

ORDINANCE NO. 661

AN ORDINANCE ADOPTING CROSS CONNECTION CONTROL REGULATIONS.

WHEREAS, a cross connection is any point in a water distribution system, where chemical, biological or radiological containments may come into contact with potable water. During a backflow event, these containments can be drawn or pushed back into the potable water system. A backflow prevention assembly installed at every point of cross connection prevents contaminated water from entering the potable water distribution system; and

WHEREAS, the City of Las Animas has the authority to implement and maintain a cross connection control program, a virtue of the following legislative or regulatory enactments: Colorado Revised Statutes 25-1-114 and 15-1-114.1; Colorado Primary Drinking Water Regulations Article 12 Control of Hazardous Cross Connections; Colorado Cross-Connection Control Manual, Colorado Department of Public Health and Environment, latest edition; Uniform and International Building Codes; and the Colorado Plumbing Code; and

WHEREAS, the City Council for the City of Las Animas finds that the enactment of the foregoing ordinance would protect the health, safety and welfare of the citizens of Las Animas, is in the best interest of the citizens of Las Animas, Colorado, and should be adopted.

NOW THEREFORE BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LAS ANIMAS, COLORADO:

1. **Adoption for guidelines on cross connection control.** There is hereby adopted the Colorado Cross-Connection Control Manual, Colorado Department of Public Health and Environment, latest edition. All definitions of terms used in this ordinance are those contained in Colorado Cross-Connection Control Manual, Colorado Department of Public Health and Environment, latest Edition.

2. **General Requirements.** All building plans must be submitted to the Las Animas Department of Public Works and approved prior to the issuance to water service. Building plans must show the following:

2.1 Water service type, size and location; meter size and location; backflow prevention assembly size, type, and location; fire sprinkling systems service line, size and type of backflow prevention assembly if applicable;

2.2 Backflow prevention assemblies are to be installed in an accessible location to the facilitate maintenance, testing and repair. Drawings must show various installations.

2.3 All backflow prevention assemblies shall be installed immediately downstream of the water meter.

2.4 Before installing a backflow prevention assembly, pipelines should be thoroughly flushed to remove foreign material.

C-LINE #620388
CLEAR TOPPER

2.5. In no case will it be permissible to have connections or tees between the meter and service line backflow prevention assembly.

2.6. Backflow prevention valves are not to be used as the inlet or outlet valve of the water meter. Test cocks are not to be used as supply connections. (Not applied to residential dual check installations.)

2.7 In order to insure that backflow prevention assemblies continue to operate satisfactorily, it will be necessary that they be tested at the time of installation and on an annual schedule thereafter. Such test will be conducted in accordance with ASSE and/or USC-CCC & HR performance standards and field test procedures as directed by the Colorado Department of Public Health and Environment. (Not applied to residential dual check installations. Dual checks will be tested at intervals set by the Las Animas Department of Public Works.)

2.8 The Las Animas Department of Public Works will require inspection of all containment installations.

2.9 All costs for design, installation, maintenance, repair and testing are to be borne by the customer.

2.10 No grandfather clause exists. All laws and regulations apply regardless of the age of the facility.

2.11 All fire sprinkling lines shall have a minimum protection of an approved double check valve for containment of the system. All glycol (ethylene or propylene), or antifreeze systems shall have an approved Reduced Pressure zone assembly for containment. Dry fire systems shall have an approved Double Check Valve installed upstream of the air pressure valve. Single family residence with a fire sprinkler system and domestic water combined shall have a double check valve when no chemicals are used.

2.12 All fire sprinkler systems shall conform to the following sections of the National Fire Protection Association Standard 13 and 25.

3. **Standards For Backflow Prevention Assemblies.** Any backflow prevention assembly required herein shall be of a model and size approved by the Las Animas Department of Public Works. The term "Approved Backflow Prevention assembly" shall mean an assembly that has been manufactured in full conformance with the standards established by the latest version of the Colorado Department of Public Health and Environment Cross-Connection Control Manual and by the Las Animas Department of Public Works. Final approval shall be evidence by a Certificate of Approval issued by an approved testing laboratory certifying full compliance with Colorado Department of Public Health and Environment standards and ASSE or USC FCCC & HR specifications.

3.1 Only approved backflow prevention assemblies shall be used. The following testing laboratories are qualified to test and certify backflow prevention assemblies and being listed on their periodic approved list shall meet all of the above requirements:

- American Society of Sanitary Engineering (ASSE), 901 Canterbury, Suite A, Westlake OH 44145
- USC Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California, KAP-200 University Park MC-2531, Los Angeles, CA 90089-2531

Exception: Residential containment may be accomplished with an assembly not approved by the Foundation for Cross-Connection Control and Hydraulic Research, but approved by the American Society of Sanitary and Mechanical Engineers and designated by the Las Animas Department of Public Works.

3.2 Backflow preventers currently installed which are not approved shall be replaced with an approved assembly at the time they fail an operational test.

3.3 Backflow assemblies used on fire lines shall have O.S. & Y. (outside stem & yoke) valves and be listed by the National Fire Protection Association.

4.0 **Installations.** Backflow prevention assemblies shall be installed in accordance with the Las Animas Department of Public Works.

4.1 Backflow prevention assembly installations shall be inspected and approved for use by the Las Animas Department of Public Works.

4.2 All backflow assemblies shall be installed in the horizontal position. Vertical installation shall be acceptable when approved by ASSE or USC FCCC & HR specifications. Variance may be granted by review.

4.3 A pressure vacuum breaker shall be used where the assembly is never subjected to backpressure and installed a minimum of twelve (12) inches above the highest piping or outlet downstream of the assembly in a manner to preclude backpressure.

4.4 An atmospheric vacuum breaker shall be used only where the assembly is:

- a. Installed as an isolation assembly
- b. Never subjected to continuous pressure (more than 12 hours continuous).
- c. Installed with the air inlet in a level position and a minimum of six (6) inches above the highest piping or outlet it is protecting.

4.5 The single check valve is not considered a backflow prevention assembly.

4.6 Double check valve assemblies may be installed in below grade vaults when these vaults are properly constructed in accordance with the Las Animas Department of Public Works. They must be insulated to prevent freezing.

4.7 Reduced pressure backflow preventers will be installed above ground. The unit should be placed at least twelve inches (12) above the finish grade to allow clearance for the repair work. A concrete slab at finish grade is recommended. Proper drainage should be provided for the relief valve and may be piped away from the location provided it is readily visible from above grade and provided the relief valve is separated from the drain line by a minimum of double the diameter of the supply line. A modified vault installation may be used if constructed with ample side clearances. Freezing is a major problem in this area. Precautions should be taken to protect above ground installations.

5.0 **Testing and Maintenance.** At least once per year, it will be the duty of the customer/user at any premise(s) where any backflow prevention assembly(s) is installed to have certified test made of these assemblies.

5.1 In those specific instances where the Las Animas Department of Public Works deems the hazard to be great enough, certified inspections and test at more frequent intervals may be required. These tests shall be at the expense of the water user and shall be performed by a certified technician approved by the Colorado Department of Public Health and Environment and the Las Animas Department of Public Works. An inspection of the assembly may be performed at any time complying with 6.0 of this document. (Not applicable to dual check installations.)

5.2 As necessary, the assembly shall be repaired or replaced at the expense of the customer/user whenever the assembly(s) is found to be defective. Records of all such tests, repairs or replacement shall be kept by customer/user and the Las Animas Department of Public Works.

5.3 Existing assemblies shall be sealed by the technician performing the test at the completion of the test.

5.4 All testing equipment used in testing of backflow prevention assemblies shall be checked for accuracy yearly, or more often, and proof of compliance shall be submitted to the Las Animas Department of Public Works upon request.

5.5 The Las Animas Department of Public Works retains the right to test or otherwise check the installation and operation of any containment assembly at anytime to assure proper operation.

6.0 **Right of Entry.** A representative of the Las Animas Department of Public Works will carry proper credentials of his/her office. By previously arranged appointment and upon presentation of proper credentials, the Las Animas Department of Public Works representative shall have the right of entry to inspect any and all buildings and premises for cross-connections relative to possible hazards. This right of entry shall be a condition of water service in order to protect the health, safety and welfare of the people throughout the Las Animas Department of Public Works distribution system. Where building security is required, the backflow assembly(s) should be located in an area not subject to security. Questions regarding proper credentials should be directed to the Las Animas Department of Public Works.

7.0 **Violations.** Failure of the customer to cooperate in the installation, maintenance, testing or inspection of backflow prevention assemblies required by this resolution shall be grounds for the discontinuance of water service to the premises or the requirement for an air-gap separation from the public potable water system.

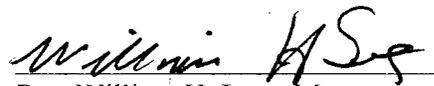
7.1 Service of water to any premises may be discontinued by the Las Animas Department of Public Works if unprotected cross-connections exist on the premises. When any defect is found in an installed backflow prevention assembly, or if backflow prevention assembly has been removed or bypassed, the service may be discontinued. Service shall not be restored until such conditions or defects are corrected.

7.2 Discontinuance of service may be summary, immediate, and without written notice whenever, in the judgment of the Las Animas Department of Public Works, such action is necessary to protect the public potable water supply or the distribution system.

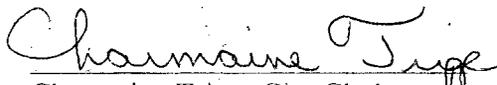
ADOPTED on first reading this 13th day of April, 2005.

PASSED on second reading this 10th day of May, 2005.

CITY OF LAS ANIMAS, COLORADO


By: William H. Lutz, Mayor

ATTEST:


Charmaine Tripp, City Clerk