

ORDINANCE 2021 - 12

**AN ORDINANCE ADDING CHAPTER 52 REGARDING WATER BACKFLOW PREVENTION TO THE CODIFIED ORDINANCES OF THE VILLAGE OF SMITHVILLE.**

BE IT ORDAINED BY THE COUNCIL OF THE VILLAGE OF SMITHVILLE, OHIO, THAT:

Section 1: Chapter 52 of the Codified Ordinances of the Village of Smithville, Ohio shall read as follows:

**CHAPTER 52**

**Water Backflow Prevention**

**52.01 Definitions.**

**52.02 Requirements.**

**52.99 Penalty.**

**52.01 DEFINITIONS.**

Unless the context specifically indicates otherwise, the meaning of terms used in this chapter shall be as follows:

- (1) "Authority" means the Village of Smithville which is enacting and enforcing this chapter.
- (2) "Approved" means accepted by the Mayor as meeting applicable rules, regulations, specifications and/or standards stated or referenced in this chapter, or as suitable for the proposed use.
- (3) "Auxiliary water supply" means any water supply on or available to the premises other than the Village's approved public water supply. These auxiliary waters may include water from another public potable water supply or any natural source(s) such as well, spring, river, stream, lake, harbor, etc., or "used water" or "industrial fluids".
- (4) "Backflow" means the reversal of the normal flow of water caused by either backpressure or backsiphonage.
- (5) "Backpressure" means the flow of water or other liquids, mixtures, or substances under pressure into the distribution pipes of a potable water supply system from any sources other than the intended source.
- (6) "Backsiphonage" means the flow of water or other liquids, mixtures, or substances into the distribution pipes of a potable water supply from any source other than its intended source caused by the reduction of pressure in the potable water system.
- (7) "Backflow preventer" means an assembly or means designed to prevent backflow.
- (8) "Air gap" means the unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank, plumbing, fixture or other device and the flood level rim of such vessel. An approved air gap shall be at least double

the diameter of the supply pipe, measured vertically, above the overflow rim of the vessel and in no case less than one inch.

- (9) "Reduced pressure principle assembly" means an assembly of two, independently acting, approved check valves together with an operating, mechanically independent differential pressure relief valve located between the check valves and at the same time below the first check valve. The unit shall include properly located test cocks and tightly closing shut-off valves at each end of the assembly. The entire assembly shall meet the design and performance specifications as determined by a laboratory and a field evaluation program resulting in an approval by a recognized and certified testing agency for backflow prevention assemblies. The assembly shall operate to maintain the pressure in the zone between the two check valves at an acceptable level less than the pressure on the public water supply side of the assembly. At cessation of a normal flow the pressure between the two check valves shall be less than the pressure on the public water supply side of the device. In case of leakage of either of the check valves the differential relief valve shall operate to maintain the reduced pressure in the zone between the check valves by discharging to the atmosphere. When the inlet pressure is two pounds per square inch or less, the relief valve shall open to the atmosphere. To be approved these assemblies must be EPA approved. They must be readily accessible for in-line testing and maintenance and must be installed in a location where no part of the assembly will be submerged.
- (10) "Double check valve assembly" means an assembly of two, independently operating, approved check valves with tightly closing shut-off valves on each end of the check valves, plus, properly located test cocks for the testing of each check valve. The entire assembly shall meet the design and performance specifications as determined by a laboratory and field evaluation program resulting in an approval by a recognized and certified testing agency for backflow prevention assemblies. To be approved these assemblies must be EPA approved and readily accessible for in-line testing and maintenance.
- (11) "Village" means Village of Smithville, Ohio, or authority.
- (12) "Consumer" means the owner or person in control of any premises supplied by or in any manner connected to a public water system.
- (13) "Consumer's water system" means any water system, located on the consumer's premises, supplied by or in any manner connected to a public water system. A household plumbing system is considered to be a consumer's water system.
- (14) "Contamination" means an impairment of the quality of the potable water by sewage, industrial fluids, or waste liquids, compounds or other materials to a degree which creates an actual or potential hazard to the public health through poisoning or through the spread of disease.
- (15) "Cross-connection" means any physical connection or arrangement of piping or fixtures between two otherwise separate piping systems one of which contains potable water and the other non-potable water or industrial fluids of questionable safety, through which, or because of which, backflow may occur into the potable water system. This would include any temporary connections such as swing connections, removable sections, four-way plug

valves, spools, dummy section of pipe, swivel or change-over devices or sliding multiport tube.

- (16) "Controlled cross-connection" means a connection between a potable water system and any other water system with an approved backflow prevention assembly properly installed and maintained so that it will continuously afford the protection commensurate with the degree of hazard.
- (17) "Cross-connection control by containment" means the installation of an approved backflow prevention assembly at the water service connection to any customer's premises where it is physically and economically infeasible to find and permanently eliminate or control all actual or potential cross connections within the customer's water system; or, it shall mean the installation of an approved backflow prevention assembly on the service line leading to and supplying a portion of a customer's water system where there are actual or potential cross-connections which cannot be effectively eliminated or controlled at the point of the cross-connection.
- (18) "Mayor" means the Mayor of the Village or his authorized representative.
- (19) "Degree of hazard" is a term derived from an evaluation of the potential risk to the public health and the adverse effect of the hazard upon the potable water system.
- (20) "Health hazard" means any condition, device or practice in the water supply and its operation which creates, or in the judgment of the Mayor, may create a danger to the health and well-being of any water consumer. "Severe" as used to qualify "health hazard" means a hazard to the health of any consumer that could reasonably be expected to result in significant morbidity or death.
- (21) "Plumbing hazard" means a plumbing type cross-connection in a consumer's potable water system that has not been properly protected by an approved air gap or approved backflow prevention assembly.
- (22) "Pollutional hazard" means an actual or potential threat to the physical properties of the water system or to the potability of the consumer's potable water system which would constitute a nuisance or be aesthetically objectionable or could cause damage to the system or its appurtenances but would not be dangerous to health.
- (23) "System hazard" means an actual or potential threat of severe damage to the physical properties of the public potable water system or the consumer's potable water system or of a pollution or contamination which would have a protracted effect on the quality of the potable water in the system.
- (24) "Industrial fluids system" means any system containing a fluid or solution which may be chemically, biologically, or otherwise contaminated or polluted in a form or concentration such as would constitute a health, system, pollutional or plumbing hazard if introduced into an approved water supply. This may include, but is not to be limited to polluted or contaminated waters: all types of process waters and used waters originating from the public potable water system which may have deteriorated in sanitary quality, chemicals in fluid form; plating acids and alkalines; circulating cooling waters connected to an open

cooling tower and/or cooling towers that are chemically or biologically treated or stabilized with toxic substances; contaminated natural waters such as from wells, springs, streams, rivers, lakes, bays, harbors, seas, irrigation canals or systems, etc., oils, gases, glycerine, paraffins, caustic and acid solutions and other liquid and gaseous fluids used for firefighting purposes or for industrial or other purposes.

- (25) "Certified backflow inspector" means an inspector certified by the Ohio EPA to perform testing of approved backflow prevention devices according to EPA rules, regulations, and standards.
- (26) "Interchangeable connection" means an arrangement or device that will allow alternate but not simultaneous use of two sources of water.
- (27) "Pollution" means the presence of any foreign substance (organic, inorganic, or biological) in water which tends to degrade its quality so as to constitute a hazard or impair the usefulness or quality of the water to a degree which does not create an actual hazard to the public health, but which does adversely and unreasonably affect such waters for domestic use.
- (28) "Public water system" means the potable water system publicly owned and operated by the Village.
- (29) "Water purveyor" means the owner or operator of a public potable water system, i.e., the Village.
- (30) "Potable water" means any water which, according to recognized standards, is safe for human consumption, culinary and domestic purposes.
- (31) "Nonpotable water" means any water which is not approved for human consumption, personal or culinary use,
- (32) "Service connection" means the terminal end of a service connection from the public water system, i.e., where the water purveyor loses sole jurisdiction and sanitary control over the water system at its point of delivery to the customer's water system. If a meter is installed at the end of a service connection, then "service connection" means the downstream end of the meter. There should be no unprotected take-offs from the service line ahead of any meter or any backflow prevention assembly located at the point of delivery to the customer's water system. Service connection shall also include water service connection from a fire hydrant and all other temporary or emergency water service connections from the public potable water system.
- (33) "Used water" means any water supplied by a water purveyor from a public potable water system to a consumer's water system after it has passed through the point of delivery and is no longer under the sanitary control of the water purveyor.
- (34) "Shall" means it is mandatory.
- (35) "May" means it is permissive.

## **52.02 REQUIREMENTS.**

- (a) Upon written notice from the Mayor the water consumer receiving potable water service from the Village shall install, at his sole expense, a backflow prevention assembly of a type approved by the Mayor. If the consumer fails to properly install such backflow prevention assembly within ninety (90) calendar days after receiving written notice, water service shall be curtailed.
- (b) In the case of emergency or condition deemed by the Mayor as being a potential hazard to the potable water supply, the Mayor may disconnect water service to the consumer immediately and such water service shall remain discontinued until such condition has been corrected and/or an approved backflow prevention assembly has been properly installed, inspected and certified.
- (c) Such backflow assembly shall be inspected by a certified backflow inspector at least annually, or more often in those instances where successive inspections indicate possible defective operation. If repairs are deemed necessary by such inspector, such maintenance shall be performed within thirty calendar days unless subsection (b) hereof applies. All inspection, maintenance, repair and/or replacement costs are at the expense of the consumer. If a certified backflow inspector, not employed by the Village, performs such inspection, it is the responsibility of the consumer to forward results of such inspections and testing results to the Village for proper record keeping and use.
- (d) An approved backflow prevention device shall be installed on each service line to a consumer's water system serving premises where, in the judgment of the Mayor, a health, pollutional or system hazard to the public water system exists. The cost of such backflow prevention device shall be at the expense of the owner and may be purchased directly by the owner. If requested by the owner, the device shall be furnished by the Village and the cost shall be added to the taps, service line and meter fees and/or deposits.
- (e) An approved backflow prevention device shall be installed on each service line to a consumer's water system serving premises where any of the following conditions exist:
  - (1) Premises having an auxiliary water system unless such auxiliary system is accepted as an additional source by the Mayor.
  - (2) Premises on which any substance is handled in such a fashion as to create an actual or potential hazard to the public water system. This shall include premises having sources or systems containing process fluids or waters originating from a public water system not under control of the Mayor.
  - (3) Premises having internal cross-connections that, in the judgment of the Mayor are not correctable, or intricate plumbing arrangements which make it impracticable to determine whether or not cross-connections exist.
  - (4) Premises where, because of security requirements or other prohibitions or restrictions, it is impossible or impractical to make a complete cross connection survey.
  - (5) Premises having a repeated history of cross-connections being established or reestablished.

- (6) Others specified by the Mayor.
- (f) An approved backflow prevention device shall be installed on each service line to a consumer's water system serving, but not necessarily limited to, the following types of facilities unless the Mayor determines that no health, pollutional or system hazard to the public system exists or potentially exists:
  - (1) Hospitals, mortuaries, clinics, funeral homes.
  - (2) Laboratories.
  - (3) Piers, docks, waterfront facilities.
  - (4) Sewage plants, sewage pumping stations or storm water pumping stations.
  - (5) Food or beverage processing plants.
  - (6) Chemical and fertilizer plants.
  - (7) Metal plating industries, metal fabricating plants, foundries.
  - (8) Petroleum processing or storage plants.
  - (9) Radioactive material processing plants or nuclear reactors.
  - (10) Electric generating plants.
  - (11) Car washes.
  - (12) Restaurants.
- (g) An approved backflow prevention device shall be installed at any point of connection between the Village's public potable water system and any auxiliary water system.
- (h) The backflow protection device required shall depend on the degree of hazard as determined by the Mayor. In determining the degree of hazard and the type device to be required, the following criteria shall be used:
  - (1) An air gap separation is required where there are existing toxic substances on the premises in toxic concentration, and/or that may be handled in such a manner as to permit entry into the water system.
  - (2) An air gap separation or a reduced pressure principle backflow prevention device shall be used where there is an existing or potential health or system hazard.
  - (3) A double check valve assembly may be used at the discretion of the Mayor where there is an existing or potential pollutional hazard.
- (i) Should an approved backflow prevention assembly be removed and/or bypassed, or if an unprotected cross-connection is found to exist on the premises, water service shall be discontinued until such conditions or defects are corrected and approved by the Mayor.
- (j) The consumer shall allow the authority or its representatives, upon presentation of credentials of identification, to enter upon the premises of the consumer at all reasonable hours for the purpose of making surveys and investigations of the consumer's water system and water use practices.
- (k) On request by the Mayor, the consumer shall furnish the Village information on water use practices within the consumer's premises.
- (l) Subsections (a) through (k) hereof do not relieve the consumer of the responsibility for conducting, or causing to be conducted, periodic surveys of water use practices on his

premises to determine whether there are actual or potential cross-connections in the consumer's water system through which contaminants or pollutants could backflow into the public water system or a consumer's potable water system, nor does it relieve the consumer of any liability for damages incurred as a result of such cross connections.

- (m) The Ohio EPA list of approved backflow prevention devices as amended from time to time is incorporated into this chapter by reference.

**52.99 PENALTY.**

The Department of Public Utilities shall have the authority to immediately discontinue service to any premises where cross-connection or other hazards to the water system are found to exist and shall not again render service to such premises until such hazards are eliminated in accordance with this chapter. Any user who violates any of the provisions of this chapter or alters, bypasses, or renders inoperative any backflow prevention device installed under the provisions of this chapter shall be subject to immediate discontinuance of water service. Service shall not again be rendered until such violation or noncompliance has been corrected.

PASSED in Council this 3<sup>rd</sup> day of August, 2021.

Tricia Mullins  
President of Council

Attest:

Beverly Hadden  
Clerk of Council/Treasurer

Approved:

Tom R. Fisher  
Mayor

Date Approved: \_\_\_\_\_