United States
Environmental Protection
Agency

EPA Continues Investigation of Unsafe Fumes

Grand Rapids Vapor Intrusion Site

Grand Rapids, Michigan July 2016

U.S. Environmental Protection Agency officials are making progress in reducing the levels of harmful vapors at two evacuated buildings at 1168 Madison S.E. and 401 Hall S.E. EPA is also investigating other properties in the surrounding area, including homes, to find out if they are in danger of being exposed to the vapors coming off contaminated underground water.

The chemicals of concern are tetrachloroethylene, or PCE, and trichloroethylene, or TCE. They belong to a family of petroleum-based chemicals called volatile organic compounds, or VOCs. PCE and TCE can cause health issues such as headaches and dizziness, and long-term exposure may cause cancer.

Evacuated buildings

EPA installed a depressurization system in June in the two connected structures with confirmed indoor air pollution. The depressurization system is designed to lower vapor levels under and around the buildings by using fans and piping to capture the vapors underneath the buildings and around the foundations. The vapors are then safely dispersed into the air outside above the roof lines.

EPA contractors sealed the floors and walls of the basements in those buildings to keep the fumes out. The levels of PCE and TCE will be measured again, and the health department will determine if the results are safe enough for occupants to return.

A section of the vapor mitigation system that helps prevent harmful vapors from entering basements.

For more information

If you have questions, comments or need more information about EPA's cleanup, contact these EPA team members:

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On the Web

www.epa.gov/mi/grand-rapids-vapor-intrusion

EPA used its TAGA mobile lab to perform real-time air sampling at some homes. TAGA stands for Trace Atmospheric Gas Analyzers.

Neighborhood investigation

EPA's national vapor intrusion experts arrived in June to test for vapors on properties where owners granted access. A specially equipped EPA bus containing laboratory equipment and accompanied by chemists was in the area in late June to provide immediate testing results.

Some of those tests showed high levels of PCE and TCE. Agency officials are working with occupants to survey basement and first floor areas to determine PCE and TCE levels and evaluate cleanup options. One option is sealing holes and cracks in basements and foundations and installing venting systems. This will be done at no cost to residents.

Over half the properties in the investigation area have been tested for PCE and TCE. Owners of properties that have not been tested are encouraged to contact EPA. To request air sampling at a property in the target area, please contact Elizabeth Nightingale at 734-692-7665.

Drinking water

Homes in the surrounding area are all using safe municipal water. To date, Grand Rapids officials have not found any properties on well water in the area surrounding the former dry cleaner site.

Where did the fumes come from?

A former dry cleaner released hazardous chemicals, including VOCs, into the soil and underground water before it closed in 1995. The unsafe gases come from the contaminated soil and a contaminated mass of underground water called a plume that sits underneath the affected area. VOCs are prone to cause an environmental problem called vapor intrusion. The PCE and TCE in the soil and underground water plume released vapors that moved up through the ground and seeped into the properties through the two basements causing indoor air pollution.

The vapors caused evacuation of six residents and workers of two non-profit organizations at two physically connected buildings. Residents and businesses in a new building at 413 Hall S.E. are protected from fumes by a vapor barrier that was installed over the contaminated soil before the new structure was built on the site.

This is where EPA is investigating the harmful vapors.