

Cross-Connection Control: A Best Practices Guide



Introduction

<i>Purpose</i>	This Guide discusses the importance of controlling cross-connections and preventing backflow occurrences from unprotected cross-connections in the water system.
<i>Target Audience</i>	This Guide is intended for owners and operators of all public water systems serving fewer than 10,000 persons.

Key Cross-Connection Terms and Definitions

<i>Term</i>	<i>Definition</i>
Cross-connection	Any actual or potential connection between the public water supply and a source of contamination or pollution.
Backflow	The flow of water or other liquids, mixtures, or substances into the distributing pipes of a potable supply of water from any source or sources other than its intended source. Backsiphonage is one type of backflow.
Backpressure	Backflow that occurs when the pressure in an unprotected downstream piping system exceeds the pressure in the supply piping.
Backsiphonage	Resulting from negative pressures in the distributing pipes of a potable water supply.

Where Can Cross-Connections Occur?

Cross-connections can occur at many points throughout a distribution system and a community's plumbing infrastructure. Cross-connections can be identified by looking for physical interconnections (or arrangements) between a customer's plumbing and the water system. Some specific examples of backflow incidents that can occur are:

- Lawn chemicals backflowing (backsiphoning) through a garden hose into indoor plumbing and potentially into the distribution system.
- Backsiphonage of "blue water" from a toilet into a building's water supply.
- Carbonated water from a restaurant's soda dispenser entering a water system due to backpressure.
- Backsiphonage of chemicals from industrial buildings into distribution system mains.
- Backflow of boiler corrosion control chemicals into an office building's water supply.