



State of Illinois

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## Fact Sheet # 3

# Sauk Village Water Supply Contamination Issue

Cook County, Illinois

August 8, 2012 Update

## Background

Since 2009, there have been detections of vinyl chloride in the Sauk Village water wells providing water for the community drinking water supply. Vinyl chloride is a man-made chemical that is found in groundwater from break-down products of solvent-type chemicals. When vinyl chloride is detected, it can indicate spills or releases that occurred 25 years or more in the past. The water supply wells and the finished water that is provided to residents is being sampled and analyzed by the Illinois EPA staff on a weekly basis to make sure that water provided to the community is safe to drink.

Residents were notified by Sauk Village on July 23, 2012 that vinyl chloride has been found in the finished water that enters the distribution system at a level greater than one part per billion (ppb). This notification level, which is one-half the federal Safe Drinking Water standard, is the new “early warning” prevention standard enacted by the State of Illinois. This notification level does not indicate that the water is unsafe to drink. At this lower level, steps must be taken by Sauk Village to reduce the concentration of the vinyl chloride to ensure that the water is safe to drink. Illinois EPA and the Illinois Office of the Attorney General are pursuing legal enforcement against Sauk Village to correct community water quality problems and provide bottled water to residents and businesses who want it.

### What is Illinois EPA currently doing to correct the chemical contamination in the Sauk Village wells and water system?

Illinois EPA contracted for two treatment units, called air strippers, to be installed and connected to the Village’s water system at well #2. The work began on July 23. Major components of the treatment units were brought on site Tuesday, July 31, and connections to the Sauk Village water system occurred over the next few days. The contractors had already made modifications to existing plumbing within the Village’s water system and a connection to a storage pond. The treatment is capable of removing 99.8 percent of the vinyl chloride. At this time, the water from well #2 is being treated, and treatment will soon be applied to well #1.

### How does an air stripper work?

The air-stripping equipment pumps the water through a tower that allows the water with the vinyl chloride contamination to make contact with the air. Since vinyl chloride is the type of chemical that volatilizes easily into the air, it is effectively “stripped” out of the water. For an easy-to-read brochure on air stripping, please go to:

<http://www.epa.gov/tio/download/citizens/airstripping.pdf>

### When will the temporary treatment units be fully operational?

Testing was performed after the treatment units were connected to the water supply to make sure that the water is bacteria-free. The units were fully operational and removing vinyl chloride concentrations on



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August 8, 2012

Saturday, August 4.

Additional sampling for vinyl chloride contamination will occur each week. When the concentrations of vinyl chloride are less than what can be detected by normal methods, the Village will be allowed to discontinue distribution of bottled water.

Two additional treatment units are scheduled to arrive and be connected to the water source at well #1 on August 10. After similar bacteria sampling, these two units will be up and running by the week of August 12<sup>th</sup>. After that, the treatment efficiency should be optimal for reduction of the vinyl chloride to below detection.

**Will Sauk Village install a permanent treatment system for the water supply?**

An order was filed by the Office of the Illinois Attorney General on July 27, 2012 that requires Sauk Village, by August 21, 2012, to either have its own temporary air stripping units operational or assume the costs involved in operating the temporary system contracted by the Illinois EPA. Then, the village can pursue a loan from Illinois EPA to construct a permanent solution to the contamination issue.

**Is Illinois EPA monitoring the water from the Sauk Village water supply?**

Yes, Illinois EPA is sampling both the well water and the finished water on a weekly basis to make sure the water is safe to consume and is requiring that the Village make bottled water available to those who want it. Recent sampling results show that the contamination level in the finished water that enters the distribution system is near Illinois' prevention standard of one part per billion (ppb), but below the federal drinking water standard of two ppb. Water samples will also be taken after the treatment system to ensure that vinyl chloride is being reduced by the treatment. Illinois EPA will make an announcement through a news release as soon as the treatment units have achieved significant reduction of vinyl chloride levels.

**What health effects can result from consuming vinyl chloride in drinking water?**

Exposure to low levels of vinyl chloride over many years may lead to impaired immune system function; kidney or liver damage; and may increase the risk of liver cancer.

**Will the water supply for area schools be at risk from the vinyl chloride contamination?**

Some of the area schools may use Sauk Village's water supply. By the time children will be going back to classes, however, the treatment system should be effectively removing vinyl chloride to well below levels that would pose any health risk.

**Where is the contamination coming from?**

The Illinois EPA does not know the source or sources of vinyl chloride contamination. Historical records and photographs have been reviewed to determine where potential sources may have existed in the past. Additionally, interviews are being conducted with long-time locals about former businesses and waste disposal activities in the area.

The next step: Illinois EPA will take equipment to Sauk Village the second or third week of August to install seven wells to determine water levels and establish groundwater flow direction. This will aid in determining the next steps of the investigation, potentially soil or

groundwater sampling.

**Who to contact for more information:**

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- Earlier fact sheets regarding this groundwater contamination in Sauk Village can be found at: <http://www.epa.state.il.us/water/drinking-water-watch/pws-well-contamination/index.html>
- A fact sheet on vinyl chloride by the Agency for Toxic Substances and Disease Registry - ToxFAQs about Vinyl Chloride: <http://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=281&tid=51>
- Illinois Department of Public Health's Fact Sheet about Vinyl Chloride in Groundwater: <http://www.idph.state.il.us/envhealth/factsheets/vinyl-chloride.htm>

**You may view water sampling results for the Sauk Village community water supply on the Illinois EPA web site at <http://www.epa.state.il.us/> For detailed steps, please refer to the Sauk Village Fact Sheet #2.**