



## What is a Cross Connection?

A cross connection is a direct or potential arrangement of drinking water piping that is or can be connected to any water, liquid or gas not intended for human consumption. State plumbing codes require approved backflow prevention devices, assemblies or methods to be installed at every point of water connection and use.

## How Can Contamination Occur?

Water normally flows in one direction, from the municipal water system through the customer's cold or hot water plumbing, to a plumbing connection. Under certain conditions water can flow in the reverse direction. This is known as backflow.

## What is Backflow?

Backflow is when the water in your pipes (the pipes after the water meter) travels backward. There are two situations that can cause the water to flow backward or backflow; Back-siphonage or Backpressure.

## What is Back-Siphonage?

Back-siphonage may occur due to a loss of pressure in the municipal water system during a fire emergency, a water main break, or a system repair. This creates a siphon in the plumbing system which can draw water out of a sink or bucket through a submerged hose.

## What is Backpressure?

Backpressure may be created when a source of pressure, such as a boiler, creates a water pressure greater than the pressure supplied from the municipal water system. This may cause potentially contaminated water to be pushed into your plumbing system and the city water supply through an unprotected cross connection.

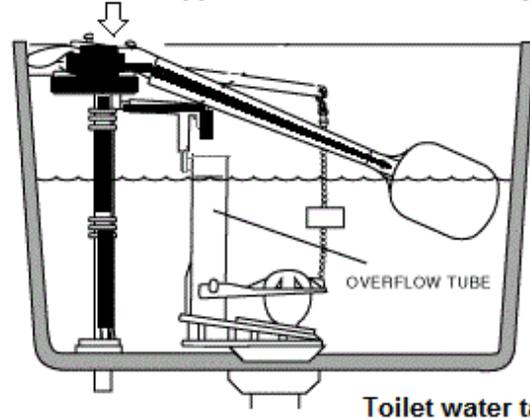
### The Local Ordinance Prohibits...

*The local Cross Connection Control Ordinance 16.84 was adopted to help ensure safe drinking water for everyone connected to the public water supply. This ordinance authorizes the local water purveyor to discontinue water supply in the event of unprotected cross connection. Reasonable time is allowed for making required corrections for violations identified during the on site survey. Please contact West Allis Water Utility or the Plumbing Inspector for specific requirements for compliance.*

## Toilet Tank Backflow Hazard

All toilet tanks are supplied with water from the same piping that supplies the drinking water within a building. It is important and required that all toilet tanks have the approved ASSE 1002 Anti-siphon Ballcock Assembly backflow preventer installed to prevent backflow into the drinking water supply. Most toilets come from the manufacturer with the proper device already installed; however not all do. In addition, there are unapproved products sold at retailers which do not meet the state code requirements for backflow prevention.

### ASSE #1002 Approved Ball Cock Assembly



## Here's how to ensure the approved device for your toilet tank is installed:

- Look for the ASSE #1002 Standard symbol on device/packaging.
- Replace any unapproved devices with an approved ASSE #1002 device. The average cost for a do-it yourself type device, available at home improvement stores is \$12—\$22.
- Verify "Critical Level", or "CL" mark on the device is 1" above the top of the overflow tube.
- Call West Allis Water Utility or the Plumbing Inspector for free advice.
- Consult with a licensed plumber.

## Kitchen Area Backflow Hazards

Hoses connected to sinks/faucets, dishwashers, and water treatment devices may create a potential backflow hazard if not properly isolated with backflow prevention devices or methods.

## Common Household Hazards

- Hose connection (garden hoses or utility sink)
- Toilets
- Boilers
- Irrigation systems
- Dialysis equipment

### Do

- Prevent the end of any hose from being submerged in any sink, tub, or vessel connected to the sewer drain system or a source of contamination.
- Ensure dishwashers are installed with the proper "air-gap" device (most newer systems have internal air gaps). Contact the manufacturer if you have questions.
- Install Hose Bibb Vacuum Breakers (ASSE Approval #1011) on all threaded faucets around your home.
- Ensure any water treatment system drain lines, such as from water softeners, have the proper "air gap" of a minimum 1 inch above the top of any drain, or sink rim.
- Call West Allis Water Utility or the Plumbing Inspector if you are in question of a water connection in your kitchen, bathroom or home which may be a backflow hazard.

### Don't

- Submerge kitchen sink, laundry tub, or shower hoses in buckets, pools, tubs, sinks.
- Use spray attachments without a backflow prevention device.
- Use a hose to unplug blocked toilets or sewer piping.