Cross Connection Control Program

The Beatrice Water Department has been delivering safe, clean, high quality water to the citizens of Beatrice for nearly 125 years.

With your help, we will continue this tradition far into the future.

To help protect the health of our fellow citizens, the Beatrice Water Department has adopted a Cross Connection Control Program.

The Beatrice Water Department has been a leader in cross-connection control in Nebraska. Beatrice's system was requiring high hazard locations install backflow prevention devices before the State of Nebraska had regulations.

When the State of Nebraska adopted cross-connection regulations, our system was already in compliance. The Nebraska Department of Health does require each water system in the state to have such a program. This brochure is intended to help educate our customers on the potential for cross connections in our system.

With the cooperation of our customers, building inspectors, and water department employees, we can ensure safe water for us all.

Cross-Connection Control Survey

Related Questions

What are cross-connections?

Technically, a cross-connection is defined as an actual or potential connection between a public water supply and a source of possible contamination or pollution. The water pipes and fixtures in a home or business can be the link that lets contamination into the system. They may allow chemicals, poisons and bacteria into the water that you drink. When water is not flowing in the intended direction in the pipe, it is called a backflow. Unlike most water systems, the Beatrice Water Department provides free annual testing on all backflow devices in our system.

What causes a backflow?

Heavy usage, using a f1re hydrant to battle a fire in the area, or a broken water main can cause a sudden drop in pressure in the pipe. When this happens, water in your plumbing can literally be sucked out of your home's pipes. It can even occur when you shut off your water for repairs, and open a faucet on a lower floor to drain the system. Even though Beatrice has a very reliable water distribution system, these pressure drops could happen at any time, often without warning.

How do contaminants get int he water?

Have you ever filled a bucket with a garden hose and stuck the hose in the water so it wouldn't splash? Have you ever seen an underground sprinkler head sitting in a puddle of water? When you flush the toilet, does the water to refill the tank come in below the water level? All of these are examples of potential cross connections. Each of these circumstances could allow contaminated water into the plumbing.

Is it really a problem?

In 2002, the United States Environmental Protection Agency (EPA) funded a study to find out. The Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California was chosen to conduct this study. The study was conducted on 188 homes at a water system in Iowa. They found that **95.7%** of the homes had actual or potential cross connections. Of these, **9.6%** of the homes had a **direct connection between their water pipes and a health hazard.**

www.usc.edu/dept/fccchr/epa/hhcc.report.odf

What can you do?

The best defense we have against backflow situations is our customers. We hope that by making all of you aware of the possible cross connections in your plumbing, you will do what you can to avoid them.
You can also help our Water Department recognize potential problems by completing and returning the Cross Connection Control Survey which is sent to all homeowners every five years.
Every day you are probably using a cross connection control method, and you don't even know it. Take a look at your kitchen or bathroom faucet. Is the spout where the water comes out

above the outside rim of the sink? If so, this is a method of preventing cross connections called an air gap. If the drain became plugged, the water would over flow the sink before it reached the faucet. If it's not above the rim, this is a potential cross connection!

Is there anything else that can be done to avoid backflow?

Many residential potential cross connections can be avoided by installing hose bib vacuum breakers (HBVB) on all outside faucets. You just screw the device on the faucet and then screw your hose to it. These devices prevent water from being siphoned back into the household plumbing. They are inexpensive, and can be purchased from your plumber.
More dangerous contaminants such as those found in commercial or industrial settings require other devices. These devices include Double Check Valve Assemblies (DCVA), and Reduced Pressure Zone Assemblies (RPZA). They work by having valves that are held open by normal water pressure, but if the pressure falls, the valve closes.
In addition, the RPZA's have a secondary valve which is normally held closed by water pressure, that opens and drains any water that may leak by the check valve.

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