

CROSS CONNECTION AND BACKFLOW PREVENTION

According to the Wilkesburg-Penn Joint Water Authority's rules and regulations, all commercial properties are required to take steps to prevent cross connection and backflow to the public water system. This includes the installation of an approved backflow prevention device and having it tested annually.

Failure to comply can result in termination of water service.

What is cross connection and backflow?

Cross connection is any actual or physical connection between a potable (drinkable) water supply and any source of non-potable liquid, solid or gas that could contaminate drinking water under certain circumstances.

Backflow is the reverse flow of water or other substances through a cross connection into the treated drinking water distribution system. There are two types of backflow **backpressure** and **back-siphonage**.

Backpressure – when the pressure of the contaminant source exceeds the positive pressure in the water distribution main. An example would be when a drinking water supply main has a connection to a hot water boiler system that is not protected by an approved and functioning backflow preventer. If pressure in the boiler system increases to where it exceeds the pressure in the water distribution system, backflow from the boiler to the drinking water supply system may occur.

Back-siphonage – this is caused by a negative pressure in the water distribution system. This situation is similar in effect to the sipping of water through a straw. Negative pressure in the drinking water distribution system can happen because of a water main break or when a fire hydrant is used for fighting fires.

How to prevent backflow contamination

All commercial properties are required to have an approved and functioning backflow-preventer installed. Installation and testing of backflow preventers must be completed by someone certified in the installation and testing of backflow preventers. The cost of the device and installation is the responsibility of the customer. We recommend that customers obtain cost estimates for installation. In addition to the installation of the backflow devices, all devices are required to be tested on an annual basis starting with the first test upon installation.

Implementation of program

Title 25 – Environmental Protection, Chapter 109, Safe Drinking Water Act, Section 109.709b, Allegheny County Health Department plumbing codes and the Wilkesburg-Penn Joint Water Authority backflow prevention cross connection control program.

Types of Backflow Prevention Devices

The type of devices depends on what the degree of hazard is present at your location. A reduced pressure zone assembly (RPZ) should be installed at high hazard properties; a double check valve

assembly or a double detector check valve (DCVA/DDCVA) should be installed in lower hazard properties. To schedule a survey to find out what type of device may be required at your property please contact any of the following people Monday through Friday between 8:00 a.m. and 4:30 p.m. at 412-243-6200:

Donna May Ext. 3482

John Baurle Ext. 6180

John Gray Ext. 6298

Options to returning completed backflow prevention test form

Mail to: The Wilkinsburg-Penn Joint Water Authority

2200 Robinson Boulevard

Pittsburgh, PA 15129

Fax: 412-243-6210

e-mail: dmay@wpjwa.com

[Link to test form](#)