

ORDINANCE NO. 1055 (2016)

AN ORDINANCE ADOPTING SECTION 13.36.055 OF THE CRAIG MUNICIPAL CODE TO ESTABLISH STANDARDS FOR CONTROL OF BACKFLOW AND CROSS-CONNECTION BY WATER USERS

RECITALS

WHEREAS, the purpose of this Ordinance is to protect the public water system from contaminants or pollutants that could enter the distribution system by backflow from a customer's water supply system through the service connection.

WHEREFOR, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CRAIG AS FOLLOWS:

Section 1. A new Section 13.36.055 of the Craig Municipal Code entitled "Backflow and Cross-Connection Standards" shall be adopted to read in its entirety as follows:

13.36.55 Back Flow and Cross-Connection Standards

A. The City of Craig's authority to implement and maintain a cross-connection control program is contained in the following legislation.

- Colorado Revised Statutes (CRS) Section 25-1-114 and 25-1-114.1.
- Colorado Primary Drinking Water Regulations (CPDWR) Article 12 Control of Hazardous Cross-Connections.
- Colorado Cross-Connection Control Manual, Colorado Department of Public Health and Environment, latest addition.
- Code of Federal Regulations Occupational Safety and Health Administration.
- The City of Craig Ordinance #
- Regional Plumbing Code.
- Colorado Plumbing Code.
- Uniform Plumbing Code of the International Plumbing and Mechanical Officials/International Plumbing Code.
- Uniform Swimming Pool, SPA and Hot Tub Code.
- Colorado Swimming Pool and Mineral Bath Regulations.
- Uniform Solar Code.

Reference Manuals Adopted for Guidelines on Cross-Connection Control.

- Colorado Cross-Connection Control Manual, Colorado Department of Public Health and Environment, latest addition. Definitions of terms used in these regulations are located in this manual.
- Other reference materials may include:
 - American Society of Sanitary Engineering, Backflow Prevention Assemblies Standards Program.
 - Foundation for Cross-Connection and Hydraulic Research, University of Southern California, Manual of Cross-Connection Control.

American Water Works Association, Recommended Practice for Backflow Prevention and Cross-Connection Control Manual M14.
The Environmental Protection Agency, Cross-Connection Control Manual.
General Requirements.

B. All commercial buildings must have an approved reduced pressure zone (RPZ) backflow prevention assembly installed just after the meter before any water piping delivers water to the premises. Any commercial property that does not currently have a backflow device must purchase and have one installed within 180 days from the final reading and approval of this ordinance. All residential buildings shall have an approved double check valve installed under the same installation requirements as the commercial buildings within five (5) years from the final reading and approval of this ordinance. A non-testable double check valve may be used on residential services but must be replaced every (2) two years to ensure protection of the city's water system. Separate CITY OF CRAIG approved containment backflow preventors are required for any fire or irrigation systems located within the internal plumbing of any premises where the city's potable water system provides the water for said system.

1. All building plans must be submitted to the City of Craig's Planning and Zoning Department/Commission and approved, prior to the issuance of a water tap permit/or service. Building Plans Must Show:
 - a. Water service type, size and location.
 - b. Meter size and location.
 - c. Backflow prevention assembly size, type and location.
 - d. Fire sprinkling system(s) service line, size and type of backflow prevention assembly if applicable.
2. Backflow prevention assemblies are to be installed in an accessible location to facilitate, testing and repair. Drawings specifying this information must be provided.
3. All backflow prevention assemblies shall be installed immediately downstream of the water meter.
4. Installation of backflow prevention assemblies must be done by a certified cross-connection control technician or city approved licensed plumber. Pipelines shall be thoroughly flushed prior to the installation.
5. In no case will it be permissible to have connections or tees between the meter and the service line backflow prevention assembly.
6. Backflow prevention valves are not to be used as an inlet or outlet valve of the water meter. Test cocks are not to be used as supply connections.
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 tests will be performed by a certified and approved cross-connection control technician, and conducted in accordance with ASSE and/or USC-CCC. and HR performance standards and field test procedures as directed by the Colorado Department of Public Health & Environment.
8. The City of Craig requires inspection of all containment installations.
9. All costs for design, materials, installation, maintenance, repair, and testing will be at the expense of the customer.
10. No "grandfather" exemption clause exists. All laws and regulations apply regardless of the age of the facility.
11. All fire sprinkling lines shall have a minimum of an approved double check

valve. The city reserves the right to require and RPZ device if it feels additional protection is needed.

- i. All glycol (ethylene or propylene), or antifreeze systems shall have an approved Reduced Pressure Zone (RPZ) assembly for containment.
 - ii. Dry fire systems shall have and approved double check valve installed upstream of the air pressure valve.
 - iii. Single family residence with lawn irrigation systems shall have an approved reduced pressure zone assembly between the domestic water line and the beginning of the lawn irrigation system.
12. All fire sprinkler systems shall conform to the following sections of the National Fire Protection Association Standard 13 and 25.

C. Standards for Backflow Prevention Assemblies:

1. Any backflow prevention assembly required herein shall be of a model and size approved by the City of Craig Water Department. 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 (CDPHE) "Cross Connection Control Manual" and by the city Water Department. Final approval shall be evidence by a certificate of approval by and approved testing laboratory certifying full compliance with the CDPHE standards and ASSE, or USC FCCC & HR specifications. "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 the above requirements.

- a. American Society of Sanitary Engineering (ASSE), 901 Canterbury, Suite A, Westlake, OH 44145
- b. 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 USC FCCC & HR, but must be approved by the ASSE.

2. Backflow preventors currently installed which are not approved shall be replaced with an approved assembly within 90 days.
3. Backflow Assemblies used on fire lines shall have outside stem and yoke (O.S. & Y) valves and be listed by the National Fire Protection Association.

D. Installations:

1. Backflow prevention assemblies shall be installed in accordance with the City of Craig requirements.
2. Backflow prevention assembly installations shall be done by a city approved licensed plumber and be inspected/approved by the City of Craig.
3. All backflow assemblies shall be installed in the horizontal position. Vertical installations shall only be acceptable if approved by ASSE or USC FCCC & HR specifications. A variance may be granted by review.
4. A pressure vacuum breaker shall be used where the assembly is never subjected to backpressure and must be installed a minimum of twelve (12) inches above the highest piping or outlet downstream of the assembly in a manner to preclude backpressure.
5. 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 an air inlet in a level position and a minimum of six (6) inches above the highest piping or outlet it is protecting.
6. The single check valve is NOT considered a backflow prevention assembly.
 7. Double check valve assemblies may be installed in below grade vaults when these vaults are properly constructed in accordance with the City of Craig. They must be insulated to protect from freezing.
 8. Reduced pressure backflow preventors will be installed above ground. The unit shall be placed at least twelve (12) inches above the finished grade to allow clearance for repair work. Proper drainage shall be provided with the drain line being a minimum of twice the diameter of the supply line.

E. Testing and Maintenance:

1. At least once per year, it is the responsibility of the customer/building owner where any backflow prevention assembly(s) are installed to have a certified test made of these assemblies. In situations where the city deems the potential hazard to be great enough, certified inspections and tests at more frequent intervals may be required. These tests shall be at the expense of the water user/customer and shall be performed by a certified cross-connection control technician who has been approved by the CDPHE, ABPA, or ASSE, and the city. An inspection of an assembly may be performed at any time in compliance with this ordinance.
2. As necessary, the assembly(s) shall be repaired or replaced at the expense of the customer/user whenever the assembly is found to be defective. Records of any tests, repairs, or replacement must be submitted to the city Water Department as a record of compliance with this ordinance.
3. Existing assemblies shall be sealed by the CCC technician performing the test once the test has been completed.
4. All testing equipment used in testing of backflow prevention assemblies shall be checked for accuracy yearly, and proof of compliance shall be submitted to the city Water Department.
5. The city reserves the right to test or inspect any backflow prevention assembly or installation and operation of any assembly at any time to insure proper operation.

F. Right of Entry:

1. A representative of the city will carry proper credentials of his/her position with the city. By previously arranged appointment and presentation of proper credentials. The city representative shall have the right of entry to inspect any and all buildings and premises for cross-connections relative to possible hazards to the city's public water system. 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 city's water distribution system. Where building security is required, the backflow prevention assembly(s) shall be located in an area not subject to security. Any questions regarding proper credentials shall be directed to the city.

G. Violations:

1. Failure of a customer to cooperate in the installation, maintenance, testing or inspection of backflow prevention assemblies required by this ordinance shall be grounds for discontinuance of

water service to the premises or the requirement for an air-gap separation from the public water system.

2. Service of water to any premises may be discontinued by the city if unprotected Cross-connections exist on the premises. When any defect is found in an installed backflow prevention assembly, or if the assembly has been removed or bypassed, the water service may be discontinued. Service will not be restored until such defects or conditions are corrected.

3. Discontinuance of service may be summary, immediate, and without written notification whenever, in the judgment of the CITY OF CRAIG, such action is necessary to protect the public potable water supply or the distribution system.

Section 2. EFFECTIVE DATE: This Ordinance shall take effect ten (10) days after passage and upon publication of such ordinance after passage.

Section 3. PUBLICATION BY SUMMARY: The City Council deems it appropriate to publish the title of this Ordinance, together with a summary of the Ordinance and with the statement that the text is available for public inspection and acquisition in the office of the City Clerk.

Section 4. PUBLIC PURPOSE: The City Council of the City of Craig herewith finds and determines that this Ordinance is necessary for the preservation of the public peace, health and safety. This Ordinance is enacted pursuant to the City's authority to act under its police power to protect and preserve the general welfare of the City and its citizens.

READ, APPROVED AND ORDERED PUBLISHED ON FIRST READING THIS _____ DAY OF _____, 2016 BY THE CITY COUNCIL OF THE CITY OF CRAIG, COLORADO.

Ray Beck, Mayor

ATTEST:

Kathy Larson, City Clerk

PASSED, APPROVED, AND ADOPTED AFTER HEARING ON SECOND READING THIS _____ DAY OF _____, 2016 BY THE CITY COUNCIL OF THE CITY OF CRAIG, COLORADO.

Ray Beck, Mayor

ATTEST:

Kathy Larson, City Clerk