

DIVISION 3. CROSS CONNECTION CONTROL*

Sec. 30-91. Definitions.

The following words, terms and phrases, when used in this division, shall have the meanings ascribed to them in this section.

Approved means accepted by the city manager as meeting an applicable specification stated or cited in this division, or as suitable for the proposed use.

Approved backflow preventer means a device that has been manufactured in full conformance with the standards established by the American Water Works Association titled "AWWAC510-92—Standard for Double Check Valve Backflow Prevention Assembly" and "AWWA C511-92—Standard for Reduced Pressure Principle Backflow Prevention Assembly"(or latest revisions thereof), and has met completely the laboratory and field performance specifications of the Foundation for Cross Connection Control and Hydraulic Research (FCCHR) of the University of Southern California established by "Specification of Backflow Prevention Assemblies," section 10 of the most current issue of the "Manual of Cross Connection Control." The AWWA and FCCHR standards and specifications have been adopted by the city. Final approval shall be evidenced by a certificate of approval issued by an approved testing laboratory certifying full compliance with said AWWA standards and FCCHR specifications.

Auxiliary water supply means any water supply on or available to the premises other than the city's approved public potable water supply.

Backflow means the flow of water or other liquids, mixtures or substances under positive or reduced pressure into the distribution pipes of a potable water supply from any source other than its intended source.

Backflow prevention assembly means an assembly or means designed to prevent backflow, as in:

(1) *Air gap*. The unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet conveying water or waste to a tank, plumbing fixture, receptor or other assembly and the flood level rim of the receptacle. These vertical physical separations must be at least twice the diameter of the water supply outlet, never less than 1 inch.

(2) *Double check valve assembly*. The approved double check valve assembly consists of 2 internally loaded check valves, either spring loaded or internally weighted, installed as a unit between 2 tightly closing resilient-seated shutoff valves and fittings with properly located resilient-seated test cocks.

(3) *Pressure vacuum breaker assembly*. The approved pressure vacuum breaker assembly consists of an independently operating internally loaded check valve, and an independently operating loaded air inlet valve located on the discharge side of the check valve, with properly located resilient-seated shutoff valves attached at each end of the assembly designed to operate under pressure for prolonged periods of time to prevent backsiphonage.

(4) *Reduced-pressure backflow prevention assembly*. The approved reduced-pressure principle backflow prevention assembly consists of 2 independently acting approved check valves together with a hydraulically operating, mechanically independent pressure relief valve located between the check valves and below the first check valve. These units must be located between 2 tightly closing resilient-seated shutoff valves as an assembly and equipped with properly located resilient-seated test cocks.

Back-pressure means a condition in which the customer's system pressure is greater than the city's system pressure.

Backsiphonage means the flow of water or other liquids, mixture or substances into the distribution pipes of a potable water supply system from any source other than its intended source caused by the sudden reduction of pressure in the potable water supply system.

Containment means a method of backflow prevention which requires a backflow prevention assembly at the water service connection.

Contaminant means any physical, chemical, biological, or radiological substance or matter in water.

Cross connection means any physical arrangement whereby a public water supply is connected, directly or indirectly, with any other water supply system, sewer, drain, conduit, pool, storage reservoir, plumbing fixture, or other device which contains or may contain contaminated or polluted water, sewage or other waste, or liquid of unknown or unsafe quality which may be capable of imparting contamination or pollution to the public water supply as a result of backflow or backsiphonage. Bypass arrangements, jumper connections, removable sections, swivel or changeable devices, and other temporary or permanent devices through which or because of which backflow or backsiphonage could occur are considered to be cross connections.

Customer water system includes those parts of water system facilities beyond the point of delivery that are utilized to convey potable water to the customer's points of use.

Detector check assembly means a double check valve in the main supply line with a smaller parallel flow

detection line with a meter and an independently acting double check valve.

Fire service means a water service for a customer which is used to supply a fire protection system.

Inspection means cross connection control assessment and evaluation of all fixtures and conduit connected to the customer's water system within the property and structures.

Isolation means a method of backflow prevention in which a backflow prevention assembly is located to correct a cross connection at an in-plant location rather than at a water service connection.

Non-potable water means all water other than potable water.

Permit means a document which identifies the location of a backflow prevention assembly, and specifies maintenance requirements for backflow prevention assemblies.

Point of delivery means the terminal end of service from the public potable water system at the outlet side of the meter. This is the point at which the public potable water system loses jurisdiction and sanitary control over the water at its delivery to the customer.

Pollutant means a foreign substance that, if permitted to get in the public water system, will degrade its quality so as to 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 water for domestic use.

Potable water means water from any source which has been approved for human consumption by the public health unit.

Public health unit means the health authority having jurisdiction in Collier County.

Standard Plumbing Code includes the Standard Plumbing Code as published by the Florida Building Code and adopted by the city council and Collier County Construction and Licensing Board.

Water service connection means that point in the customer's water system beyond the sanitary control of the city; it is the outlet end of the water meter and always before any unprotected branch.

Water service installation means the establishment of a new point of delivery, reuse of an existing point of delivery for a new or different customer, or the modification of an existing point of delivery from the city's potable water system for any customer.

(Code 1994, § 66-61; Ord. No. 94-7187, § 3, 5-4-1994; Ord. No. 03-9957, § 5, 2-19-2003)

Cross reference—Definitions generally, § 1-2.

Sec. 30-92. Intent.

The city council does hereby find that it is necessary for the protection and promotion of the health, safety, and welfare of the people served by the city's water system to establish minimum requirements for the design, construction and maintenance of connections to the public water supply.

(Code 1994, § 66-62; Ord. No. 94-7187, § 3, 5-4-1994)

Sec. 30-93. Purpose of division.

The purposes of this division are as follows:

(1) To protect the public potable water supply served by the city water system from the possibility of contamination or pollution by containment at the point of the customer's water service connection to the city's water system and by isolating, within its customers' water systems, such contaminants or pollutants which could backflow or back-siphon into the public water system.

(2) To promote the elimination or control of existing cross connections, actual or potential, between a customer's on-site potable water system and non-potable systems.

(3) To provide a continuing program of cross connection control which will effectively prevent the contamination or pollution of the potable water system by cross connection.

(Code 1994, § 66-63; Ord. No. 94-7187, § 3, 5-4-1994)

Sec. 30-94. Authority.

The plumbing code, the Federal Safe Drinking Water Act of 1974, the Florida Safe Drinking Water Act (F.S. § 403.850 et seq.), and F.A.C. 62-555.360 and 62-610.470 establish that the city has the primary responsibility for preventing water from unapproved sources, or any other substances, from entering the public potable water system.

(Code 1994, § 66-64; Ord. No. 94-7187, § 3, 5-4-1994)

Sec. 30-95. City responsibility.

(a) The city will operate a cross connection control program, to include the keeping of necessary records, which fulfills the requirements of this division, and is consistent with the American Water Works Association (AWWA) Manual of Water Supply Practices, M-14, 2nd edition, the requirements of F.A.C. 62-555.360, and the plumbing code.

(b) The city will not allow any cross connection to remain unless it is protected by an approved backflow prevention assembly.

(Code 1994, § 66-65; Ord. No. 94-7187, § 3, 5-4-1994)

Sec. 30-96. Customer responsibility.

(a) The customer shall prevent contaminants and pollutants from entering the city's potable water supply system from the customer's water system. The customer shall protect the customer's private water system against actual or potential cross connection, backflow or backsiphonage, as required by the plumbing code, this division, and other applicable regulations. The customer shall be responsible for the elimination or protection of all cross connections on the customer's premises.

(b) The customer shall follow the provisions of this division.

(c) The city manager may inspect the customer's water system and make recommendations as to the type of isolation or the type of backflow prevention assembly that should be installed on the customer's private water system to ensure the quality of water entering upon the property beyond the point of delivery.

(d) The customer shall inform the city manager of any proposed or modified cross connections and also any existing cross connection of which the customer is aware but has not been found by the city manager. The customer shall inform the city manager immediately of any change in the type of cross connection or degree of hazard associated with the service.

(e) The customer shall not install a bypass around any backflow prevention assembly unless there is a backflow prevention assembly of the same type on the bypass.

(f) For the purpose of discharging the duties imposed by this division, the city manager shall have the right to enter upon the premises of any customer. Each customer, as a condition of the continued delivery to the customer's premises of water from the city's water system, shall be considered as having consented to entry upon the customer's premises.

(g) No person shall connect to, operate, maintain or allow to remain any connection to the potable water system for domestic or for any purposes which is between the point of delivery and the customer's backflow prevention assembly. No such connections shall be permitted without prior written approval from the city manager and such installation shall also require an additional backflow prevention assembly that meets the approval of the city manager.

(h) The customer shall be required to landscape around the backflow prevention assembly with plantings at least 3 feet tall and at a minimum distance of 3 feet away from the backflow prevention assembly, but not further than 5 feet from the backflow prevention assembly. The piping and valves shall be painted dark green or black. Other colors may be used to match immediate surroundings with approval of the city manager. Fire lines will be exempt from this requirement.

(Code 1994, § 66-66; Ord. No. 94-7187, § 3, 5-4-1994; Ord. No. 97-8013, § 1, 7-23-1997)

Sec. 30-97. Enforcement procedures.

(a) The city manager shall inform the customer by letter of any failure to comply with the conditions of this division. The city manager will allow an additional 15 days for the correction. In the event the customer fails to comply with the necessary correction within this timeframe, the city manager may terminate the customer's water service until corrective action is taken or until the necessary backflow prevention assembly is installed. In the event that the customer informs the city manager of extenuating circumstances as to why the correction has not been made, a time extension may be granted by the city manager not to exceed an additional 30 days.

(b) Delivery of water to any customer may be discontinued by the city manager if any backflow assembly required by this division has been removed, tampered with or bypassed. Water service shall not be resumed until conditions at the customer's premises have been corrected to the satisfaction of the city manager. All cost to repair or replace the assembly shall be borne by the customer.

(c) If the city manager determines at any time that a serious threat to the public health exists the water service will be terminated immediately.

(d) In addition to the above procedures, the city manager may cite to the county court any customer for violation of the provisions of this division.

(Code 1994, § 66-67; Ord. No. 94-7187, § 3, 5-4-1994)

Sec. 30-98. Backflow prevention assembly criteria.

(a) The city manager will evaluate the hazards inherent in supplying a customer's water system. If in the judgement of the city manager an approved backflow prevention assembly is required at the customer's water service connection or within the customer's water system, the city manager shall give written notice to the customer of the specific locations, types and sizes of the required devices. Backflow prevention assemblies will be sized to match meter or pipe size at the required location unless otherwise approved by the city manager.

(b) Failure or refusal or inability on the part of the customer to provide for the installation of the required backflow prevention assembly shall constitute a ground for discontinuing water service to the premises until such backflow prevention assembly has been properly installed.

(c) Wherever the following conditions exist, an approved backflow prevention assembly shall be installed on each service line to a customer's water system at or near the property line or immediately inside the building being served, but in all cases, before the first branch line leading off the service line:

(1) In the case of premises having an auxiliary water supply that is not or may not be of safe bacteriological or chemical quality, the public water system shall be protected against backflow from the premises by installing an approved backflow prevention assembly in the service line, appropriate to the degree of hazard.

(2) In the case of premises on which any industrial fluids or any other objectionable substances are handled in such a fashion as to create an actual or potential hazard to the public water system, the public system shall be protected against backflow by installing an approved backflow prevention assembly in the service line, appropriate to the degree of hazard. This shall include the handling of process waters and waters originating from the utility system that have been subject to deterioration in quality.

(3) In the case of premises having internal cross connections that cannot be permanently corrected and controlled, or intricate plumbing and piping arrangements, or where entry to all portions of the premises is not readily accessible for inspection purposes, making it impracticable or impossible to ascertain whether or not dangerous cross connections exist, the public water system shall be protected against backflow from the premises by installing an approved backflow prevention assembly in the service line.

(d) The type of backflow prevention assembly required shall depend upon the degree of hazard that exists as determined by the city manager as follows:

(1) In the case of any premises where there is an auxiliary water supply and it is not subject to any of the following rules, the public water system shall be protected by an approved air gap separation or an approved reduced pressure principle backflow prevention assembly.

(2) In the case of any premises where there is water or substance that would be objectionable but not hazardous to health if introduced into the public water system, the public water system shall be protected by an approved double check valve assembly.

(3) In the case of any premises where there is any material dangerous to health that is handled in such a fashion as to create an actual or potential hazard to the public water system, the public water system shall be protected by an approved air gap separation or an approved reduced pressure principle backflow prevention assembly. Examples of premises where these conditions will exist include, but are not limited to, sewage treatment plants, sewage pumping stations, chemical manufacturing plants, hospitals, mortuaries, and plating plants.

(4) In the case of any premises where there are uncontrolled cross connections, either actual or potential, the public water system shall be protected by an approved air gap separation or an approved reduced pressure principle backflow prevention assembly at the service connection.

(5) In the case of any premises where, because of security requirements or other prohibitions or restrictions, it is impossible or impractical to make a complete in-plant cross connection survey, the public water system shall be protected against backflow from the premises by either an approved air gap separation or an approved reduced pressure principle backflow prevention assembly on each service.

(6) In the case of any premises where, in the opinion of the city manager, an undue health threat is posed because of the presence of extremely toxic substances, the city manager may require an air gap separation at the service connection to protect the public water system.

(7) In the case of any premises where there is reclaimed water service for irrigation, there shall be no physical connection between the reclaimed water system and the customer's water system which is served by the public water system.

(8) In the case where the metered use of potable water is permitted directly from a fire hydrant or other water system fixture for filling tank type vehicles (i.e., lawn maintenance and pest control), the water system shall be protected by a reduced pressure principle backflow prevention assembly.

(9) In the case where temporary use of water is permitted directly from a fire hydrant or other water system fixture through a portable meter (i.e., construction activity), the water system shall be protected by a reduced pressure principle backflow prevention assembly.

(Code 1994, § 66-68; Ord. No. 94-7187, § 3, 5-4-1994)

Sec. 30-99. Existing in-use backflow prevention assemblies

Any backflow prevention assembly existing, that is properly installed, testable, and properly functioning, shall be allowed by the city manager to continue in service unless the degree of hazard is such as to supersede the effectiveness of the present backflow prevention assembly, or result in an unreasonable risk to the public health.

(Code 1994, § 66-69; Ord. No. 94-7187, § 3, 5-4-1994)

Sec. 30-100. Records.

The city manager will initiate and maintain master files on customers' backflow prevention assembly location, tests and/or inspections.

(Code 1994, § 66-70; Ord. No. 94-7187, § 3, 5-4-1994)

City of Naples