water contamination

Improper plumbing connections on private property can contaminate the public drinking water supply with harmful chemicals and bacteria.

If an improper plumbing connection contaminates the drinking water supply, the responsible property owner and occupants could be held liable for damages.

A plumbing connection can be a public health hazard if it's a cross connection between the drinking water and a contaminated source. A cross connection is any temporary, permanent or potential link that allows or may allow backflow to occur. To protect your drinking water, eliminate all avoidable cross connections and ensure all unavoidable cross connections are protected against backflow by installing approved cross connection control devices in accordance with the National Plumbing Code and the Water Utility Bylaw 40M2006.

Premise-isolating cross connection control devices ensure drinking water does not backflow into a property's water system or into The City's Water System

Most commercial and residential heating systems have chemically treated boilers that require backflow protection.

Irrigation systems with submerged piping, sprinklers, emitters (drippers) and valves are potential sources of contamination.

Calgary's drinking water supply is safe and clean. We all have to do our part to ensure it stays that way.

For more information on protecting your home or business from water contamination, call 3-1-1 or visit calgary.ca.

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CROSS CONNECTION CONTROL PROGRAM

protecting safe drinking water

is everyone's responsibility

THE CITY OF CALGARY

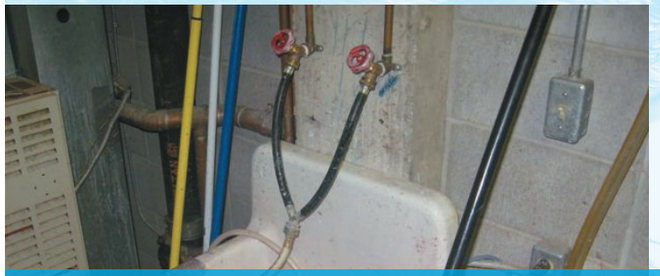
backflow

Harmful chemicals and bacteria can backflow through an unprotected cross connection when the flow within the plumbing reverses direction. Backflow is the flowing back or reversal of the normal direction of flow in either the public water system or a customer's plumbing system.

Backflow is caused by back pressure or back siphonage. Backflow created by back pressure can be produced by a heating system or any other system that operates at a higher pressure than the public water supply.

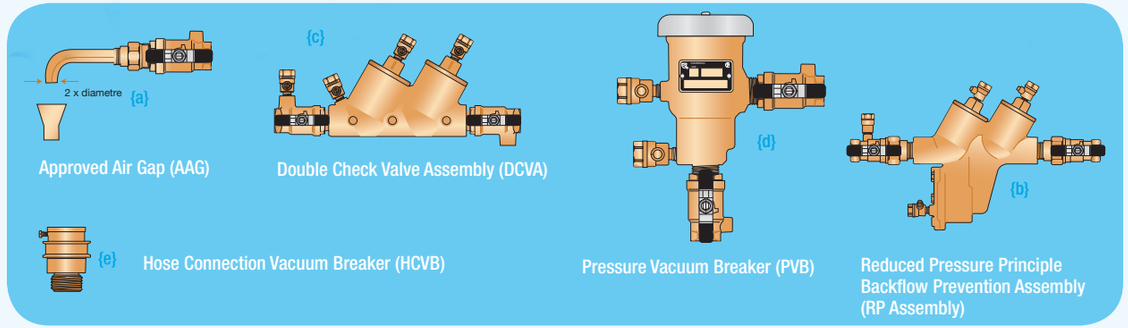
Backflow created by back siphonage can be produced by undersized piping or by an interruption of the water supply during plumbing or water utility repairs.

Since all water supplies are subject to backflow, they need to be protected by approved cross connection control devices.



To avoid contamination, attach an HCVB on the service sink taps prior to attaching a hose.

Some approved cross connection control devices.



BACKFLOW PROTECTION

All industrial, commercial and institutional (ICI) customers are required to eliminate or protect against the cross connections that exist on their property. Owners or occupants are required to have a premises-isolating cross connection control device installed on their incoming water service at the water meter location. This device must then be tested at the time of installation and annually thereafter by a certified tester.

To protect the health and safety of your personnel and the general public within your facility, it's advisable to have a journeyman plumber, who is a certified cross connection control tester, to conduct an on-site hazard assessment survey to eliminate or provide backflow protection against any unprotected cross connections.

typical cross connections

Cross connections are typically made by connecting the drinking water supply directly with the following plumbing systems, fixtures and apparatus:

- wash basins and service sinks
- lawn irrigation and sprinkler systems
- laboratory equipment (e.g. medical, industrial, etc.)
- processing tanks
- industrial fluid systems and compressors
- boilers (e.g. hydronic, steam, etc.)
- water recirculating systems
- cooling towers and chillers
- swimming pools
- solar heat systems
- fire sprinkler systems
- stand pipe fire systems
- reclaimed water systems
- auxiliary water supplies
- water conditioners

If a customer does not eliminate or control cross connections, the responsible owner or occupant could receive a violation ticket pursuant to the Provincial Offences Procedures Act, R.S.A. 2000 C. P-24.

In accordance with the Water Utility Bylaw 40M2006, if a customer fails to comply with an order requiring the installation, testing, or repair of a cross connection control device, their water service could be shut off until the situation has been remedied.

CROSS CONNECTION CONTROL PROGRAM

Under The City of Calgary's Cross Connection Control Program, City personnel inspect commercial buildings to ensure all actual and potential cross connections are eliminated.

The program assists owners and occupants by identifying potential sources of water contamination.

Fire protection systems may consist of sprinkler heads/fire hose cabinets which are potential sources of contamination.

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