

Former Manufactured Gas Plants

What is a former manufactured gas plant (MGP)?

During the 1800s, towns and cities across the U.S. made their own fuel for electricity. The fuel was produced at a manufactured gas plant (MGP). This fuel was used to light the home, business and street lamps. To manufacture the fuel, coal and other ingredients were heated in large brick ovens. As the coal was heated, it produced a gas. The gas was filtered from the ovens and stored in tanks. The gas was then used as fuel throughout a community. By the early 1900s, Wisconsin had at least 70 MGP sites across the state.

MGP production declined as a network of natural gas pipelines was built across the country in the 1950s. As natural gas became widely available, MGPs closed. It was cheaper to use natural gas. Many MGPs were abandoned and eventually demolished. However, waste and contamination from MGPs still pose an environmental and public health concern.

Why be concerned about wastes from an MGP?

Manufacturing gas from coal generated a lot of waste. Typically, the coal waste was dumped in nearby ravines, ditches or used as fill for construction projects. Today much of the waste is found to be hazardous. The waste includes cyanides, metals, solvents and oily tars.

The oily tars are made of organic chemicals called polycyclic aromatic hydrocarbons (PAHs). PAHs commonly found at MGP wastes are may also cause cancer in humans.

Can an MGP site be a health hazard? Can it affect my drinking water?

Waste from the gas manufacturing processes can be found in soil, surface water, and ground water. Depending on the site, the contamination can be minimal or extensive. Most of the contamination is buried under soil and does not pose a direct health risk. However, if coal tar residues come in contact with skin, it can cause redness or a rash. In some people, the coal tar can cause a sunburn effect on skin. Eye irritation is another hazard if coal tar residues get in the eyes.

In cases where the contamination has spread into groundwater, exposure to drinking water contaminants can be a concern. Tests can be performed to determine if water quality is affected by a former MGP. Fortunately, drinking water contamination is not a common problem from MGP sites.

What is being done about old MGP sites?

In cooperation with local governments, the Wisconsin Department of Natural Resources (DNR) and the Department of Health Services (DHS) are working to address and clean up former MGP sites. Some former MGP sites are cleaned, others are in the process of being cleaned or have clean up planned.

Various methods are used to clean up a site. Some sites use a method that heats up the contaminated soil and allows quick removal of contaminants. This technology reduces the need for transportation and disposal of contaminated soil offsite, making the clean up more efficient and cost effective. Other methods use a series of extraction wells that pump the coal tars from the ground into holding tanks. The coal tars are then transported off the site. The coal tar is then either burned as fuel or dumped at an approved landfill.

What are the health concerns of cleaning up former MGP sites?

Cleaning up a MGP site may temporarily cause discomfort to a neighborhood. The clean up problems include odors, noise and the presence of heavy machinery. Odors are the most commonly reported nuisance. The odors that may occur can have either a gasoline or mothball-like smell. People with breathing difficulties, such as asthma, may be affected if the odors reach hazardous levels.

The contractors cleaning up a MGP site are trained to manage the site for safety. They also monitor and control vapors from reaching levels of health concern to nearby residents. Because workers are frequently close to the contamination, they sometimes wear special protective clothing and use protective equipment, including supplied air, during clean up work. DHS actively works with the site clean up team to ensure that odors and other discomforts minimally affect a community.

What actions can I take?

- Report any concerns, such as noise or odor complaints directly to the site clean up contractors or DNR staff.
- If you live near a former MGP and have a well, consider testing the water. The water test should look for volatile organic chemicals (VOCs) and chlorinated solvents.
- Attend public meetings related to the MGP site in order to get information. Ask questions at the meeting directly to DNR, contractors, or health department staff.

For more information

- Contact your local DNR office or the Division of Public Health at (608) 266-5817.
- For Internet resources, including contacting the DNR or your local public health agency, go to: www.dhs.state.wi.us/eh/index.htm

