



**Businesses can
help prevent**

CROSS CONNECTION AND BACKFLOW

To help protect your drinking water and the health of our communities, customers are required to install proper backflow prevention equipment.

SAFE DRINKING WATER IS PRICELESS

Drinking water can become contaminated if an unprotected physical connection—a cross connection—exists between a utility’s pipeline and a water source of lesser quality. A difference in pressure may allow water of lesser quality to backflow into the community’s water system.

WHAT CAN YOU DO TO CONTROL CROSS CONNECTIONS AND PREVENT BACKFLOW?

Backflow contamination can be prevented. New Jersey American Water has a cross connection control program to protect the integrity of drinking water in the distribution system. The goal of the program is to prevent contamination of the distribution system through cross connection after backflow events. The program is a New Jersey Department of Environmental Protection (NJDEP) requirement. The type of activities conducted at a specific facility determines the type of backflow preventers required for proper protection. Non-residential customers are required to have an approved and functioning backflow prevention assembly installed and tested, as required. This also applies to bypass lines, as well as fire and lawn sprinkler lines and systems. It’s also important that the equipment be installed properly. Generally, backflow equipment is installed at the service connection or on the service line after the meter.

NJDEP PHYSICAL CONNECTION PERMIT PROGRAM

According to the New Jersey Administrative Code (N.J.A.C.) 7:10-10 et seq., non-residential customers with permitted physical connections protected by a double check valve assembly (DCVA) or a reduced pressure zone assembly (RPZ) must be enrolled into the NJDEP’s physical connection permit program. This regulation requires the assembly to be tested on a quarterly basis. **To apply, follow these steps:**

1. Go to: https://www.state.nj.us/dep/watersupply/dwc_physcon.html
2. Download the application form: “Application Form for Initial Physical Connection Permit.”
3. Fill out the application with the manager of your facility or a certified plumber.
4. Email the completed form to New Jersey American Water at NJAW.CrossConnection@amwater.com for approval.
5. Once approved by New Jersey American Water, submit to the NJDEP.
6. Receive operating permit from the NJDEP.





WHO IS RESPONSIBLE TO PAY FOR BACKFLOW EQUIPMENT AND MAINTENANCE?

Costs related to purchasing backflow equipment, as well as the installation and maintenance, is the responsibility of the customer.

WHAT HAPPENS IF I DON'T COMPLY?

Failure to comply with cross connection requirements may result in water service disconnection.

WHAT REGULATIONS AND PLUMBING CODES APPLY?

- **New Jersey Administrative Code:**
(N.J.A.C.) 7:10-10
- **National Standard Plumbing Code:**
NJAC 5:23-3.14

WE'RE HERE TO HELP

Have questions or need help determining if you are in compliance with cross connection requirements? Contact our Cross Connection Team Monday–Friday, 8 a.m.–4:30 p.m.

Email: NJAW.CrossConnection@amwater.com

Phone: 848-232-8309

NOTE: This hotline is for questions related to cross connection and backflow prevention only.

DEFINITIONS

Cross Connection is any actual or potential physical connection between a potable water supply and any source of non-potable liquid, solid or gas that could contaminate drinking water under certain circumstances.

Backflow is the reverse flow of water or other substances through a cross connection into the treated drinking water distribution system. There are two types of backflow: backpressure and backsiphonage.

- **Backpressure** occurs when the pressure of the contaminant source exceeds the positive pressure in the water distribution main. An example would be if a drinking water supply main has a connection to a hot water boiler system that is not protected by an approved and functioning backflow preventer. If pressure in the boiler system increases to where it exceeds the pressure in the water distribution system, backflow from the boiler to the drinking water supply system may occur.
- **Backsiphonage** is caused by a negative pressure (vacuum or partial vacuum) in the water distribution system. This situation is similar in effect to sipping water through a straw. Negative pressure in the drinking water distribution system can occur because of a water main break or when a hydrant is used for fire fighting.