U.S. EPA Identifies Neighborhood Pollution Issue

Valley Pike VOC Site

Riverside, Ohio December 2013

U.S. Environmental Protection Agency (EPA) is investigating an environmental problem called "vapor intrusion" in the Valley Pike neighborhood of Riverside, Ohio. Vapor intrusion occurs when underground pollutants release chemical vapors that travel up through the soil, accumulate beneath building foundations and cause indoor air pollution when the chemical vapors enter buildings through cracks or holes in foundations and crawl spaces. Measuring the amount of chemical vapors under the sub-slab or within the crawl space of your property can indicate the potential for a vapor intrusion problem. EPA wants to sample the vapors beneath the residential houses or within the crawl spaces in the Valley Pike neighborhood. EPA needs signed access forms from owners and tenants to conduct the sampling. If a vapor intrusion problem is found, EPA will meet with the owners to outline the mitigation steps that it will offer to protect building occupants from the chemical vapors.

The Phase 1 preliminary boundaries of the Valley Pike VOC Site are Hypathia Avenue on the east, Rohrer Boulevard on the west, Guernsey Dell and Minnesota Avenues on the north and Valley Pike Street on the south. *(see map on back page)*. The boundaries may change depending on what the Phase 1 sampling data shows. The current area of concern includes about 130 residences.

EPA will use its emergency authority under federal law to perform and pay for the vapor sampling and mitigation work because the Agency determined the site presented "an imminent and substantial endangerment to public health, welfare or the environment." In EPA terms, the environmental work is called a "time-critical removal action."[1] A family of chemicals called "volatile organic compounds" or VOCs are especially prone to vapor intrusion. In this case, investigators are concerned about

Left: *A sub-slab probe is temporarily installed in a basement floor to test for harmful vapors that may be accumulating beneath the residence.* ***Right:*** *A probe on a Riverside street tests for chemical vapors in the soil gas. EPA wants to do more of these tests to protect residents in the Valley Pike area from vapor intrusion.*

[1] *EPA will conduct this time-critical removal action under the authority of Section 104(a)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA known as the Superfund law), 42 U.S. Code Part 9604(a)(1) and 40 Code of Federal Regulations Part 300.415.*

For more information

For questions, comments or more information about the Valley Pike VOC Site time-critical removal action you can contact these EPA team members:

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For general questions
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For more information, please visit the following website:
http://www.epa.gov/Region5/cleanup/valleypikevocsite/index.html

VOCs called tetrachloroethylene or PCE, and trichloroethylene or TCE, which were used as industrial solvents in the area. In a July 2013 sampling project, elevated concentrations of PCE and TCE were discovered in the groundwater and the soil gas beneath the Riverside neighborhood. Elevated PCE and TCE vapors were also discovered accumulating under the foundation in multiple residences in the neighborhood.

Sub-slab and crawl space sampling are performed to find vapor intrusion problems. In sub-slab testing, probes are temporarily installed in the house slab and attached to a test canister to sample VOC vapors trapped under the house. Crawl space sampling is completed by placing a test canister inside the crawl space.

Health risks

Several residences were sampled in the July 2013 sampling project. EPA found elevated concentrations of PCE and TCE in the groundwater underneath the neighborhood, in the soil gas and in the sub-slab air samples. Unsafe indoor air concentrations of PCE and TCE were also detected in residences. The drinking water, which comes from the City of Dayton's public water supply, is not impacted by these site conditions.

EPA is working with the Ohio Department of Health, Public Health – Dayton and Montgomery County and Ohio EPA on this project.

Access needed

EPA needs the signed permission from property owners and tenants (residential only) to do the vapor sampling in order to determine if vapor intrusion is occurring. If the structure is a rental property, both the owner and the tenant must sign the access agreement. Completion of the access form is required for either consent (which allows EPA to test) or denial.

What can be done?

If sub-slab or crawl space sampling shows chemical vapors exceeding the health standards (also known as action levels), with the owner's permission, EPA will design and install what is called a vapor abatement system (VAS). The VAS is very similar to a radon system. The VAS will include installation of a sub-slab or crawl space depressurization system, sealing cracks in walls and basement floors and will include proficiency air sampling to ensure the VAS is working properly.

EPA Project Office

An EPA project office has been established at 2049 Harshman Road. Residents are encouraged to visit the office to ask questions and to schedule a sampling appointment.

Below: *The Phase 1 preliminary boundaries of the Valley Pike VOC site are Hypathia Avenue on the east, Rohrer Boulevard on the west, Guernsey Dell and Minnesota Avenues on the north and Valley Pike Street on the south. The boundaries may change depending on what the Phase 1sampling data finds.*