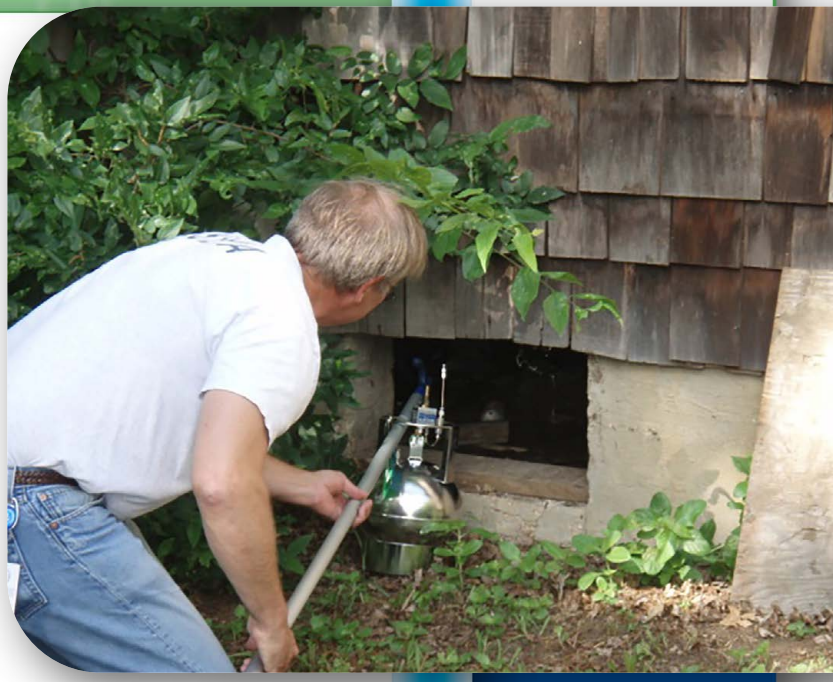
OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

OKLAHOMA Environmental Quality

Vapor Intrusion Into Indoor Air



The Department of Environmental Quality (DEQ) voluntary programs evaluate various possible exposure pathways. One pathway is Vapor Intrusion into Indoor Air (VI). Volatile contaminants in soil or groundwater near a building have the potential to migrate upwards through soil and into indoor air. This pathway is evaluated to ensure people are not being exposed to potentially harmful levels of chemicals in indoor air.

There is growing focus on this exposure pathway, but there are no currently enforceable rules or laws regarding vapor intrusion into indoor air that are directly regulated by DEQ. Although DEQ does not directly regulate indoor air, it does regulate the contaminants in soil and groundwater that can create this exposure pathway. DEQ voluntary programs consider Vapor Intrusion where a potential risk exists.

EPA headquarters published final VI guidance in June 2015. This provides a nationally and regionally recognized framework for an approach to the evaluation of the VI pathway. Not following a recognized framework could leave conclusions regarding the VI pathway open to question.

DEQ's voluntary programs consider EPA's VI guidance when determining whether the pathway has been adequately evaluated. If it is not adequately evaluated then DEQ may not be able to determine whether or not risk exists, and may not be able to provide a no-further-action determination for this pathway. If determined necessary, DEQ may further investigate the VI pathway itself. Vapor Mitigation systems are a presumptive remedy for vapor intrusion issues.

Federal programs may have different requirements.

The following are some helpful resources on this subject:

OSWER Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air

https://go.usa.gov/xe2cC

This publication is issued by the Oklahoma Department of Environmental Quality authorized by Scott A. Thompson, Executive Director. Copies have been prepared at a cost of $0.106 each. Copies have been deposited with the publications clearinghouse of the Oklahoma Department of Libraries.
(Fact Sheets\LPD\Vapor Intrusion.indd 11/2023)

Vapor Intrusion Into Indoor Air

EPA Technical Guide for Addressing Petroleum Vapor Intrusion at Leaking Underground Storage Tank Sites

https://go.usa.gov/xe2cE

Vapor Intrusion Pathway: A Practical Guideline

http://www.itrcweb.org/Documents/VI-1.pdf

A Citizen's Guide to Vapor Intrusion Mitigation

https://clu-in.org/download/Citizens/a_citizens_guide_to_vapor_intrusion_mitigation_.pdf

Indoor Air Vapor Intrusion Mitigation Approaches

https://clu-in.org/download/contaminantfocus/vi/Engineering%20Issue.pdf

Vapor Intrusion Mitigation in Existing Buildings Fact Sheet

https://clu-in.org/download/issues/vi/final_navy_vapor_existing_bldg_doc.pdf

Vapor Intrusion Mitigation in Construction of New Buildings Fact Sheet

https://clu-in.org/download/contaminantfocus/vi/vi_mit_new_bldg_fs.pdf

Sustainable Vapor Intrusion Controls – Designing an Effective Passive System

https://clu-in.org/download/contaminantfocus/vi/Sustainable%20vapor%20intrusion%20controls%20passive.pdf

Important Information about Vapor Intrusion Mitigation Systems and Power Outages

https://go.usa.gov/xe2cB

Assessment of Mitigation Systems on Vapor Intrusion: Temporal Trends, Attenuation Factors, and Contaminant Migration Routes under Mitigated and Non-mitigated Conditions

https://clu-in.org/download/issues/vi/VI-EPA-600-R-13-241.pdf

Brownfields Technology Primer: Vapor Intrusion Considerations for Redevelopment

https://brownfieldstsc.org/pdfs/BTSC%20Vapor%20Intrusion%20Considerations%20for%20Redevelopment%20EPA%20542-R-08-001.pdf