



CITY OF SOMERVILLE, MASSACHUSETTS

DEPARTMENT OF PUBLIC WORKS

WATER DIVISION

Cross Connection Control and You

The Public Water Supply Rules and Regulations, as well as Massachusetts' drinking water regulations require that public water systems be protected from potential contamination resulting from cross connections.

What is a cross connection?

A cross connection occurs whenever a potable drinking water line is directly or indirectly linked to a piece of equipment or piping containing non-potable (polluted) water.

Why should I be concerned?

An unprotected or inadequately protected cross connection in your home or workplace could contaminate the drinking water not only in your building, but also in neighboring homes and businesses. Severe illnesses have been caused by cross connection contamination that could have been prevented.

How does this happen?

Typically this occurs when equipment, plumbing fixtures or attachments such as garden hoses may contain chemicals or water that becomes contaminated over time. When something unexpected happens that alters water pressure in the line or the direction of water flow, contaminants are then sucked from the equipment and into the drinking water line.

Can it happen at my home?

Outdoor hose bibbs and garden hoses tend to be the most common sources of cross connections at home. The garden hose creates a hazard when submerged in non-potable water such as a swimming pool or when attached to a chemical sprayer for weed killing. Fertilizer, garden chemicals or other materials may contaminate

hoses left lying on the ground. Other household cross connections can occur when lawn irrigation systems, boilers, water filtration devices, and fire service systems are connected to the home's plumbing.

How can I be protected?

All industrial, commercial and institutional facilities are annually surveyed to ensure that all potential cross connections are identified and eliminated or protected by a backflow preventer. We also inspect and test these backflow preventers to make sure they are providing maximum protection.

At home, do not attach any chemical or non-potable liquid applicators to anything connected to your plumbing system. Outdoors, install hose bibb vacuum breakers on any outside faucet. Owners of in-ground irrigation systems are required to have an operable backflow preventer installed on the system.

What is a Backflow Preventer?

A Backflow Preventer is a mechanical device installed in the plumbing line to prevent the introduction of pollutants or contaminants into the drinking water supply. Types include reduced principal assembly, (RPBP) double check valve assembly (DCVA), pressure vacuum breaker assembly (PVB) and "air gap". The most simple type is the "air gap" or simply keeping the end of the water line or hose from coming in direct contact with the vessel being filled with water.

Where can I get more information?

If you need more information you can contact the Plumbing Inspector's office or the Water & Sewer department.