



EPA Begins Emergency Response for Unsafe Fumes

Grand Rapids Vapor Intrusion Site

Grand Rapids, Michigan

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For more information

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

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U.S. Environmental Protection Agency officials plan to conduct extensive public outreach and investigation over the next four weeks in a Grand Rapids neighborhood as a precaution to ensure that fumes are not seeping into buildings. Responders will be fanning out through the neighborhood around a building at 413 Hall SE to communicate about the emergency project, obtain permission for property access and schedule sampling work. That address was the location of a former drycleaner that released hazardous chemicals into the soil and underground water before it closed in 1995. The target area around the former drycleaner contains 60 properties that EPA hopes to evaluate as a precaution.

EPA and Michigan Department of Environmental Quality responders are monitoring air and installing filtration and treatment systems at two Grand Rapids buildings next door to the former drycleaner as part of the emergency response to deal with hazardous indoor fumes. The unsafe gases come from contaminated soil and a contaminated mass of underground water called a plume that sits underneath the two buildings. Residents and businesses in a new building at 413 Hall SE are protected from fumes by a vapor barrier that was installed over the contaminated soil before the new structure was built on the site.

The vapors have caused the evacuation of six residents and workers of two non-profit organizations at two physically connected buildings at 1168 Madison SE and 401 Hall SE. Preliminary testing at two other nearby buildings showed indoor air was safe and no evacuation was needed. The chemicals of concern are called tetrachloroethylene, or PCE, and trichloroethylene, or TCE. They belong to a family of chemicals derived from petroleum 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.

VOCs are prone to an environmental problem called vapor intrusion. The PCE and TCE in the soil and plume released vapors that moved up through the ground and seeped into the properties through the two basements causing indoor air pollution.

In mid-May, the Michigan Department of Health and Human Services asked EPA for help with the vapor intrusion problem. Using the authority in federal law, EPA began what's called an emergency response to manage an imminent and substantial public health hazard.¹

¹Section 101 (14) of the Comprehensive Environmental Response, Compensation, and Liability Act, or CERCLA, better known as the Superfund law, allows EPA to respond to imminent health hazards using taxpayer funds. This authority is listed in 40 Code of Federal Regulations, or C.F.R., which you can view at <https://www.epa.gov/laws-regulations/regulations>.

EPA's national vapor intrusion experts will mobilize to the site the week of June 13 to sample for vapors at properties that have granted access. A specially equipped EPA bus containing laboratory equipment and accompanied by chemists will park in the area the week of June 20 to provide immediate testing results.

For properties where preliminary testing exceeds EPA health standards, Agency officials will work with occupants to survey basement and first floor areas to determine PCE and TCE levels. Cleanup options will be evaluated for any properties where indoor air pollution exceeds EPA action levels. Those options could include sealing holes and cracks in basements and foundations and installing venting systems. This will be done at no cost to residents.

Evacuated buildings

For the two connected structures with confirmed indoor air pollution, EPA responders are trying to lower vapor levels. Officials are looking at using foam or plastic sheeting to seal off the basements from the fumes. Four large negative air carbon filtration systems were also installed in the two basements. New indoor air sampling results expected in early June will determine if the filtration systems and extra ventilation are reducing PCE and TCE levels.

EPA experts are also working to evaluate and design a sub-slab depressurization system for the site to be installed in early June.

Drinking water

EPA is coordinating with the city to confirm everyone in the target area is using safe municipal water and not private wells that could be contaminated by the plume. To date, Grand Rapids officials have not found any properties on well water in the area surrounding the former drycleaner site.

Neighborhood outreach

EPA officials obtained contact information for owners of all 60 parcels in the target area and will be communicating with property owners and residents in the next two weeks. Officials need permission to enter properties and test for vapors. Sampling could involve drilling a small hole in basements or crawl spaces and inserting a tube to measure the amount of gas trapped in the soil. This is called sub-slab testing. A canister could also be placed on a table in the living area for a couple of days to sample indoor air. The canister would then be sent to the special bus or a laboratory for analysis.

EPA responders also want to schedule public meetings and work with community groups to inform residents about the emergency project.

Safety steps

Every day the cleanup and sampling work is being done there will be ongoing air monitoring in the neighborhood to ensure resident and worker safety. Weather will also be monitored.