

1. Call to Order

2. Confirmation of Disclosures of Conflicts of Interest

**North Weld County Water District  
Notice of Special Meeting & Agenda – Work Session**

**Thursday, January 7, 2021 at 10:00 AM**

**32825 Co Rd 39, Lucerne, CO 80646**

**DUE TO COVID-19 THE BOARD MEETING WILL BE OPEN TO THE PUBLIC BY  
TELECONFERENCE**

To Join by Phone, Call: (888) 858-9008

Conference ID 919449840

- 1. Call to Order**
- 2. Confirmation of Disclosures of Conflicts of Interest**
- 3. Action: Approve January 7, 2021 NWCWD Work Session Agenda**
- 4. Action: Presentation and Discussion regarding Amended Policy for Control of Backflow and Cross Connections**
- 5. Other Business**

ADJOURN \_\_\_\_\_ .M.



# Backflow Prevention and Cross Connection Control Policy Revisions

January 2021

# Background

- **1960s:** Colorado Revised Statutes require water suppliers provide cross-connection control
- **1980s:** Section 11.37 of Regulation 11 requires cross-connection control
- **2015:** Section 11.37 of Regulation 11 revised (now Section 11.39)
- **January 1, 2016:** Revisions became effective

“Inadequate protection, record keeping, reporting, operational, maintenance or other practices may be identified as a **significant deficiency and/or violation** that must be corrected for water suppliers to remain in compliance with Regulation 11.”



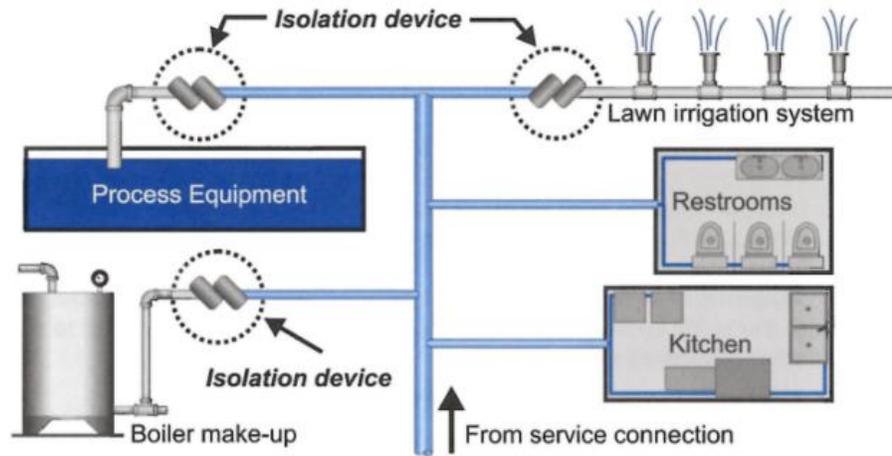
# Purpose of NWCWD Policy Revisions

- Provide consistency with the NWCWD Cross-Connection Control Manual adopted in 2017, and clearly and accurately communicate CDPHE requirements to customers
- Protection by containment (direction given by the 2017 Manual) requires reduced pressure devices for cross-connection protection (except in special circumstances)
- Original Policy was drafted before NWCWD really had an approach to the Cross-Connection Control Program. This is essentially a new Policy created using some language from the original document



# Containment vs. Isolation

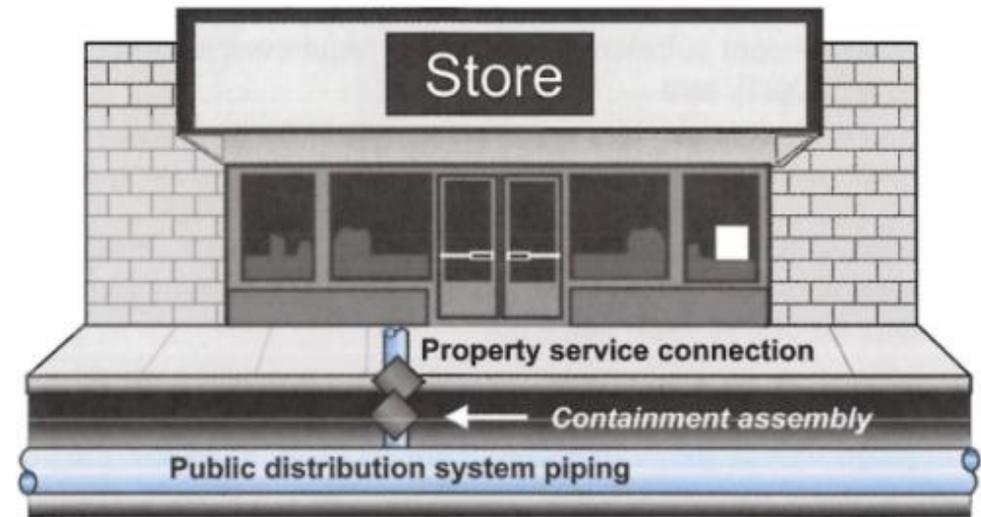
Backflow Prevention Education Council of Colorado – Formally known as the State's "Advisory Committee"



Isolation protection  
Figure 4-2

NWCWD is responsible for activities, plumbing modifications, etc. on individual properties, in addition to annual testing/inspections.

**This may still involve RP installations at individual locations**



Containment protection  
Figure 4-1

NWCWD is responsible for ensuring tests are performed annually

Graphics from Colorado Cross Connection Control Manual – August 2004



# What is Required by CDPHE WQC Regulation 11.39?

- **Have a written program that covers the following:**
  - Process for conducting surveys
  - Legal authority to perform a survey, and legal authority to require customers to install/maintain/test backflow devices
  - The process the supplier will use to select a backflow prevention assembly or method
  - The process the supplier will use to track installation/maintenance/testing
  - The process the supplier will use to ensure backflow prevention assemblies are tested
- **Confirm cross connection is removed, suspended service to customer, or request CDPHE approve an alternative schedule in the following cases:**
  - Within 120 days of discovery of a cross connection, unless the cross connection is controlled with an approved device within this timeframe
  - Within 60 days of a failed test/inspection, if the device that produced the failed test is not repaired/replaced and retested in this timeframe



# Why is NWCWD is requiring RPZ at each meter a cross-connection is discovered?

TABLE 6-2  
Backflow Prevention Devices, Assemblies and Methods

Device, Assembly or Method <sup>1</sup>	Degree of Hazard				Installation <sup>2,3</sup>
	Pollution (Low Hazard)		Contamination (High Hazard)		
	Back Siphonage	Back Pressure	Back Siphonage	Back Pressure	
Air gap	X		X		See Table 6-3
Atmospheric Vacuum Breaker	X		X		Upright position. No valves downstream. Minimum of six (6) inches (152 mm) or listed distance above all downstream piping and flood level rim of receptor. <sup>4,5</sup>
Spill-Proof Pressure-Type Vacuum Breaker	X		X		Upright position. Minimum of six (6) inches (152 mm) or listed distance above all downstream piping and flood level rim of receptor. <sup>5</sup>
Double Check Valve Backflow Preventer	X	X			Horizontal, unless otherwise listed. Requires one (1) foot (305 mm) minimum clearance at bottom for maintenance. May need platform/ladder for test and repair. Does not discharge water.
Pressure Vacuum Breaker	X		X		Upright position. May have valves downstream. Minimum of twelve (12) inches (305 mm) above all downstream piping and flood level rim of receptor. May discharge water.
Reduced Pressure Principle Backflow Preventer	X	X	X	X	Horizontal unless otherwise listed. Requires one (1) foot (305 mm) minimum clearance at bottom for maintenance. May need platform/ladder for test and repair. May discharge water.

1. See description of devices and assemblies in this chapter.  
 2. Installation in pit or vault requires previous approval by the administrative authority.  
 3. Refer to general and specific requirements for installation.  
 4. Not to be subjected to operating pressure for more than 12 hours in any 24 hour period.  
 5. For deck-mounted and equipment-mounted vacuum breakers, see Section 603.4.16.

- An RP is the only device that protects against **High Hazards** and **Back Pressure**
  - Once an RP is installed, NWCWD is protected and must only receive and track annual test results
- Customer could end up paying close to 2X
  - Cost of alternative device installation is not substantially different (not factoring in power)
  - If future surveys indicate vulnerability to high hazards and back pressure, customer could pay close to 2x as much
- Alternative Device Installation
  - Future re-survey to determine protection is still adequate
  - NWCWD must know what's going on at property (water usage) and pipe modifications



# Why is NWCWD is requiring RPZ at each meter a cross-connection is discovered?

- **CDPHE allows the following devices but...**
- Air Gaps
  - Cannot be installed at the meter. Containment is not possible.
- PVBs
  - Does not protect against back pressure
- Double check valves
  - Does not protect against high hazards
  - **Appropriate when there is not adequate drainage for a RPZ, is subject to flooding, or where retro fits create an unreasonable burden (language adopted by Policy)**



# NWCWD's Responsibilities with Variance

- Resurvey
  - ~500 Non-Single Family Residential Properties
  - ~700 Single-Family Residential Properties with Hobby Farms
- Ensure testing/ inspection at each device
- Ensure customer did not make modifications that:
  - Create a new cross connection
  - Create back pressure
  - Add/increase the hazard



# Questions



BOARD OF DIRECTORS

CHARLES ACHZIGER  
GENE STILLE  
GARY SIMPSON  
TODD BEAN  
ROBERT ARNBRECHT



NORTH WELD COUNTY WATER DISTRICT

32825 CR 39 • LUCERNE , CO 80646

RICK PICKARD, DISTRICT MANAGER

P.O. BOX 56 • BUS: (970) 356-3020 • FAX: (970) 395-0997

[WWW.NWCWD.ORG](http://WWW.NWCWD.ORG) • EMAIL: [WATER@NWCWD.ORG](mailto:WATER@NWCWD.ORG)

## AN ORDINANCE FOR THE CONTROL OF BACKFLOW AND CROSS-CONNECTIONS

### Section 1. CROSS-CONNECTION CONTROL — GENERAL POLICY

**1.1 Purpose.** The purpose of this Ordinance is:

**1.1.1** To protect the public potable water supply of North Weld County Water District from the possibility of contamination or pollution by isolating within the consumer's internal distribution system(s) or the consumer's private water system(s) such contaminants or pollutants which could backflow into the public water systems; and,

**1.1.2** To promote the elimination or control of existing cross-connections, actual or potential, between the consumer's in-plant potable water system(s) and non-potable water system(s), plumbing fixtures and industrial piping systems; and,

**1.1.3** To provide for the maintenance of a continuing Program of Cross-Connection Control which will systematically and effectively prevent the contamination or pollution of all potable water systems.

**1.2 Responsibility.** The North Weld County Water District shall be responsible for the protection of the public potable water distribution system from contamination or pollution due to the backflow of contaminants or pollutants through the water service connection. If, in the judgment of North Weld County Water District an approved backflow prevention assembly is required (at the consumer's water service connection; or, within the consumer's private water system) for the safety of the water system, the North Weld County Water District or his designated agent shall give notice in writing to said consumer to install such an approved backflow prevention assembly(s) at a specific location(s) on his premises. The consumer shall immediately install such an approved backflow prevention assembly(s) at the consumer's own expense; and, failure, refusal or inability on the part of the consumer to install, have tested and maintained said assembly(s), shall constitute grounds for discontinuing water service to the premises until such requirements have been satisfactorily met.

**1.3 Additional Guidance.** The North Weld County Water District shall be responsible for the creation and maintenance of the North Weld County Water District Cross Connection Control Manual.

1.3.1 the North Weld County Water District Cross Connection Control Manual is considered an integral component of this ordinance.

1.3.2 The purpose of the Cross Connection Control Manual

a. to provide the consumer additional information necessary to comply with the requirements of this ordinance.

b. The North Weld County Water District does not have jurisdiction within the consumer's system unless "Containment by Isolation" as defined in Section 2-Definitions is deemed to be appropriate by the Cross Connection Control Administrator. However, the Cross Connection Control Manual provides general information and guidance to the consumer regarding many types of cross connections and backflow protection (not all types) within the consumer's system. The Colorado plumbing Code as interpreted by the local plumbing official is the jurisdictional regulation governing the consumer's system and takes precedence over the Cross Connection Control Manual.

## **Section 2. DEFINITIONS**

See North Weld County Water District Cross Connection Control Manual

## **Section 3. REQUIREMENTS**

### **3.1 Water System**

**3.1.1** The water system shall be considered as made up of two parts: The Water Supplier's System and the Consumer's System.

**3.1.2** Water Supplier's System shall consist of the source facilities and the distribution system; and shall include all those facilities of the water system under the complete control of the utility, up to the point where the consumer's system begins.

**3.1.3** The source shall include all components of the facilities utilized in the production, treatment, storage, and delivery of water to the distribution system.

**3.1.4** The distribution system shall include the network of conduits used for the delivery of water from the source to the consumer's system.

**3.1.5** The consumer's system shall include those parts of the facilities beyond the termination of the water supplier distribution system which are utilized in conveying potable water to points of use.

### **3.2 Policy**

**3.2.1** No water service connection to any premise shall be installed or maintained by the Water Supplier unless the water supply is protected as required by Colorado Department Public Health and Environment (CDPHE) laws and regulations and this Ordinance for the Control of Backflow and Cross Connection. Service of water to any premises shall be discontinued by the Water Supplier if a backflow prevention assembly required by this Ordinance for the Control of Backflow and Cross Connection is not installed, tested and maintained, or if it is found that a backflow prevention assembly has been removed, bypassed, or if an unprotected cross-connection exists on the premises. Service will not be restored until such conditions or defects are corrected.

**3.2.2** The consumer's system should be open for inspection at all reasonable times to authorized representatives of the North Weld County Water District to determine whether unprotected cross-connections or other structural or sanitary hazards, including violations of these regulations, exist. When such a condition becomes known, the Cross Connection Control Administrator shall deny or immediately discontinue service to the premises until the consumer has corrected the condition(s) in conformance with the CDPHE statutes relating to plumbing and water supplies and the regulations adopted pursuant thereto.

**3.2.3** An approved backflow prevention assembly shall also be installed on each service line to a consumer's water system at or near the property line or immediately inside the building being served; but, in all cases, before the first branch line leading off the service line wherever the following conditions exist:

- a.** In the case of premises having an auxiliary water supply which is not or may not be of safe bacteriological or chemical quality and which is not acceptable as an additional source by the Cross Connection Control Administrator, the public water system shall be protected against backflow from the premises by installing an approved backflow prevention assembly in the service line commensurate with the degree of hazard.
- b.** In the case of premises on which any industrial fluids or any other objectionable substance is handled in such a fashion as to create an actual or potential hazard to the public water system, the public system shall be protected against backflow from the premises by installing an approved backflow prevention assembly in the service line commensurate with the degree of hazard. This

shall include the handling of process waters and waters originating from the water supplier's system which have been subject to deterioration in quality.

c. In the case of premises having (1) internal cross-connections that can not be permanently corrected or protected against, or (2) intricate plumbing and piping arrangements or where entry to all portions of the premises is not readily accessible for inspection purposes, making it impractical or impossible to ascertain whether or not dangerous cross-connections exist, the public water system shall be protected against backflow from the premises by installing an approved backflow prevention assembly in the service line.

**3.2.4** The type of protective assembly required under subsections 3.2.3a, b, and c shall depend upon the degree of hazard which exists as follows:

a. In the case of any premise where there is an auxiliary water supply as stated in subsection 3.2.3.a of this section and it is not subject to any of the following rules, the public water system shall be protected by an approved air gap or an approved reduced pressure principle backflow prevention assembly.

b. In the case of any premise where there is water or substance that would be objectionable but not hazardous to health, if introduced into the public water system, the public water system shall be protected by an approved double check valve backflow prevention assembly.

c. In the case of any premise where there is any material dangerous to health, which is handled in such a fashion as to create an actual or potential hazard to the public water system, the public water system shall be protected by an approved air gap or an approved reduced pressure principle backflow prevention assembly.

d. In the case of any premise where there are unprotected cross-connections, either actual or potential, the public water system shall be protected by an approved air gap or an approved reduced pressure principle backflow prevention assembly at the service connection.

e. In the case of any premise where, because of security requirements or other prohibitions or restrictions, it is impossible or impractical to make a complete in-plant cross-connection survey, the public water system shall be protected against backflow from the premises by either an approved air gap or an approved reduced pressure principle backflow prevention assembly on each service to the premise.

**3.2.5** Any backflow prevention assembly required herein shall be a make, model and size approved by the Cross Connection Control Administrator. The term "Approved Backflow Prevention Assembly" shall mean an assembly that has been manufactured in full conformance with the standards established by the laboratory and field performance standard of the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California (USC FCCCHR) established in: Standards of Backflow Prevention Assemblies Chapter 10 of the most current edition of the Manual of Cross-Connection Control. Said USC FCCCHR standards have been adopted by the Cross Connection Control Administrator. Final approval shall be evidenced by the appearance of the specific model and size on the List of Approved Backflow Prevention Assemblies published by the USC FCCCHR along with a "Certificate of Approval" for the said USC FCCCHR Standards; issued by an approved testing laboratory. The following testing laboratory has been qualified by the Cross Connection Control Administrator to test and approve backflow prevention assemblies:

Foundation for Cross-Connection Control and Hydraulic Research  
University of Southern California  
Los Angeles, California 90089-2531

Testing laboratories other than the laboratory listed above may be added to an approved list if they are qualified by the Cross Connection Control Administrator.

Backflow preventers, which may be subjected to backpressure or backsiphonage, that have been fully tested and have been granted a Certificate of Approval by said qualified laboratory and are listed on the laboratory's current list of approved backflow prevention assemblies may be used without further test or qualification.

**3.2.6** It shall be the duty of the consumer at any premise where backflow prevention assemblies are installed to have a field test performed by a certified backflow prevention assembly tester upon installation and at least once per year. In those instances where the Cross Connection Control Administrator deems the hazard to be great enough he may require field tests at more frequent intervals. These tests shall be at the expense of the consumer and shall be performed by North Weld County Water District personnel or by a certified tester approved by the Cross Connection Control Administrator. It shall be the duty of the Cross Connection Control Administrator to see that these tests are made in a timely manner. These assemblies shall be repaired, overhauled or replaced at the expense of the consumer whenever said assemblies are found to be defective. Records of such tests, repairs and overhaul shall be kept and made available to the Cross Connection Control Administrator.

**3.2.7** All presently installed backflow prevention assemblies which do not meet the requirements of this section but were approved devices for the purposes described herein at the time of installation and which have been properly maintained, shall, except for the field testing and maintenance requirements under subsection 3.2.6, be excluded from the requirements of these rules so long as the Cross Connection Control Administrator is assured that they will satisfactorily protect the water purveyor's system. Whenever the existing device is moved from the present location or requires more than minimum maintenance or when the Cross Connection Control Administrator finds that the maintenance constitutes a hazard to health, the unit shall be replaced by an approved backflow prevention assembly meeting the requirements of this section.

**3.2.8** The Cross Connection Control Administrator is authorized to make all necessary and reasonable rules and policies with respect to the enforcement of this ordinance. All such rules and policies shall be consistent with the provisions of this ordinance and shall be effective March 27, 2017.

**3.2.9** Failure to comply with any portion of this regulation may pose a serious risk to the distribution system and potable drinking water. Therefore, the Cross Connection Control Administrator may discontinue water service to the consumer's system if the consumer fails to comply.



## NORTH WELD COUNTY WATER DISTRICT

32825 CR 39 • LUCERNE, CO 80646

P.O. BOX 56 • BUS: (970) 356-3020 • FAX: (970) 395-0997

[WWW.NWCWD.ORG](http://WWW.NWCWD.ORG) • EMAIL: [WATER@NWCWD.ORG](mailto:WATER@NWCWD.ORG)

# AN AMENDED POLICY FOR THE CONTROL OF BACKFLOW AND CROSS-CONNECTIONS

## PART 1 - CROSS-CONNECTION CONTROL — GENERAL POLICY

### 1.01. PURPOSE

A. The purpose of this Policy is:

1. To protect the public potable water supply of North Weld County Water District (“NWCWD”) from the possibility of contamination or pollution by isolating within internal distribution systems or private water systems such contaminants or pollutants which could backflow into the public water systems; and
2. To promote the elimination or control of existing cross-connections, actual or potential, between the customer’s in-plant potable water systems and non-potable water systems, plumbing fixtures and industrial piping systems; and
3. To provide for the maintenance of a continuing Program of Cross-Connection Control which will systematically and effectively prevent the contamination or pollution of all potable water systems.

### 1.02. AUTHORITY

A. The authority to implement this Policy is contained in the following statute, legislation and regulations and acts:

1. Article 1-114 and Article 1-114.1 of Title 25 of the Colorado Revised Statutes (CRS).
2. Section 39 of 5 CCR 1002-11, Colorado Primary Drinking Water Regulations.
3. Colorado Plumbing Code.

B. NWCWD shall have the authority to survey all service connections within the distribution system to determine if the connection is a cross-connection.

C. NWCWD shall have the authority to control all service connections within the distribution system if the connection is a cross-connection.

D. NWCWD may collect fees for the administration of this Policy.

### 1.03. APPLICABILITY

- A. This Policy applies to all service connections within the NWCWD service area, including anyone by contract or agreement with NWCWD who are users of the NWCWD public water system.

### 1.04. ADDITIONAL GUIDANCE

- A. NWCWD shall be responsible for the creation and maintenance of the *North Weld County Water District Cross-Connection Control Manual* (the "Cross-Connection Control Manual") which is considered an integral component of this Policy. The purpose of the Cross-Connection Control Manual is to provide the customer additional information necessary to comply with the requirements of this Policy.
- B. NWCWD does not assume any responsibility within the customer's system unless Containment by Isolation is deemed to be appropriate by the Cross-Connection Control Administrator.

## PART 2 - DEFINITIONS

- 2.01. Unless defined in this Policy, all capitalized terms shall have the meaning set forth in the Cross-Connection Control Manual. SEE *NORTH WELD COUNTY WATER DISTRICT CROSS-CONNECTION CONTROL MANUAL*.

## PART 3 - REQUIREMENTS

### 3.01. WATER SYSTEM

- A. The water system in NWCWD's service area shall be considered as made up of two parts:
  - 1. NWCWD's system, and
  - 2. Customer's system.
- B. NWCWD's system shall consist of the source facilities and the distribution system; and shall include all those facilities of the water system under the complete control of the NWCWD, up to the point where the customer's system begins.
- C. The source shall include all components of the facilities utilized in the production, treatment, storage, and delivery of water to the distribution system.
- D. The distribution system shall include the network of conduits used for the delivery of water from the source to the customer's system.
- E. The customer's system shall include those parts of the facilities beyond the termination of NWCWD's system which are utilized in conveying potable water to points of use.

### 3.02. CROSS CONNECTIONS

- A. All service connections within the NWCWD's distribution system shall be subject to a survey for cross-connections. If a cross-connection has been identified, an appropriate Backflow Prevention Assembly or Method shall be installed at the customer's water service connection immediately downstream of the water meter, or as close to that location as deemed practical by NWCWD; but, in all cases, on or before the first branch line leading off the service line.
- B. No service connection to any premise shall be installed or maintained by NWCWD unless the water supply is protected as required by Colorado Department Public Health and Environment laws and regulations and this Policy.
- C. NWCWD shall discontinue service of water to any premises if:
  - 1. A Backflow Prevention Assembly required by this Policy is not installed, tested and maintained; or
  - 2. It is found that a Backflow Prevention Assembly has been removed, bypassed, or if an unprotected cross-connection exists on the premises. Service will not be restored until such conditions or defects are corrected.
- D. All Backflow Prevention Assemblies shall be a make, model and size Approved by the Cross-Connection Control Administrator. Final approval shall be evidenced by the appearance of the specific model and size on the List of Approved Backflow Prevention Assemblies published by the USC FCCCHR or ASSE and confirmed by a certified Cross-Connection Control Technician.
- E. An Approved Backflow Prevention Assembly or Method shall be installed in the service line to protect NWCWD's system when it is difficult to determine the Degree of Hazard of a customer's system. Such Backflow Prevention Assembly shall be installed when, after reasonable efforts, NWCWD is unable to inspect a customer's system due to intricate plumbing and piping arrangements, or where entry to all portions of the premises is not made available for inspection purposes, making it impractical or impossible to ascertain whether or not dangerous cross-connections exist, the Water Supplier's System shall be protected against backflow from the premises by installing an approved backflow prevention assembly in the service line.
- F. NWCWD's system shall be protected by an approved reduced pressure principle backflow assembly, except in the following instances:
  - 1. Where there is not adequate drainage for a reduced pressure principle backflow assembly.
  - 2. Where the reduced pressure principle backflow assembly is subject to flooding.
  - 3. Where retrofits create an unreasonable burden.
  - 4. Instances described in Sections 3.02.F.1-3 shall be protected by a Backflow Prevention Assembly or method approved by the Cross-Connection Control Administrator.

- G. In no case shall it be permissible to have connections or tees between the meter and the containment Backflow Prevention Assembly.
- I. Backflow prevention assemblies shall be installed per manufacturer's installation instructions and not be installed in a manner that could compromise the device's ability to provide backflow prevention.
- J. Reduced pressure principle backflow prevention assemblies shall not be installed in a manner subject to flooding. Provisions shall be made to provide adequate drainage from the discharge of water from reduced pressure principle backflow prevention assemblies. Such discharge shall be conveyed in a manner which does not impact waters of the state.
- K. All Backflow Prevention Assemblies and Methods shall be protected to prevent freezing. Those assemblies and methods used for seasonal services may be removed in lieu of being protected from freezing. The assemblies and methods must be reinstalled and then tested by a certified Cross-Connection Control Technician upon reinstallation.
- L. Where a Backflow Prevention Assembly or Method is installed on a water supply system using storage water heating equipment such that thermal expansion causes an increase in pressure, a device for controlling pressure shall be installed.
- M. NWCWD shall require inspection, testing, maintenance, re-surveying, and as needed repairs and replacement of all backflow prevention assemblies and methods, and of all required installations within the customer's plumbing system in the cases where containment assemblies and or methods cannot be installed.
- N. All costs for design, installation, maintenance, testing, inspection, resurveying, and as needed repair and replacement are to be borne by the customer.
- O. No grandfather clauses exist except for fire sprinkler systems where the installation of a Backflow Prevention Assembly or Method will compromise the integrity of the fire sprinkler system.
- P. For new buildings, all building plans must be submitted to NWCWD and approved prior to the issuance of water service. Building plans must show:
  - 1. Water service type, size and location;
  - 2. Meter size and location;
  - 3. Backflow Prevention Assembly size, type and location; and
  - 4. Fire sprinkler system(s) service line, size and type of Backflow Prevention Assembly.
  - 5. All fire sprinkling lines shall have a minimum protection of an approved double check valve assembly for containment of the system.
  - 6. All glycol (ethylene or propylene), or antifreeze systems, shall have an Approved reduced pressure principle backflow preventer for containment.

7. Dry fire systems shall have an approved double check valve assembly installed upstream of the air pressure valve.
8. In cases where the installation of a Backflow Prevention Assembly or Method will compromise the integrity of the fire sprinkler system, the Cross-Connection Control Administrator can choose to not require the Backflow protection. NWCWD will require additional monthly water quality monitoring and testing. If NWCWD suspects water quality issues, NWCWD will evaluate the practicability of requiring that the fire sprinkler system be flushed periodically. All costs for water quality monitoring and testing, and flushing, will be borne by the customer.

Q. Inspection, Testing, Resurveying, and Repair

1. Backflow Prevention Assemblies and Methods shall be installed in a location which provides access for maintenance, testing and repair.
2. Backflow Prevention Assemblies shall be tested by a Certified Cross-Connection Control Technician upon installation and tested at least annually, thereafter. In instances where the Cross-Connection Control Administrator deems the hazard to be great enough, they may require field tests at more frequent intervals. The tests shall be made at the expense of the customer.
3. All Backflow Prevention Methods shall be inspected at the time of installation and on an annual schedule thereafter. In instances where the Cross-Connection Control Administrator deems the hazard to be great enough, they may require inspections at more frequent intervals. Such inspections must be conducted by a Certified Cross-Connection Control Technician, a Certified Cross-Connection Control Surveyor, or other person whose qualifications are approved by the Cross-Connection Control Administrator. The inspections shall be made at the expense of the customer.
4. As necessary, Backflow Prevention Assemblies or Methods shall be repaired, overhauled, or replaced, and re-tested or re-inspected, at the expense of the customer whenever the assemblies or methods are found to be defective. Records of such tests, repairs, and overhaul shall be kept and made available to the Cross-Connection Control Administrator.
5. Any Backflow Prevention Assemblies or Methods that are non-testable, shall be inspected at least once annually by a certified Cross-Connection Control Technician. The inspections shall be made at the expense of the customer.
6. In instances where Containment by Isolation is approved, the customer's system shall be re-surveyed annually at the expense of the customer. The Surveyor shall have certifications as required by Cross-Connection Control Administrator. The Customer shall provide NWCWD proof of certifications and survey results.
7. Testing gauges shall be tested and calibrated for accuracy at least once annually.

### 3.03. REPORTING AND RECORDKEEPING

- A. Copies of records of test reports, repairs and retests, or replacements shall be kept by the customer for a minimum of three (3) years.
- B. Records of test reports, repairs and retests to NWCWD by electronic upload to its online tracking platform. Electronic upload costs will be borne by the customer.
- C. Information on test reports shall include, but may not be limited to:
  - 1. Assembly or method type
  - 2. Assembly or method location
  - 3. Assembly make, model and serial number
  - 4. Assembly size
  - 5. Test date
  - 6. Test results including all results that would justify a pass or fail outcome
  - 7. Certified Cross-Connection Control Technician certification agency
  - 8. Technician's certification number
  - 9. Technician's certification expiration date
  - 10. Test kit manufacturer, model and serial number
  - 11. Test kit calibration date

### 3.04. RIGHT OF ENTRY

- A. The customer's system should be open for inspection at all reasonable times to authorized representatives of NWCWD to determine whether unprotected cross-connections or other structural or sanitary hazards, including violations of these regulations, exist. When such a condition becomes known, the Cross-Connection Control Administrator shall deny or immediately discontinue service to the premises until the customer has corrected the condition(s) in conformance with the CDPHE statutes relating to plumbing and water supplies and the regulations adopted pursuant thereto.

### 3.05. COMPLIANCE

- A. Customers shall cooperate with the installation, inspection, testing, maintenance, and as needed repair and replacement of Backflow Prevention Assemblies and with the survey/re-survey process. For any identified uncontrolled cross-connections, NWCWD shall ensure one of the following actions are complete within 90 days of its discovery, unless an alternative schedule is agreed upon between the customer, NWCWD, and CDPHE:
  - 1. Control the cross-connection

2. Remove the cross-connection
  3. Suspend service to the cross-connection
- B. NWCWD shall give notice in writing to any customer whose plumbing system has been found to present a risk to NWCWD's system through an uncontrolled cross-connection. The notice and order shall state that the customer must install a Backflow Prevention Assembly or Method at each service connection to the customer's premises. The notice and order will give a date by which the customer must comply.
1. In instances where a Backflow Prevention Assembly or Method cannot be installed at each service connection, the customer must install Approved Backflow Prevention Assemblies or methods at all cross-connections within the customer's water supply system. The notice and order shall state that the customer must install a Backflow Prevention Assembly or Method at each cross-connection within the customer's premises. The notice and order will give a date by which the customer must comply.
  2. If the assembly or method cannot be installed by the date specified in the written notice, NWCWD must take action to control or remove the cross-connection, suspend service to the cross-connection or receive an alternative compliance schedule from the CDPHE.
- C. Any violation of the provisions of this Policy may, upon conviction, be punishable as provided in all applicable statutes, laws, and regulations. NWCWD may also impose reasonable fees, fines, or other penalties for violations of this Policy.
- D. If a dispute or conflict arises between this Policy, and any plumbing, mechanical, building, electrical, fire or other code adopted by the State, then the most stringent provisions of each respective code shall prevail.
- E. The Cross-Connection Control Administrator is authorized to make all necessary and reasonable rules and policies with respect to the enforcement of this Policy. All such rules and policies shall be consistent with the provisions of this Policy and shall be effective immediately.
- F. Failure to comply with any portion of this regulation may pose a serious risk to the distribution system and potable drinking water. Therefore, the Cross-Connection Control Administrator may discontinue water service to the customer's system if the customer fails to comply.

# 5. Other Business