

Plumbers and the Protection of the Public Water Supply

Do you ever contemplate when you are using water where it comes from and how your water's safety is ensured? Safe water is something that we as Americans tend to take mostly for granted. Safe water is referred to in the industry as *potable water*.

How many times monthly, weekly, or daily do you take advantage of potable water? Go ahead, count the number of times you cook, drink water, wash dishes and clothes, bathe, shower, or water your lawn or garden. Does the number surprise you?

The delivery of safe potable water is important to us all. The overall health that we enjoy as a nation is largely due to a safe water supply. Whether it comes from your own well, a cooperative well, or a municipal supply, there are strict rules and regulations that water suppliers and the plumbing industry must follow.

The University of Southern California (USC) is the water supply industry's research facility and is responsible for developing many of the rules and regulations. These rules and regulations are to a degree contained within water supplier guidelines and plumbing codes. By following these strict rules and regulations hazardous conditions known as cross connections and/or backflow conditions can be eliminated and the health of the public safeguarded.

A cross connection will occur whenever potable water comes into direct contact with sewage or some other hazardous contaminant. Some cross connections can occur when there is a break in an underground water line, an unprotected hose left in a hazardous liquid, fire or landscape sprinklers that are unprotected.

Backflow can occur whenever the deliver pressure fluctuates because of pressure differences (multiple usage locations). Backflow occurs because there is a direct connection with potable water piping and an injected or inherent hazardous contaminant. These backflow conditions can occur with heating and refrigeration equipment, boilers, soda dispensing machines, fire sprinklers, landscaping sprinklers and some types of medical equipment. Most types of faucets, fixtures, appliances and equipment provide designed cross connection or backflow protection.

Note the vertical separation between the water inlet of faucets and the overflow level of the drinking fountains, sinks and bathtubs. Even the internal design of the toilet, automatic washing machine and medical dialysis machines are examples of both cross connection and backflow prevention.

The plumber is the person responsible for adhering to these rules and regulations. If safe water is to be maintained we must understand and support the plumber and the safeguarding of that potable water.

Almost forty years ago, a well-known manufacturer of plumbing fixtures and faucets had a slogan and a poster. The poster depicted the profile of a plumber standing in work attire. The caption read "The Plumber Protects the Health Of The Nation". It is still the same today.