



VILLAGE OF MINERVA
209 N. MARKET ST.
MINERVA, OH 44657

BACKFLOW PREVENTION & CROSS-CONNECTION PROGRAM

Backflow Prevention

Backflow Information

Water normally flows from the public water system into your home or business, but backflow is the “backwards flow” of water from private plumbing systems into the public water system. Backflow can carry harmful contaminants and bacteria into the public water system, which can lead to illness, injury and, in some cases, death.

About the Backflow Program

Regulatory authority for the backflow program rests with the Ohio Environmental Protection Agency and enforcement of the program rests with the Village of Minerva. View Chapter 3745-95 Backflow Prevention and Cross-Connection Control from the Ohio Administrative Code.

Cross-Connection Surveys

Chapter 3745-95-03 requires the Village of Minerva to conduct or cause to be conducted an on-site investigation of all premises at least every five years to identify changes in water use practices at the consumer’s property so that new or increased hazards to the water supply are identified and mitigated.

Installing Backflow Prevention Devices

Our water department requires commercial and residential customers to install a testable backflow prevention device when their plumbing installations pose a hazard to the public water system. This device prevents water from flowing backward into the water supply.

A few examples of businesses and plumbing situations that require backflow prevention may include:

- *Fire sprinkler systems*
- *Lawn irrigation systems*
- *Customers with irrigation and water only meters*
- *Medical facilities, laboratories and mortuaries*
- *Nursing homes*
- *Commercial, industrial, and manufacturing facilities*
- *Multi-residential buildings*
- *Restaurants*
- *Hair and nail salons*

- *Automotive repair shops*
- *Swimming pools*
- *Water powered backup sump pumps*
- *Sewage Treatment Plants and sewage or storm water run-off pumping stations*
- *Petroleum processing or storage plants*
- *Car Washes*

Customers must install and maintain the required backflow prevention device. Failure to do so poses a threat to the public water supply, and may result in water service being disconnected.

Required Annual Testing of Devices

After a backflow device is installed, it must be maintained. A backflow device must be tested by a backflow-certified plumber at installation and every 12 months thereafter to ensure that the device is still in good working order. All test results must be submitted to the Village of Minerva.

Overview

The Backflow and Cross-Connection Control Program for the Village of Minerva is overseen by the Service Director in conjunction with the Water Department. The regulations governing the Backflow and Cross-Connection Control Program can be found in the Village of Minerva Ordinance Chapter 927 and in the Ohio Administrative Code (OAC) section 3745-95-01 through 3745-95-09.

The Backflow and Cross-Connection Control Program oversees the installation and testing of backflow devices on water service lines to isolate the potable water system from contaminants that could enter into the water distribution system from the customer and on-site inspections/investigations to identify changes in water use practices so that new or increased hazards to the water supply are identified or mitigated.

The purpose of the program is to prevent contamination of the Village's potable water distribution system by the backflow, or back-siphon, of harmful substances into the water distributions system from external services. Potential problems, for example, could be caused by low or negative pressure in the distribution system caused by a fire, other large consumption, or a water main break in which contaminants can siphon back into the distribution system. Cross connections by users can also contaminate the system, for example, by equipment such as machine tooling centers that are connected to the water supply for cooling or fountain soft drink machines. Both example cross-connection sources can create over-pressurization of the connecting water system and can push contaminated water back into the distribution system without proper backflow prevention.

The Village of Minerva, as mandated by the Ohio Environmental Protection Agency, is required to maintain records of all backflow prevention devices installed within the Village distribution system. All backflow prevention devices must be tested, and/or repaired, by a backflow prevention technician certified by the Ohio Department of Commerce, on an annual basis, to assure proper operation. A record of this test procedure must be submitted to the Village of Minerva on an Ohio Backflow Preventer Test Report each calendar year. Any new backflow prevention device installations shall also be reported to the Village on a Backflow Preventer Test Report once installed.

The Village of Minerva does not perform State Certified Annual Inspections of backflow prevention devices. The individual customer is responsible for all yearly testing and repairs of their backflow devices at their own cost. The Village will conduct a Site Survey of each backflow prevention device

installation at least once every five years as required by OAC 3745-95-03. Furthermore, any potential backflow or cross-connection risk at a customer location may be inspected by the Village per Village of Minerva Ordinance 927.03.

Initial Survey and Inventory

The Village of Minerva conducted an initial survey from Sept. – Nov. 2019 to identify any potential hazards at existing locations connected to the municipal water supply, considered water uses at the premises, attempts to identify cross-connections or potential cross-connections, attempts to identify auxiliary water supplies, and attempts to identify the on premise use of contaminants or pollutants. The initial survey helped develop an inventory of potential hazards to the municipal water supply system (see Backflow Device Master Sheet). Locations identified on the Backflow Device Master Sheet shall have on-site inspections annually for cross-connections and the inspections will be recorded on the Cross Connection Control Master Spreadsheet.

New Installations

All new installations will be inspected by water department personnel for hazards and cross connections during water meter installation. The Village of Minerva is responsible for the on-site investigation to confirm appropriate containment is in place.

All plans for construction must be submitted to the Stark County Building Department prior to the issuance of a building permit. Stark County Building Department is the contracted building department for the Village of Minerva (portions in Carroll and Columbiana Counties included).

Plans for the installation of backflow prevention assemblies for the purpose of containment must be submitted to the Village of Minerva for review and approval.

Inspection and Maintenance of Backflow Prevention Assemblies

Regular inspection, testing and maintenance of backflow prevention assemblies and appropriate records of the results of these tests are essential parts of a backflow prevention program.

The water consumer is responsible for maintaining the backflow prevention assemblies and devices in proper working order. This requires frequent inspections of all backflow prevention devices, periodic testing of vacuum breakers, double check valve assemblies and reduced pressure principle backflow prevention assemblies. Records of inspections, testing, and repairs must be maintained as evidence of having met this responsibility.

The water consumer is responsible for reporting to the supplier of water the operating status of the backflow prevention assemblies installed on the consumer's water system. The method must be inspected, or the assembly must be tested, by an individual certified or approved by the Ohio Department of Commerce. A complete record of each method or assembly must be maintained by the water consumer. This shall include a comprehensive log from purchase to retirement of all tests, inspections and repairs.

- Air Gap Devices. All air gap devices must be inspected at least every 12 months to determine that they have not been bypassed.

- Pressure Vacuum Breakers. All pressure vacuum breakers must be tested at least every 12 months for evidence of mechanical failure and for proper installation.
- Double Check Valve Assemblies. All double check valve assemblies must be tested before they are placed in service. The frequency of testing shall be a maximum of twelve (12) months between tests. If the test shows that leakage occurs, the assembly must be dismantled, internally inspected and repaired immediately.
- Reduced Pressure Principle Backflow Prevention Assemblies. All reduced pressure principle backflow prevention assemblies should be observed periodically for evidence of leakage through the relief valve port. They must be tested at the time they are placed in service or repaired, and at least every twelve (12) months thereafter. More frequent tests may be required where the assembly shows evidence of deterioration due to water quality, operating conditions, age or other causes. If continued dumping of water occurs the assembly shall be immediately dismantled, inspected internally, and repaired or replaced by a new or rebuilt unit.
- Interchangeable Connections. All interchangeable connections must be inspected at least every 12 months to determine that they have not been improperly modified and that no piping connection has been made to the tell-tale port of a four-way valve.
- Booster Pump Low Suction Pressure Cut-off Devices, Low Suction Throttling Valves and Variable Speed Suction Limiting Controls. All booster pump low pressure cut-off devices, low suction throttling valves and variable speed suction limiting control systems, must be inspected and tested for proper operation at the time of installation and at least every 12 months thereafter.

Test/Inspection reports may be forwarded to the Village of Minerva by mail, fax or email.

Mail: Village of Minerva
Attn: Water Department
209 N. Market St.
Minerva, OH 44657

Fax: (330) 868-7708

Email: lzwahlen@ci.minerva.oh.us

Consumer Education

Educational materials on Backflow Prevention and Cross-Connection Control are available at Village Hall, 209 N. Market St., Minerva, OH and on the Village of Minerva website: minerva.oh.us. Educational materials will be distributed to residential water system users annually.

Site Inspections

An onsite investigation must be conducted for all service connections likely to have a pollutional, system, health or severe health hazard, every five years. The Village of Minerva will monitor water usage, review zoning permits to identify, on an on-going basis, changes in water use practices at consumer's premises that potentially or actually, represent a new or increased hazard to the potable water supply. This may include survey questionnaires filled out by the consumer and include triggers to

identify water use practices and likely hazards. Triggers could include notification from other local licensing agencies typically involved when a change in water use practice occurs, such as building, zoning, health or fire protection or those which are under the jurisdiction of the Village of Minerva including, a new or additional meter request or a new or additional service line. A survey or trigger indicating a likely water use practice that would result in the need for additional or higher level of backflow prevention must be followed up with an on-site investigation to ensure the hazard has been adequately addressed. For residential premises, without a likely hazard, an ongoing educational campaign, in accordance with OAC Rule 3745-95-03 can be used to fulfill the rule requirement for periodic surveys and investigations.

Reporting Suspected Cross-Connections

If you suspect that a cross connection exists at your residence or business, please contact Steve Couch at the Minerva Water Department, either by phone at (330) 868-7705 ext. 161 or email at lzwahlen@ci.minerva.oh.us.

Any questions regarding the Backflow and Cross-Connection Control Program shall be directed to: Steve Couch, Water Superintendent, at (330) 868-7705 ext. 161 during normal business hours of 7:00AM to 3:30PM, Monday through Friday.

Reviewed and Approved on 10/24/19:
Edited 02/19/20.

James T. Williams

James T. Williams, Service Director