

Cross Connection and Backflow Prevention

Protecting your drinking water supply is also your responsibility!

State regulations require residential, commercial and industrial customers served by a public water system to protect the public water system from potential contamination. Under certain conditions water from private plumbing can flow into the public water distribution system, this is referred to as backflow. In order to prevent potential backflow, some customers are required to install and maintain backflow prevention devices on the main water service lines.

What Is A Cross Connection?

A cross connection is a connection between a contaminated source and your drinking water system. Backflow occurs when the water flow is reversed, due to a change in pressure, and water flows backwards, into and through the system. This creates a potentially hazardous situation.

How Are Cross Connections Controlled?

The installation of a backflow prevention device, otherwise known as a cross connection control device, is required under any circumstance where contamination may occur.

What is Backflow?

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 back siphonage.

Backpressure happens when the pressure of the contaminant source exceeds the positive pressure in the water distribution main. An example would be when 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.

Back siphonage is caused by a negative pressure (vacuum or partial vacuum) in the water distribution system. This situation is similar in effect to the sipping of water through a straw. Negative pressure in the drinking water distribution system can happen because of a water main break or when a hydrant is used for fire fighting.

Which customers are affected?

327 Indiana Administrative Code 8-10 Cross Connection Control (327 IAC 8-10) Facilities That Require a Backflow Prevention Device

If the activities on your premises are listed below then you must have or install a state approved cross connection control device on each water service line and promptly submit test results to Pittsboro Water Company. The state designates the following list of facilities as cross connection hazards; a state approved reduced pressure principle backflow preventer shall be installed on the customer service line serving these facilities, unless otherwise specified.

(1) All customers with land irrigation systems, including residential. Either a pressure type vacuum breaker or a reduced pressure principle backflow preventer can be used for cross connection control.

(2) All customers fire service lines. Double check detector assembly should be used for cross connection control.

(3) Aircraft and missile manufacturing plants.

(4) Automotive plants, including those plants that manufacture motorcycles, automobiles, trucks, recreational vehicles, and construction and agricultural equipment.

(5) Beverage bottling plants, including dairies and breweries.

(6) Canneries, packing houses, and reduction plants.

(7) Car washes.

(8) Chemical, biological, and radiological laboratories, including those in high schools, trade schools, colleges, universities, and research institutions.

(9) Hospitals, clinics, medical buildings, autopsy facilities, morgues, other medical facilities, and mortuaries.

(10) Metal and plastic manufacturing, fabricating, cleaning, plating, and processing facilities.

(11) Plants manufacturing paper and paper products.

(12) Plants manufacturing, refining, compounding, or processing fertilizer, film, herbicides, natural or synthetic rubber, pesticides, petroleum or petroleum products, pharmaceuticals, radiological materials, or any chemical that could be a contaminant to the public water supply.

(13) Commercial facilities that use herbicides, pesticides, fertilizers, or any chemical that could be a contaminant to the public water supply.

(14) Plants processing, blending, or refining animal, vegetable, or mineral oils.

(15) Commercial laundries and dye works, excluding coin-operated Laundromats.

(16) Sewage, storm water, and industrial waste treatment plants and pumping stations.

(17) Waterfront facilities, including piers, docks, marinas, and shipyards.

(18) Industrial facilities that recycle water.

(19) Restricted or classified facilities (federal government defense or military installations), or other facilities closed to the supplier of water or to the commissioner.

Prohibited connections

No secondary source of water supply shall be physically connected on the customer service line to or into the facility.

Who Has Responsibility For Cross Connection Control?

- Responsibility of the State – The Indiana Department of Environmental Management is responsible for administering the state regulations for cross connection control, 327 IAC 8-10.

- Responsibility of Pittsboro Water – Responsible for providing customers with drinking water that meets all applicable federal and state primary drinking water standards. Pittsboro Water Company is responsible for maintaining backflow prevention device test results.

- Responsibility of Customers of Pittsboro Water – Responsible for using water in a manner that does not jeopardize the water quality in the public water distribution system. Customers are responsible for adherence to the state plumbing code. State regulations may require customers to install, maintain, and test state approved backflow prevention devices and submit test results to Pittsboro Water Company.

What Is The State Required Frequency of Backflow Prevention Device Testing?

Reduced pressure principle devices must be tested at 6 month intervals.

Pressure Type Vacuum Breakers must be tested 1 year intervals.

Double Check Valve Assemblies must be tested at 1 year intervals.

Double Check Detector Assemblies must be tested at 1 year intervals.

Who Is Eligible To Test Backflow Prevention Devices?

Only state approved testers who are registered with the state can test backflow prevention devices. A list of registered state approved testers can be found at <http://extranet.in.gov/WebLookup/Search.aspx>.

Where Should I Submit My Backflow Prevention Device Test Results?

Test results must be submitted within 30 days of testing using one of the following methods, in order of preference.

FAX – Pittsboro Water Cross Connection Control 317-892-4159

Email – cyork@townofpittsboro.org

Mail – Town of Pittsboro Water Department P.O. Box 185 Pittsboro, IN 46167

Where Can I Obtain More Information?

Pittsboro Water Cross Connection Department at 317-892-6011

Indiana Department of Environmental Management – Attention Rick Miranda with the Drinking Water Branch at 1-800-451-6027

[Backflow Evaluation form](#)

[Backflow Test Form](#)