

**ORDINANCE NO. 616**

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ORANGE CITY, FLORIDA, AMENDING SECTIONS OF CHAPTER 17.3 UTILITIES OF THE CODE OF ORDINANCES OF THE CITY OF ORANGE CITY, FLORIDA; REPEALING ALL ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH; AND PROVIDING FOR AN EFFECTIVE DATE.**

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**WHEREAS**, Section 17.3 Utilities, of the code of ordinances of the City of Orange City was adopted in 1991 and has since become outdated; and

**WHEREAS**, it is the desire of the City Council to update this portion of the code to reflect current practices; and

**WHEREAS**, words with underlined type shall constitute additions to the original text and ~~strike-through~~ shall constitute deletions to the original text.

**NOW, THEREFORE, BE IT ENACTED BY THE CITY COUNCIL OF THE CITY OF ORANGE CITY, FLORIDA:**

**SECTION 1.** That Chapter 17.3-58 of the Code of Ordinances of the City of Orange City is hereby amended in accordance with Exhibit "A" attached hereto and incorporated herein as though fully set forth by this reference.

**SECTION 2.** All ordinances or parts of ordinances and all resolutions or parts of resolutions in conflict herewith be and the same are hereby repealed.

**SECTION 3.** If any section, part of a section, paragraph, clause, phrase or word of this ordinance is declared invalid, the remaining provisions of this ordinance shall not be affected.

**SECTION 4.** This ordinance shall take effect immediately upon its adoption by the City Council of the City of Orange City, Florida, and approval as provided by law.

**ROLL CALL VOTE AS FOLLOWS (Ordinance No. 616):**

Second Reading this \_\_\_\_\_ day of \_\_\_\_\_, 2019.

_____	Jim Mahoney	Kelli Marks	_____
_____	Bill O'Connor, Vice Mayor	Martin Harper	_____
_____	Jeff Allebach	O. William Crippen	_____
_____	Gary A. Blair, Mayor		

Second Reading this \_\_\_\_\_ day of \_\_\_\_\_, 2019.

_____ Jim Mahoney	Kelli Marks	_____
_____ Bill O'Connor, Vice Mayor	Martin Harper	_____
_____ Jeff Allebach	O. William Crippen	_____
_____ Gary A. Blair, Mayor		

PASSED and ADOPTED this \_\_\_\_\_ day of \_\_\_\_\_, 2019.

**ATTEST:**

**AUTHENTICATED:**

\_\_\_\_\_  
Gloria J. Thomas, CMC, City Clerk

\_\_\_\_\_  
Gary A. Blair, Mayor

Approved as to form and legal sufficiency:

\_\_\_\_\_  
William E. Reischmann, Jr., City Attorney

Sec. 17.3-58. - Backflow and cross connection control.

(a) *Purpose.* The purpose of this section is to:

- (1) Protect the public potable water supply of the city from the possibility of contamination or pollution by isolating within its customer's private water system(s) such contaminants or pollutants which could backflow or back siphon into the public water supply system.
- (2) Promote the elimination or control of existing cross connections, actual or potential, between its customers' in-plant potable water system(s) and non-potable water systems, plumbing fixtures and industrial piping systems.
- (3) Provide for the maintenance of a continuing program of cross connection control which will systematically and effectively prevent the contamination or pollution of all potable water systems.

(b) *Definitions.*

(1) *Approved:*

- a. The term "approved," as herein used in reference to a public potable water supply, means a water supply that has been approved by the state department of environmental protection, health department, or governing agency.
- b. The term "approved," as herein used in reference to air-gap separation, a double check valve assembly, or a reduced pressure principle backflow prevention device or other backflow prevention device or method, shall mean as approved by Orange City Utilities.

(2) *Approved backflow preventer device:* Means that the device has been manufactured in full conformance with standards established by the American Water Works Association entitled: "AWWA C510-97, Standards for Reduced Pressure Principle and AWWA C511-97 Reduced Pressure and Double Check Valve Backflow Prevention Devices," and have met completely the laboratory and field performance specifications of the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California.

(3) *Auxiliary water supply:* Any water supply on or available to the premises other than the purveyor's approved public potable water supply. These auxiliary waters may include water from another purveyor's public potable water supply or any natural source(s) such as well, spring, river, storm water pond, stream, harbor, etc., or used waters or industrial fluids. These waters may be polluted or contaminated or they may be objectionable and constitute an unacceptable water source over which the water purveyor does not have sanitary control.

(4) *Backflow:* The flow of water or other liquids, mixtures or substances into the distributing 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 system.

(5) *Backsiphonage:* The flow of water or other liquids, mixtures or substances into the distributing 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.

(6) *Backflow preventer:* A device or means designed to prevent backflow or backsiphonage.

- a. *Air gap:* 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 said vessel. An approved air gap shall be at least double the diameter of the supply pipe, measured vertically, above the top of the rim of the vessel, and in no case less than one inch. When an air gap is used at the service connection to prevent the contamination or pollution of the public potable water system, an emergency bypass shall be installed around the air-gap system and an approved reduced pressure principle device shall be installed in the bypass system.

- b. *Reduced pressure principle device:* An assembly of two independently operating approved check valves with an automatically operating differential relief valve between the two check valves, tightly closing ball or resilient disc valves on either side of the check valves, plus properly located test cocks for the testing of the check and relief valves. The entire assembly shall meet the design and performance specifications and approval of a recognized and Orange City Utilities approved testing agency for backflow prevention assemblies. The device shall operate to maintain the pressures in the zone between the two check valves at a level less than the pressure on the public water supply side of the device. At cessation of 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 devices must be readily accessible for in-line maintenance and testing and be installed in a location where no part of the device shall be submerged.
  - c. *Double check valve assembly:* An assembly of two independently operating approved check valves with tightly closing resilient disc or ball valves on each 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 and approval of a recognized and Orange City Utilities approved testing agency for backflow preventer devices. To be approved these devices must be readily accessible for in-line maintenance and testing.
  - d. *Dual Check Valve assembly:* Consists of two independently operating check valves. It usually does not include shutoff valves, may or may not be equipped with test cocks or ports, and is generally less reliable than a double check valve assembly. During normal operation, both check valves remain closed until there is a demand for water. In the event of backflow, both checks close to prevent reversal of flow.
- (7) *Contamination:* 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 hazard to the public health through poisoning or through the spread of disease as measured, determined and defined by industry standards.
  - (8) *Cross connection:* 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 or backsiphonage may occur into the potable water system. A water service connection between a public potable water distribution system and a customer's water distribution system that is cross connected to a contaminated fixture or to an industrial fluid system or with a potentially contaminated supply or auxiliary water system constitutes one type of cross connection. Other types of cross connections include connectors such as swing connections, removable sections, four-way plug valves, spools, dummy sections of pipe, swivel or changeover devices, sliding multiport tubes, solid connections, etc. Bypass arrangements, jump connections or other devices through which or because of which backflow could occur are deemed to constitute cross connections.
  - (9) *Cross connections, controlled:* A connection between a potable water system and a non-potable water system with an approved and/or authorized backflow preventer device properly installed that will continuously afford the protection commensurate with the degree of hazard.
  - (10) *Cross connection control by containment:* The installation of an approved backflow preventer device 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 preventer device 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 cross connection.

- (11) Director: Means the Director of Orange City Utilities, or his/her designee. All authority and action performed by the Director under this section shall be performed subject to the consent of, and delegation by, the City Manager. The Director of Orange City Utilities, or designee, is vested with the authority and responsibility for the implementation of an effective cross connection control program and for the enforcement of the provisions of this section.
- (12) Dwelling, multiple: Means a building designed for, or occupied exclusively by two or more families.
- (13) Dwelling or unit, single family: Means a building designed for or occupied exclusively by one family.
- (14) Fixture plumbing: Installed receptacles, devices, or appliances supplied with water or that receive or discharge liquids or liquid-borne wastes.
- (15) Hazard, degree of: The term is derived from an evaluation of the potential risk to public health and the adverse effect of the hazard upon the potable water system.
- a. Hazard, health: Any condition, device, or practice in the water supply system and its operation which could create, or in the judgment of the Orange City Utilities may create, a danger to the health and well-being of the water customer. An example of a health hazard is a structural defect, including cross connections, in a water supply system.
  - b. Hazard, plumbing: A plumbing type cross connection in a customer's potable water system that has not been properly protected by a vacuum breaker, air-gap separation or backflow prevention device. Unprotected plumbing type cross connections are considered to be a health hazard.
  - c. Hazard, pollution: An actual or potential threat to the physical properties of the water system or to the potability of the public or the customer'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.
  - d. Hazard, system: An actual or potential threat of severe damage to the physical properties of the public potable water system or the customer'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.
- (16) Industrial fluids system: 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, pollution or plumbing hazard if introduced into an approved water supply. This may include, but shall not be limited to: polluted or contaminated waters; all types of processed waters and used waters originated from the public potable water system which may have deteriorated in sanitary quality; chemicals in fluid form; plating acids and alkalis; circulated 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 water such as from wells, springs, streams, rivers, bays, harbors, seas, irrigation canals or systems, etc.; and oils, gases, glycerin, paraffin, caustic and acid solutions and other liquid and gaseous fluids used for industrial or other purposes or for firefighting purposes.
- (13) Manager: The manager of Orange City Utilities is vested with the authority and responsibility for the implementation of an effective cross connection control program and for the enforcement of the provisions of this section.
- (17) Plumbing systems: Includes the water supply and distribution pipes, plumbing fixtures, and traps; soil, waste, and vent pipes; building drains and building sewers including their respective connections, devices and appurtenances within the property lines of the premises; and water-treating or water-using equipment.
- (18) 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.

- (19) *Residential Service Connection*: For the purpose of this section, “residential service connection” means any service connection, including any dedicated irrigation or fire service connection, that is two inches or less in diameter, and that supplies water to a building, or premises, containing only dwelling units; and “non-residential service connection” means any other service connection.
- (20) *Water, potable*: Any water, which, according to recognized standards, is safe for human consumption.
- (21) *Water, non-potable*: Water which is not safe for human consumption or which is of questionable potability according to recognized or acceptable standards.
- (22) *Water purveyor*: The term "water purveyor" shall mean the owner or operator of the public potable water system supplying an approved water supply to the public. As used herein, the terms "water purveyor" and "Orange City Utilities" may be used synonymously.
- (23) *Water service connection*: The terminal end of a service connection from the public potable water system; i.e., where the water purveyor loses jurisdiction and sanitary control over the water at its point of delivery to the customer's water system. If a meter is installed at the end of the service connection, then the service connection shall mean the downstream end of the meter. There should be no unprotected takeoffs from the service line ahead of any meter or backflow preventer or device located at the point of delivery to the customer's water system. Service connection shall also include a water service connection from a fire hydrant and all other temporary or emergency water service connections from the public potable water system.
- (24) *Water system*: The water system shall be considered as made up of two parts: the Orange City Utilities system and the customer's system.
- a. *Orange City Utilities*: The Orange City Utilities shall consist of the source facilities and the distribution system, and shall include all those facilities of the water system under the complete control of the Orange City Utilities, up to the point where the customer's system begins.
1. The source shall include all components of the facilities utilized in the production, treatment, storage, and delivery of water to the distribution system.
  2. The distribution system includes the network of conduits used for the delivery of water from the source to the customer's system.
- b. *Customer's system*: The customer's system shall include those parts of the facilities beyond the termination of the utility distribution system which are utilized in conveying utility-delivered domestic water to points of use.
- (25) *Water used*: Any water supplied by a water purveyor from a public potable water system to a customer's water system after it has passed through the point of delivery and is no longer under the sanitary control of the water purveyor.
- (c) *Responsibilities of water purveyor and customers*.
- (1) Orange City Utilities is responsible for the prevention of contamination and pollution of the public water mains. Such responsibility begins at the point of origin of the public water supply and includes adequate treatment facilities and water mains, and ends at the point of entrance to the customer's water system, provided adequate backflow and backsiphonage protection is maintained on all water supply systems directly connected to the water purveyor's public system.
  - (2) The customer has the responsibility of preventing contaminants and pollutants from entering the water supply system, and from entering the public water main or water source from his water supply system. The customer shall protect his the water supply system against actual or potential cross connection, backflow or backsiphonage, as required by this section and other

applicable regulations. He Customer shall assure that all protective devices are tested and maintained in the working condition required. He Customer shall assure the necessary plumbing permits are obtained for new water supply system installations, and for alterations or repair to existing systems, as required.

- (3) Connections to the city's water supply system for any purpose whatsoever shall be made only by employees of the city or authorized agents. Any unauthorized connections to the city's water service shall be subject to immediate discontinuance without notice, in addition to other enforcement provisions deemed necessary and appropriate by the city. Water service shall not be restored until such unauthorized connections have been removed and until settlement is made in full for all water service estimated by the city to have been used by reason of such unauthorized connection. If a water customer disconnects the previously active city water connection and replaces the same with another source, such shall be an unauthorized connection, shall constitute a code violation, and shall also be considered a cross connection as shown in subsection (b)7, and shall be remedied as soon as possible to protect the integrity and potable quality of the water system.

(d) *Authority to inspect.*

- (1) The Utilities manager Director, or his/her designated agent, may inspect the plumbing in every building or premises in this water system as frequently as in his judgment may be necessary to ensure that such plumbing has been installed in such a manner as to prevent the possibility of pollution of the water supply system by the plumbing. The manager Director shall notify or cause to be notified in writing the owner or authorized agent of the owner of any such building or premises, to correct, within a reasonable time set by the manager Director, any plumbing installed or existing contrary to or in violation of this section and which, in his judgment, may therefore permit the pollution of the water system or otherwise adversely affect the public health. An inspection fee shall be charged for each inspection as set forth by resolution.
- (2) The customer's system should be open for inspection at all reasonable times to authorized representatives of Orange City Utilities to determine whether cross connections or other structural or sanitary hazards, including violations of this section, exist.

(e) *General policy.*

- (1) No plumbing fixture, water service connection device or construction shall be installed or maintained or shall be connected to the water system, when such installation or connection may provide a possibility of polluting such water supply or may provide a cross connection between a distributing system of water for drinking and domestic purposes and water which may become contaminated by such plumbing fixture, water service connection device or construction unless there is provided an approved backflow preventer~~er~~ device.
- (2) An approved backflow preventer~~er~~ device shall also be installed, at the owner's expense, 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, wherever the following conditions exist:
  - a. In the case of premises having an auxiliary water supply which is not or may not be of a safe bacteriological or chemical quality and which is not acceptable as an additional source by Orange City Utilities, the public water system shall be protected against backflow from the premises by installing a backflow preventer~~er~~ device in the service line appropriate to the degree of hazard.
  - b. In the case of premises on which any industrial fluids or any other objectionable substance is 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 from the premises by installing a backflow preventer~~er~~ device 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 which have been subject to deterioration in quality.

- c. In the case of premises having one internal cross connection that cannot be permanently corrected and controlled, or two 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 a backflow preventer device in the service line.
- (3) The type of protective device required shall depend upon the degree of hazard which exists as follows:
  - a. In the case of any premises where there is an auxiliary water supply, the public water system shall be protected by an approved air-gap separation or an approved reduced pressure principle backflow preventer device.
  - b. In the case of any premises where there is water or a 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.
  - c. In the case of any premises where there is any material dangerous to health which 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 preventer device.
  - d. 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 preventer device at the service connection.
- (4) Any backflow preventer device required herein shall be of a model and size approved by Orange City Utilities. The term "approved backflow prevention device" means that the device has been manufactured in full conformance with standards established by the American Water Works Association entitled: "AWWA C506-69; Standards for Reduced Pressure Principle and Double Check Valve Backflow Prevention Devices," and have met completely the laboratory and field performance specifications of the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California.
- (5) It shall be the duty of the customer-user at any premises where backflow preventer devices are installed to have certified inspections and operational tests made at least once per year. In those instances where the manager-Director deems that hazard to be great enough, he/she may require certified inspections at more frequent intervals. These inspections and tests shall be at the expense of the water user and shall be performed by Orange City Utilities certified personnel. It shall be the duty of the manager-Director to see that these timely tests are made. These devices shall be repaired, overhauled or replaced at the expense of the customer-user whenever said devices are found to be defective. Records of such repairs and overhauls shall be kept and made available to Orange City Utilities.
- (6) All presently installed backflow preventer devices which do not meet the requirements of this section, but were approved devices for the purpose described herein at the time of installation and which have been maintained, shall, except for the inspection and maintenance, be excluded from the requirements of this section so long as Orange City Utilities is assured that they will satisfactorily protect the Orange City Utilities water system. Whenever the existing device is moved from the present location or requires more than minimum maintenance or when Orange City Utilities finds that the maintenance constitutes a hazard to health, the unit shall be replaced by a backflow preventer device meeting the requirements of this section.
- (f) *Manual of cross connection control.* The city adopts by reference the Orange City Utilities' Manual of Cross Connection Control. Compliance with the manual and this section is required. Copies of the Manual of Cross Connection Control may be obtained from Orange City Utilities.
- (g) *City's right to refuse service for noncompliance.*

- (1) The city shall refuse to supply water service to any customer or structure which does not comply with the requirements of this section.
  - (2) Service of water to any premises shall be disconnected by Orange City Utilities if a backflow ~~prevention~~ device required by law, rules or regulations is not installed, tested and maintained; or if it is found that a backflow ~~prevention~~ device has been removed or bypassed, or if unprotected cross connections exist on the premises and there is inadequate backflow protection at the service connection. Water service shall not be restored until such condition or defects are corrected and all payments for penalties, if any, have been made. All turn off and turn on service charges shall be paid by the customer.
- (h) *Penalty for violation.* Any person violating any of the provisions of this section or failing to comply therewith shall be punished by a fine of up to and not to exceed \$500.00 or by imprisonment for a period not exceeding 60 days or by both such fine and imprisonment at the discretion of the judge trying the case. Each day any such violation shall continue shall constitute a separate offense.
- (i) *Testing charges for backflow ~~prevention~~ devices.* The fees shall be charged and established by resolution.

(Ord. No. 356, Exh. A, 6-24-08)