

BACKFLOW TESTING

Why does the backflow assembly need to be tested?

A backflow assembly is a mechanical device that is subject to failure. A test using a differential gauge is used to determine if the backflow assembly is working to prevent backflow.

How often does my backflow assembly need to be tested?

The Town's Cross Connection Control Ordinance requires all backflow assemblies to be tested annually by the customer's test due date. A postcard notification is mailed 45 days prior to your test due date.

Who is responsible for scheduling and paying for this test?

The customer or owner of the location is responsible for both scheduling and payment of the test. Only Town approved certified backflow testers may test backflow assemblies. A list of approved testers can be found on the Town's electronic reporting system managed by our current vendor. Visit www.backflow.tecnxs.com/portal/11 to find a tester.

What if my backflow test fails?

The electronic reporting system will only allow passing backflow tests to be submitted. A failed assembly will need to be repaired, rebuilt, or even replaced. The repair and retest should be completed within 10 days for health hazard facilities and 30 days for non-health hazard facilities.

When am I considered compliant with the Town's Ordinance?

You are compliant when the tester submits the passing backflow test on your behalf to the electronic reporting system (AquaResource) on your behalf.

RULES & ORDINANCES

The Town's Permit NC0392045 to operate a community public water system requires the Town to comply with the Rules Governing Public Water Systems (15A NCAC 18C). The current Cross Connection Control Ordinance (Chapter 12, Article VI.) and program policies have been written and are administered to comply with these rules to ensure the public potable water system is protected from backflow events and to provide safe drinking water to our customers.

The Town offers its thanks to our customers for their support and cooperation in taking the necessary steps to help prevent backflow events from occurring in our system.

CONTACT US

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CROSS CONNECTION CONTROL PROGRAM



APEX
NORTH CAROLINA

OVERVIEW

What is a cross connection?

A cross-connection is any physical connection between a potable water supply system and any other piping system, sewer fixture, container, or device, whereby water or other liquids, mixtures, or substance may flow into or enter the potable water supply system.

What is backflow?

Backflow is the undesirable reversal of flow of a liquid, gas, other substance in a potable water distribution piping system as a result of a cross-connection.

What are the most common residential examples of cross connection hazards?

- Garden hoses/hose bibs
- Lawn irrigation systems
- Auxiliary water supply (wells)
- Swimming pools/hot tubs/spas
- Fire sprinkler systems
- Boilers



What are the types of backflow and what causes them?

There are two types of backflow: **backpressure** and **backsiphonage**. Backpressure occurs when the customer's pressure exceeds the supply pressure, which can be created by booster pumps or temperature increases. Backsiphonage occurs when the supply line pressure falls below atmospheric pressure (14.7 psi at sea level). Supply line pressure drops are commonly caused by water line breaks, firefighting, and flushing, which can cause both types of backflow to occur.

PREVENTION

What can you do to prevent backflow events?

- Do not submerge hoses or place hoses where they could become submerged. A hose connected to a faucet or spigot is a temporary extension of the potable water system.
- Ensure an approved lead-free reduced pressure principle backflow assembly is installed, properly maintained, repaired, and tested annually on any property with lawn irrigation or fire systems.
- Install or replace hose bib vacuum breakers on hose spigots.
- Ensure fixtures maintain an minimum of a 1-inch air gap (AG) or twice the inside diameter (ID) of the water supply flood rim level of the sink or tub.



What is a backflow preventer?

A backflow preventer is an assembly, device, or method that prohibits the backflow of water into potable water supply systems. Devices do not have shutoff valves and are not testable in-line. Assemblies possess two shut-off valves, 2 check valves, and 4 test cocks.

What type of backflow preventer do you need?

The Town's Cross Connection Control Administrator can assist you with determining the correct protection for the degree of hazard at your site. Below is a list of the most common mechanical devices and assemblies used to protect the public potable water supply.

Residential dual check valve (RDC) is a device installed at the meter for single family residential homes. Devices do not have shut-off valves and are not testable inline.

Double check valve (DC) is an assembly installed at locations that pose a non-health (moderate) hazard such as office buildings, some retail stores, and fire systems just to name a few.

Reduced pressure zone principle (RPZ) is an assembly that provides better protection for locations that pose a health (severe) hazard because it also contains a relief valve between the two check valves that opens or closes due to pressures that are applied to both sides. The RPZ is required at locations such as hospitals, schools, car washes, laundries, manufacturing and industrial plants and where irrigation systems are in place.



Dual Check Valve (RDC)



Double Check Valve (DC)



Reduced Pressure Zone (RPZ)