

ORDINANCE NO. 1107-1

An ordinance of the city council of the City of Pearland, Texas, amending Chapter 30, *Utilities*, of the City of Pearland Code of Ordinances, as it may have been, from time to time, to amend Article V, *Cross-Connection Control and Prevention*; having a savings clause, a severability clause, and a repealer clause; and providing for codification and an effective date.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF PEARLAND, TEXAS:

Section 1. That Article V, *Cross-Connection and Prevention Control*, of Chapter 30, *Utilities*, of the City of Pearland Code of Ordinances, is hereby amended to read as follows:

“Sec. 30-111.Cross-connection standards.

- (a) The purpose of this article is to establish standards designed to protect the city’s public potable water supply from the possibility of contamination or pollution by isolating the customer’s internal distribution system(s) or the customer’s private water system(s) from exposure to any contaminants or pollutants that may backflow into the public water system.
- (b) In order to comply with local, state and federal regulations, each source of contamination or possible contamination from any contaminant, which originates from or is located at a residential or commercial establishment that is connected to any public water supply or which provides water to the public, shall be equipped with the protection required under the provisions of this article. This article shall apply to all new and existing plumbing for all of city customers. In order to protect the health, safety and welfare of city customers, no existing hazardous connections shall be allowed to continue to exist without installation of the appropriate protective backflow prevention assembly. This article shall apply to residents, businesses, or any other entities within the city who use the Public Water System.

Sec. 30-112. - Definitions.

For purposes of this article, the following definitions apply. If a word or term used in this article is not contained in the following list, its definition shall have the meaning identified in the most recent adopted edition of the city plumbing code:

Air gap means a physical separation between the free flowing discharge end of a potable water supply piping and/or appurtenance and an open or non-pressure receiving vessel, plumbing fixture or other device. An "approved air-gap separation" shall be at least twice the diameter of the supply pipe measured vertically above the overflow rim of the vessel, plumbing fixture or other device but in no case shall be less than one inch (1”).

Appeal Officer shall mean the City Manager designee that presides over appeals of actions or decisions of the Authority.

Atmospheric vacuum breaker backflow prevention device, atmospheric vacuum breaker, or AVB means a device used to prevent backsiphonage in non-health hazard conditions.

Authority means the Public Works Director or his/her designee charged with the administration and enforcement of this ordinance.

Auxiliary supply means any water source or system other than the public water system that may be available in the building or on the property, including ground water, reclaimed water or surface waters used for industrial, irrigation or any other purpose.

Backflow prevention assembly, or assembly means an assembly designed to counteract backpressure or prevent backsiphonage.

Backflow means the flow in the direction opposite to the normal flow or the introduction of any foreign liquids, gases, or substances into the water system of the city's water.

Backpressure means any elevation of pressure in the downstream piping system (by any means) above the supply pressure at the point of consideration which would cause, or tend to cause, a reversal of the normal direction of flow and the introduction of fluids, mixtures or substances from any source other than the intended source.

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 a sudden reduction of pressure in the potable water supply system.

Boresight, or Boresight to daylight means the provision of adequate drainage for backflow prevention assemblies installed in vaults through the use of an unobstructed drainpipe.

City or the city means the City of Pearland.

Commercial establishment means property or location which is used primarily for manufacture, production, storage, wholesaling or retailing of services which is or may be placed in the flow of commerce or any property or location which is used primarily for the provision of any service.

Commission means the Texas Commission on Environmental Quality

Contaminants means any foreign material, solid or liquid, not common to the potable water supply which makes the water unfit or undesirable for human or animal consumption.

Contamination means the admission of contaminants into the potable water supply system.

Cross connection shall mean any connection, physical or otherwise, between a potable water supply system and any plumbing fixture or any tank, receptacle, equipment or device, through which it is possible for any non-potable, used, unclean, polluted and contaminated water, or other substances, to enter into any part of such potable water system under any condition or set of conditions.

Cross-Connection Control Assembly means any assembly placed upon any connection, physical or otherwise, between a potable water supply system and any plumbing fixture, or any tank, receptacle, equipment or device which is designed to prevent non-potable, used, reclaimed, polluted, and/or contaminated water or other substances, from entering into any part of the potable water system.

Customer service inspection means an inspection designed to inspect and detect any actual or potential cross-connection hazards and/or exceeding of the lead action level in solder or flux, pipe or pipe fittings.

Degree of hazard means the low or high hazard classification that shall be attached to all actual or potential cross-connections as follows:

- (1) *Health hazard* means an actual or potential threat of contamination of a physical or toxic nature to the public potable water system or the consumer's potable water system that would be a danger to health.
- (2) *High hazard* means the classification assigned to an actual or potential cross-connection that potentially could allow a substance that may cause illness or death to backflow into the potable water supply.

- (3) *Industrial hazard* means any fluid or solution which may be chemically, biologically, or otherwise contaminated or polluted in a form or concentration which could constitute a health, system, or plumbing hazard if introduced into a public water supply. Examples of industrial hazards include, but are not limited to, polluted or contaminated used water; all types of processed waters and used waters originating from the public potable water system which may deteriorate in sanitary quality; chemicals in fluid form; plating acids and alkalis; circulated cooling waters connected to an open cooling tower and/or cooling waters that are chemically or biologically treated or stabilized with toxic substances; contaminated natural waters such as from wells, springs, streams, rivers, bays, irrigation canals or systems etc.; and oils, gases, glycerin, caustic and acid solutions and other liquid gaseous fluids used industrially, for other processes, or for firefighting purposes.
- (4) *Low hazard* means the classification assigned to an actual or potential cross-connections that potentially could allow a substance that may be objectionable but not hazardous to one's health to backflow into the potable water supply.
- (5) *Pollution hazard* means an actual or potential threat to the physical properties of the water system or the potability of the public or the consumer's potable water system but which would not constitute a health or system hazard, as defined. Maximum degree of intensity of pollution which the potable water system could be degraded under this definition would cause a nuisance or be aesthetically objectionable or could cause damage to the system or its appurtenances.
- (6) *System hazard* means an actual or potential threat of severe danger to the physical properties of the public or consumer's potable water supply or of a pollution or contamination that would have a detrimental effect on the quality of the potable water in the system.

Double check detector backflow prevention assembly, double check detector, or DCDA means an assembly composed of a line-sized approved double check assembly with a bypass containing a specific water meter with an approved double check valve assembly.

Fire line testers mean a tester who is employed by a state approved fire line contractor that holds a current Responsible Managing Employee- General License (RME-G) to test backflow prevention assemblies on fire lines only.

General tester means a tester certified to test backflow prevention assemblies on any domestic, commercial, industrial or irrigation service except fire lines.

Mobile unit means any operation, which has the potential to introduce contaminants into a potable water system from a mobile source. Mobile units include, but are not limited to, carpet-cleaning vehicles, water-hauling vehicles, street-cleaning vehicles, liquid-waste vehicles, power-wash vehicles and pest-control vehicles.

Non-residential use means water used in operations by any person other than a residential customer, and includes all uses not specifically included in "residential uses" as defined in the city's Unified Development Code or other applicable zoning regulations.

Person means any individual, partnership, associations, corporations, firms, clubs, trustees, receivers, and bodies politic and corporate.

Plumbing Code means city and/or state adopted rules and regulations governing plumbing.

Point of service delivery means the terminal end of a service connection from the public water system.

Point-of-use-isolation means the city approved backflow prevention within the consumers' water system at the point at which the actual or potential cross-connection exists.

Potable water supply mean any water supply intended or used for human consumption or other domestic use.

Premises means any piece of property to which water is provided, including improvements, mobile structures, and structures located on it.

Premises isolations mean the appropriate backflow prevention at the service connection between the public water system and the water user.

Pressure vacuum breaker backflow prevention assembly, pressure vacuum breaker, or PVB means an assembly that provides protection against backsiphonage, but does not provide adequate protection against backpressure backflow. The assembly is a combination of a single check valve with an AVB that can be used with downstream resilient seated shutoff valves.

Public water system, or system means any public or privately owned water system that supplies water for public domestic use. The system includes all services, reservoirs, facilities, and any equipment used in the process of producing, treating, storing, or conveying water for public consumption.

Reclaimed Water means wastewater, collected and treated at a wastewater treatment plant that has been treated to meet or exceed the requirements of the Texas Commission on Environmental Quality.

Reduced Pressure principle backflow prevention assembly, reduced pressure principle assembly, RP assembly, or RP means an assembly containing two (2) independently acting approved check valves together with a hydraulically-operated, mechanically independent pressure differential relief valve located between the check valves and below the first check valve. The assembly shall include properly located resilient seated test cocks with a tightly closing resilient seated shutoff valve at the end of the assembly.

Reduced pressure principle detector backflow prevention assembly, reduced pressure detector, or RPDA means an assembly composed of a line-size approved reduced principle assembly with a bypass containing a specific water meter and an approved reduced pressure principle backflow prevention assembly.

Representative of the water system means a person designated by the city to perform cross-connection control duties that include, but are not limited to, cross-connection inspections and water use surveys.

Residential use me water used by any residential customer of the water supply that includes single family dwelling, duplexes, multiplex, housing and apartments where the individual units are each on a separate meter; or, in cases where two (2) or more units are served by one meter, the units are full-time dwellings.

Service connection means the point of delivery where the water provider surrenders control of the water.

Spill-resistant pressure vacuum breaker, or SVB means an assembly containing an independently operating, internally loaded check valve. This assembly is to be equipped with a properly located resilient seated test cock and tightly closing resilient seated shutoff valves attached at each end of the assembly.

Tester means a certified backflow prevention assembly technician approved by and registered with the city and the TCEQ.

Thermal expansion means heated water that lacks space to expand.

TCEQ means the Texas Commission on Environmental Quality.

Used waters mean water supplied by a public water system after it passes through a service connection.

Water use surveys mean a survey conducted or caused to be conducted by the local authority designed to identify any possible sources of contamination to the potable water supply.

Sec. 30-113. - Right-of-way encroachment.

No person shall install or maintain a backflow prevention assembly upon or within any city right-of-way except as authorized in this section.

- (a) A backflow prevention assembly required by the city may be installed upon or within any city right-of-way if the owner demonstrates that no other feasible location for installing the assembly exists and that installation in the right-of-way will not interfere with traffic flow or utilities. The owner shall obtain a permit and an approved consent to encroach agreement from the city prior to installation of the assembly. The city retains the right to approve the location, height, depth, enclosure, and other requisites of the assembly prior to its installation.
- (b) The property owner shall be responsible for obtaining all permits and inspections required by applicable city ordinances to perform work in the right-of-way.
- (c) The property owner shall, at the request of the city and at the owner's expense, relocate a backflow prevention assembly which encroaches upon any city right-of-way when such relocation is necessary for street or utility construction or repairs for purposes of public safety.
- (d) A person commits an offense under this article if they fail to relocate a backflow prevention assembly located in or upon any city right-of-way after receiving a written order from the Authority.

Sec. 30-114. - Multiple connections.

Any premises requiring multiple service connections for adequacy of supply and/or fire protection shall, in the sole discretion of the Authority, be required to install a Reduced Pressure (RP) backflow assembly or an approved air gap on each of the additional service lines serving the premises.

Sec. 30-115. – Backflow protection required; installation.

- (a) The backflow prevention assembly protection required under this article shall be any of the duly nationally recognized and authorized backflow prevention assemblies authorized by the city's Plumbing Code, a State of Texas approved Plumbing Code, or as determined by the Authority. Each backflow prevention assembly requires approval by the Authority prior to installation. Failure to obtain approval prior to installation of a backflow prevention assembly may result in the backflow prevention assembly failing to meet final approval by the Authority. The Authority shall determine the type and location of backflow assembly to be installed within the area served by the city. An assembly shall be required in each of the following circumstances:
- (1) The nature and extent of any activity on the premises, or the materials used in connection with any activity on the premises, or materials stored on the premises, has the potential to contaminate or pollute the potable water supply.
 - (2) Any premises containing one or more cross-connections where the cross-connection(s) is protected by an atmospheric vacuum breaker device (AVB).
 - (3) Internal cross-connections exist that are not correctable.
 - (4) Complicated plumbing installations exist that make it impractical to determine whether cross-connections exist.
 - (5) Restricted entry limits inspections for cross-connections with sufficient frequency to determine whether cross-connections exist.
 - (6) Installation of an approved backflow prevention assembly is deemed to be necessary to accomplish the purpose of these regulations in the sole discretion of the city.
 - (7) An appropriate cross-connection survey report form has not been filed with the city.
 - (8) A fire suppression system is connected to the city's water system.
 - (9) All new construction when deemed necessary by the customer service inspection.
 - (10) All non-residential construction when the end use of such building cannot be determined or the end use may change.
 - (11) All used water return system.
 - (12) In the event a point-of-use assembly has not had the testing or repair done as required by this article, a premises isolation assembly will be required.
 - (13) When it is determined that additions or alterations have been made to the plumbing system without obtaining proper permits.
 - (14) All multistory buildings or any building containing a booster pump or elevated storage tank.
 - (15) Retrofitting shall be required on all high hazard connections and when the Authority reasonably determines a retrofit is necessary.
 - (16) Temporary water service posing a potential cross-connection threat to the potable water supply shall be protected by an approved backflow prevention assembly.
- (b) All backflow prevention assemblies installed after the effective date of this Article shall be installed in a manner designed to facilitate ease of inspection by the city. Any currently installed backflow prevention assemblies located in inaccessible locations, or where the

tester is subject to physical danger, shall be relocated to pre-approved locations following current national regulatory standards.

Sec. 30-116. - Testing of assemblies.

- (a) Backflow prevention assembly testers shall hold a current TCEQ issued backflow prevention assembly tester license and shall be registered with the city. All backflow prevention assemblies shall be inspected and tested in each of the following circumstances:
 - (1) All backflow prevention assemblies shall be inspected and tested following installation.
 - (2) When the assembly is moved, except that prior to moving the assembly, the city Authority shall be notified in writing;
 - (3) A minimum of once each year for backflow prevention assemblies with known health hazards as determined by Appendix F, 30 TAC 290.47 (f), *Assessment of Hazards and Selection of Assemblies* as it may be amended from time to time.
 - (4) Premises that have been vacated and unoccupied for one (1) year, prior to a re-occupancy;
 - (5) Immediately following repairs.
 - (6) As frequently as the city reasonably deems necessary to protect the public water supply from contamination.
- (b) Duly authorized employees of the city bearing proper credentials and identification may enter any public or private property at any reasonable time for the purpose of enforcing this article. Persons and occupants of premises that receive water service by the city, either directly or indirectly, shall allow the city or its representative's access at all reasonable times to all relevant parts of the premises for the purposes of inspecting and testing required in the performance of their duties. Where persons or occupants of premises have security measures in force which would require proper identification and clearance before entry into their premises, the persons and occupants of the premises shall make necessary arrangements to allow, personnel from the city to enter, without delay, for the purpose of performing their specific responsibilities.
- (c) The city shall not liable for damage to a backflow prevention assembly that occurs during testing.
- (d) A water use survey may be conducted at any establishment located in the city which is served by a public water supply or which provides water to the public. Upon determination that the establishment falls under the provisions of this article and requires a backflow prevention assembly, a notice to abate the condition or to install the proper backflow prevention assembly shall be issued.
- (e) It shall be the responsibility of the person who owns or controls property to have all assemblies tested in accordance with this article. Assemblies may be required to be tested more frequently if the regulatory Authority reasonably deems it necessary.
- (f) All test results from assembly testing shall be completed electronically on the city's TCEQ approved backflow prevention assembly certified test and maintenance report form.

Sec. 30-117. - Thermal expansion.

Thermal expansion is a physical property related to a water volume increase inside a pipe when water is heated. To prevent backflow, a closed piping system shall contain a city approved expansion tank or other approved means to safely accommodate or relieve the effects of excessive pressure caused from thermal expansion. It shall be the sole financial responsibility of any person who owns or controls property to eliminate the risk of thermal expansion..

Sec. 30-118. - Pressure loss.

Any reduction in water pressure caused by the installation of a backflow assembly shall not be the responsibility of the city.

Sec. 30-119. - Residential service connections.

Any person owning or controlling any residential property, which has been determined to have an actual or potential cross-connection, shall be required to eliminate the actual or potential cross-connection or have an approved backflow assembly installed, at the owner's expense, in accordance with this Article.

Sec. 30-120. - Rental properties.

Any person owning or controlling property shall be responsible for all costs associated with obtaining cross connection surveys, customer service inspections, installations, testing and repair of all backflow assemblies located on the property.

Sec. 30-121. - Customer service inspection.

- (a) Pursuant to applicable TCEQ regulations, a customer service inspection for cross-connection control shall be completed by the city's Plumbing Inspector, a Water Supply Protection Specialists licensed by the Texas Board of Plumbing Examiners (TSBPE), or a Customer Service Inspector holding a current TCEQ Customer Service Inspector license.
- (b) A customer service inspection shall be completed prior to providing continuous water service in each of the following circumstances:
 - (1) Water service to a newly constructed facility or previously non-services premises.
 - (2) Following any material improvement to building(s) or premises.
 - (3) Any repair or addition to the plumbing of any facility or premises.
 - (4) The city reasonably deems it necessary.
- (c) Permanent water service shall not be supplied to a new construction facility(s) until a customer service inspection is completed.
- (d) Temporary water service posing a potential cross-connection threat to the potable water supply shall be protected by an approved backflow prevention assembly.

- (e) Customer Service Inspectors performing (CSI) inspections in the city shall register with the city, provide a copy of their CSI license, proof of liability insurance or bonding, and pay all applicable city fees.
- (f) All Customer Service Inspections shall be completed electronically on the city's TCEQ approved certified Customer Service Inspection report form.

Sec. 30-122. - Installation guidelines and requirements for backflow prevention assemblies.

- (a) General. To ensure proper operation and accessibility of all backflow prevention assemblies, the following requirements shall apply to the installation of backflow prevention assemblies.
 - (1) Assemblies shall be installed in accordance with current TCEQ rules and this article. The assembly installer must obtain the required plumbing permits and have the installation inspected by the city as provided in this article.
 - (2) Facilities requiring a backflow prevention assembly to be installed at the point of delivery of the water supply shall be installed before any branch in the line and on private property located inside the boundary between the city right-of-way and the landowner's property. The city may, in its sole discretion, specify other areas for installation of an assembly. Assemblies authorized to be located within the city rights-of-way shall be the sole responsibility of the owner, business or entity served by the water line.
 - (3) Assemblies shall be protected from freezing, and any other severe weather conditions.
 - (4) Assemblies shall be lead free.
 - (5) All vertical installation of assemblies require city approval.
 - (6) Assemblies larger than four (4) inches and installed more than five (5) feet above floor level shall have an approved platform for use by testing or maintenance personnel.
 - (7) Bypass lines and pipe fittings that can be used for a bypass line are prohibited.
 - (8) Lines shall be thoroughly flushed prior to installation. A strainer with blowout tapping may be required ahead of the assembly.
 - (9) Facilities requiring continuous uninterrupted water service, and that are required to have a backflow assembly, shall make provisions for the parallel installation of two (2) backflow assemblies of the same type so that testing, repair and maintenance can be performed.
 - (10) The property owner assumes all responsibility for any damages resulting from installation, operation, and/or maintenance of a backflow assembly. The owner shall be responsible for keeping all backflow prevention assembly vaults reasonably free of silt and debris.
 - (11) Upon completion of installation, the city shall be notified and all assemblies must be inspected and tested. All assemblies must be registered with the city and shall provide the date of installation, manufacturer, model, type, size, serial number of the backflow assembly, and initial test report.
 - (12) Assemblies shall be equipped with a properly located resilient seated test cock and tightly closing resilient seated shutoff valves attached at each end of the assembly.

- (b) Reduced pressure principle backflow prevention assemblies (RP's), subject to city approval, may be utilized at a premises where a substance is handled that may be hazardous to health if introduced into the potable water system. The following guidelines shall apply to all RP installations:
- (1) RP's shall be sized to provide an adequate supply of water and pressure for the premises being served.
 - (2) RP assemblies shall be readily accessible for testing and maintenance, and in an approved location to avoid water damage to buildings or furnishings occurring from relief valve discharge. An approved air gap shall be located at the relief valve orifice of all RP assemblies.
 - (3) No part of an RP assembly shall be submerged in water or installed in a location subject to flooding. RP's may be installed below grade (ground level) if a bore sight drain to daylight, is provided. The drain shall contain adequate capacity to carry the full rated flow of the assembly and shall be screened on both ends.
 - (4) RP enclosures shall be designed for access and sized to allow for the minimum clearances established herein Daylight drain ports must be provided to accommodate full pressure discharge from the assembly.
 - (5) RP assemblies two (2) inches and smaller shall have at least six-inches clearance on both sides and on top of the assembly, and twelve (12) inches below and behind the assembly. Assemblies larger than two (2) inches shall have a minimum of 12 inches on the back side, twenty-four (24) inches on the test cock side, and the relief valve opening shall be at least twelve (12) inches plus normal size of assembly above the floor or highest possible water level. Headroom of six (6) feet zero (0) inches is required in vaults without a fully removable top. A minimum access opening of thirty inches (30") by forty-eight inches (48") is required on all vault lids used in the installation of three inches (3") and four inches (4"). Backflow assemblies six inches (6") up to twelve inches (12") shall have a minimum thirty inches (30") by thirty inch (30") inches double hatch access opening.
 - (6) RP assemblies shall be tested in accordance with this article.
 - (7) Variances from these specifications shall be evaluated on a case-by-case basis. No deviations shall be allowed without prior written approval of the city.
- (c) Reduced pressure principle detector backflow prevention assemblies (RPDA) may be utilized in all installations requiring a reduced pressure principle backflow prevention assembly and detector metering.
- (1) RPDAs shall comply with the installation requirements applicable for reduced pressure principle backflow assemblies (RP).
 - (2) The line-size RP assembly and the by-pass RP assembly must each be tested. A separate test report for each assembly must be completed by a certified tester.
- (d) Double check valve backflow prevention assemblies (DC) may be utilized at a premises where a substance is handled that may be objectionable, but not hazardous to health if introduced into the potable water system.
- (1) DC assemblies shall be sized to provide an adequate supply of water and pressure for premises being served.
 - (2) Premises where an uninterrupted water supply is critical shall be provided with two (2) parallel assemblies. DC assemblies shall be sized that either assembly will provide the

minimum water requirements while the two (2) assemblies together will provide the maximum flow required.

- (3) DC assemblies shall be accessible with adequate room for testing and maintenance. DC's may be installed below grade, providing all test cocks are fitted with brass pipe plugs. All vaults shall be well drained, constructed of suitable material, and sized to allow for the minimum clearances established below.
- (4) DC assemblies two (2) inches and smaller shall have at least six-inch clearance below and on both sides of the assembly, and if located in a vault, the bottom of the assembly shall be not more than twenty-four (24) inches below grad. All assemblies larger than two (2) inches shall have a minimum clearance of twelve (12) inches on the back side, twenty-four (24) inches on the test cock side, and twelve (12) inches below the assembly. Headroom of six (6) feet zero (0) inches is required in vaults without a fully removable top. A minimum access opening of thirty-six inches (36") by forty-eight inches (48) is required on all vault lids used in the installation of three inches (3") and four inches (4"). Backflow assemblies six inches (6") up to twelve inches (12") shall have a minimum thirty inches (30") by thirty inches (30") double hatch access opening. "Y" pattern double check valve assemblies shall be installed so that the checks are horizontal and the test cocks face upward. The clearance standards contained herein shall apply to all assemblies installed in vaults, enclosures, and meter boxes.
- (5) Vertical installations of DC assemblies are allowed for sizes up to and including four (4) inches that meet the following requirements:
 - a. Installation includes internally spring-loaded check valves;
 - b. Water flow is upward through the assembly;
 - c. Manufacturer specifications allow for vertical installations;
 - d. Approved by the Authority.
- (6) Variances from these specifications will be evaluated on a case-by-case basis. Any deviations must have prior written approval of the city.
- (e) Double check detector backflow prevention assemblies (DCDA) may be utilized in all installations requiring a double check valve assembly and detector metering.
 - (1) DCDA's shall comply with the installation requirements applicable for double check valve assemblies (DCs).
 - (2) The line-sized DC assembly and the bypass DC assembly shall each be tested. A separate test report for each assembly must be completed by a certified tester.
- (f) Pressure vacuum breaker backflow prevention assemblies (PVB) may be utilized at point-of-use protection only and where a substance is handled that may be objectionable but not hazardous to health if introduced into the potable water system. PVBs shall not be installed where there is potential for backpressure.
 - (1) PVB assemblies shall be installed a minimum of twelve (12) inches above highest downstream piping.
 - (2) PVB assemblies shall not be installed in an area subject to flooding or where damage could occur from water discharge.
 - (3) PVB assemblies shall be readily accessible for testing and maintenance, and shall maintain a minimum clearance of twelve (12) inches around the assembly.

- (4) Variances from these specifications will be evaluated on a case by case basis. Any deviations must have prior written approval of the regulatory authority.
- (g) Spill resistant pressure vacuum breaker backflow prevention assemblies (SVB) may be utilized in all installations requiring a pressure vacuum breaker. SVB assemblies shall comply with the installation requirements applicable for pressure vacuum breaker backflow prevention assemblies.

Sec. 30-123. - Air gap separation.

Air gaps provide maximum protection from backflow hazards and shall be utilized at all locations where "high" hazardous substances pose a risk of entering the potable water system.

- (1) An air gap separation shall be sized, at a minimum, twice the diameter of the supply pipeline measured vertically above the top rim of the receiving vessel, but in no case less than one inch. When splashing poses a problem, tubular screens may be attached or the supply line may be cut at a 45° angle with the air gap distance being measured from the bottom of the angle. Hoses shall not be allowed for air gap separations.
- (2) Air gap separations shall not be altered in any way without prior approval from the Authority.
- (3) Side wall, ribs or similar obstructions shall be spaced from the inside edge of the spout opening a distance greater than three (3) times the diameter of the effective opening for a single wall, or a distance greater than four (4) times the effective opening for two (2) intersecting walls.

Sec. 30-124. - Fire suppression systems.

- (a) All new installations of fire suppression systems utilizing the city's potable water supply shall have installed an approved backflow prevention assembly. Assemblies shall be located as close as practicable to the point of water service on the customer's property that is located outside the city utility easement or right-of-way.
- (b) An approved double check detector backflow prevention assembly (DCDA) or reduced pressure detector assemblies (RPDA) shall be the minimum protection for fire sprinkler systems using piping material not approved for potable water use and/or that does not provide for periodic flow-through during each twenty-four-hour (24) period. An RPDA shall be installed when any solution or alternate water supply, other than the potable water, is capable of being introduced into the fire suppression system.
 - (1) It shall be the responsibility of all property owners and persons in charge of any premises to abide by the conditions of this article. Retrofitted or remodeled fire protection systems shall have an approved backflow prevention assembly installed as close as practicable to the point of water service delivery when the hydraulic calculations of the sprinkler system demand that a new and/or larger service connection to the public water supply system is required. All costs associated with this article and the purchase, installation, testing and repair of (DCDA) or (RPDA) assemblies shall be the responsibility of the property owner and/or persons in charge of any premises.

- (2) Upon the approved installation of the (DCDA) or (RPDA) assembly, a backflow test and maintenance report shall be completed by a licensed fire line tester that is employed by a licensed fire sprinkler contractor registered through the State Fire Marshal's Office. Fire- line testers shall file a copy of the company's Sprinkler Certificate of Registration –General (SCR) and Responsible Managing Employee-General License (RME-G) with the city.
- (3) In the event water service is interrupted during testing, the tester shall comply with the requirements of all applicable state and federal laws concerning the notification of appropriate authorities, notification of monitoring stations and any requirements to deploy a fire watch during a period in which the fire suppression system is non-operational.

Sec. 30-125. - Fire hydrant protection.

An approved double check device backflow prevention assembly (DCD) or reduced pressure detector assemblies (RPDA) shall be the minimum protection for fire hydrant water meters used for a temporary water supply during any construction or other uses which would pose a potential hazard to the public water supply. A RPDA shall be installed if any solution other than that the potable water has the potential to be introduced into the sprinkler system.

- (1) It shall be the responsibility of all persons engaging in the use and rental of a fire hydrant water meter to abide by the conditions of this article and to review the city's regulations on the proper operation of fire hydrants.
- (2) Only city fire hydrant water meters with approved backflow prevention assemblies are allowed to be used within the city limits.
- (3) A refundable deposit is required to insure the return of all water meter and backflow assemblies to the city. Failure to return the assemblies can result in the forfeiture of deposit and/or enforcement action being taken against the responsible party, as. (See Fee schedule in App. A)
- (4) Any non-approved fire hydrant meter used in the city will be confiscated.

Sec. 30-126. - Responsibilities of property owner and Tester.

- (a) It shall be the responsibility of all property owners and/or persons in charge of any premises to abide by the conditions of this article and to comply with the following:
 - (1) Payment of all costs associated with this article and the purchase, installation, testing and repair of backflow prevention assemblies.
 - (2) Installation and maintenance of all backflow prevention assemblies in accordance with this article.
 - (3) All commercial establishments and residential properties shall cause to have all backflow prevention assemblies on their premises tested in accordance with this article. Such testing shall be conducted by a certified backflow prevention assembly tester registered with the city.
 - (4) Maintain all backflow prevention assemblies in proper working order at all times, including repair as required.

- (5) Maintain all backflow prevention assemblies in a manner that allows them to be tested by the regulatory authority.
- (6) All records related to backflow prevention assembly installation, testing and repair shall be maintained on the premises for a minimum of three (3) years.
- (7) All backflow assemblies shall be repaired or replaced within ten (10) business days following notification by the Authority.
- (b) Certified backflow prevention assembly testers shall comply with the following requirements:
 - (1) Annually register with the Authority prior to testing backflow assemblies in the city.
 - (2) Maintain testing equipment in proper working condition/calibration.
 - (3) Maintain the design or operation characteristics of an assembly.
 - (4) Test assemblies in accordance with TCEQ regulations.
 - (5) Enter required testing data, including test gauge serial numbers, on cross-connection test forms maintained by the Authority.
 - (6) Report all test results to the Authority within forty-eight (48) hours of testing.
 - (7) Provide a copy of the completed test reports to the property owners and/or persons in charge of any premises.
 - (8) Complete and submit electronic test reports to the City.
 - (9) Maintain testing and/or repair records for a minimum of three (3) years.
 - (10) Prohibit the use backflow test gauges previously used on reclaimed water systems or fire line systems.

Sec. 30-127. - Backflow prevention assembly tester certification required—Registration.

Only approved TCEQ licensed backflow prevention assembly testers shall be authorized to test backflow prevention assemblies in the city. Testers shall register annually with the city, provide proof of TCEQ certification, and provide evidence that testing equipment is capable of maintaining a calibration in accordance with applicable regulations. Testers shall include test gauge serial numbers on the approved Backflow Prevention Assembly Test and Maintenance Report, provide a copy of calibration paperwork indicating a plus or minus two percent (+/-2%) accuracy copy of Backflow Prevention Assembly Tester license, proof of liability insurance or bonding with the City, and pay all applicable city fees.

Sec. 30-128. - Compliance for lawn irrigation.

A permit issued by the city's building inspection department, shall be required for all lawn irrigation system installations. Installation requirements shall comply with the current city plumbing code, applicable state regulations, and the terms of this article. Interconnections of the potable water supply with an alternate water source is prohibited. Reduced Pressure Assemblies (RP) or approved air gaps shall be installed when any mechanical injection stations, quick couplers, or hose connections are used with an irrigation system.

Sec. 30-129. - Mobile units.

The connection of a mobile unit to any potable water system is prohibited unless the connection is protected by an air gap or an approved backflow prevention assembly. Prior approval and annual testing of any backflow prevention assembly must be received from the city before connecting to any potable water system.

Sec. 30-130. - Enforcement.

- (a) This article shall be enforced by the Authority.
- (b) The city shall inspect or cause to be tested, all backflow prevention assemblies installed pursuant to the requirements of this article. Except in cases where the testing of backflow prevention assemblies must be delayed until the installation of internal production or auxiliary equipment. The Authority shall not approve a certificate of occupancy until all backflow prevention assemblies have been tested and are operational.
- (c) Violations.
 - (1) A person commits an offense for the failure to maintain backflow prevention assemblies in compliance with this section.
 - (2) A person commits an offense for the failure to comply with a repair order issued by the city.
 - (3) A person commits an offense if backflow from a premises owned, operated or managed by the person enters the public water supply system.
 - (4) A person commits an offense for the failure to pay any fees required by this article.
 - (5) A person commits an offense by violating any section of this article.
 - (6) A person commits an offense if discontinued or disconnected water service to a premises under this article is reinstated without prior approval of the city.
 - (7) A person commits an offense by allowing an unregistered tester to perform work.
 - (8) A person commits an offense by testing backflow prevention assemblies within the city without registering with the Authority.
 - (9) A person commits an offense by testing backflow prevention assemblies within the city without maintaining a current certification issued by the TCEQ.
- (d) Penalty.

- (1) A person who violates any provision of this article is guilty of a misdemeanor and upon conviction is punishable as set forth in section 1-11, for each violation and for each day or part of a day during which the violation is committed, continued or permitted.
- (2) In addition to the authority of subsection (d)(1) of this section, the city shall be entitled to pursue all other criminal and civil remedies to which is entitled under authority of statutes or other ordinances against a person committing any violation of this article including injunction and civil penalties.
- (e) Water service disconnection. Water service may be disconnected when a person and/or business fails to comply with the city's Cross Connection Program. Customers shall receive (by mail) an annual test notice reminder, a second test notice reminder and a final test notice informing the customer that the water will be disconnected if testing is not completed by the specified date contained in the notice.
- (f) Revocation of registration. A certified testers' registration may be reviewed and revoked by the city for a period of six (6) months if the City determines that the tester:
 - (1) Falsely, incompletely, or inaccurately reported assembly reports;
 - (2) Used inaccurate gauges;
 - (3) Used improper testing procedures; or
 - (4) Created a threat to public health or the environment
 - (5) Refuses to perform a retest and/or pay appropriate retest fees for assemblies tested without a valid city registration.

Sec. 30-131. - Deposit fee for fire hydrant water meter with backflow prevention device.

There shall be a required rental deposit to rent fire hydrant water meters with backflow prevention devices from the city. Upon return of the rented meter, a non-refundable fee shall be deducted from the rental deposit.

Sec. 30-132- Removal of backflow prevention assembly

- (a) Removal or relocation- Prior written approval shall be obtained from the Authority before a backflow prevention assembly may be removed or relocated.
- (b) Discontinued use- The use of a backflow prevention assembly may be discontinued and the assembly removed from service upon written approval from the authority if it can be demonstrated that a hazard no longer exists, and that removal of the assembly will not create a future hazard.
- (c) Replacement- A backflow prevention assembly may be removed and replaced. All replacement assemblies shall be approved by the Authority
- (d) Theft- If a backflow assembly is removed due to theft, the property owner shall be solely responsible for replacement of the assembly in compliance with this article.

Sec. 30-133- Quality assurance program

- (a) To ensure the quality of the backflow prevention tests, each month four (4) registered Pearland Backflow Prevention Assembly Testers shall be randomly selected for observation by the Backflow Compliance Program Coordinator or his designee. The tester will be notified by certified mail to the address on file with the City. When a tester has been chosen for random observation, the tester will have thirty (30) calendar days from the date of the letter to schedule and complete an approved observation with the Public Works Division. Failure to schedule the observation shall result in the individual's testing privileges being suspended. Testing privileges shall not be reinstated until the observation has been completed and approved.

Sec. 30-134- Appeal

A person may appeal the decision of the Authority by making a written request for appeal to the appeals officer within ten (10) business from the date of notification of the authority's decision. An appeal hearing under this article shall be conducted no later than ten (10) business days following the city's receipt of a written notice of appeal unless the parties agree to a later date. The appeal shall be conducted by the Appeal Officer. The decision of the appeal officer shall be final."

Section 2. Savings. All rights and remedies which have accrued in favor of the City under this Ordinance and amendments thereto shall be and are preserved for the benefit of the City.

Section 3. Severability. If any section, subsection, sentence, clause, phrase or portion of this Ordinance is for any reason held invalid, unconstitutional or otherwise unenforceable by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision and such holding shall not affect the validity of the remaining portions thereof.

Section 4. Repealer. All ordinances and parts of ordinances in conflict herewith are hereby repealed but only to the extent of such conflict.

Section 5. Codification. It is the intent of the City Council of the City of Pearland, Texas, that the provisions of this Ordinance shall be codified in the City's official Code of Ordinances as provided hereinabove.

Section 6. Effective Date. The City Secretary shall cause this Ordinance, or its caption and penalty, to be published in the official newspaper of the City of Pearland, upon passage of such Ordinance. The Ordinance shall then become effective on January 1, 2020.

PASSED and APPROVED on FIRST READING this the _____ day of _____, A.D., 2019.

TOM REID
MAYOR

ATTEST:

MARIA RODRIGUEZ
INTERIM CITY SECRETARY

PASSED and APPROVED on SECOND and FINAL READING this the _____ day of _____, A.D., 2019.

TOM REID
MAYOR

ATTEST:

MARIA RODRIGUEZ
INTERIM CITY SECRETARY

APPROVED AS TO FORM:

DARRIN M. COKER
CITY ATTORNEY

