



ALGOMA UTILITIES CROSS CONNECTION AND DRINKING WATER SAFETY

JUNE 2016

Every day, Algoma Utilities proudly supplies its citizens and businesses with high quality drinking water. Before it is delivered to your home or business, it goes through careful treatment and numerous tests to ensure its quality. Providing and maintaining this safe water supply is a priority of the Algoma Utilities and the Wisconsin Department of Natural Resources (DNR). While your drinking water is safe, it is possible for contaminants to be introduced into the distribution system when water is being transported to consumers. How is this possible? This is possible due to unprotected cross connections. One of the many things that Algoma Utilities does to help ensure your water safety is to conduct cross connection surveys.

Like many other local utilities, Algoma Utilities has contracted with HydroCorp Inc. of New Berlin, Wisconsin to assist in managing its cross connection program. HydroCorp is an environmental firm that specializes in backflow prevention and cross connection control. They currently manage cross connection programs for over 150 water utilities in Wisconsin and Michigan. HydroCorp will perform inspections throughout the City to detect actual and/or potential cross connections and make recommendations for the installation of backflow prevention devices/assemblies where necessary. This will help ensure that contaminated or polluted water cannot backflow into your safe drinking water.

What is a cross connection? Cross connections are defined as actual or potential connections between a drinking water pipe and another source, where it is possible for a contaminant to enter the drinking water supply. This connection, if not properly protected, can lead to the contamination of the drinking water system through a **backflow** event. For example, a hose that is submerged in a pool, carwash bucket, bathtub or laundry bucket, or a pesticide sprayer connected to a garden hose, creates a cross connection. Cross connections are generally unintentional and can happen anywhere there is a water supply. Other common cross connections include laundry sinks, hot water boiler systems, dishwashers, toilets and water softeners.



What is backflow? Water flows normally in one direction, from the public water system through your home or business plumbing system to a faucet or other plumbing fixture. Under certain conditions, water can flow in the reverse direction. This is known as backflow. If pressure drops in a water supply system, there is a potential for unsafe substances to be siphoned, or backflow, into your safe drinking water supply. Examples of how pressure can drop in a water supply system may be due to a water main break, or the high demand on a water main while fighting a fire. If there is a cross connection between the customers' supply system and the public water system, and there are contaminants in a buildings' water supply system, the contaminated water in the building has a path to the water main. The possible sources of contamination are unlimited.

What are the most common examples of backflow? One of the most common causes of backflow occurs on threaded faucets.

- A cross connection occurs when a hose is attached to a faucet. If that hose is submerged in a sink that contains toxic liquid, without proper cross connection protection on the faucet, backflow could occur. This creates a hazardous situation because the backflow of this toxic liquid into the water supply system could create a health threatening condition.
- Another example is when a hose, attached to a faucet, was used to apply fertilizer and that hose is lying on the ground. Without proper backflow protection, the chemical applied to the lawn could backflow through the garden hose, into indoor plumbing, and potentially into the public water distribution system.
- Another common cause of backflow occurs when the incorrect type of toilet tank ballcock assembly is used. In this case, water can be drawn out of the toilet tank back into a homes' water supply and potentially enter the water distribution system.



What is the utility doing to prevent cross connections? Algoma Utilities, as directed by the DNR, and as required by state and federal law, has a Cross Connection Control Program in place. This program is designed to safeguard your public water system. A city ordinance has also been adopted, giving the utilities authority to conduct reviews of all properties served by the public water system.

What can be done to prevent cross connections from occurring? Backflow preventers protect against back siphonage, to help reduce risk and protect our community. This device prevents water from moving backwards into the water system. There are several types of backflow preventers available. The example to the left is a small device, called a hose bib vacuum breaker, which is designed for indoor use. An anti-frost hose bib vacuum breaker is another type of vacuum breaker designed for outdoor use. Both of these devices are relatively inexpensive and can be easily attached to the end of a faucet. Once you install the vacuum breaker to the end of your faucet, water will not be allowed to backflow into your internal plumbing or the Algoma Utilities' public water system.



Will my home be checked? Yes. All properties served by Algoma Utilities' public water system will be reviewed. Homes require cross connection review a minimum of every 10 years, while other customer classes may require more frequent reviews. You will be contacted via letter to schedule a survey. The cross connection survey is conducted at **no cost to Algoma Utilities' customers**. An adult must be present to conduct the survey with HydroCorp. Although there is no cost for the survey, minor plumbing repairs may be needed. Each residential survey takes approximately 1/2 hour to complete. Properties that have well water only and have no municipal water supply connection will not require an inspection.

What will the Utility look for? The person conducting the survey will look for proper backflow protection. Items observed include, but are not limited to, utility sinks, inside and outside hose connections, water softeners and hot water boiler systems.

How will I know what is found? When the cross connection survey is being performed, the surveyor will conduct a walk-through of your property. Upon completion of an initial or compliance inspection, if no cross connections exist, or if all existing or potential cross connections have been addressed, a compliance tag will be placed at the water meter. If you are non-compliant at the time of survey, the inspector will discuss any unresolved items with you. A notice of non-compliance will be sent to you, which will include a list of requirements.



Where can I purchase parts? Vacuum breakers will be available at the time of your cross connection survey. You can also purchase parts at local plumbers or local hardware stores. We encourage you to purchase them at the time of survey to ensure the proper device is obtained. Property owners can easily attach the vacuum breaker to a threaded faucet. If you choose to purchase vacuum breaker(s) at the time of survey, the cost plus applicable sales tax will be added to your utility bill.

How soon must corrections be completed? Once the cross connection review is completed, customers are allowed 30 days to complete any necessary corrections. If corrections cannot be completed within 30 days, you may contact Algoma Utilities at 920-487-5556 to request an extension.



Now that I have completed the corrections, what should I do? Once corrections are completed, please contact HydroCorp at 1-800-315-4305 to schedule a resurvey. The resurvey will be completed at a later date, at which time all corrections will be reviewed. After all existing or potential cross connections have been corrected, a compliance tag will be placed at the water meter.

What happens if a customer refuses to make necessary corrections or refuses to allow completion of the cross connection survey? Algoma City ordinance 13.06 authorizes the Algoma Utilities to disconnect water service. However, this is always a last resort after all other efforts have been exhausted.

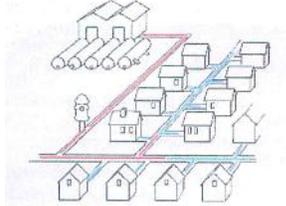


Backflow prevention and cross connection are subjects that affect everyone. Preventing backflow is extremely important to safeguard your safe water supply. Cross connections are a serious threat to the health and safety of all water users. Cross connection control is a long term investment, which requires a cooperative effort between Algoma Utilities, property owners and businesses. You cannot be too careful when it comes to your family's health. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future! Algoma Utilities greatly appreciates your help in keeping our water supply safe!



Algoma Utilities conducts frequent testing of its water to ensure federal and state drinking water safety standards are met. Algoma Utilities' Annual Water Quality Report, also known as the Consumer Confidence Report, is available on our web site. This may be found under Customer Services/Water Service/Consumer Confidence Report.

For additional information on Algoma Utilities' Cross Connection Program, please call us at 920- 487-5556. Our customer service staff looks forward to assisting you with any questions you may have. Office hours are Monday through Thursday 7:00 AM to 4:30 PM, and Friday 7:00 AM to 11:00 AM.



We are all connected...Protect before you connect!

**Maintain the integrity of
your drinking water system!**

ALGOMA UTILITIES

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