



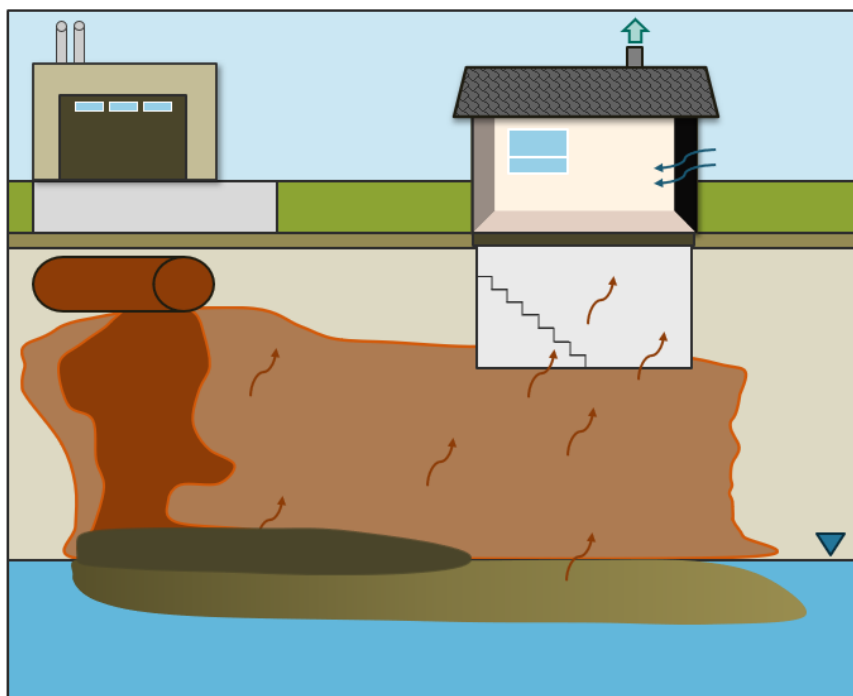
Fact Sheet

Vapor Intrusion at Contaminated Sites

In 2025, DEQ released an updated “Vapor Intrusion Guidance” that environmental professionals can use to help investigate contaminated sites. These updates include more protective screening levels and a better understanding of contaminated vapor, which changes the way DEQ evaluates vapor intrusion investigations.

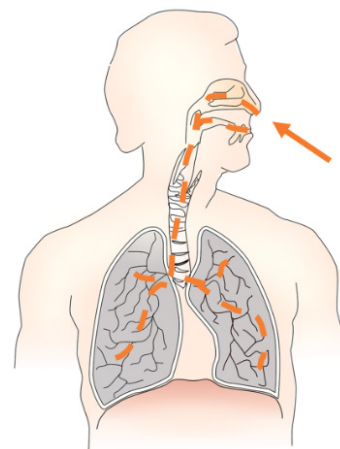
What is vapor intrusion?

Vapor intrusion is the movement of contaminated vapors from spills or releases below the ground into buildings. Vapors can travel through the air space in soil and enter buildings through openings in the floor, basements, or crawl spaces. Once inside buildings, vapors can build up to unhealthy indoor air quality. The graphic on the right shows how contaminated vapors move from contaminated soil and groundwater through the subsurface into a nearby basement. In the building, contaminated vapors mix with outdoor air. During the heating season, stack effects can occur which increase the movement of vapors up into the and throughout the building.



How could vapor intrusion impact me?

You may be impacted if a property you own, live in, work in, or want to buy has contamination in the ground – either directly beneath the property, or nearby. Contamination may have been released from fuel tanks, including residential heating oil tanks, and/or other industrial properties that have spilled volatile chemicals such as solvents or degreasers, such as dry cleaners, mechanics, or manufacturers. You can see where sites may be near you using the [Your DEQ Online](#) web platform, available on DEQ’s website.



How does vapor intrusion affect health?

Many different chemicals have health risks if inhaled. The health effects from vapor intrusion vary by chemical. Some chemicals can affect your brain, lungs, reproductive system, a developing child, or increase your cancer risks over time. Many chemicals can increase your health risks, especially if you breathe them for a long period of time over many years. Certain chemicals can also increase health risks if you breathe them over shorter time periods.

Some people are more sensitive to these risks, such as children, the elderly, unborn children, people with disabilities, and people who live in areas that have multiple sources of pollution.

Why does the DEQ Cleanup program assess vapor intrusion?

Breathing contaminated indoor air is one of the most common ways that chemicals in the environment can affect peoples' health. Contaminated air vapors are often odorless and colorless, so building occupants are often unaware of possible exposure. The amount of contaminated vapors in indoor air can change depending on: the type of building; how the building is operated (including heating/cooling and ventilation); and the seasons (summer/winter, as well as rainy/dry). In addition, contaminant vapors are hard to contain because they are constantly moving. This makes it more difficult to clean up contamination in indoor air than in soil or in some other parts of the environment.

Why has the Vapor Intrusion Guidance been updated?

The scientific understanding of the vapor intrusion process has changed significantly since DEQ's last guidance was published in 2010. DEQ has updated its Vapor Intrusion Guidance to make sure that it is using the best current science to keep people safe. The updated guidance will improve DEQ's ability to protect all people in Oregon from the health risks associated with breathing contaminated indoor air from vapor intrusion.

What changes with the new guidance?

The updated Vapor Intrusion Guidance incorporates several new changes, including the following:

1. Updated screening levels, or "risk-based concentrations," used to guide decisions about whether additional sampling or cleanup is needed. These updates include: lowering the screening levels; adding levels to evaluate effects of short-term exposure (acute levels); and expanding the list of chemicals with screening levels. In addition, these screening levels will be updated annually on an ongoing basis.
2. A new response-matrix for what to do if indoor air concentrations are above screening levels.
3. Recommendations to collect indoor air samples over a longer period of time to better evaluate health risk.
4. Recommendations and resources for community engagement, to ensure people potentially impacted by contaminated vapors are informed and empowered to make decisions to protect their health.
5. Greater emphasis on understanding where and how far the contaminant vapors have moved. This includes collecting more vapor samples to describe the location and changes in the contaminated vapors. It also means no longer relying on soil samples to evaluate vapor intrusion, because recent data shows that they are not reliable indicators of health risks associated with vapor intrusion.
6. Flow charts to explain the vapor intrusion investigation process step-by-step for different types of contaminant sources.
7. Descriptions of "biodegradation" at vapor intrusion sites with oil or gas spills, where levels of contaminated vapors can decrease quickly over short distances. Biodegradation occurs naturally when microbes in the soil are living in favorable conditions with enough oxygen.
8. Detailed descriptions and expectations for planning and evaluating the effectiveness of systems that are put in place to reduce contaminated vapors from getting inside buildings.

Additional information

More information about vapor intrusion and the updated guidance can be found on [DEQ's Vapor Intrusion website](#). More information on the Cleanup Program is also available on [DEQ's website](#). You may also contact the DEQ Cleanup Program at 503-229-6170 or through email at info.cleanup@deq.oregon.gov.

For additional information, please email the [Cleanup Info](#) or [LUST Info](#) or call 503-229-5696.

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