

Backflow Prevention and Cross-Connection Control

The nearly universal acceptance of U.S. public water supplies as safe is a tribute to the successful management of this nation's water systems. With the growth in complexity of public infrastructure and extensive use of water and sewer systems, there is a danger of potential contamination of water supplies. This increased risk to the integrity of water systems is a concern to Montgomery County Water Services. The responsibility to protect this community's public water supplies from contamination rests with this office.

The program to secure and protect the public water system from contamination is called Backflow Prevention and Cross-Connection Control (BPCCC). A concurrent program is managed by the Public Health of Dayton and Montgomery County, Division of Plumbing Inspection, to secure and protect the water supply within the service customer's premises.

Program Authority

The authority for the BPCCC program of the Public Health of Dayton and Montgomery County is based upon the Ohio Administrative Code Chapter 4101:2-51-38 Backflow.

The authority for the BPCCC program of Montgomery County Water Services is based on the Ohio Administrative Code 3745-95-01 through 08 Backflow Prevention and Cross-Connection Control.

The regulatory oversight of the BPCCC program for all Ohio public water supplies is the Ohio Environmental Protection Agency. Through regular inspections, program reviews and approvals, public water supplies are required to institute and maintain an effective BPCCC program.

The Ohio EPA requires all backflow devices have thorough inspections and operational tests performed at least once every twelve months at the expense of the water customer. More often if deemed necessary by the water supplier.

Backflow devices are required for fire sprinkler lines, underground lawn irrigation systems, separation of the public water system from an auxiliary water system, and prevention of cross-connections to any actual or potential hazard to the public water system. These devices shall be repaired, overhauled or replaced at the expense of the consumer whenever they are found to be defective. Records of such inspections, tests, repairs and overhaul shall be kept by the consumer and made available to Water Services.

The tests must be conducted by a plumber certified to test backflow prevention devices. A list of certified plumbers in the area can be obtained below:

<http://www.com.state.oh.us/dic/plans/scripts/bkfloqy.htm>

A plumber holding a valid certificate as a backflow technician shall perform inspections, tests, and overhaul of backflow prevention devices. The customer shall provide a copy of any inspection or test report to Water Services within 10 days of completing required testing. Failure to comply shall result in water service being shut off and not being restored until the customer has complied with these requirements. Customers shall be charged all applicable fees in effect at the time.

The governing regulations can be accessed on the following web sites.

Ohio EPA: <http://www.epa.state.oh.us/ddagw/oac.html#effective>

MCWS: <http://www.mcoho.org/water>

If you should have any questions, please contact either Ed Petticrew, Inspection Supervisor, at 937-781-2650 or petticrew@mcoho.org or Greg Marr at 937-781-2631 or marr@mcoho.org.

Thermal Expansion Precaution

Thermal expansion occurs when water expands due to being heated by a water heater. When a backflow preventer is put on line, the expanded water is no longer allowed to flow back into the water main to be dissipated. This may result in a pressure build up on the water heater causing the relief valve to open and vent water to the atmosphere. Other possible side effects are damage to the center of the flue of a gas fired water heater from constant internal pressure which could spur a hazardous presence of carbon monoxide gas or even a water heater explosion.

State plumbing codes have addressed this situation requiring that an expansion tank or other device designed for expansion control be on the cold water supply to the heater. This code should be followed by plumbers in making backflow installations.

It is also suggested that when a pressure relief valve is used, it should be installed above a drain or a line to the drain provided for water relief. When using a thermal expansion tank, the appropriate size for the water demand should be used.

If you have a question concerning this information, call Montgomery County Water Services:

Engineering Services:

Greg Marr, Phone 937-781-1631 or email marr@mcoho.org

Inspection Services:

Ed Petticrew, Phone 937-781-2650 or email petticrew@mcoho.org