



Pollution Investigation Looks For Vapor Problems

Tecumseh Products Site

Tecumseh, Michigan

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Want more information?

To learn more about the vapor intrusion investigation or if you have questions or comments about the Tecumseh Products site cleanup, please contact one of these team members:

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The U.S. Environmental Protection Agency and Tecumseh Products Co. (TPC) are conducting an investigation in an area near the former TPC compressor manufacturing plant on Patterson Street in Tecumseh. Under an EPA legal order, TPC has been performing groundwater and soil gas tests related to the site's prior use and storage of solvents. "Groundwater" is an environmental term for underground water, and soil gas is a term for underground air.

The investigation is checking for a pollution problem called "vapor intrusion." Vapor intrusion occurs when contamination in the underground water gives off gases that can rise up through the soil and seep into buildings through foundation cracks and holes, possibly causing unsafe indoor air quality. A family of chemicals called "volatile organic compounds," or VOCs, is especially prone to vapor intrusion. In this case, investigators are concerned about a VOC called trichloroethene, or TCE, which industries used as a solvent.

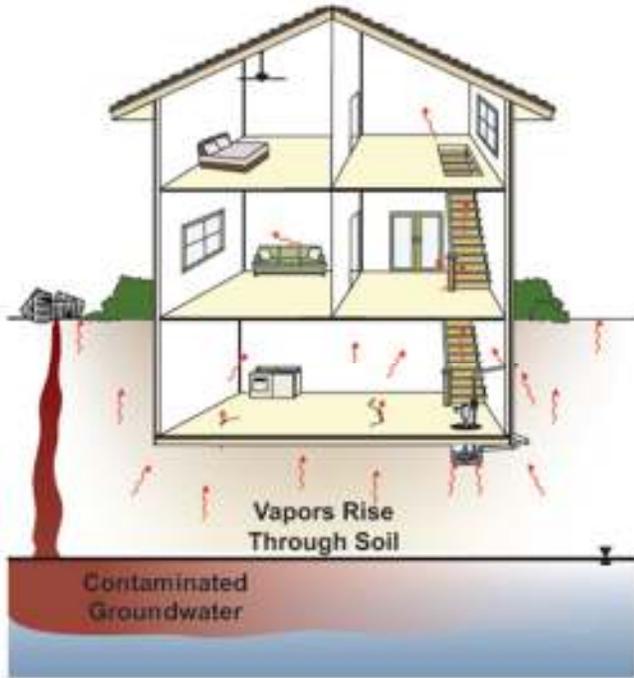
Soil gas, sub-slab and indoor air tests are used to find vapor intrusion problems. In soil gas and sub-slab testing, probes are dug into the ground or under building foundations to test for VOC vapors trapped between soil particles. Air sampling measures the concentrations of hazardous gases in the indoor air. For air tests inside a structure, a small canister is simply placed on a table or counter for a few days and collects samples.

Purpose of investigation

The EPA legal order requires TPC to demonstrate that pollution from its former facility is not a health risk to the community. TPC continues to collect information to identify the contamination areas. Groundwater sampling to date shows there are two narrow bands of contamination coming from the former TPC property that may be underneath some houses in the community. TPC needs to collect additional information about the pollution situation in the neighborhood and may have to test in and around houses that were not originally believed to be at risk.

The scientific understanding of both vapor intrusion and TCE has increased in recent years. Scientists have now set lower acceptable exposure limits for TCE. Also, many houses contain some VOC vapors given off by household cleaners, solvents and paint. The challenge is to make sure concentrations inside a structure don't rise above unsafe levels due to pollution issues underground.

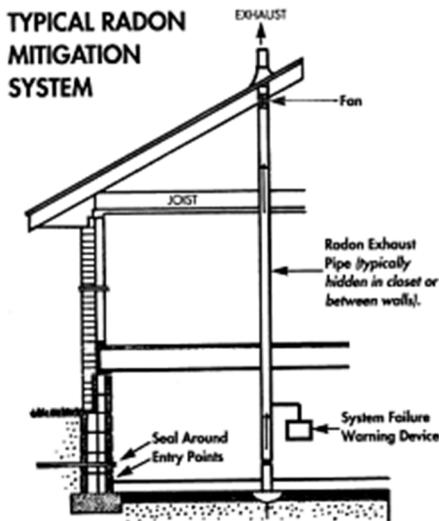
Samples of soil gas and indoor air will help answer the question of whether vapor intrusion is occurring.



Vapor intrusion into a home.

Mitigation system

If vapor intrusion becomes a health concern inside a structure, TPC can install “mitigation” systems free of charge to homeowners that remove the gases or pressurize crawl spaces to keep vapors from seeping in. The company may also install mitigation systems in some houses near the plant as a precaution, even if indoor air pollution is not a problem. The mitigation system is similar to the procedure for removing high levels of radon gas from basements. TPC installed a mitigation system in one house in the neighborhood in 2011 and additional mitigation systems will be installed in some houses in 2014.



The installation of vapor mitigation systems will provide protection in houses closest to the plant while additional work is underway to find the contamination. Please understand being contacted by TPC does not mean vapor intrusion is occurring in your house, but only that a potential health risk exists and sampling may need to be done.

Drinking water not affected

Company investigations over the years have identified contamination from the plant in the area. TPC has made efforts to eliminate the health risks.

All residences in the target area are now served by municipal water to eliminate health risks associated with drinking contaminated supplies. As a preventative measure, TPC located and disconnected drinking water wells on the properties near the former plant. The company also asked the city to pass a groundwater ordinance that bars future use of drinking wells where contamination may be present.

What does all this mean?

The EPA, Michigan Department of Community Health (MDCH) and Michigan Department of Environmental Quality (MDEQ) staff are working with TPC to obtain the most accurate and up-to-date information. Agency staff are available to assist with any questions you may have regarding mitigation systems or sample results.

If samples are collected and it appears vapor intrusion is occurring, health department toxicologists can help you understand the results and tell you whether the levels of TCE are likely to cause health effects. TPC is prepared and required to stop or prevent any current and future exposures to pollution released by its former plant.

Homeowners should know that while TPC will install mitigation systems free to them, the equipment operation might result in small increases in electrical costs.

Michigan Department of Community Health

