

What is Vapor Intrusion?



Chemicals used in commercial or industrial activities – dry cleaning chemicals, chemical degreasers and petroleum products such as gasoline – are sometimes spilled and leak into nearby soil or groundwater. When this happens, these chemicals may release gases or vapors, which travel from the contaminated groundwater or soil and move into nearby homes or businesses. This is called vapor intrusion.

The process when chemical vapors from contaminated soil or groundwater enter a home or other structure is called vapor intrusion.

Why are these chemical vapors a problem?

The chemicals that cause vapor intrusion are known as volatile organic compounds, or VOCs. Even when spilled into soil or water, these chemicals easily evaporate. They don't cause human health problems when they evaporate into the outside air, but when their vapors move into homes or businesses, they may cause long-term health problems for the people who live or work in those buildings. These vapors are usually odorless and colorless and undetectable without special testing equipment.

Why is vapor intrusion a concern?

Exposure to some chemical gases or vapors can cause an increased risk of adverse health effects. Whether or not a person experiences any health effects depends on several factors, including the amount and length of exposure, the toxicity of the chemical, and the individual's sensitivity to the chemical. When harmful chemical vapor intrusion is the result of environmental contamination, the Wisconsin Department of Natural Resources (DNR) requires that steps be taken to reduce or eliminate exposures which could be harmful to human health.

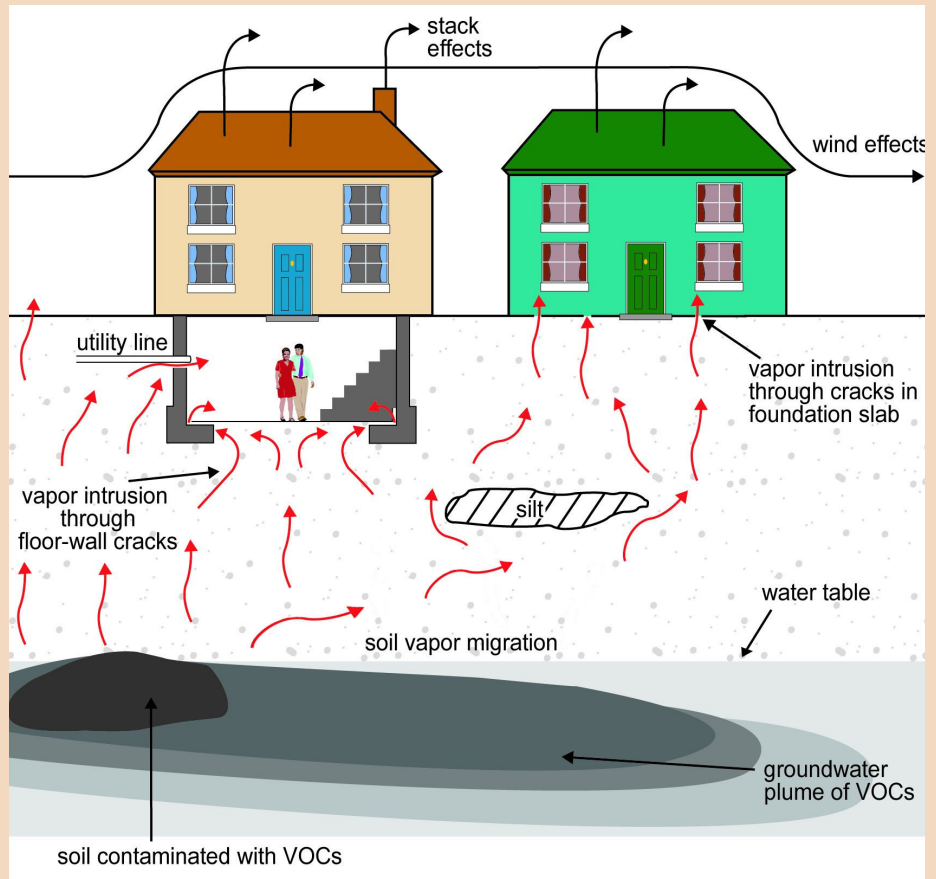
What should I expect if vapor intrusion is suspected near my home or business?

For businesses or other locations where VOC contamination has been found, the DNR requires that the potential for vapor intrusion be investigated. If you live near a site being cleaned up, you may be contacted by the site owner or others working on the cleanup. Your cooperation and consent will be requested before any testing or sampling is conducted on your property. Ask the person contacting you any questions you have about the work being done, or contact the DNR for more information (see DNR contact information on reverse). For more information about testing for vapor intrusion, see DNR-Pub-RR-954, "What to Expect During Vapor Intrusion Sampling."



How Vapors Enter a Building

If you live near a commercial or industrial facility or landfill where VOCs have entered either the soil or groundwater, there may be a potential for those chemicals to travel as vapors into your home or business. Vapors can enter buildings in various ways, including through cracks in the foundation and openings for utility lines. Building ventilation and weather can influence the extent of vapor intrusion.



Adapted from U.S. Environmental Protection Agency (EPA) graphic.
www.epa.gov/oswer/vaporintrusion/basic.html

Where can I find more information?

Health and vapor-related information can be found at the Wisconsin Department of Health Services (DHS) website at dhs.wisconsin.gov, search “Vapor.” For other health-related questions, please contact your local health department: www.dhs.wisconsin.gov/localhealth.

For more DNR information, please visit the DNR’s Remediation and Redevelopment (RR) Program’s Vapor Intrusion page at dnr.wi.gov/topic/Brownfields/Vapor.html.

Additional information can be obtained through the DNR field office in your region. To find the correct office, visit the RR Program Staff Contacts page at dnr.wi.gov/topic/Brownfields/Contact.html or call the RR Program at (608) 266-2111.

This document contains information about certain state statutes and administrative rules but does not necessarily include all of the details found in the statutes and rules. Readers should consult the actual language of the statutes and rules to answer specific questions. The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, D.C. 20240. This publication is available in alternative format upon request. Please call 608-267-3543 for more information.