

Cross Connection Control Policy

Public Water System ID# 4101446 Juniper Utility Co
Public Water System ID# 4101447 Mountain High Water System

Purpose

To comply with the laws of the state of Oregon and to insure that Juniper Utility Co a **Community Water System** supplies **Safe Drinking Water** with the minimum possible **Public Health Hazard** through its **Distribution System** to the **service connection** of its **customers**, their members, tenants, or users. The following **Cross Connection Control Policy** is adopted and will be implemented as provided herein.

Policy

Juniper Utility Co will require that an approved **Double Check Valve Assembly (DCVA)** at a minimum be install at the service connection of all potable water users, where an approved airgap does not exist. These devices shall be installed, maintained, and tested as provided herein.

Responsibility

The water user or the owner of the premises receiving potable water service is responsible for the installation, maintenance, replacement, and testing in an approved manner of the required device. The **customer** may on behalf if its members, tenants, or users, contract with any "**Oregon Certified Backflow Device Tester**" for their service or arrange with Juniper Utility Co to provide the required service with its certified people.

Annual Testing

All Backflow devices within the Juniper System shall be tested at least once each year by an "**Oregon Certified Backflow Device Tester**", repaired as necessary and a report filed with the Juniper Utility Co. The **customer** may on behalf if its members, tenants, or users, contract with any Oregon Certified Tester or arrange with Juniper Utility Co to provide the required service with its certified people.

Access to Premises

Authorized employees of Juniper Utility Co, with proper identification, shall have access during reasonable hours to all parts of a premise and within the building to which water is supplied. If any water user refuses access to a premise or to the interior of a structure at reasonable times and on reasonable notice for inspection by a cross connection specialist appointed by Juniper Utility Co, a "**Reduced Pressure Principle Backflow Device Assembly (RPBA)**" will be required to be installed at the service connection to that premise or service must be discontinued.

Implementation

This **Cross Connection Control Policy** is adopted **February 28, 1996**. All site evaluation and plan development activity will be complete by **June 1, 1996**, with all device instalation completed by **October 31, 1996**.

Cross Connection Control Policy
Legal Requirements

OREGON REVISED STATUTES - PUBLIC HEALTH AND SAFETY

448.131 Water quality, construction and installation standards; effect on existing facilities.

- (1) The Health Division shall adopt water quality standards that are necessary to protect the public health through insuring safe drinking water within a water system.
- (2) In order to insure safe drinking water, the division shall prescribe:
 - (a) Construction standards governing the performance of a water system insofar as they relate to the safety of drinking water.
 - (b) Standards for the operation of water systems in so far as they relate to the delivery of safe drinking water.
 - (c) Other standards and requirements considered necessary by the division to insure safe drinking water.

OREGON ADMINISTRATIVE RULES - CHAPTER 333, DIVISION 61 - HEALTH DIVISION

Cross Connection Control Requirements

333-61-070

- (1) Water suppliers shall undertake programs for controlling and eliminating cross connections:
 - (a) In Community water systems, water suppliers shall carry out a local cross connection program consisting of the following elements:
 - (A) Local ordinance or enabling authority which authorizes discontinued water service to premises for failure to install an approved backflow device or conduct a required annual test on backflow device;
 - (B) A written program plan which includes the following:
 - (i) A master list of facilities and premises which are subject to inspection, and the hazard level for each;
 - (ii) A current list of certified inspector staff and work responsibilities;
 - (iii) Provision and schedule for an initial inspection, the installation and annual testing of each required backflow device, and a periodic reinspection of each required backflow device.
 - (C) The water supplier shall maintain current records of backflow devices installed, inspections completed, and backflow device test results;
 - (D) The water supplier shall prepare and submit an annual written report to the Division using a format to be provided by the Division.
 - (b) In Community water systems where the water supplier has reasonable cause to believe that an existing or potential cross connection is located on the user's premises, the water supplier shall deny or discontinue service to those premises until an appropriate backflow prevention device assembly is installed or until the cause of the hazard is eliminated;
 - (c) Where the water supplier owns and/or operates a Non-Community water system, the water supplier shall assure that cross connections do not exist. Inspections to assure compliance with this section may be made by the licensing agency where licensing is required or by the Department of Consumer and Business Services, Building Codes Division under ORS 447.020.
- (2) In Community water systems having 300 or more service connections, water suppliers shall make provision for at least one person certified in cross connection control inspection to carry out the cross connection control program unless specifically exempted by the Division.
- (3) Whenever a water user or the owner of the premises obtaining water from a public water system treats the water in any way or adds any chemical or substance to the water they shall notify the water supplier.
- (4) ***Backflow prevention device assemblies for protecting Community water systems shall be installed at the service connection to premises where an approved airgap does not exist and:***
 - (a) ***There is an auxiliary water supply which is, or can be, connected to the potable water piping;***
 - (b) ***There is piping for conveying liquids other than potable water, and where that piping is under pressure and is installed in proximity to potable water piping;***

Cross Connection Control Policy

DEFINITIONS

As used in these rules, unless the context indicates otherwise:

"Act"

means the Oregon Drinking Water Quality Act of 1981 (ORS 448.115-448.990 as amended).

"Air Gap Separation"

means the physical vertical separation between the free flowing discharge end of a potable water supply pipe line and the open or non-pressure receiving vessel.

"Approved Backflow Prevention Device"

means a device to counteract back pressures or prevent siphonage. All backflow prevention device assemblies required under this policy shall be of a type and model approved by the Oregon State Health Division and the Division shall maintain a list of backflow prevention device assemblies approved for use in Oregon.

"Auxiliary Water Supply"

means any supply of water used to augment the supply obtained from the public water system which serves the premises in question.

"Backflow"

means the flow in the direction opposite to the normal flow caused by backsiphonage or back pressure. Backsiphonage is caused by negative or reduced pressure in the supply piping and back pressure occurs when the potable supply piping is connected to a system or fixture which exceeds the operating pressure of the supply piping.

"Backflow Prevention Device Assembly"

means a backflow prevention device such as a pressure vacuum breaker, a double check valve or a reduced pressure principle device, and the attached shut off valves on the inlet and outlet ends of the device assembled as a complete unit.

"Community Water System"

means a public water system which has 15 or more service connections used by year-round residents, or which regularly serves 25 or more year-round residents.

"Cross Connection"

means any link or channel between the piping which carries drinking water and the piping or fixtures which carry other water or other substances.

"Customers"

means that person or organization which is billed by Juniper Utility Co for utility service on behalf of its members, tenants, or users i.e., the Homeowners Association which represents its members is the customer, but not the members.

"Distribution System"

means the network of pipes and other facilities which are used to distribute water from the source, treatment, transmission, or storage facilities to the service connection of the water user.

Cross Connection Control Policy
Residential Double Check Valve Assembly (DCVA)
Installation Requirements

PLAN REQUIREMENTS:

Prior to the installation of a DCVA within Juniper Utility Co service area, a set of plans, prints, drawing, or a diagram of the DCVA installation must be submitted to Juniper Utility Co. The Plans shall include the following:

1. Location of the DCVA - street and lot number.
2. Owner's name and address.
3. Size and description of the backflow device.

This DCVA installation plan will be reviewed and kept on file at the Juniper Utility Co office. Within ten working days, Juniper Utility Co will return initial plan approval to the submitter.

INSTALLATION REQUIREMENTS:

1. The DCVA shall be installed with adequate space to facilitate maintenance and testing. It shall be inspected and tested after installation to insure its satisfactory operation and proper installation. The DCVA must be tested by a state certified tester and a completed test report submitted to Juniper Utility Co.
2. Care must be used to insure that the DCVA is not installed where the pressure will be maintained above the device's rated and labeled capacity.
3. Pit or below grade installations are allowed with the following installation requirements: Minimum 6" gravel bed in the bottom of the vault, and plugs must be installed in all four test cocks.
4. The DCVA must be protected from freezing but under no conditions shall there be any connections installed between the DCVA and the source of supply for the purpose of draining or blowing off the system. These connections must be installed on the downstream side of the DCVA.
5. LINES MUST BE THOROUGHLY FLUSHED PRIOR TO INSTALLATION OF THE DCVA.

INSPECTION/APPROVAL REQUIREMENTS AND GENERAL REQUIREMENTS:

1. Prior to backfill, the installation must be inspected between the DCVA and the source of supply by Juniper Utility Co. Inspection will be made by Juniper Utility Co within 2 working days of notice to inspect.

IMPORTANT: Failure to notify Juniper Utility Co prior to backfill will result in re-excavation of the device and point of connection to facilitate inspection.

2. Final approval shall be granted following the acceptance of the installation and receipt of the certified tester results by Juniper Utility Co.
3. All devices must be tested annually and a completed test report submitted to Juniper Utility Co.

NOTE: The installation of a backflow prevention device on the water service line will eliminate the thermal expansion of hot water into the distribution system. Therefore, Juniper Utility Co hereby notifies the water user that it is the water user's responsibility to maintain temperature pressure relief valves within the premise plumbing.

Cross Connection Control Policy
Commercial Double Check Valve Assembly (DCVA)
Installation Requirements

PLAN REQUIREMENTS:

Prior to installation of any commercial water service (any service other than residential) in Juniper Utility Co service area, a set of plans, prints, drawings or diagrams of the system must be submitted to Juniper Utility Co. The plans shall include the following:

1. Locations of buildings, irrigation systems and landscaping
2. Street address, owner's name and mailing address
3. Plumbing and mechanical plans, size of service line and description of intended use of property.

This plan will be reviewed and kept on file at Juniper Utility Co. Within ten (10) working days Juniper Utility Co will return to the submitter initial plan approval. The approval notice will include type of backflow device required minimum requirement double check valve assembly), a copy of Juniper Utility Co backflow device installation requirements and a list of local state certified backflow device testers.

INSTALLATION REQUIREMENTS:

The following are Juniper Utility Co requirements for the installation and approval of a Double Check Valve Assembly on all commercial services:

1. All devices installed after September 1, 1986, must be State of Oregon approved and have resilient seated gate valves or fully ported ball valves. These valves are to be an integral part of the device assembly as sold by the local distributor. Lists of approved devices are available at Juniper Utility Co office.
2. **DOUBLE CHECK VALVE ASSEMBLY (DCVA) - Installation**
 - A. The DCVA shall be installed with adequate space to facilitate maintenance and testing. It shall be inspected and tested after installation to insure its satisfactory operation and proper installation. The DCVA must be tested by a certified state tester, at time of installation.
 - B. Care must be used to insure that the DCVA is not installed where the pressure will be maintained above the device's rated and labeled capacity.
 - C. Pit or below grade installations of a DCVA must have a 6" gravel bed for pit drainage and pipe plugs must be installed in test cock tappings to lessen the danger of cross connects if the device becomes submerged.
 - D. The DCVA must be protected from freezing but must facilitate testing and maintenance. There shall be no connections installed between the DCVA and the source of supply for the purpose of draining.
 - E. Thoroughly flush the lines prior to installation of the DCVA.

INSPECTION/APPROVAL REQUIREMENTS AND GENERAL REQUIREMENTS:

1. The owner or representative must call for an inspection by Juniper Utility Co. Backflow device installation service line and all premise plumbing to the DCVA must be exposed for visual inspection.

IMPORTANT: Failure to notify Juniper Utility Co prior to backfill will result in re-excavation of the device and point of connection to facilitate inspection.

2. Water service will not be turned on until final approval is granted, following the acceptance of the DCVA installation and receipt of certified test results by Juniper Utility Co.
3. All devices must be tested annually by a state certified backflow device tester and a completed test report submitted to Juniper Utility Co.

NOTE: The installation of a backflow prevention device on the water service line will eliminate the thermal expansion of hot water into the distribution system. Therefore, Juniper Utility Co hereby notifies the water user that it is the water user's responsibility to maintain temperature pressure relief valves within the premise plumbing.

Cross Connection Control Policy
Oregon State Certified Backflow Prevention Device Testers
(Bend Area Partial List)

Roats Water System -----	382-3029
Mateski Irrigation & Landscape -----	389-6328
Backflow Management Inc. -----	388-7853
Robert Hurworth Enterprises -----	388-0504
High cascade Landscaping -----	383-3945
Sam Langmas Grounds Maintenance -----	382-3826
Avion Water Co. -----	382-5342
Gary Dalesky Irrigation & Landscape -----	389-2235
Springtime Irrigation-----	389-4974
Bend Backflow Testing -----	382-1259
Sherman Brown Backflow Testing-----	382-4217
Rain Systems-----	382-1803
Juniper Utility Co -----	382-0491

By providing this list, Juniper Utility Co does not imply endorsement of others on the list or non-endorsement of anyone inadvertently left off the list.