



Public Health Assessment Summary from 2025 CTEH's Tontitown Air Sampling Study

(Investigation Period: May 2 to May 12, 2025) September 10, 2025

At the request of the Arkansas Department of Energy and Environment (E&E), the Arkansas Department of Health's (ADH) Environmental Epidemiology Section has evaluated air sampling and monitoring data collected in Tontitown by the Center for Toxicology and Environmental Health, LLC (CTEH), an environmental consultant firm. The Environmental Epidemiology Section has a state cooperative agreement program, ATSDR's Partnership to Promote Local Efforts to Reduce Environmental Exposure (APPLETREE), with the Agency for Toxic Substances and Disease Registry (ATSDR). Under this program, the ADH staff evaluates and responds to environmental public health concerns.

This public health assessment summary presents key findings from real-time air monitoring and 24-hour continuous fixed air sampling during the Tontitown air sampling study on May 2-12. The ADH is also preparing a more detailed report that will include risk assessment calculations, such as potential lifetime cancer risks.

For this summary, the ADH followed the ATSDR public health screening guidelines. The main steps include:

- **Initial Screening:** Check if the highest compound levels are above ATSDR or U.S. Environmental Protection Agency (EPA) Comparison Values.
- **Refined Screening:** Check if compound levels at the exposure point are above acute, intermediate, or chronic ATSDR/EPA values.
- **Toxicological Profile:** Use ATSDR documents to describe the health risks of a compound.

Key Findings:

The **24-hour consecutive air data** provide an average view of chemical levels over a typical day. Several compounds were found, but only one (acrylonitrile) was above federal health concern guidelines. The CTEH study classified acrylonitrile as "Contribution Not Likely from Landfill-Compound Levels Possibly from Another Emission Source(s)." A public health analysis of acrylonitrile will be included in the final report, which the ADH will share with E&E.

Real-Time Air Monitoring:

Real-time monitoring helped detect sudden spikes in compound levels. CTEH did not detect any spikes for the tested parameters.

Recommendations:

For public health protection, the ADH recommends:

- As the 2025 Air Sampling Study identified the contribution was not likely from the landfill, E&E should research potential acrylonitrile sources in this region, if resources are available.
- ADH should review cancer data in this region to see if there are unusual patterns (cancer clusters).
- Community members with health concerns or symptoms that may be linked to the environment should contact their doctor or healthcare provider.

Disclaimer:

The findings presented in this public health assessment summary are based on an analysis of the environmental, health outcome, and demographic data that were available to the assessors. This publication was made possible by a cooperative agreement [program # CDC-RFA-TS-23-0001] from the Agency for Toxic Substances and Disease Registry (ATSDR). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the ATSDR, or the U.S. Department of Health and Human Services.

Resources:

Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs for Acrylonitrile