

Ameren's Former Manufactured Gas Plant at 5th & Hill Streets in Champaign, Illinois

About the Ameren IP site at 5th & Hill Streets

The 3.5 acre lot at the corner of 5th Street and Hill Street in Champaign is the site of a former manufactured gas plant (FMGP) that operated from 1869 to 1955. Gas, used for heating and cooking, was produced through a process that involved heating coal and reacting it with steam. The gas was then purified, which removed coal tar and other by-products from the mixture before it was ready to be stored on-site in large tanks called gasometers. **The coal tar was also stored on site in tar wells before it was sold off to other industries or dumped into local waterways and ditches.** The site was entered into the Illinois Environmental Protection Agency's (IL EPA) Site Remediation Program, a program that works with polluters to clean-up toxic waste sites, in 1989.

By-products of the manufactured gas plant are toxic

After the by-products were siphoned off, they were stored in pits called tar wells. **Coal tar contains a variety of very harmful chemicals.** Volatile Organic Compounds (VOCs) are chemicals that can transform into vapor when they come in contact with small amounts of air. These chemicals include: Benzene, Ethylbenzene, Tolunene and Xylenes.

In addition to VOCs, coal tar contains chemicals called Polycyclic Aromatic Hydrocarbons (PAHs). These chemicals are strong pollutants that occur in oil, coal and tar and are produced by burning fuel. Some PAHs have been identified as carcinogenic (cancer causing). These include Naphthalene, Benzo(a)pyrene, and Fluorene.

Heavy metals are also present in many of the processes associated with Manufactured Gas Plants. Heavy metals, also known as toxic metals, are elements that exhibit metal-like properties. These include Lead, Mercury and Chromium.

Toxic Chemicals have been found at the 5th & Hill site and neighborhood

Decades worth of testing from Ameren and Illinois Power (Ameren bought Illinois Power back in the early 2000s) have shown that VOCs, PAHs and heavy metals have been found in the soil and groundwater both on-site and off-site into residential properties. The contamination has been found at extremely high levels off-site which indicates that these chemicals have spread through the soil or have been dumped in properties outside of the fenced-in boundary surrounding the site.

In addition to the testing that was conducted by Ameren, two environmental consulting firms working on behalf of the residents of the 5th & Hill Neighborhood conducted initial testing to determine whether or not chemicals associated with Ameren's former manufactured gas plant were getting into the homes of residents. **The consultants sampled inside six homes and found toxic chemical vapor in all six homes.** Future testing is needed to determine not only how far the chemicals are spreading from the site but also how many homes are affected by the presence of toxic vapor.

Is the site and neighborhood going to be cleaned up?

Yes and no. Some of the contamination will be removed. Sadly, a large amount of contamination will be left in place. There are two levels of clean up that can take place for both on-site and off-site properties: a) industrial, or b) residential. The standards for the two are different, with residential being the more extensive and expensive. The level of clean up will depend on how the property is being used or will be used in the future – whether the property will be used for residential purposes or not. The clean up process is very complicated and potentially dangerous. It is very important to ensure that the clean up is done in a way that protects residents and the community from exposure

to toxic vapors, gases, dust, and any other exposure to toxins that are released during the clean up process.

On-Site:

The clean-up of the fenced-in Ameren property began in the early 1997s with what was called an Interim Site Remediation. This involved demolishing any remaining above ground structures and digging up and removing some of the below ground tanks and pipes left over during the manufactured gas plant's years of operation. After these structures were removed, three feet of clean top soil was placed over the contaminated soil and the site sat untouched for 10 years.

It wasn't until after the 5th & Hill Neighborhood Rights Campaign began to raise concerns about the presence of the highly toxic waste site in the middle of the 5th & Hill neighborhood that Ameren and the IL EPA began preparations to address the rest of the contamination that was left in place after the Interim Site Remediation was complete.

Currently, only on-site soil will be cleaned by removing the contaminated soil down to about 27 feet and replacing it with clean soil. Ameren is in the process of cleaning up the site through the use of a vapor tent. This large white structure is designed to keep toxic dust and vapor from escaping into the neighborhood by continually pumping out and filtering the air inside the tent. The tent will be moved around the property nine times before the clean-up is complete. After a section of soil is excavated, chemicals are injected into the bottom of the pit that are designed to neutralize the remaining contamination that could not be excavated. This process is called "in situ-chemical oxidation." After that, gravel is put on top of the chemicals and the remainder of the pit is filled with clean soil. The clean-up is far behind schedule but is scheduled to be complete in late 2011.

Off-Site:

Ameren and the IL EPA currently have no plans to address the contamination that has been found off-site. Contamination that is found on residential properties will be individually entered into the site remediation program. At this point the level of clean-up that is to take place will be determined through a negotiation process between the property owner and Ameren. **The property owner has the right to demand as thorough a clean-up as possible.** If negotiations between the property owner and Ameren come to a stalemate, the IL EPA will then get involved to make an official determination on how the property should be cleaned and then oversee its completion.

Contaminated Groundwater:

The IL EPA is allowing Ameren to not clean up any of the contaminated groundwater that is found throughout the 5th & Hill Neighborhood. The groundwater is contaminated with chemicals that exceed safety limits set by the IL EPA. Even though the groundwater is extensively contaminated and has been found in residential areas, the IL EPA is letting Ameren use the presence of a City of Champaign ordinance called a groundwater prohibition ordinance to not clean up any of the contaminated groundwater. This ordinance makes it illegal to have private drinking wells on your property because the City of Champaign provides water through a municipal water source. Ameren believes that since nobody is drinking the groundwater that it is safe to leave all of the contaminated groundwater in place. Even though nobody uses groundwater for drinking purposes, residents can still be exposed to contaminated groundwater in other ways.

As mentioned before, Volatile Organic Compounds (VOCs), by nature, can vaporize and become a part of the air we breathe. **If contaminated groundwater is found beneath a home or business, the VOCs found in the contaminated groundwater can vaporize and enter the structure through cracks in the foundation and even through a sump pump.** This process is called vapor intrusion and it is a recognized pathway by the United States Environmental Protection Agency through which exposure to toxic chemicals can occur. In addition to being exposed to toxic chemicals from groundwater through vapor intrusion, contaminated groundwater can also enter

homes through flooding. Basement flooding is a chronic problem throughout the 5th & Hill Neighborhood due to poor infrastructure and drainage. According to City of Champaign Engineers, a large portion of the water that enters basements when they flood is groundwater. If your home sits on top of contaminated groundwater, then when your basement floods, it is likely that it is flooding with contaminated groundwater. Not only does that increase the chance that toxic vapors enter your home but also, if you come in contact with this contaminated groundwater, then chemicals contained in the groundwater could be absorbed through your skin.

These pathways of exposure, touching the contaminated groundwater or breathing the toxic vapors that come from the contaminated groundwater, are being outright ignored by Ameren and the IL EPA. The City of Champaign ordinance that allows Ameren to leave the contaminated groundwater in place was enacted in 2007 to be used by Ameren as an institutional control. Institutional controls are legal mechanisms used by polluters to remediate toxic sites. Where normal remediation, like excavation or chemical treatments, prevents people from being exposed to toxic contamination by removing it from the environment, institutional controls restrict human behavior to prevent exposure without physically removing any of the contamination.

Based on the testing from our consultants vapor intrusion is likely occurring, potentially exposing residents to toxic vapors, but as long as the City of Champaign has their groundwater prohibition ordinance on the books, Ameren is allowed to leave the contaminated groundwater in place.

The clean up plan that was proposed by Ameren and approved by the IL EPA falls short of providing a thorough and adequate clean up. While work is being done to remove contamination from the on-site areas that are owned by Ameren, the 5th & Hill Neighborhood Rights Campaign believes that much more could be done to ensure that the health and safety of the residents of the 5th & Hill neighborhood is protected.

Do residents of the neighborhood and community members need to be concerned?

Yes. During the three years that the 5th & Hill Neighborhood Rights Campaign has worked to protect the rights of residents in the 5th & Hill Neighborhood, the campaign has identified numerous concerns about how this site is being addressed.

Boundaries of Contamination - Ameren and the IL EPA have conducted over 10 years of testing on and off-site to determine the extent of the contamination. However, the locations of the tests have only gone as far as across the street from the site and barely touch residential areas where the biggest threat of human exposure is present. Additionally, the outer boundaries of contamination show wells that test positive for chemicals that exceed the IL EPA's limits for safe exposure. If contamination has been found on the outer perimeter of the testing boundary then it is likely that contamination exists further beyond that boundary. Think of it this way, if you were looking for gold and found it in a specific area, you would move out in all directions from that point until you didn't find anymore gold. Ameren and the IL EPA found contamination at a specific point but stopped looking for it before the tests came back negative showing that the contamination wasn't present in that area. The 5th & Hill Neighborhood Rights campaign demands that the IL EPA force Ameren to investigate the full extent of contamination by expanding their testing boundary further into the neighborhood.

Groundwater - The fact that Ameren is allowed to leave all of the groundwater contamination in place is the environmental equivalent of a ticking time bomb. Ameren must be made to address the groundwater contamination given that exposure to the toxins in the groundwater is likely occurring through residential flooding and vapor intrusion. The 5th & Hill Neighborhood Rights Campaign demands that the City of Champaign repeal their groundwater prohibition ordinance that allows Ameren to leave the contaminated groundwater in place.

Boneyard Creek - Historical research conducted by environmental consultants, hired to investigate the claims made by Ameren and the IL EPA about the toxic site, discovered that at one point the plant installed an 8-inch diameter pipe that ran from the northwest corner of the property all the way to Boneyard Creek. The purpose of this pipe was to carry coal tar waste from the property to be disposed of by dumping the waste directly into Boneyard Creek. The contamination was likely carried downstream, polluting areas of Champaign and Urbana and likely flowed into larger waterways. The 5th & Hill Neighborhood Rights Campaign demands that the IL EPA force Ameren to investigate the presence of this pipe and conduct a full suite of testing to determine the contamination of Boneyard Creek.

Lack of Communication - Many residents of the 5th & Hill Neighborhood have lived in the neighborhood for most of their lives and the investigation of the site by Illinois Power, later Ameren has been on-going for more than 30 years. Residents were never properly informed about the presence of a toxic waste site in their neighborhood and the potential health affects associated with the contamination seeping onto their properties. The 5th & Hill Neighborhood Rights Campaign demands that the IL EPA and Ameren engage in proper communication with residents and include them in all aspects associated with the remediation and future use of the Ameren-owned toxic waste site after the clean-up is finished.

These concerns have been communicated to the IL EPA and Ameren and have largely gone unheard. The 5th & Hill Neighborhood Rights Campaign is committed to ensuring that these concerns are addressed and that a full clean-up of the Ameren toxic waste site occurs.

What is the 5th & Hill Neighborhood Rights Campaign?

Local organizations and residents have joined together to work on this effort and have created the 5th & Hill Neighborhood Rights Campaign. The Campaign is organized by Champaign County Health Care Consumers (CCHCC) in collaboration with neighborhood residents.

The 5th & Hill Neighborhood Rights Campaign is dedicated to protecting the health of the neighborhood and the rights of the community in relation to the toxic site owned by Ameren, located at 5th and Hill Streets in Champaign.

The goals of the 5th & Hill Neighborhood Rights Campaign are:

- To learn the extent and type of toxicity resulting from the Ameren former Manufactured Gas Plant (FMGP), including the contamination in residential areas;
- To assess the health effects on residents and former residents of any exposure to toxins associated with the Ameren site;
- To ensure the rights and protect the health of any resident or former resident affected by exposure to toxins associated with the Ameren site;
- To assess and have appropriate input into the Site Remediation Plan for the 5th & Hill neighborhood, including remediation for residences and neighborhood areas;
- To ensure neighborhood and community input into future development plans for the site and neighborhood at 5th & Hill.

How can I get involved in the 5th & Hill Neighborhood Rights Campaign?

This campaign is very much a David and Goliath struggle. And only through the involvement and support of the community can we achieve our goals.

For more information, or to get involved please contact Champaign County Health Care Consumers at (217) 352-6533 or cchcc@healthcareconsumers.org