

provides a barrier to backflow. The basic mechanism for preventing backflow is a mechanical backflow preventer, which provides a physical barrier to backflow. The principal types of mechanical backflow preventers are the reduced-pressure principle assembly, the pressure vacuum breaker assembly and the double check valve assembly. The standard device required by the Town of Payson is a reduced pressure principle assembly.



What type of building would require a backflow preventer?

Buildings that have fire sprinklers installed or photolabs which use hazardous chemicals are required to have an reduced pressure principle assembly installed.

Other examples where cross connections can occur:

- dentist office
- Schools
- fire stations
- hospitals
- mortuary
- gas stations
- car washes

In addition, all new building plans or facility use changes are reviewed to determine whether a backflow device is needed.

FOR MORE INFORMATION, CONTACT:

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Protecting our Water Supply



Cross Connection Control



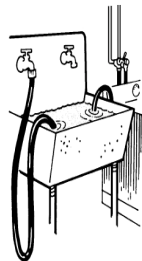
What is a Cross Connection?

Cross Connection means any actual or potential physical connection between a public water system or the consumer's water system and any source of non-potable liquid, solid or gas that could contaminate the potable water supply by backflow.

How does a cross connection occur?

For a drinking water (potable water) supply to become contaminated via a cross connection, three things need to happen simultaneously:

1) The potable water supply piping must be unprotected (or improperly protected from a cross connection;



2) A physical

Hose attached to service sink with the end submerged in tub full of detergent

cross connection must be made between the potable water supply piping and a contaminant source; and 3) Backflow conditions must occur.

What is a Backflow?

Backflow means the undesirable reversal of flow of water or other substances through a cross connection into the public water system or consumer's water system.

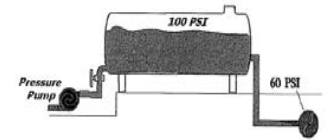
Backflow may be due to either: **Backsiphonage** or **Backpressure**.

Backsiphonage occurs when negative or reduced pressure exists in the supply piping allowing undesirable substances to be "drawn" in the potable water supply. The effect is similar to drinking water through a straw.



Backsiphonage can occur when there is a stoppage of water supply due to nearby fire fighting, a break in a water main, etc.

Backpressure occurs when the user's system is at a higher pressure than the supply water, allowing the undesirable substances to be "pushed" into the potable water supply. Backpressure can result from an increase in downstream pressure, a reduction in the potable water supply pressure, or a combination of both. Increases in downstream



pressure can be created by pumps; temperature increases in boilers, etc. Reductions in potable water supply pressure occur whenever the amount of water being used exceeds the amount of water being supplied, such as during water line flushing, fire fighting, or breaks in water mains.

What is a Backflow Preventer?

A backflow preventer is a means or mechanism to prevent backflow. The basic means of preventing backflow is an air gap, which either eliminates a cross-connection or