

Former Tronox/Kerr-McGee Wood Treatment Facility Springfield, Missouri

Air Sampling Update and Further Investigations Fact Sheet: January 2019

Greenfield Environmental Multistate Trust LLC, Trustee of the Multistate Environmental Response Trust (Multistate Trust), in close coordination with the Missouri Department of Natural Resources (MoDNR), is managing environmental investigations and cleanup activities at and around the former Tronox/Kerr-McGee Wood Treatment Facility (the Facility) in Springfield, Missouri. The 67.7-acre Facility is located at 2800 W. High Street in northwest Springfield, Greene County.

This Fact Sheet provides an update to information in the May 2018 Fact Sheet. This Fact Sheet also describes the results of three kinds of air sampling that the Multistate Trust recently conducted: indoor air sampling of homes located above an area of contaminated groundwater near the Clifton Drainage Way; sewer air sampling; and outdoor air sampling in areas surrounding the Facility. This Fact Sheet also outlines some of the work being planned by the Multistate Trust in 2019.

What is Vapor Intrusion?

Certain chemicals can give off gases or vapors. Vapor intrusion (VI) refers to the movement of these gases from soil or groundwater contaminated with volatile chemicals into homes or other buildings around pipes or through joints, foundation cracks, sumps, or drainage systems. VI is similar to the way that naturally occurring radon gas can enter a home. **Figure 1** shows how VI can occur.

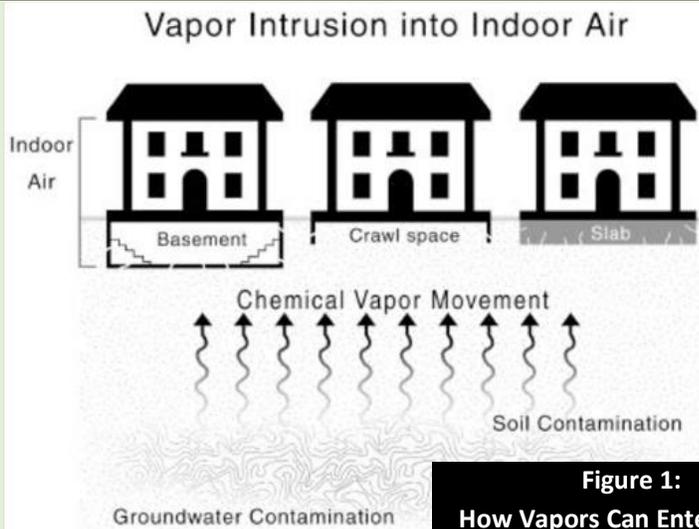


Figure 1:
How Vapors Can Enter Homes

What are Vapor Intrusion Health-Based Levels?

Health-based levels are conservative, independently established thresholds used to determine whether chemicals in air might pose a long-term risk to you. The Multistate Trust uses health-based levels to evaluate potential long-term risks from chemicals attributable to the Facility. These chemicals are benzene, toluene, ethylbenzene, xylene, and naphthalene (BTEXN).

Review of Recent Investigations

The Multistate Trust previously provided the public with the following important information:

- An area of shallow groundwater beneath both the Facility and the neighborhood northeast of the Facility (near the Clifton Drainage Way) is contaminated with chemicals previously used at the Facility.
- These chemicals have the potential to evaporate from the groundwater, and move as vapors through soil and utility conduits. The vapors can accumulate under, next to, or inside buildings. See ***What is Vapor Intrusion?***

The Multistate Trust sampled vapors in the soil (known as “soil-gas”) in the area. Based on the results, the Multistate Trust has sampled air in homes to determine whether vapor concentrations exceed health-based levels established by regulatory agencies. The Multistate Trust has also sampled outdoor air in an attempt to identify other potential sources of air contamination. See ***What are Vapor Intrusion Health-Based Levels?***

Results of Indoor Air Sampling (Vapor Intrusion Investigations)

The Multistate Trust collected indoor air samples in houses near the Clifton Drainage Way to evaluate whether vapors from contaminated groundwater are coming up from the ground into houses. Four (4) sets of samples were collected from several houses at different times of the year to evaluate possible seasonal variations in indoor air quality. The sample results indicate that vapor intrusion from contaminated groundwater is not the source of the BTEXN compounds that were detected above health-based levels in indoor air. Potential sources of the BTEXN compounds that were found in indoor air include outdoor air and chemicals associated with common household items like paint, cleaning chemicals and cigarette smoke. Because the information collected to date has not identified a source of vapors coming into houses from contaminated groundwater, no further indoor air sampling is planned at this time. We encourage residents with concerns or questions to contact us.

Results of Sewer Air Sampling and Investigations

The indoor air quality evaluation also included collecting air samples from sewer manholes between the Facility and N. Clifton Avenue to see if vapors in sewer air were affecting air in people's houses. The Multistate Trust sends treated groundwater to the sanitary sewer. Although the treated groundwater that goes to the sewer meets the permit requirements, vapors could move through the sewer pipes into houses. The manhole air samples detected BTEXN in the sewer manholes at elevated concentrations near the Facility. However, the BTEXN concentrations decreased significantly the farther from the Facility that samples were taken. The information collected from the sewers and the indoor air samples indicates that, under current conditions, vapors from the sewer gases were not contributing to indoor concentrations.

Results of Outdoor Air Sampling

Outdoor air samples were collected at the Facility and from surrounding areas in an attempt to identify the source of BTEXN detected in outdoor air during the Vapor Intrusion investigation. Sampling results of outdoor air at the Facility and around the treatment plant indicate that emissions from the treatment plant may be a contributing source of naphthalene and odors. The highest BTEXN concentrations that were detected at the Facility were measured in the treatment plant vent pipes. However, the naphthalene concentrations dropped off significantly within 100 feet of the treatment plant building. Other sample results collected from locations south of the treatment plant, when winds were coming from the south, indicate there may be sources that are not related to the Facility and that contribute to the outdoor air concentrations measured at the Facility and nearby neighborhoods.

Additional Sampling and Investigations Planned for 2019

As previously reported, subject to approved access, the Multistate Trust will investigate soils along the Clifton Drainage Way to determine whether Facility-related chemicals are above health-based levels. The samples will be analyzed by a qualified laboratory. The results of the sampling will be provided in a letter to the participants.

The Multistate Trust, under MoDNR oversight, will continue to work with the City of Springfield to evaluate sanitary sewer conditions. The Multistate Trust is also working with the Greene County Highway Department to evaluate whether contaminants from the Facility have affected the highway department maintenance facility next door.

Questions or Concerns

Protecting human health and the environment is our number one priority.

We encourage you to contact us with your questions and concerns.

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