



# FACT SHEET

EPA Region 4  
Resource Conservation and Recovery Act  
Corrective Action Program

Number 3

January 2016

## Environmental Study in Eastern Heights, Grenada, Mississippi

**PUBLIC MEETING\***  
January 26, 2016  
6 to 8 p.m.  
**GRENADA CITY HALL AUDITORIUM**  
17 N. Main Street, Grenada, MS

\* A Meet and Greet session with the agencies will be held from 2 to 4 p.m. for individuals who are not able to attend the public meeting.

### Background:

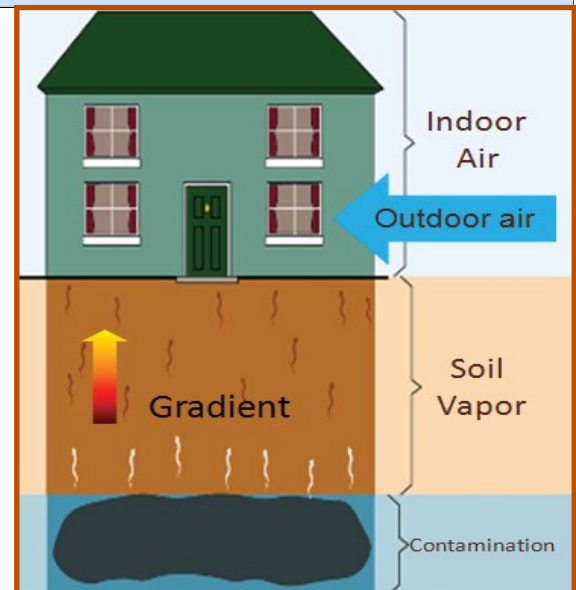
In September/October 2015, EPA oversaw sampling (on behalf of Grenada Manufacturing, LLC) of the indoor air, outdoor air, and groundwater in the Eastern Heights neighborhood in Grenada, Mississippi. Based on the sampling results thus far, **EPA has determined that there is no immediate concern for public health, but that additional investigations are needed.** The sampling done in the homes was necessary to evaluate whether contamination, primarily the solvent, TCE, may be entering structures in the form of a gas (or vapor) from contamination below ground (also referred to as “vapor intrusion;” see Figure 1) or from another source.

### Findings from the Environmental Study:

Six homes were part of the initial vapor intrusion investigation. Air samples were collected from the sub-slab (under the foundation of the homes; see photograph on Page 2) and indoors. The results from the sampling inside the homes detected TCE above screening levels but below levels that require a response action (see text box on page 2). However, since the results were above screening levels, additional sampling at these locations is warranted.

Outside air samples referred to as “ambient air” were also collected outside of the homes. The TCE concentrations detected in the ambient air also exceeded EPA screening levels but, at this time, are also below levels that require a response action. Because the ambient air sampling detected levels of TCE above screening levels, EPA is currently collecting more ambient air samples in the area to help determine any sources.

Groundwater samples were collected at 10 locations throughout the Eastern Heights neighborhood. The results showed TCE contamination in the groundwater at 15 to 50 feet below ground surface (generally within the southern part of the neighborhood). Additional groundwater sampling will be conducted to further identify the full extent of this contamination.



**Figure 1:** “Vapor intrusion” is the movement of chemicals in the soil or groundwater that become a gas easily and can travel into the indoor air of overlying buildings through joints, cracks in the foundation, around pipes, or through a sump or drain system. These chemicals include those called volatile organic compounds (VOCs), such as trichloroethylene (TCE), which is a contaminant at the Grenada Manufacturing, LLC site.

**Refer to Fact Sheet “What You Should Know About Vapor Intrusion” for more information.**

[http://www.epa.gov/region02/superfund/npl/dover/vapor\\_intrusion\\_eng\\_030807.pdf](http://www.epa.gov/region02/superfund/npl/dover/vapor_intrusion_eng_030807.pdf)

## What do these results mean?

The results from the initial air sampling indicate that TCE does not appear to be entering homes in the form of a gas from contaminated groundwater below the homes, however, additional vapor intrusion samples need to be collected to confirm this observation. Rather, the results suggest that there may be an unknown source that is releasing low levels of TCE into the ambient air, which is being detected within indoor air as well. The outdoor air (with low levels of TCE) may be coming inside the homes through infiltration (outdoor air flowing through openings, joints and cracks in walls) and natural ventilation (air moving through open windows and doors).

The groundwater sampling results show that there is contaminated groundwater in the southern portion of the Eastern Heights neighborhood. As a precautionary measure, EPA will be seeking access to more homes for inclusion in a second investigation to evaluate whether TCE may be entering those homes in the form of a gas from contamination below ground.

## Next Steps:

- **Additional Sampling in Homes:** EPA plans to conduct a second round of vapor intrusion sampling (sub-slab and indoor/ambient air) at the six homes that were initially tested. Additional homes in the southern part of the neighborhood will also be sampled.
- **Ambient Air Investigation:** Outdoor (ambient) air sampling in the neighborhood, at the nearby facility and in the surrounding area was initiated in mid-January to identify the source of the low levels of TCE in the outdoor air. Additional ambient air sampling may occur in the next few months.
- **Treatment/Cleanup Plan:** A strategy for controlling and treating the contaminated groundwater under the neighborhood is being developed, so that the groundwater near and under the neighborhood will be remediated.
- **Public Health Concerns:** Communicate with your physician about any health concerns you might have. If necessary, your physician can contact Leann Bing, Regional Representative for the Agency for Toxic Substances and Disease Registry (ATSDR) at 404-562-1784 or at [bing.leann@epa.gov](mailto:bing.leann@epa.gov). ATSDR representatives can provide your physician with specific information on TCE and will put them in touch with national health experts.
- **Public Meeting:** EPA, Mississippi Department of Environmental Quality (MDEQ) and the ATSDR plan to conduct a public meeting on **Tuesday, January 26th from 6 to 8 p.m.** to provide an update on the ongoing environmental study. A Meet and Greet session will be held from 2 to 4 p.m. to accommodate individuals who are not able to attend the evening public meeting. Representatives from the above-mentioned agencies will be available during the afternoon session to meet one-on-one and answer questions. No formal presentation will be given during the earlier Meet and Greet session. Both sessions will be held at the Grenada City Hall Auditorium.

## What is the difference between “Screening Levels” and “Action Levels?”

**Screening levels** are values used by EPA to help determine if a contaminant should be considered for further evaluation. A value above a screening level does not necessarily mean that there is an unacceptable risk or hazard from exposure to the contaminant. A sample result higher than a screening level does not imply that adverse health effects will occur.

**Action levels** are values used by EPA to help identify areas, contaminants, and conditions where an action may be necessary to protect public health and/or the environment. These actions can vary depending on the contaminant and the concentration. For TCE in indoor air, these actions could include interim steps to lessen exposure, such as sealing cracks in the foundation, indoor air monitoring, and use of air filtration devices, among other alternatives. A sample result higher than an action level does not imply that adverse health effects will occur.



**Above:** Sub-slab air sampling location within Eastern Heights Subdivision.

## Contact EPA Region 4 Representatives for more information:

**Keriema Newman**, 404-562-8859, 404-304-2490 (cell) or [newman.keriema@epa.gov](mailto:newman.keriema@epa.gov), **Outreach Coordinator**

**Brian Holtzclaw**, 404-562-8684, 404-821-0697 (cell) or [holtzclaw.brian@epa.gov](mailto:holtzclaw.brian@epa.gov), **Community Engagement Coordinator**

**Brian Bastek**, 404-562-8511 or [bastek.brian@epa.gov](mailto:bastek.brian@epa.gov),  
**Technical Project Manager**