

Village of Greenfield

*300 Jefferson Street
P.O. Box 300
Greenfield, Ohio 45123*

CROSS CONNECTION AND BACKFLOW PREVENTION

These rules on cross – connection and backflow prevention are intended to cover as many cases as possible but cannot cover every instance. It is therefore, recommended that the owner or his representative contact The Village of Greenfield Water Department for details on each specific instance, before beginning construction.

1. Cross Connection Control – General Policy

A. Purpose: The purpose of these Rules and Regulations is:

- 1.** To protect the Village potable water supply from contamination or pollution by isolating within the consumer’s water system contaminants or pollutants which could backflow through the service connection into the Village’s water system.
- 2.** To promote the elimination or control of existing cross connections, actual or potential, between the Village or consumer’s potable water system and nonpotable water systems, plumbing fixtures and sources or systems containing process fluids.
- 3.** To provide for the maintenance of a continuing program of cross connection control which will systematically and effectively prevent the contamination or pollution of the Village and consumer’s potable water systems.

B. Application: These Rules and Regulations shall apply to all premises served by the Village potable water system.

C. Policy: The Village of Greenfield Water Department and the Public Service Director shall be responsible for protection of the Village’s potable water system from contamination due to backflow of contaminants through the water service connection. If in the judgment of the Public Service Director or Water Department or their authorized representative, a cross - connection or backflow situation is possible the consumer shall be given notice to install such approved backflow prevention assembly at each service connection to the premises. The consumer shall immediately install such approved assembly or assemblies at his own expense, and failure, refusal or inability on the part of the consumer to install such assembly or assemblies immediately shall constitute grounds for discontinuing water service to the premises until such assembly or assemblies have been installed.

2. Cross Connection Prohibited

A. No water service connection shall be installed or maintained to any premises where actual or potential cross connections to the Village's potable or consumer's water system may exist unless such actual or potential cross connections are abated or controlled to the satisfaction of the Village of Greenfield Water Department and the Public Service Director.

B. No connection shall be installed or maintained whereby an auxiliary water supply may enter the Village's potable or consumer's water system unless such auxiliary water supply and the method of connection and use of such supply shall have been approved by the Village of Greenfield Water Department and the Public Service Director as required by section 6111.15 of the Ohio Revised Code and 3745-95 of the Ohio Administrative Code.

3. Survey and Investigations

A. The consumer's premises shall be open at all reasonable times to The Village of Greenfield Water Department and the Public Service Director, or their authorized representative, for the conduction of surveys and investigations of water use practices within the consumer's premises to determine whether there are actual or potential cross connections to the consumers water system through which contaminated or pollutants could backflow into the Village potable water system.

B. On request by the Village of Greenfield Water Department or the Public Service Director, or their authorized representative, the consumer shall furnish information on water use practices within his premises.

C. It shall be the responsibility of the water consumer to conduct periodic surveys of water use practices on his premises to determine whether there are actual or potential cross connections to his water system through which contaminants or pollutants could backflow into his or the Village potable water system.

4. Where Protection is Required.

An approved backflow prevention assembly shall be installed on each service line to a consumer's water system serving premises where the following conditions exist:

A. Premises having an auxiliary water supply, unless such auxiliary supply is accepted as an additional source by the Village of Greenfield and the source is approved by the OEPA.

B. Premises on which any substance is handled in such a fashion as to create an actual or potential hazard to the Village potable water system. This shall include premises having sources or systems containing process fluids or waters originating from the Village potable water system which are no longer under the sanitary control of the Village of Greenfield Water Department.

C. Premises having internal cross connections that in the judgment of the Village of Greenfield Water Department or the Public Service Director, are not correctable or intricate plumbing arrangements which made it impractical to determine whether or not a cross connection exists.

D. Premises where, because of security requirements or other prohibitions or restrictions, it is impossible or impractical to determine to make a complete cross connection survey.

E. Premises having a repeated history of cross connection being established or reestablished.

F. Others specified by the Village of Greenfield Water Department or Public Service Director.

G. An approved back flow prevention assembly shall be installed on each service line to a consumer's water system service, but not necessarily limited to the following types of facilities, unless the Village of Greenfield Water Department or the Public Service Director determines that no actual or potential hazard to the Village potable water system exists.

1. Hospitals, mortuaries, clinics, nursing homes
2. Laboratories
3. Piers, docks, waterfront facilities
4. Sewage treatment plants, sewage pumping station, or storm water pumping station.
5. Food or beverage processing plants
6. Chemical plants
7. Metal plating industrials
8. Petroleum processing or storage plants
9. Radioactive material processing plants or nuclear reactors
10. Car wash

H. An approved backflow prevention assembly shall be installed at any point of connection between the Village potable or consumer's water system and an auxiliary water supply, unless such auxiliary supply is accepted as an additional source by the Village of Greenfield and the source is approved by the OEPA.

I. An approved backflow prevention assembly shall be installed on each service line to a consumer's water system serving premises where, in the judgment of the Village of Greenfield Water Department or The Public Service Director, actual or potential hazards to the Village's potable water system exist.

J. Backflow Prevention is required on all fire lines. Each fire line and/or fire prevention system will be considered separately for the purposes of determining what backflow prevention assembly is required.

5. Type of Protection Required

A. The type of protection required of these regulations shall depend on the degree of hazard which exists as follows:

1. An approved air gap separation shall be installed where the Village potable water system may be contaminated with substances that could cause a serious health hazard.
2. An approved air gap separation or an approved reduced pressure principle backflow prevention assembly shall be installed where the Village's potable water system may be contaminated with a substance that could cause a system or health hazard.

B. The type of protection required under part 4 (H) of these regulations shall be an approved air gap separation or an approved interchangeable connection.

6. Backflow Prevention Assemblies

Any backflow prevention assembly required by these rules and regulations shall be a model or construction approved by the Village of Greenfield Water Department or Public Service Director and shall comply with the following:

A. A double check valve assembly or a reduced pressure principle backflow prevention assembly shall appear on the current "list of approved backflow prevention assemblies" of the OEPA. A current list is available at the Water Department Office or Water Pumping Station.

B. To be approved by The Village of Greenfield Water Department and Public Service Director:

1. An air gap separation shall be at least twice the diameter of the supply pipe measured vertically above the top rim of the vessel, but in no case less than 1 inch (1").
 2. An interchangeable connection shall be a four-way valve of the lubricated plug type that operates through a mechanism which unseats the plug, turns it ninety (90) degrees and reseats the plug. Four-way valves shall not be used as stop valves but must have separate stop valves on each pipe connected to the valve. The tell-tale port on the four-way valve shall have no piping connected and the threads or flange on this port shall be destroyed so that a connection cannot be made. Any interchangeable connection shall have an approved backflow prevention assembly on each line.
- C.** Existing backflow prevention assemblies approved by the Village of Greenfield Water Department or Public Service Director or OEPA at the time of installation and properly maintained shall, except for inspection and maintenance requirements, be excluded from this requirement of this regulation providing the Village of Greenfield is assured that they will satisfactorily protect the Village's potable water system. Whenever the existing assembly is moved from the present location or requires more than minimum maintenance or when the Village of Greenfield finds that the maintenance of the assembly constitutes a hazard to health, the assembly shall be replaced by a backflow prevention assembly meeting the requirements of these regulations.

7. Installation

A. Backflow prevention assemblies required by these rules and regulations shall be installed at a location and in a manner approved by the Village of Greenfield Water Department or Public Service Director, and shall be installed by and at the expense of the water consumer. In addition,

any backflow prevention assembly required of these regulations shall be installed at a location and in a manner approved by the Village of Greenfield Water Department as required by Section 6111.15 of the Ohio Revised Code & 3745-95 of the Ohio Administrative Code.

B. Backflow prevention assemblies installed on the service line to a consumer's water system shall be located on the consumer's side of the water meter, as close to the meter as is reasonably practical, and prior to any connection.

C. Pits or vaults will generally not be approved for the installation of any backflow prevention assembly. However, backflow prevention assembly may be allowed in a pit or vault that already exists and the pit or vault meets the following requirements.

1. Pits or vaults shall be of water – tight construction, be so located and constructed as to prevent flooding and shall be maintained free from standing water by means of either a sump pump or a suitable drain. Such sump pump or drain shall not connect to a sanitary sewer nor permit flooding of the pit or vault by reverse flow from its point of discharge. An access ladder and adequate natural or artificial lighting shall be provided to permit maintenance inspection and testing of the backflow prevention assembly.
2. If a pit or vault is approved, it shall be understood that when a major system renovation is undertaken the backflow prevention assembly will be moved out of the pit or vault to a suitable location approved by the Village of Greenfield Water Department.
3. Annual tests of the backflow prevention assembly system must be performed with the results submitted to the Village of Greenfield Water Department

8. Inspection and Maintenance

A. It shall be the duty of the property owner at any premises on which backflow prevention assemblies required by these regulations are installed to have inspections, tests and overhaul made in accordance with the following schedule or more often where inspections indicate a need.

1. All backflow prevention assemblies will be inspected at the time of installation and the results provided to the Village of Greenfield Water Department.
2. Air separation shall be inspected at time of installation and at least every twelve (12) months thereafter.
3. a.) Double check valve assemblies shall be inspected and tested for tightness at time of installation and at least every twelve (12) months thereafter.
b.) They shall be dismantled, inspected internally, cleaned and repaired whenever needed and at least every thirty (30) months.
4. a.) Reduced pressure principle backflow prevention assemblies shall be inspected and tested for tightness at time of installation and at least every twelve (12) months thereafter.
b.) They shall be dismantled, inspected internally, cleaned and repaired whenever needed and at least every five (5) years.

5. An interchangeable connection shall be inspected at time of installation and at least every twelve (12) months thereafter.
 - B.** Inspections, tests and overhaul of backflow prevention assemblies shall be made at the expense of the property owner and shall be performed by a person licensed and approved by the OEPA and the Village of Greenfield, as qualified to inspect, test and overhaul backflow prevention assemblies.
 - C.** The property owner must maintain a complete record of each backflow prevention assembly from purchase to retirement. This shall include a comprehensive listing that includes a record of all tests, inspections, and repairs. A copy of the records of inspections, tests, repairs and overhaul shall be submitted to the Village of Greenfield Water Department.
 - D.** Whenever backflow prevention assemblies required by these regulations are found to be defective, they shall be repaired or replaced at the expense of the property owner without delay and copies of the repairs or replacements must be submitted to the Village of Greenfield Water Department.
 - E.** Backflow prevention assemblies shall not be bypassed, made inoperative, removed or otherwise made ineffective without specific authorization by the Village of Greenfield Water Department or Public Service Director.

9. Booster Pumps.

- A.** Where a booster pump has been installed on the service line to or within any premises, such pump shall be equipped with a low pressure cut-off device designed to shut-off the booster pump when the pressure in the service line on the suction side of the pump drops to ten (10) pounds per square inch gauge or less.
- B.** It shall be the duty of the property owner to maintain the low pressure cut – off device in proper working order and to certify to the Village of Greenfield Water Department at least every twelve (12) that the device is operable. Certification must be performed by a licensed contractor.

10. Violations

A. The Village of Greenfield Water Department shall deny or discontinue, after reasonable notice to the occupants thereof, the water service to any premises wherein any backflow prevention assembly required by these regulations is not installed, tested and maintained in a manner acceptable to the Village of Greenfield Water Department, if it is found that the backflow prevention assembly has been removed or by – passed, or if an unprotected cross connection exists on the premises, or if a low pressure cut –off required by these regulations is not installed and maintained in working order.

B. Water service to such premises shall not be restored until the property owner has corrected or eliminated such connections or defects in conformance with these regulations and to the satisfaction of the Village of Greenfield Water Department.