



City of Cortez
Service Center
110 West Progress Circle
Cortez, CO 81321

CROSS CONNECTIONS

What is a Cross Connection? A cross connection is a point in a plumbing system where the potable water supply is - or could be - connected to a non-potable source. Pollutants or contaminants can enter the safe drinking water system through uncontrolled cross connections when backflow occurs. Backflow is the unwanted flow of non-potable substances back into the consumer's plumbing system and/or the public water system. There are two types of backflow: Backsiphonage and Backpressure. Backsiphonage is caused by a negative pressure in the supply line to a facility or plumbing fixture. Backsiphonage may occur during waterline breaks or when a fire hydrant is used during firefighting. Backpressure can occur when the potable water supply is connected to another system operated at a higher pressure or has the ability to create pressure. Principal causes of backpressure are booster pumps, pressure vessels, elevated plumbing, etc.

Where are Cross Connections Found? Cross connections can be found in all plumbing systems. It is important that each cross connection be identified and evaluated as to the type of backflow protection required to protect the drinking water supply. Some plumbing fixtures have built-in backflow protection in the form of a physical air gap or an atmospheric vacuum breaker. However, most cross connections will need to be controlled through the installation of an approved mechanical backflow prevention device or assembly. Some common cross connections found in plumbing and water systems include:

1. Wash basins and service sinks
2. Hose bibs
3. Irrigation sprinkler systems
4. Swimming pools
5. Solar heating systems
6. Processing tanks
7. Boilers
8. Water recirculating systems
9. Photo developing equipment
10. Fire sprinkler systems

Plumbing codes and State drinking water regulations require cross connections to be controlled by approved methods (physical air gap) or approved mechanical backflow prevention devices or assemblies. For a backflow preventer to provide proper protection, it must be approved for backflow protection, designed for the degree of hazard and backflow it is controlling, installed correctly, tested annually by a State-certified tester, and repaired as necessary. This is where we come in. The City of Cortez Cross Connection Control Program requires us to: First, survey all buildings to determine if there are any potential cross connections; Second, if a potential cross connection is found, to make sure an appropriate method or device is installed; and Last, to make sure all installed devices are tested yearly.

Why Be Concerned and What Can I Do? Drinking water systems may become polluted or contaminated through uncontrolled cross connections. Cross connections are installed each day in the United States because people are unaware of the problems they can create. A backflow event can lead to adverse health effects or worse. Always be aware of potential cross connections and practice safe water use. A good example of what you can do is to install a hose bib vacuum breaker; this is a simple and inexpensive device to attach to the faucet before you attach the hose. Also, if you do have a backflow prevention device, make sure to have it tested each year to confirm that it is functioning properly.

For more information about cross connections and backflow prevention, contact the
City of Cortez Cross Connection Control Administrator
at thernandez@cityofcortez.com or call Tony Hernandez at 970-564-4041.