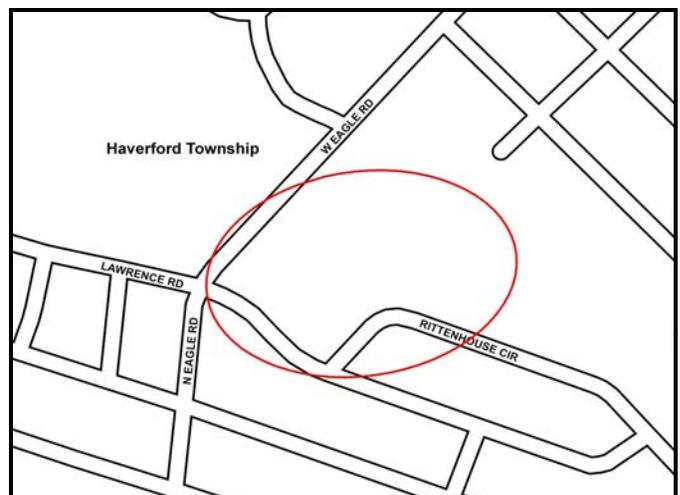
EPA officials will explain the study and answer questions.

**FEBRUARY 16, 2011
7-9 P.M.**

**Commissioner's Meeting Room
Quatrani Bldg. (behind township bldg.)
2325 Darby Road, Havertown
For directions: 610-446-1000**

WILL MY HOME BE SAMPLED?

EPA is preparing an information package and permission form which will be mailed to a small number of homes in the general area designated on the map below. **Only those residents who receive packages will be part of the study.** If you receive a package, please sign and return the access form giving EPA permission to test your home. Participation is voluntary and free. **All questions and concerns may be directed to Ruth Wuenschel at (215) 814-5540 or at wuenschel.ruth@epa.gov**



General area of the vapor intrusion study

If your home is selected for the study, two types of air samples will be taken:

- **Soil vapor samples:** These samples are taken from under your home's foundation, called sub-slab samples. Vapors will be collected in the basement level, or lowest point in the house, through a hole, or sampling port, the approximate size of a quarter. The sampling port installation should take no longer than two hours. The actual air sample will be collected the next day.
- **Indoor air samples:** These samples are taken from the lowest point in the house, and possibly the next floor up. Air is collected slowly, over a 24-hour period, in a Summa Canister, which is the size of a basketball.



Summa Canister to collect indoor and sub-slab air



Quarter-sized port to collect sub-slab air

WHAT ARE THE NEXT STEPS?

The EPA will send the samples to a lab for analysis, which can take up to six weeks before results are completed and confirmed. We will provide a copy of the results to the property owner.

If levels of concern are found in your sub-slab samples or indoor air, EPA may take additional samples or install and pay for a vapor mitigation (reduction) system at your home — the same type of system used to reduce radon inside homes (radon is a natural underground gas). We may also expand the study to include more homes.

The system removes vapors from below the basement or foundation before they get inside, and then vents them outdoors. It uses minimal electricity and does not affect home heating or cooling.



Vapor mitigation system that vents vapors to the outdoors.

WHAT IS TCE?

TCE, trichloroethylene, is a non-flammable, colorless liquid used as a solvent for cleaning metal parts. It is a common groundwater contaminant. TCE dissolves in water, but it can remain in groundwater for a long time. Trichloroethylene quickly evaporates from surface water, so it is commonly found as a vapor in the air.

The health effects of TCE depend upon the pathway, amount and length of exposure to the chemical. Long-term exposure to TCE vapors could pose a potential health risk. Possible health effects are nerve, kidney or liver damage. Some studies have shown TCE to cause cancer to these organs.

EPA is working on this site with the Agency for Toxic Substances and Disease Registry (ATSDR), a federal health agency under the Centers for Disease Control. ATSDR officials are available to advise residents on health issues related to TCE.

FOR MORE INFORMATION

Ruth Scharr
On-Scene Coordinator
215-756-7897
scharr.ruth@epa.gov

Ruth Wuenschel
Community Involvement Coordinator
215-814-5540
wuenschel.ruth@epa.gov

Bob Helverson, ATSDR
Environmental Health Scientist
215-814-3139
gfu6@cdc.gov

For information on TCE:
<http://www.atsdr.cdc.gov/toxfaqs/tf.asp?>

U.S. Environmental Protection Agency
Attn: Ruth Wuenschel
Mail code 3HS52
1650 Arch Street
Philadelphia, PA 19103

