

DIVISION 4. BACKFLOW AND CROSS CONNECTION REGULATIONS.

Sec. 122-56. General Requirements.

(a) City water service will not be connected, provided to, or maintained for any premises unless the City water system is protected from possible contamination in compliance with the City's adopted plumbing code and as required by this article. If the City determines that a Backflow prevention assembly is necessary at a Customer's water service connection or within the Customer's water system for the safety of the City water system, the City will notify the Customer in writing requesting that the Customer install a City approved Backflow prevention assembly as a condition of receiving or continuing to receive City water service. Within the time specified in the City's notice, the Customer must install and thereafter maintain a Backflow prevention assembly for the Customer's water system at the Customer's expense.

(b) City water service to any premises will be discontinued if a Backflow prevention assembly is not installed, tested, or maintained as required by these regulations, or if it is found that a Backflow prevention assembly has been damaged, removed, bypassed or an unprotected Cross connection exists on the premises.

(c) As a condition to providing or continuing City water service to any Customer, the Customer must make available for City inspection the Customer's water system at all reasonable times to determine whether unprotected Cross connections or other structural or health hazards, including violations of these regulations, exist.

Sec. 122-57. Backflow protection required.

(a) The City will determine the type and location of each Backflow prevention assembly to be installed. Prior to installation, the City must approve the Backflow prevention assembly for its application and the device must be certified by ASSE, AWWA, CSA, FM, UL, or USC. An assembly is required when:

- (1) The nature and extent of any activity on the premises, or the material used or stored in connection with any activity on the premises could contaminate or pollute the City water system.
- (2) The premises have one or more Cross connections protected by an atmospheric vacuum breaker device.
- (3) Internal Cross connections are present that are not correctable.
- (4) Intricate plumbing arrangements are present which make it impractical to ascertain whether a Cross connection exists.
- (5) There is unduly restricted entry so that inspections for Cross connections cannot be made with sufficient frequency to assure the Cross connections do not exist.
- (6) When a site identified under TAC Title 30§290.47(i) does not have an active Customer Service Inspection form on file with the City which states no current Cross connections exist.
- (7) The structure consists of more than two stories.

(8) The structure has a booster pump or elevated storage tank.

(9) Deemed necessary to accomplish the purpose of these regulations in the sole judgment of the City.

(b) All Backflow prevention devices installed after the effective date of this ordinance must be constructed in a manner designed to facilitate ease of inspection and testing by a Certified tester within the timeframe and location specified in the provided notice. Any currently installed Backflow prevention assemblies located in inaccessible locations or where the Certified tester is subject to physical danger must be relocated to a location approved by the City.

(c) All lawn irrigation system installations must comply with the City's adopted plumbing code as amended and the guidelines outlined in this article.

(d) Interconnections of the City water system with an alternate water source are prohibited. If an exception is granted by the Director, a reduced pressure zoned device (RPZ) must be installed at the system connection on the service side of the public water meter if the auxiliary water source is not terminated in accordance with the regulations of this article.

Sec. 122-58. Air gap separation.

(a) Air gaps provide maximum protection from Backflow hazards and should be utilized at all locations where hazardous contaminants are at risk of entering the City water system.

(1) An Air gap separation must be at least twice the diameter of the supply pipeline measured vertically above the top rim of the receiving vessel and in no case less than one inch. If splashing occurs, tubular screens may be attached or the supply line may be cut at a forty-five degree angle. The Air gap distance is measured from the bottom angle. Hoses are prohibited.

(2) Air gap separators may not be altered in any way without prior approval from the City and must be available for inspection at all reasonable times.

(3) Side walls, ribs or smaller obstructions do not effect Air gaps when spaced from the inside edge of the spout opening a distance greater than three times the diameter of the effective opening for two intersecting walls.

(b) The connection of a mobile unit to the City water system is prohibited unless an Air gap or an approved Backflow prevention assembly protects the connection. Approval from the City is required before connecting to the City water system.

Sec. 122-59. Backflow prevention assembly installation requirements.

(a) When a Customer is required to have a Backflow prevention assembly and requires continuous, uninterrupted water service, two or more Backflow prevention assemblies of the same type must be installed parallel to one another to allow a continuous water supply during testing, repair and maintenance of each individual Backflow prevention assembly.

(b) The property owner assumes all responsibility for any damage to the private or Public water systems resulting from installation, operation and maintenance of a Backflow prevention assembly. The owner is responsible for keeping all Backflow prevention assembly vaults reasonably free of silt and debris.

(c) Assemblies must be sized and flow characteristics must be sufficient to provide an adequate supply of water and pressure for the premises being served.

(d) Assemblies must be readily accessible for testing and maintenance and must be located in an area where water damage to buildings or furnishings would not occur from water discharge. An approved Air gap must be located at the relief valve orifice for reduced pressure principle Backflow prevention assemblies (RPA).

(e) No part of a RPA may be submerged in water or installed in a location subject to flooding.

(f) Reduced pressure principal detector Backflow prevention assembly (RPDA) may be utilized in all installations requiring a reduced pressure principal Backflow prevention assembly and detector metering.

(1) RPDAs must comply with the installation requirements applicable to an RPA and must have adequate freeze protection.

(2) The line-sized RPA and the bypass assembly must each be tested. The Certified tester must complete a separate test report for each assembly.

(g) Vertical installations of double check valve Backflow prevention assemblies (DCs) may be used with pipe diameters up to and including four inches if the installation meets all of the following requirements:

(1) DC has internally spring-loaded check valves;

(2) Flow is upward through assembly;

(3) Device is approved for vertical installation; and

(4) Location is authorized by the Director.

The line-sized DC must be tested. The Certified tester must complete a separate test report for each assembly.

(h) Double check detector Backflow prevention assemblies (DCDA) may be used in all installations requiring a DC and detector metering.

(1) DCDA must comply with the installation requirements for DCs.

(2) The line-sized DC assembly and the bypass DC assembly must each be tested. The Certified tester must complete a separate test report for each assembly.

(i) Pressure vacuum breaker Backflow prevention assemblies (PVB) may be utilized as point-of-use protection against back siphonage only and may not be installed where there is potential for Backpressure, in areas subject to flooding, or where damage would occur from water.

(j) Spill resistant pressure vacuum breaker Backflow prevention assemblies (SVB) may be utilized in all installations requiring a PVB. SVBs must comply with the installation requirements applicable for PVBs.

Sec. 122-60. Inspection, testing and registration of Backflow prevention assemblies.

(a) *Testing of Backflow prevention assemblies.* The owner, occupant, manager, or other person in control of any premises on which Backflow prevention assemblies are installed must have the assemblies tested by a Certified tester permitted with the City. Testing of Backflow prevention assemblies must be performed annually (within one year of the previous test date except for assembly installations other than lawn irrigation which do not require annual testing), as well as immediately following installation, relocation, or repair. The City reserves the right to request additional testing. In order to properly register a Backflow prevention assembly with the City, a City approved Backflow Prevention Assembly Test Report must be completed and submitted by a Certified tester on each Backflow prevention assembly tested. Each Backflow Prevention Assembly Test Report shall be received by the City within ten days after the testing, repair, or replacement by a Certified tester. If an assembly fails, the water supply may not be restored until the assembly is repaired or replaced and retested.

(b) *Registration and maintenance of Backflow prevention assemblies.*

- (1) Each Backflow prevention assembly located on property subject to this article must be registered with the City. Registration is required within ten days of the Backflow assembly being placed in service.
- (2) The owner, occupant, manager, or other person in control of the property is responsible for general maintenance and upkeep of all approved Backflow prevention assemblies located thereon.
- (3) Backflow prevention assemblies must be tested, repaired, and replaced at the expense of the owner, occupant, manager, or other person in control of the property whenever the assemblies are determined to be defective by the Director or designee. An assembly is defective if it is not a properly installed Backflow prevention assembly as required by this article.

(c) *New plumbing or plumbing modifications.* The Director or designee will inspect all new Backflow prevention assembly installations subject to this article. The City's Plumbing Inspector will complete and file a Customer Service Inspection Certification form for each new plumbing installation or plumbing modification.

(d) *Existing properties.* The Director or designee will inspect all existing properties connected to the City water system for the purpose of determining whether a Cross connection exists and what type of Backflow prevention assembly should be installed pursuant to this article.

(e) *Existing Backflow prevention assemblies.* Customers with existing Backflow prevention assemblies installed in their system, which have not been registered with the City, as of the effective date of this article must come into compliance with the provisions of this article within ninety days of written notification unless the Director finds a health hazard exists in which case the Director will determine the appropriate time of compliance. Customers with existing assemblies, which comply with the provisions of this article, must

provide written proof that each assembly has been properly maintained and serviced by a permitted Backflow prevention assembly tester. If maintenance and service records are not available, the customer must have the assembly tested within the Director's provided timeframe and in accordance with the requirements of this article. If the assembly is not capable of being tested or cannot be repaired, it must be replaced with an approved assembly in accordance with the requirements of this article. Atmospheric vacuum breakers are exempt from this section.

(f) Fees are set by resolution of the City Council.

Sec. 122-61. Removal of Backflow prevention assembly.

(a) *Removal.* Prior written approval must be obtained from the Director before a Backflow prevention assembly may be removed or relocated.

(b) *Discontinued.* The Director may issue written approval for a property owner to discontinue and remove a Backflow prevention assembly upon receiving sufficient written evidence from the property owner that a hazard no longer exists and is not likely to be created in the future.

(c) *Relocation.* The Director may issue written approval for a property owner to relocate a Backflow prevention assembly upon receiving sufficient written evidence from the property owner that the relocation will continue to provide the required protection and satisfy installation requirements. Water use must be discontinued until the relocation is complete or until the service connection is equipped with other Backflow protection approved by the City to prevent Backflow during relocation. A retest will be required following the relocation of the assembly.

(d) *Repair.* A Backflow prevention assembly may be removed for repair provided water use is discontinued until the repair is completed and the assembly is returned to service. A retest will be required immediately following the repair of the assembly.

(e) *Replacement.* A Backflow prevention assembly may be removed and replaced provided water use is discontinued until the replacement assembly is installed. A retest will be required immediately following the replacement of the assembly.

Sec. 122-62. Backflow prevention assembly tester permit.

(a) *Permit required.* It is unlawful for a person to test a Backflow prevention assembly in the City without a valid permit issued by the City. Permits are not assignable or transferable and are valid for up to one year. Upon request of an applicant or at the Director's discretion, permits may be prorated to expire on a specific date. Applications for permit renewal must be submitted thirty days prior to the expiration of the current permit.

(b) *Permit application.* All new and renewal permit applications must be made on the forms provided by the City and must contain the following information:

- (1) Name, business address, and telephone number of the applicant;

- (2) Serial numbers of all test gauges;
- (3) Most recent record of calibration for Backflow assembly test kit(s);
- (4) State identification or driver's license information;
- (5) Payment of permit fee;
- (6) A copy of the applicant's current TCEQ Backflow Assembly Tester License; and
- (7) Documentation supporting the applicant's applicability to perform service on fire protection systems as outlined by TAC Title 30§290.44(h)(4)(ii).

(c) *Permit Decisions.* The City will evaluate the data furnished by the applicant and may require additional information. Within thirty days of receipt of a completed permit application, the City will determine whether or not to issue a Backflow prevention assembly tester permit. The City may deny an application for a permit for any of the following:

- (1) Failing to provide all of the information required by the City;
- (2) The applicant's past record of ordinance or TCEQ violations;
- (3) Safety record of the applicant based on such things as civil and criminal lawsuits and violations of environmental laws and ordinances; or
- (4) Providing false, misleading or inaccurate information to the City.

(d) *Responsibilities.* Testers of Backflow prevention assemblies are responsible for performing competent tests, issuing accurate reports of Backflow prevention assemblies tested, filing timely Backflow prevention assembly test reports, and paying applicable test fees to the City. Testers may not change the design or operational characteristics of a Backflow prevention assembly without prior written approval of the Director. Test kits used for service must be calibrated annually. Testers must provide verification of calibration for each test kit to the City within ten days receipt from a service provider.

(e) *Quality control.* Upon notification or discovery of possible testing or reporting deficiencies in a tester's test results, the Director may take one or more of the following actions:

- (1) Notify the tester of the deficiencies;
- (2) Retest any Backflow prevention assembly reported as operational;
- (3) Suspend the tester's registration with the City for three or more material testing or reporting deficiencies verified within a twenty-four month period commencing with the first deficiency;
- (4) Revoke the tester's registration with the City for filing a falsified test report;

- (5) Revoke the tester's registration with the City for refusing any reasonable request by the Director or his designee to retest a Backflow prevention assembly; or
- (6) Revoke the tester's registration with the City following a second suspension of tester's registration.
- (f) *TCEQ Backflow Assembly Tester License.* Testers must possess a valid TCEQ Backflow Assembly Tester License. A tester must advise the City within five business days of the tester receiving notice that the tester's state license is being suspended or terminated. Evidence of renewal of the tester's state license must be furnished to the Director upon request.
- (g) *Fire Protection Systems.* Testers of Backflow devices installed on a fire protection system must possess a valid TCEQ Backflow Assembly Tester License and must satisfy requirements of TAC Title 30§290.44(h)(4)(ii). A tester must advise the City within five business days of the tester receiving notice that the tester's state license and applicability for performing services on a fire protection system is being suspended or terminated. Evidence of renewal of the tester's state license and status of applicability for performing service on a fire protection system must be furnished to the Director upon request.
- (h) *Suspension or Revocation of Permit.* A permit may be suspended or revoked by the City for any violation of this article.
- (i) *Appeals.* A tester has the right to appeal a determination made by the Director to the City Manager by submitting a written appeal to the City Secretary, with a copy to the Director, not more than five days after receiving notice of the suspension or denial of permit. The City Manager or his or her designee will hear the appeal and issue a written finding not more than twenty days after the notice was delivered to the City Secretary. The City Manager's determination is final.

Division 5. Enforcement.

Sec. 122-65. Penalty.

A person who violates any section of this article is guilty of a misdemeanor and upon conviction is punishable in accordance with section 1-14.