Will my business be inspected?

Yes. Your local water provider will be conducting on-site surveys of all facilities connected to the public water supply. These surveys are intended to identify unprotected cross-connections and determine that the proper backflow prevention device is installed at each service connection. The type of backflow prevention device is determined by the "hazard" level associated with each connection.

What should I do or prepare for?

Let your city water utility evaluate and protect your drinking water safety. The best way to do this is to provide municipal field specialists easy and courteous access to your facility and plumbing system when they arrive. Many inspections take as little as 20-30 minutes; more complex sites take longer.

Remember, we're all in this together - and together we can work to keep your drinking water safe from the hazards of backflow.

Resources:

Michigan Department of Environmental Quality
www.michigan.gov/deq

American Water Works Association
www.awwa.org

University of Florida - TREEO Center
www.treeo.ufl.edu/backflow/

USC - Foundation for Cross Connection Control
www.usc.edu/dept/fccchr/

Environmental Protection Agency (EPA)
http://water.epa.gov/drink/

American Society of Sanitary Engineering (ASSE)
www.asse-plumbing.org

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MI-DWB V.2015-03

DRINKING WATER

Cross Connection Control

Safety & Prevention

Could you be contaminating your drinking water?

WHAT IS A CROSS CONNECTION?

Did you know?

Michigan's Safe Drinking Water Act (1976 PA 399) requires plumbing and piping systems in business and industrial facilities to be checked periodically for actual or *potential* cross connections.

In an effort to meet these requirements and **protect** the safety of the drinking water supply, your local water supplier has developed a Cross Connection Control Program as outlined in the State of Michigan Department of Environmental Quality (MDEQ) Administrative Rule Manual.

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.

Under certain conditions, cross connections can allow tainted water to flow backward through the piping system and contaminate the drinking water. This is called **BACKFLOW,** and it is caused by two types of pressure changes: backsiphonage and backpressure.

What is Backsiphonage?

Backsiphonage is caused by negative pressure from a vacuum (or a partial vacuum) in the supply piping, just as drinking through a straw draws liquid from a glass. Backsiphonage can be created when there is stoppage in the water supply pressure due to repairs or breaks in the public water system; an increased demand at one location, such as fire fighting; or even undersized piping. Backsiphonage reverses normal flow in the system and can pull contaminants into the drinking water.

What is Backpressure?

Backpressure reverses normal system flow. It occurs when downstream water pressure is greater than the water supply pressure. This can occur in any pressurized system such as boilers, elevated tanks, or recirculating system.

How do we keep the water safe?

Your local water provider has established a plan and process to identify unprotected cross connections and to ensure that they are eliminated or protected with an approved backflow prevention device to protect the public water supply.

Some backflow prevention devices, or backflow prevention assemblies, require annual testing to ensure that they are in proper working condition.

What are some common areas where cross connections occur?

- Hose bibbs
- Boilers
- Cleaning/Mop Stations
- Lawn Irrigation Systems
- Fire Protection Systems
- Lab & Medical Equipment
- Restaurant Equipment
- Power Washers
- Water Softener Drains

What does "degree of hazard" mean?

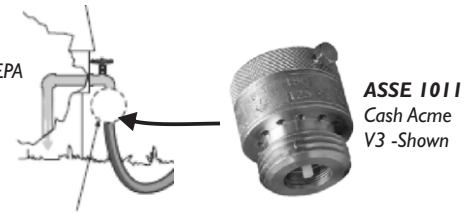
This determines whether and to what extent a substance is a toxic contaminant (health or HIGH hazard) or a nontoxic pollutant that generally presents an aesthetic (or LOW) hazard. Both types of substances can make drinking water nonpotable. Evaluating the degree of hazard helps determine the most appropriate type of backflow prevention.

What methods or products protect against backflow?

Once the degree of hazard has been determined, the proper backflow preventer can be installed. Plumbing specialists working with local municipal officials, determine which device is best suited for each situation. Five basic methods are used:

1) Air Gap
2) Atmospheric vacuum breakers, including hose connection vacuum breakers.
3) Pressure type vacuum breakers
4) Double check valve assembly
5) Reduced pressure principle backflow preventers

Many cross connections can be corrected with a simple hose bibb (faucet) vacuum breaker. This means equipping each hose connection, both outside and inside with a simple inexpensive vacuum breaker that can be obtained from hardware stores for about $10.



From EPA

ASSE 1011
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What if I already have a backflow prevention assembly?

Your local water provider will send you a notice instructing you to have your backflow prevention assemblies tested for performance. These valves must be tested annually.

"We're All Connected"