

What Is A Backflow Device And Why Do I Need It Tested?

A backflow device is also known as an RPZ valve. RPZ stands for Reduced Pressure Zone. This device is installed onto your plumbing system to protect your drinking water and the city water supply from contaminants.

RPZ valves are required when a house or building is equipped with an irrigation system, fire suppression system, or a large boiler (hereinafter referred to as Systems). Contaminants can enter an irrigation system from fertilizer or pesticides that are sprayed onto lawns. In the case of a boiler or fire suppression system, water sits stagnant or trapped in these systems, which leads to a build-up of bacteria and increased mineral content from the piping system.

If there is a water leak in the house, house water service break, city water main break, hydrant flushing, or hydrant use due to a fire, the water pressure in the house or city water mains can drop lower than the water pressure in the Systems. This can cause water from the Systems to back-up into the drinking water supply. The next time you or a neighbor turns on a faucet for a drink of water, the water received could contain contaminants. Even small fluctuations in city water mains that occur due to uneven water use from one neighborhood to the next can cause drops in pressure large enough to cause a back-flow and therefore contamination to occur.

If a drop in city or building water pressure occurs, the RPZ valve will open up, dumping water out rather than allowing the potentially contaminated water to back-flow into the water supply.

For these reasons, Illinois State Law requires the use of an RPZ as outlined in the Illinois State Plumbing code and Illinois Environmental Protection Agency. All city governments must comply with these laws. The law not only requires the use of an RPZ device but that device must be tested once every year. Only a licensed plumber with a Cross Connection Certification License can test and certify the proper operation of an RPZ valve. Once the RPZ is tested, the certification paperwork is forwarded by the plumber to the city.

It should also be noted that no building, house or system that currently requires protection by an RPZ is “grandfathered” from not having the proper device installed.

Illinois State Plumbing Code 2004

Section 890.1130 Protection of Potable Water

- b) Approval of Devices and Maintenance. All devices and assemblies for the prevention of backflow shall comply with the standards listed in Appendix A: Table A of this Part. All reduced pressure principle (RP), reduced pressure detector (RPDA), double check (DCA) and double check detector (DCDA) backflow prevention assemblies shall be tested and approved by a Cross-Connection Control Device Inspector (CCCDI) before initial operation, **and**

at least annually thereafter. Records to verify testing and maintenance shall be available at the site of the installation.

I.E.P.A. Title 35 Section 653.802 part e subpart 1.

“Each device shall be tested at least annually or more frequently if recommended by the manufacture.”