

Residential Water User Cross-Connection Hazards

Bathrooms & Kitchens



We're All Connected.....

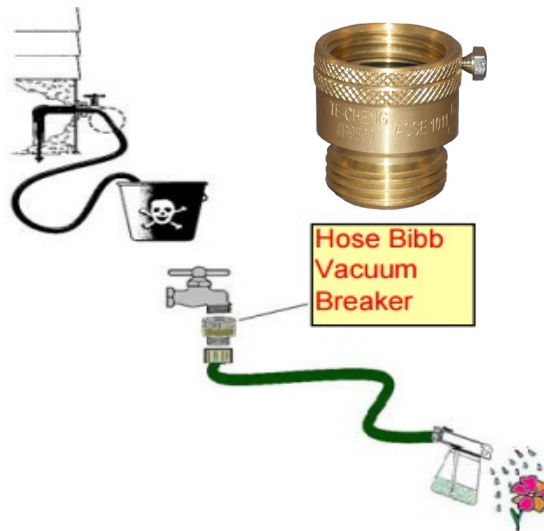
Maintaining the integrity of your
public drinking water system.

WHAT IS POTENTIALLY DANGEROUS ABOUT AN UNPROTECTED HOSE BIBB?

The purpose of a hose bibb is to allow easy attachment of a hose for water use purposes. However, hoses can be extremely hazardous if they are left submerged in swimming pools, laid in elevated locations when watering shrubs, attached to a hose with a chemical sprayer for weed-killing or left in a laundry sink. Hoses are often left laying on the ground, which may be contaminated with fertilizer, cesspools, and chemicals. Backsiphonage may occur when there is a loss of pressure in the water system creating a siphon which can draw pollutants into the drinking water system of your house. If someone drinks, cooks or bathes in contaminated water, this contact can cause serious illness or death. While occurrences of this are infrequent, the use of proper backflow protection can prevent this from happening.

WHAT PROTECTION IS REQUIRED FOR A HOSE BIBB?

A hose bibb vacuum breaker should be installed on every hose faucet to isolate the hose usage thus protecting the water supply from contamination.



DID YOU KNOW

Your water can become contaminated if connections to your plumbing system are not properly protected!

The purpose of the local Cross-Connection Control Program, as required by State Plumbing Code and Regulations, is to ensure that everyone in the community has safe, clean drinking water.

PUBLIC HEALTH & SAFETY

To avoid contamination, backflow preventers are required by state plumbing codes wherever there is an actual or potential hazard for cross-connection. The Wisconsin Department of Natural Resources requires all public water suppliers to maintain an on-going Cross-Connection Control Program involving public education, onsite inspection, and possible corrective actions by building owners if required.

MORE INFORMATION

WI Department of Safety and Professional Services (DSPS)

www.dsps.wi.gov

WI Department of Natural Resources (DNR)

www.dnr.wi.gov

Environmental Protection Agency (EPA)

www.epa.gov

Cross-Connection Control/Backflow Prevention

www.hydrodesignsinc.com/wiccc.html

WHAT IS A CROSS-CONNECTION

A cross-connection is an actual connection between the safe drinking water (potable) supply and a source of contamination or pollution. State plumbing codes require approved backflow prevention methods to be installed at every point of potable water connection and use. Cross-connections must be properly protected or eliminated.

HOW DOES CONTAMINATION OCCUR?

When you turn on your faucet, you expect the water to be as safe as was when it left the treatment plant or aquifer. However, certain hydraulic conditions left unprotected within your plumbing system may allow hazardous substances to contaminate your own drinking water, well water, or even the public water supply.

Water normally flows in one direction. However, under certain conditions, water can actually flow backwards; this is known as backflow. There are two situation that can cause water to flow backward: back-siphonage and backpressure.

BACK-SIPHONAGE

May occur due to loss of pressure in the municipal water system during a fire fighting emergency, a water main break or system repair. This creates a siphon in your plumbing system which can draw water out of a sink or bucket and back into your water well, or the public water system.

BACKPRESSURE

May be created when a source of pressure (such as a boiler) creates a pressure greater than the pressure supplied from the public water system. This may cause contaminated water to be pushed into your system through an unprotected cross-connection.

DO...

- Keep the ends of hoses clear of all possible contaminants
- Make sure dishwashers are installed with a proper "air gap" device
- Verify and install a simple hose bibb vacuum breaker on all threaded faucets around your home

Make sure water treatment devices such as water softeners have the proper "air gap", which is a minimum of one inch above any drain.

DON'T...

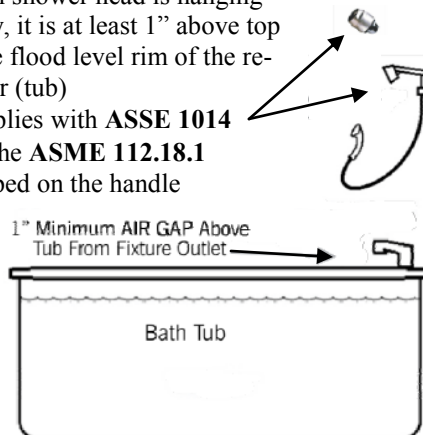
- Submerge hoses in buckets, pools, tubs, sinks, or ponds
- Use spray attachments without a backflow prevention device

Connect waste pipes from water softeners or other treatment systems directly to the sewer or submerged in a sink or drain pipe. Always be sure there is a one inch "air gap"

IN THE BATHROOM—HAND HELD SHOWER FIXTURE

The hand held shower fixture is compliant if:

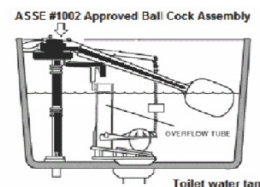
- When shower head is hanging freely, it is at least 1" above top of the flood level rim of the receptor (tub)
- Complies with **ASSE 1014**
- Has the **ASME 112.18.1** stamped on the handle



IN THE BATHROOM-TOILET TANKS

There are many unapproved toilet tank fill valve products sold at common retailers which do not meet the state plumbing code requirements for backflow prevention.

- Look for the ASSE 1002 Standard symbol on the device and packaging
- Replace any unapproved devices with an ASSE 1002 approved anti siphon ball-cock assembly. Average cost is typically \$12 to \$22 at home improvement stores
- Verify overflow tube is one inch below critical level (CL) marking on the fill valve device



In the Kitchen



Hoses and water treatment devices may create a potential backflow hazard if not properly isolated with backflow prevention methods.