Cross Connection Control

What is a Cross-Connection?

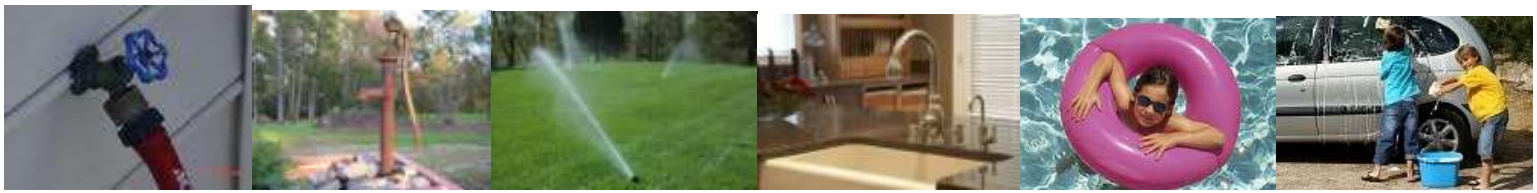
A cross-connection is a direct or potential connection between any part of the public water supply and a source of contamination or pollution. All homes have potential cross connections. The most common form of a cross-connection is a garden hose, connected to the public water supply system and then used to apply chemicals and fertilizers. Other common cross-connections are dishwashers, toilets, pools, lawn sprinklers, and boilers.

Where Can a Cross Connection Occur?

A cross-connection can occur at one of many points throughout a water distribution system when there is unintended backflow from a contaminated source into the water distribution lines. Two types of backflow are backpressure and backsiphonage. Backpressure may be created when a source of pressure such as a pump creates a pressure greater than that supplied by the water distribution pipe. Backsiphonage may occur when there is a drop in the supply pressure of the water distribution system caused by water line break, water main repair, or rapid withdrawal of water from a fire hydrant. In these instances, a vacuum is created which may pull or siphon contaminants or pollutants back into the drinking water supply.

Why is it Important to Prevent Cross-Connections and Backflow?

A cross-connection or backflow can be a serious health hazard as a result of chemical or bacterial contamination of the drinking water system. Backflow prevention devices must be installed and must be maintained to eliminate backflow of contamination into our drinking water supply.



Types of Cross-Connections and Suggested Devices to Eliminate Them

Garden Hoses Install an atmospheric vacuum breaker which screws onto the faucet and provides a second threaded connection for the hose. One can be purchased at your local hardware store. Use one with ASSE 1011 designation or at least UL approval.

Private Wells Private Wells are prohibited from connection to the public water supply.

Lawn Irrigation Systems Ensure an approved backflow assembly is installed on underground or automatic systems; and/or if your system uses a pump or has fertilizer/chemical injection.

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Handheld/Pullout Faucets Kitchen sink faucets with pullout spouts should have an ASSE, ASSA, or UL approval. Install Inline backflow preventers with ASSE 1014 designation for handheld shower faucets.

Sink/Tub Faucets Ensure there is an air gap between the top rim of the sink and/or tub and the faucet.

Swimming Pools/Hot Tubs Ensure an approved backflow prevention device is installed if the pool and/or hot tub are permanently connected to your home plumbing system. Never submerge the end of the filling hose in the pool/hot tub – always leave an air gap, or make sure hose is protected with a hose bib vacuum breaker installed on the faucet.

Toilet Water Tanks Install ball cock valves that create a vacuum break to prevent backflow. Purchase valve with ASSE 1002 designation.

Drain Hoses/Piping Ensure there is at least a 1 inch air gap between the end of the hose/piping and the sink or basin.

Boiler System Install a backflow prevention device if the public water supply is used to replenish boiler water which may contain chemicals.