

## Freedom Industries Mass Contamination of Charleston, West Virginia Drinking Water

Process Safety Incident of the Week by Christina Meyer

<https://www.csb.gov/csb-releases-final-report-into-2014-freedom-industries-mass-contamination-of-charleston-west-virginia-drinking-water-final-report-notes-shortcomings-in-communicating-risks-to-public-and-lack-of-chemical-tank-maintenance-requirements/>

Around 10,000 gallons of Crude Methylcyclohexanemethanol (MCHM) mixed with propylene glycol phenyl ethers (PPH Stripped) were released into the Elk River on the morning of January 9, 2014. This was caused when a 46,000-gallon storage tank located at the Freedom Industries site in Charleston, WV, failed. As the chemical entered the river it flowed towards West Virginia American Water's intake, which was located roughly 1.5 miles downstream from the site. Freedom Industries failed to inspect or repair corroding tanks. While the hazardous chemicals flowed into the Elk River, the water company and local authorities were unable to effectively communicate the imminent risks to abundant of affected residents, who were left without clean water for drinking, cooking and bathing.

Since the incident there have been numerous modifications including passage of the state's Aboveground Storage Tank Act. Among other requirements, the new protocols will require the tanks at freedom to be surrounded by an adequate secondary containment structure, and require proper maintenance and corrosion prevention, including internal inspections and a certification process to ensure mechanical integrity.

Other requirements created from this incident are that any above ground storage tank owner should be coordinating with the closest water utilities and emergency response organization to make sure that sufficient information is shared to them for efficient planning in case of an emergency or leak. Also state governments should act immediately to protect their waters and public from any unknown harmful chemicals.

