



## Fuquay-Varina Board of Commissioners

August 8, 2023

*AN ORDINANCE BY THE GOVERNING BOARD  
OF THE TOWN OF FUQUAY-VARINA, NORTH CAROLINA  
TO ENACT PART 5-MUNCIPAL UTILITIES  
CHAPTER 1-WATER SUPPLY AND DISTRIBUTION  
ARTICLE D-CROSS-CONNECTION CONTROL*

- WHEREAS, the Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply; and
- WHEREAS, the law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources—rivers, lakes, reservoirs, springs, and ground water wells; and
- WHEREAS, the SDWA authorizes the United States Environmental Protection Agency (US EPA) to set national health-based standards for drinking water to protect against both naturally-occurring and man-made contaminants that may be found in drinking water. US EPA, states, and water systems then work together to make sure that these standards are met; and
- WHEREAS, the US EPA delegates primary enforcement responsibility (also called primacy) for public water systems to States and Indian Tribes if they meet certain requirements; and
- WHEREAS, the North Carolina Department of Environmental Quality (NC DEQ) is the primacy agency for the USEPA that enforces "Rules Governing Water Supplies" through North Carolina Administrative Code-Title 15A, Subchapter 18C, Sections .0100-.2200; and
- WHEREAS, pursuant to 15A NCAC 18D .0205(c), "Rules Governing Water Treatment Facility Operators", the classification CROSS-CONNECTION CONTROL shall be applied to any distribution system that is required to have installed five or more testable backflow prevention assemblies in accordance with 15A NCAC 18C .0406(b), and
- WHEREAS, the purpose and intent of enacting this Ordinance is to develop a Cross-connection Control Program that protects public health, eliminates cross-connections within the Town's drinking water supply and complies with regulations set-forth by the State of North Carolina.

NOW, THEREFORE BE IT ORDAINED, by the Board of Commissioners of the Town of Fuquay-Varina, North Carolina, the following:

### **Part 5-Chapter 1-Article D Cross-Connection Control**

#### **§5-1039. Cross-Connection Control, generally.**

The purpose of these cross-connection control regulations is to define the Town of Fuquay-Varina ("the town") as the water purveyor in the elimination of all cross-connections within its public potable water supply. The regulations shall apply to all consumers connected to the town's public potable water supply. The regulations will comply with the Federal Safe Drinking Water Act (P.L. 93-523), the North Carolina State Administrative Code (Title 15A, Subchapter 18C), and the North Carolina State Building Code (Volume II) as they pertain to cross-connections with the public water supply. In accordance with G.S. 162A-9.1, the town is authorized and empowered to adopt the ordinance from which this division is derived.

**§5-1040. Objectives.**

The specific objectives of the cross-connection control regulations are as follows:

- (a) To protect the public potable water supply of the town from the possibility of contamination or pollution by isolating within the consumer's water system such contaminants, waterborne health hazards and other significant pollutants which could backflow into the public water systems.
- (b) To eliminate or control existing cross-connections, actual or potential, between the consumer's potable water system(s) and non-potable water system(s), plumbing fixtures and industrial piping systems.
- (c) To provide an inspection program for cross-connection control which will systematically and effectively control all actual or potential cross-connections which may be installed in the future.

**§5-1041. Designation of responsibility.**

(a) Health agency's responsibility. The North Carolina Department of Environmental Quality Division of Water Resources ("Division") has the responsibility for promulgating and enforcing laws, rules, regulations and policies applicable to all water purveyors in the state in carrying out an effective cross-connection control program. The Division also has the primary responsibility of ensuring that the water purveyor operates a public potable water system free of actual or potential sanitary hazards including unprotected cross-connections. The Division also has the responsibility of ensuring that the water purveyor provides an approved water supply at the service connection to the consumer's water system and, further, that the purveyor requires the installation, testing, and maintenance of an approved backflow prevention assembly on the service connection when required.

(b) Town's responsibility. Except as otherwise provided herein, the town is the water purveyor and is responsible for ensuring a safe water supply beginning at the source and including all of the public water distribution system, including the service connection, and ends at the point of delivery (backside of the customer's water meter which is located in the public right of way) to the consumer's water system. In addition, the town shall exercise reasonable vigilance to ensure that the consumer has taken the proper steps to protect the public potable water system. The town will determine the degree of hazard or potential hazard to the public potable water system, the degree of protection required, and will ensure proper containment protection through an ongoing inspection program. The town will identify all facilities where approved backflow prevention assemblies are required to be installed. When it is determined that a backflow prevention assembly is required for the protection of the public system, the town shall require the consumer, at the consumer's expense, to install an approved backflow prevention assembly at the service connection, to test immediately upon installation and annually thereafter to properly repair and maintain the assembly or assemblies and to keep adequate records of each test and subsequent maintenance and repair, including materials and/or replacement parts. The town shall not be responsible for any repairs to any assembly not owned by the town.

(c) Plumbing inspector's responsibility. The town inspection department shall have the responsibility to not only review building plans and inspect plumbing as it is installed but, they have the explicit responsibility of preventing cross-connections from being designed and built into the plumbing system within its jurisdiction. Where the review of building plans suggests or detects the potential for cross-connections being made an

integral part of the plumbing system, the plumbing inspector has the responsibility, under the North Carolina Building Code, for requiring that such cross-connections be either eliminated or provided with backflow prevention equipment approved by the North Carolina State Building Code. The plumbing inspector's responsibility begins at the point of delivery downstream of the first installed backflow prevention assembly and continues throughout the entire length of the consumer's water system. The inspector should inquire about the intended use of water at any point where it is suspected that a cross-connection might be made or where one is actually called for by the plans. When such is discovered, it shall be mandatory that a suitable, approved backflow prevention assembly be installed that is approved by the North Carolina Building Code, North Carolina Department of Environmental Quality and the town.

(d) Consumer responsibility. The consumer has the primary responsibility of preventing pollutants and contaminants from entering the potable water system or the public potable water system. The consumer's responsibility starts at the point of delivery from the public potable water system and includes all of their water system. The consumer, at their expense, shall install, operate, test, and maintain approved backflow prevention assemblies as directed by the town. The consumer shall maintain accurate records of tests and repairs made to backflow prevention assemblies and shall maintain such records for a minimum period of three years. The records shall be on forms approved by the town and shall include the list of materials or replacement parts used. Following any repair, overhaul, re-piping, or relocation of an assembly, the consumer shall have it tested to ensure that it is in good operating condition and will prevent backflow. Tests, maintenance and repairs of backflow prevention assemblies shall be made by a certified backflow prevention assembly tester.

(e) Certified backflow prevention assembly tester responsibility. When employed by the consumer to test, repair, overhaul, or maintain backflow prevention assemblies, a certified backflow prevention assembly tester ("tester") will have the following responsibilities:

(1) The tester will be responsible for making competent inspections and for repairing, or overhauling backflow prevention assemblies and making reports of such repair to the consumer and the town on forms approved by the town. The tester shall include the list of materials or replacement parts used. The tester shall be equipped with and be competent to use all the necessary tools, gauges, test kits, and other equipment necessary to properly test, repair, and maintain backflow prevention assemblies. It will be the tester's responsibility to ensure that original manufactured parts are used in the repair of or replacement of parts in a backflow prevention assembly. It will be the tester's further responsibility not to change the design, material, or operational characteristics of an assembly during repair or maintenance without prior approval of the town. A tester shall perform the work and be responsible for the competency and accuracy of all tests and reports. The tester shall provide a copy of all test and repair reports to the consumer and to the town within ten business days of any completed test or repair work. A tester shall maintain such records for a minimum period of three years.

(2) All state certified backflow prevention assembly testers must obtain and employ backflow prevention assembly test equipment which has been evaluated and/or approved by the town or its contractor. All test equipment shall be registered with the town. All test equipment shall be checked for accuracy annually (at a minimum), calibrated, if necessary, and certified to the town as to such calibration, employing an accuracy/calibration method acceptable to the town.

#### **§5-1042. Definitions.**

The following words, terms and phrases, when used in this division, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Air gap means a physical separation between the free-flowing discharge end of a potable water supply pipeline and open or non-pressure receiving 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 in no case less than one inch (2.54 cm).

Approved means, as used in reference to a water supply, a water supply that has been approved by the NC Department of Environmental Quality; or, as used in reference to air-gap separation, a pressure vacuum breaker, a double check valve assembly, a double check detector assembly, a reduced pressure principle backflow prevention assembly, a reduced pressure principle detector assembly, or other backflow prevention assemblies or methods approved by the town.

Auxiliary water supply means any water supply on or available to the premises other than the purveyor's approved public water supply. These waters may be contaminated or polluted, or they may be objectionable and constitute an unacceptable water source over which the water purveyor does not have sanitary control.

Backflow means the undesirable reversal of flow of water or mixtures of water and other liquids, gases or other substances into the distribution pipes of the potable supply of water from any source or sources. See definitions "backpressure" and "back siphonage".

Backflow prevention assembly—Approved. The term "approved backflow prevention assembly" means an assembly used to prevent backflow into a consumer or public potable water system and has been approved by the town and has been shown to meet the design and performance standards of the American Water Works Association (AWWA), or the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California. The approval of backflow prevention assemblies by the town is based on a favorable report by the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California, recommending such an approval.

Backflow prevention assembly—Type means an assembly used to prevent backflow into a consumer or public potable water system. The Type of assembly used should be based on the degree of hazard either existing or potential. The approved types are:

- (1) Double check valve assembly (DCVA)
- (2) Double check detector assembly (DCDA)
- (3) Pressure vacuum breaker (PVB)
- (4) Reduced pressure principle assembly (RP)
- (5) Reduced pressure principle detector assembly (RPDA)

Backpressure means any elevation of pressure in the downstream piping system (by pump, elevation of piping, or steam and/or air pressure) above the supply pressure at the point of consideration which would cause, or tend to cause, a reversal of the normal direction of flow.

Back siphonage means a form of backflow due to a reduction in system pressure which causes a sub atmospheric pressure to exist at a site in the water system.

Certified backflow prevention assembly tester (tester) means a person who has proven their competency to the satisfaction of the town. Each person who is certified to make competent tests, or to repair, overhaul, and make reports on backflow prevention assemblies shall be knowledgeable of applicable laws, rules, and regulations, shall be a licensed plumber or have at least two years' experience and be employed by a licensed plumber or plumbing contractor, or have equivalent qualifications acceptable to the town, and must hold a certificate of completion from an approved training program in the testing and repair of backflow prevention assemblies.

Consumer means any person, firm, or corporation using or receiving water from the town water system.

Consumer's potable water system means that portion of the privately owned potable water system lying between the point of delivery and point of use and/or isolation protection. This system will include all pipes, conduits, tanks, receptacles, fixtures, equipment, and appurtenances used to produce, convey, store, or use potable water.

Consumer's water system includes any water system commencing at the point of delivery and continuing throughout the consumer's plumbing system located on the consumer's premises, whether supplied by a public potable water or an auxiliary water supply. The systems may be either a potable water system or an industrial piping system.

Containment means preventing the impairment of the public potable water supply by installing an approved backflow prevention assembly at the service connection.

Contamination means an impairment of the quality of the water which creates a potential or actual hazard to the public health through the introduction of hazardous or toxic substances or waterborne health hazards in the form of physical or chemical contaminants or biological organisms and pathogens.

Cross-connection means any unprotected actual or potential connection or structural arrangement between a public or a consumer's water system and any other source or system through which it is possible to introduce any contamination or pollution, other than the intended potable water with which the system is supplied. Bypass arrangements, jumper connections, removable sections, swivel or changeover devices, and other temporary or permanent devices through which or because of which "backflow" can or may occur are considered to be cross-connections.

Double check detector assembly means a specially designed assembly composed of a line-size approved double check valve assembly with a specific bypass water meter and a meter sized approved double check valve assembly. The meter shall register in US gallons accurately for only very low rates of flow and shall show a registration for all rates of flow. This assembly shall only be used to protect against a non-health hazard (i.e., pollutant).

Double check valve assembly means an assembly composed of two independently acting, approved check valves, including tightly closing shut-off valves attached at each end of the assembly and fitted with properly located test cocks. This assembly shall only be used to protect against a non-health hazard (i.e., pollutant).

Degree of hazard shall be derived from the evaluation of conditions within a system which can be classified as either a health hazard or a non-health hazard.

Health hazard means an actual or potential threat of contamination of a physical, chemical, biological, pathogenic or toxic nature to the public or consumer's potable water system to such a degree or intensity that there would be a danger to health. Examples of waterborne health hazards include but are not limited to:

- (1) Physical - radioisotopes/radionuclides;
- (2) Chemical - lead, mercury and other heavy metals, organic compounds, other toxics and hazardous substances;
- (3) Biological - microorganisms and pathogens like cryptosporidium, typhoid, cholera and E. Coli.

Industrial fluids mean any fluid or solution which may be chemically, biologically, or otherwise contaminated or polluted in a form or concentration such as would constitute a health, or non-health hazard if introduced into a public or consumer potable water system. Such fluids may include, but are not limited to: process waters; chemicals in fluid form; acids and alkalis; oils, gases; etc.

Industrial piping system means a system used by the consumer for transmission, conveyance or storage of any fluid, solid or gaseous substance other than an approved water supply. Such a system would include all pipes, conduits, tanks, receptacles, fixtures, equipment, and appurtenances used to produce, convey, or store substances which are or may be polluted or contaminated, including fire suppression systems.

Isolation means the act of confining a localized hazard within a consumer's water system by installing approved backflow prevention assemblies. Disclaimer: the town may make recommendations, upon facility inspection, as to the usage of isolation devices/assemblies, but does not assume or have responsibility whatsoever for such installations.

Non-health hazard means an actual or potential threat to the quality of the public or the consumer's potable water system. A non-health hazard is one that, if introduced into the public water supply system could be a nuisance to water customers but would not adversely affect human health.

Non-Residential means:

- (1) Office buildings, stores, shops, restaurants, service stations, and other non-residential establishments.
- (2) Hospitals, nursing homes, and institutional care facilities.
- (3) Schools, dormitories, churches, and other similar non-residential institutions.
- (4) Utility services used in a multi-family residential structure (other than the individual residential units, laundry facilities, recreational facilities, etc.

Point of delivery shall generally be at the back side of the meter, adjacent to the public street where the town's water distribution mains are located. The customer shall be responsible for all water piping and control devices located on the customer's side of the point of delivery.

Pollution means an impairment of the 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 the aesthetic qualities of such waters for domestic use.

Potable water means water from any source which has been approved for human consumption by the North Carolina Department of Environmental Quality (NCDEQ).

Pressure type vacuum breaker means an assembly containing an independently operating internally loaded check valve and an independently operating loaded air inlet valve located on the discharge side of the check valve. The assembly is to be equipped with properly located test cocks and tightly closing shutoff valves attached at each end of the assembly. This assembly is designed to protect against a health hazard (i.e., contaminant) under a back-siphonage condition only.

Public potable water system means any publicly or privately owned water system operated as a public utility, under a current NCDEQ permit, to supply water for public consumption or use. This system will include all sources, facilities, and appurtenances between the source and the point of delivery such as valves, pumps, pipes, conduits, tanks, receptacles, fixtures, equipment, and appurtenances used to produce, convey, treat, or store a potable water for public consumption or use.

Reduced pressure principal backflow prevention assembly means an assembly containing within its structure a minimum of two independently acting, approved check valves, together with a hydraulically operating, mechanically independent, pressure differential relief valve located between the check valves and at the same time below the first check valve. The first check valve reduces the supply pressure to a predetermined amount so that during normal flow and at cessation of normal flow, the pressure between the checks shall be less than the supply pressure. In case of leakage of either check valve, the pressure differential relief valve, by discharge to atmosphere, shall operate to maintain the pressure between the checks less than the supply pressure. The unit shall include tightly closing shutoff valves located at each end of the assembly and each assembly shall be fitted with properly located test cocks. The assembly is designed to protect against a health hazard (i.e., contaminant).

Reduced pressure principle-detector assembly means a certified properly functioning assembly composed of a line-size approved reduced pressure principle backflow prevention assembly with a specific bypass water meter and a meter-sized approved reduced pressure principle backflow prevention assembly. The meter shall register (in U.S. gallons) accurately for only very low rates of flow and shall show a registration for all rates of flow. This assembly shall be used to protect against health hazards (i.e., contaminants).

Residential—means an individual residence, defined as a single dwelling unit, which provides permanent and independent facilities complete for living, sleeping, eating cooking and sanitation. An individual residence may include a house, condominium, modular home, mobile home, or individually metered apartment.

Split Tap—means a line that is split to the point of delivery.

Service connections means the terminal end of a service connection from the public potable water system, i.e., where the town loses jurisdiction and control over the water at its point of delivery to the consumer's water system.

Vacuum breaker—Atmospheric type. The term "atmospheric vacuum breaker", also known as the "non-pressure type vacuum breaker," means a device containing a float-check, a check seat, and an air inlet port. The flow of water into the body causes the float to close the air inlet port. When the flow of water stops, the float falls and forms a check valve against back-siphonage and at the same time opens the air inlet port to allow air to enter and satisfy the vacuum. A shut-off valve immediately upstream may be an integral part of the device. An atmospheric vacuum breaker is designed to protect against a non-health hazard, isolation protection only, under a back siphonage condition only.

Town or its contractor in this division means any town-related authority or independent contractor with which the town has contracted for services related to the management of cross-connections and which shall have the authority to operate on behalf of the town.

Unapproved water supply means a water supply which has not been approved for human consumption by the NCDEQ.

Used water means any water supplied by a water purveyor from a public water system to a consumer's water system after it has passed through the point of delivery and is no longer under the control of the water purveyor.

Water purveyor means the owner or operator of a public potable water system providing an approved water supply to the public.

#### **§5-1043. Right of entry.**

---

(a) Upon presentation of proper credentials and identification, authorized representatives from the town shall have the right to enter any building, structure, or premises during normal business hours, or at any time during the event of an emergency to perform any duty imposed by this division. Those duties may include sampling and testing of water, or inspections and observations of all piping systems connected to the public water supply.

(b) Where a consumer has security measures in force which would require proper identification and clearance before entry into the premises, the consumer shall make necessary arrangements with the security guards so that upon presentation of suitable identification, the town personnel will be permitted to enter without delay for the purpose of performing their specific responsibilities. Refusal to allow entry for these purposes may result in discontinuance of water service.

**§5-1044. Consumer to furnish information.**

On request, the consumer shall furnish to the town any pertinent information regarding the water supply system on such property where cross-connections and backflow are deemed possible.

**§5-1045. Elimination of cross-connections: degree of hazard.**

(a) When cross-connections are found to exist, the owner, his agent, occupant, or tenant will be notified in writing to disconnect the same within the time limit established by the town. The degree of protection required, and maximum time allowed for compliance will be based upon the potential degree of hazard to the public water supply system. If, in the judgment of the town, an imminent health hazard exists, water service to the building or premises where a cross-connection exists may be terminated unless an air gap is immediately provided, or the cross-connection is immediately eliminated. The maximum time limits are as follows:

- (1) Cross-connections with private wells or other auxiliary water supplies require immediate disconnection.
- (2) All facilities which pose a potential health hazard to the potable water system must have a reduced pressure principle backflow prevention assembly within 60 days of notification by the town.
- (3) All industrial and commercial facilities not identified as a "health hazard" shall be considered "non-health-hazard facilities." All non-health-hazard facilities must install a double check backflow prevention assembly within 90 days of notification by the town.

(b) Water mains served by the town but not maintained by the town shall be considered cross-connections, with degree of hazard to be determined by the town. Degree of protection shall be based upon the degrees of hazard, as determined by the town.

(c) In the event that town personnel do not have sufficient access to every portion of a private water system (i.e., classified research and development facilities; federal government property) to allow a complete evaluation of the degree of hazard associated with such private water systems, an approved reduced pressure principle backflow prevention assembly shall be required as a minimum of protection.

(d) No person shall fill special use tanks or tankers containing pesticides, fertilizers, other toxic chemicals or their residues from the public water system except at a town-approved location equipped with an air gap or an approved reduced pressure principle backflow prevention assembly properly installed on the public water supply.

**§5-1046. Installation of assemblies.**

(a) All backflow prevention assemblies shall be installed in accordance with the specifications furnished by the town and/or in the latest edition of the North Carolina Building Code, whichever is most restrictive.



(b) All new construction plans and specifications, when required by the North Carolina Building Code or the North Carolina Department of Environmental Quality, shall be made available to the town for review and approval and to determine the degree of hazard.

(c) Ownership, testing, and maintenance of the assembly shall be the responsibility of the consumer.

(d) Reduced pressure principle backflow prevention assemblies shall be installed in a horizontal position and in a location in which no portion of the assembly can become submerged in any substance under any circumstance. Pit and/or below grade installation are prohibited.

(e) All double-check valve assemblies shall be installed in a location in which no portion of the assembly can become submerged in any substance under any circumstance. Positive drainage is required if it is placed below grade. Double check valve assemblies may be installed in a vertical position with prior approval from the Town, provided the flow of the water is in an upward direction.

(f) All backflow prevention assemblies connected to piping 2 ½ inches in diameter or larger shall be provided with gate valves on each side of the backflow prevention assembly. Each of these gate valves shall be operated by an outside screw and yoke assembly with a hand wheel. Non rising stem gate valves shall not be accepted.

(g) All backflow prevention assemblies installed outdoors shall be provided with a weatherproof enclosure capable of preventing freezing of these backflow prevention assemblies and any related valves and piping.

(h) Following installation, all reduced pressure principle backflow preventers (RPs) double check valve assemblies (DCVAs), pressure vacuum breakers (PVBs), double check detector assemblies (DCDAs), or reduced pressure principle detector assemblies (RPDAs) are required to be tested by a certified backflow prevention assembly tester within ten days.

#### **§5-1047. Unprotected bypass prohibited.**

(a) When it is not possible to interrupt water service, provisions shall be made for a "parallel installation" of backflow prevention assemblies. The town will not accept an unprotected bypass around a backflow preventer when the assembly is in need of repair, testing, or replacement.

(b) If a backflow prevention device is removed by the town for failure to pass an inspection and the device is bypassed by the consumer in lieu of re-certifying the device, the connection will be treated as a high-hazard illegal cross-connection pursuant to this division.

#### **§5-1048. Containment assemblies.**

Upon notification by the town, the consumer shall install the appropriate containment assembly not to exceed the following time frame:

- (1) Health hazard facility, 60 days;
- (2) Non-health-hazard facility, 90 days.

#### **§5-1049. Certification required.**

(a) Following installation, all backflow prevention assemblies are required to be tested by a certified backflow prevention assembly tester within ten days and supply the following information:

- (1) Service address where assembly is located;

- 
- (2) Owner (and address, if different from service address);
  - (3) Description of assembly's location;
  - (4) Date of installation;
  - (5) Installer (include name, plumbing company represented, plumber's license number);
  - (6) Type of assembly and size of assembly;
  - (7) Manufacturer, model number, serial number;
  - (8) Test results/report: and
  - (9) Meter/ERT number

(b) Testing of backflow prevention assemblies shall be made by a certified backflow prevention assembly tester. Such tests are to be conducted upon installation and at least annually every year thereafter. A record of all testing and repairs is to be retained by the consumer. Copies of the records must be provided to the town or its contractor within ten business days after the completion of any testing, and/or repair work.

**§5-1050. Repairs.**

Any time that repairs to backflow prevention assemblies are deemed necessary, whether through annual or required testing, or routine inspection by the consumer or by the town, these repairs must be completed within a specified time in accordance with the degree of hazard. In no case shall this time period exceed:

- (1) Health hazard facilities, 14 days;
- (2) Non-health hazard facilities, 21 days.

**§5-1051. Testing equipment.**

All certified backflow prevention assembly testers must obtain and employ properly functioning backflow prevention assembly test equipment. All test equipment shall be registered with the town and shall be checked for accuracy annually (at a minimum), calibrated, if necessary, and certified to the town as to such accuracy/calibration, employing a calibration method acceptable to the town or its contractor.

**§5-1052. Unlawful to submit false records.**

It shall be unlawful for any consumer or certified backflow prevention assembly tester to submit any record to the town which is false or incomplete in any material respect. It shall be unlawful for any consumer or certified tester to fail to submit to the town any record which is required by this division. Such violations may result in any of the enforcement actions outlined in section 5-5017 to 5-5019.

**§5-1053. Facilities requiring protection.**

(a) Approved backflow prevention assemblies shall be installed on the service line to any facility that the town has identified as having a potential for backflow in accordance with sections 5-5008 through 5-5016.

(b) The following types of facilities or services have been identified by the town as having a potential for backflow of non-potable water into the public water supply system. Therefore, an approved backflow prevention assembly shall be required on all such services according to the degree of hazard present. Other types of facilities or services not listed below may also be required to install approved backflow prevention assemblies if determined necessary by the town.

Abbreviations:

DCVA = Double check valve assembly

RP = Reduced pressure principle assembly

DCDA= Double check detector assembly

RPDA = Reduced pressure detector assembly

AG = Air gap

Table 1. Required Approved Backflow Prevention Assemblies for Various Facilities	
Type of Facility	Type of Device
Automotive Service Stations, Dealerships, etc.	
No Health Hazard	DCVA
Health Hazard	RP
Auxiliary Water Systems	
Approved Public/Private Water Supply	DCVA

Unapproved Public/Private Water Supply	AG
Used Water and Industrial Fluids	RP
Bakeries	
No Health Hazard	DCVA
Health Hazard	RP
Beauty Shops/Barber Shops	
No Health Hazard	DCVA
Health Hazard	RP
Beverage Bottling Plants	RP
Breweries, Wineries, Distilleries	RP
Building-Hotels, Apartment houses, offices, public and private buildings, or other structures having unprotected cross connections	
(Under three stories) No Health Hazard	DCVA
(Under three stories) Health Hazard	RP
(Over three stories) All	RP
Canneries, packing houses, and rendering plants	RP
Church	
w/o Kitchen	DCVA
w/Kitchen	RP
Commercial car wash facilities	RP
Commercial greenhouses	RP
Commercial sales establishments (department stores, malls, etc.)	
No Health Hazard	DCVA
Health Hazard	RP
Concrete/asphalt plants	RP
Dairies and cold storage plants	RP
Dye works	RP
Film laboratories	RP

Table 1. Required Approved Backflow Prevention Assemblies for Various Facilities	
Type of Facility	Type of Device
Fire systems 3/4 inch to 2 inch	

No Health Hazard (pumped potable water w/ no additions)	DCDA
Health Hazard (pumped from non-potable sources or containing additives such as foam or antifreeze)	RP
Fire systems 2 1/2 inch to 10 inch or larger	
No Health Hazard (pumped potable water w/ no additions)	DCDA
Health Hazard (pumped from non-potable sources or containing additives such as foam or antifreeze)	RPDA
Grocery Stores	RP
Hospitals, medical buildings, sanitariums, morgues, mortuaries, autopsy facilities, nursing and convalescent homes, medical clinics, dentists, and veterinary hospitals	RP
Laundries	
No Health Hazard	DCVA
Health Hazard	RP
Lawn Irrigation (split taps)	RP
Metal manufacturing, cleaning, processing, and fabricating plants	RP
Mobile home parks	
No Health Hazard	RP
Health Hazard	RP
Oil and gas sales (bulk, wholesale, or retail) distribution, production, storage, or transmission properties	RP
Pest control	RP
Power plants	RP
Restaurants	
No Health Hazard (prepackaged foods and no dishwasher)	DCVA
Health Hazard	RP
Residential (single family homes and individually metered dwelling units of the following types of multi-family dwellings: duplexes, triplexes, multiplexes, apartments, town houses, condominiums) Meter Setter Double Check (RDC)	RDC
Restricted, classified, or other closed facilities	RP
Sand and gravel plants	RP
schools and colleges	RP
Sewage and storm drain facilities	RP
Swimming Pools	RP
Waterfront facilities and industries	RP

**§5-1054. Connections with unapproved sources of supply.**

(a) No person shall connect or cause to be connected any supply of water not approved by the NCDEQ to the water system supplied by the town. Any connections allowed by the town must be in conformance with the backflow prevention requirements of this division.

(b) In the event of contamination or pollution of a public or consumer potable water system, the consumer shall notify the town immediately in order that appropriate measures may be taken to overcome and eliminate the contamination or pollution.

**§5-1055. Enforcement.**

(a) The consumer or person in charge of any installation found not to be in compliance with the provisions of this division shall be notified in writing with regard to the corrective action(s) to be taken.

(b) Such notice must explain the violation and give the time period within which the violation must be corrected. The time period set to correct a violation shall not exceed 30 days after receiving notice unless otherwise specified by this division. If the violation has been determined by the town to be an imminent hazard, the consumer shall be required to correct the violation immediately.

**§5-1056. Failure to rectify violation.**

In the event a consumer is found in violation of this division and fails to correct the violation in a timely manner or to pay any civil penalty or expense assessed under this section, water service may be terminated, and shall be reestablished when the violation is corrected, and any applicable civil penalties are paid.

**§5-1057. Civil penalties.**

(a) A violation of any section of this division may be subject to a civil penalty listed as follows:

- (1) Unprotected cross-connection involving a private water system which creates an imminent hazard, \$500 per day not to exceed \$5,000.
- (2) Unprotected cross-connection involving a private water system which is of a moderate or high hazard, \$250 per day not to exceed \$2,500.
- (3) If in the judgment of the town, any consumer, manager, supervisor, or person in charge of any installation is found to be in noncompliance with the provisions of this division and/or neglects their responsibility to correct a violation, water service may be discontinued until compliance is achieved.
- (4) Failure of a consumer or certified tester to submit any record required by this division, or the submission of falsified reports/records may result in a civil penalty of up to \$500.00 per violation. If a certified backflow prevention assembly tester submits falsified records to the town, the town shall permanently revoke that tester.

(5) Failure to test or maintain backflow prevention assemblies as required, \$200.00 per day.

(b) Enforcement of this program shall be administered by the town manager of the town or his authorized representative.

**§5-1058. Severability; Conflict of Laws.**

If any section, phrase, sentence, or portion of this ordinance is held void, invalid, unconstitutional, or unenforceable for any reason by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provisions; and such holding shall not affect the validity of the remaining portions thereof.

This Ordinance of the Town of Fuquay-Varina Board of Commissioners is hereby adopted this 8<sup>th</sup> day of August in the year 2023 in Fuquay-Varina, North Carolina.

FUQUAY-VARINA, NORTH CAROLINA

---

J. Blake Massengill, Mayor

ATTEST

(TOWN SEAL)



---

Rose H. Rich, Town Clerk

**CERTIFICATION BY RECORDING OFFICER**

The undersigned duly qualified and acting Town Clerk of the Town of Fuquay-Varina does hereby certify: That the above/attached ordinance is a true and correct copy of the ordinance authorizing an amendment to the Town Code of Ordinances, Part 5, Municipal Utilities, Chapter 1, Article D-Cross-Connection Control, as regularly

adopted at a legally convened meeting of the Town Board of Commissioners duly held on the - - - \_\_\_\_ day of \_\_\_\_  
\_\_\_\_\_, 2023; and, further, that such ordinance has been fully recorded in the journal of proceedings and  
records in my office. IN WITNESS WHEREOF, I have hereunto set my hand this - - - \_\_\_\_ day of  
\_\_\_\_\_, 20\_\_\_\_.



Ordinance No. M-23-03

Page 15 of 15

August 8, 2023

---

(Signature of Recording Officer)

---

(Title of Recording Officer)