

About the Cross-Connection Control Program

Liberty delivers high-quality drinking water to homes and businesses. The Cross-Connection Control Program safeguards the drinking water distribution system and helps prevent contamination of the drinking water.

The goal of this program is to:

- Inform industrial, commercial, and institutional property owners about the Cross-Connection Control Program.
- Identify cross-connections where potential contamination of drinking water may occur and mandate that a suitable backflow prevention device is installed.
- Comply with testing requirements on a yearly basis or more frequently, depending on the hazard.



Double Check Detector Assembly

Typical Cross-Connections

Most cross-connections include a direct connection of the drinking water supply to any of the following:

- Auxiliary water supplies
- Boilers (such as hydronic and steam)
- Cooling towers and chillers
- Fire sprinkler systems
- Industrial fluid systems and compressors
- Laboratory equipment (such as medical and industrial)
- Lawn irrigation and sprinkler systems
- Processing tanks
- Solar heating systems
- Standpipe systems
- Swimming pools
- Wash basins and service sinks
- Water re-circulating systems
- Other

Contact Us

For more information, please call us at 800-727-5987 or visit www.libertyenergyandwater.com.



Cross-Connection Control Program

Information for Industrial, Commercial, and Institutional Property Owners

Protecting Our Drinking Water

What is Cross-Connection?

A cross-connection is an actual or potential connection between the safe drinking water (potable) supply and a source of contamination or pollution. Cross-connections must be properly protected or eliminated. For example, a hose submerged in a sink or container full of dirty water or chemicals, under the right circumstances, could draw the water from the sink or container back into Liberty's drinking water system.

Cross-connection control, or backflow prevention, helps protect our drinking water from external contamination of the drinking water supply system.

What is Backflow?

Water distribution systems are designed so that water flows in one direction from the distribution system to the consumer. However, certain conditions can cause an undesirable backflow, in which the water flows in the opposite direction and carries other contaminants or pollutants into the public drinking water supply through a cross-connection.



Reduced Pressure Principle (RP)

What Causes Backflow?

There are two conditions that contribute to backflow:

Backpressure occurs when non-potable water pressure is greater than potable water pressure.

Back-siphonage occurs when the supply line pressure falls below atmospheric pressure, creating a vacuum. When this happens, a reversal of flow can take place from the non-potable side to the potable water supply.

State and local regulations require all industrial, commercial, institutional, and multi-residential property owners to survey cross-connections in their water systems, test their backflow preventers, and install or repair any required backflow preventers at their own expense. Liberty strictly enforces these requirements.

NOT ONLY IS IT THE RIGHT THING TO DO, IT'S ALSO THE LAW.

Program Requirements

Property owners must complete the following:

- Schedule a cross-connection control survey with Liberty (if it hasn't been completed).
- Testing and inspection of their backflow preventers by certified testers (at the owner's expense).
- Installation upgrades, replacement, or repairs of any required backflow preventers by certified installers or plumbers (at the owner's expense).

Testing forms are available on the Cross-Connections page at www.libertyenergyandwater.com.

Backflow Prevention Devices

A cross-connection survey of your building/property will determine the degree of hazard (high or low) based on an inspection of water uses and existing backflow protection. Once the survey is completed, the need for backflow prevention will be determined and may require the installation of a backflow assembly at the meter. The degree of hazard determines the type of backflow prevention assembly required.

Fire protection systems will require additional consultations to maintain adequate pressure prior to installing a backflow prevention device.

The following is only a partial list of devices available. For more information, please speak to Liberty's cross-connections specialist.

Type of Backflow Preventers

Testable Backflow Preventers



Pressure Vacuum Breaker



Reduced Pressure Principle (RP)



Double Check Valve Assembly

Non-Testable Backflow Preventers



Hose Connection Vacuum Breaker



Atmospheric Vacuum Breaker



Dual Check Valve