

# Cross Connection Control Policy

Public water system ID # 4100106

Ponderosa Pines Water Company

Revised, 07-01-07

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FIELD SERVICES  
DRINKING WATER PROGRAM

## Purpose

To comply with the laws of the state of Oregon, and to insure that Ponderosa Pines Water Company, a Community Water System, supplies safe drinking water with the minimum possible public health hazard through its distribution system to the service connections of its customers, their guests, tenants, and other users. The following Cross Connection Control Policy is hereby adopted and will be implemented as provided herein.

## Constitutionality and Saving Clause

That if any provision, section, sentence, clause, or phrase of this ordinance, or the application of same to any person or set of circumstances are for any reason held to be unconstitutional, void, invalid, or for any reason unenforceable, the validity of the remaining portions of this ordinance or its application to other persons or circumstances shall not be affected thereby. It is the intent of the Board of Directors of Ponderosa Pines Water Company, by adopting and approving this ordinance, that no portion hereof or regulation contained herein shall become inoperative or fail by reason of any unconstitutionality or invalidity of any other portion, provision or regulation.

## Policy

The Ponderosa Pines Water Co. will require that an approved backflow prevention assembly, **appropriate to the degree of hazard** be installed at the service connection when ever any of the following circumstances arise. New user connection is ordered. An existing water service that has been disconnected is reconnected. A plumbing permit is taken out for new construction on any premise connected to Ponderosa Pines Water Co. All connections to Ponderosa Pines Water Co. system will have a minimum of an approved DCVA at the service connection.

## Responsibility

Ponderosa Pines Water Company is responsible for the installation, replacement, maintenance and testing of required assemblies up to the P.O.D. and will retain ownership. All approved backflow prevention assemblies not installed by Ponderosa Pines Water Company, but required by other agencies shall be installed downstream from the P.O.D..

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## **Annual Testing**

All backflow assemblies within Ponderosa Pines Water Co. system shall be tested at least once a year by an "Oregon Certified Backflow Tester". All testing and repair of backflow assemblies owned by Ponderosa Pines Water Co. shall be done by Ponderosa Pines Water Co. certified employees or contractors. All privately owned backflow assemblies shall be tested by an "Oregon Certified Backflow Tester", repaired as necessary at owners expense and a test report be filed with Ponderosa Pines Water Co. within 10 days of test date. They may contract with any Oregon Certified Tester or arrange with Ponderosa Pines Water Co. to provide the required service with its certified testers.

## **Access to Premises,**

Authorized employees of Ponderosa Pines Water Co., with proper identification, shall have access during reasonable hours to all parts of a premise and within any 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 the Ponderosa Pines Water Co. Certified Cross Connection Specialist, a Reduced Pressure Principal Backflow Assembly (RPBA) will be required to be installed at the service connection to that premise at the owners expense or service will be discontinued and disconnected.

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## **Legal Requirements**

### **OREGON ADMINISTRATIVE RULES-CHAPTER 333**

#### **Cross Connection Control Requirements**

**333-061-0070**

- (1) Water suppliers shall undertake cross connection control programs for protect the public water systems from pollution and contamination.
- (2) The water supplier's responsibility for cross connection control shall begin at the water supply source, include all public treatment, storage, and distribution facilities under the water supplier's control, and end at the point of delivery to the water user's premise.
- (3) Water suppliers shall develop and implement cross connection control programs that meet the minimum requirements set forth in these rules.
- (4) Water suppliers shall develop a procedure to coordinate cross connection control requirements with the appropriate local administrative authority having jurisdiction.
- (5) The water supplier shall ensure that inspections of approved air gaps, approved devices, and inspections and tests of approved backflow prevention assemblies protecting
  - (a) At the time of installation, any repair or relocation;
  - (b) At least annually;
  - (c) More frequently than annually for approved backflow prevention assemblies that repeatedly fail, or are protecting health hazard cross connections, as determined by the water supplier;
  - (d) After a backflow incident; or
  - (e) After an approved air gap is re-plumbed.
- (6) Approved air gaps, approved devices, or approved backflow prevention assemblies, found not to be functioning properly shall be repaired, replaced or re-plumbed by the water user or premise owner, as defined in the water supplier's local ordinance or enabling authority, or the water supplier may take action in accordance with subsection 9(a) of these rules.
- (7) A water user or premise owner who obtains water from a water supplier must notify the water supplier if they add any chemical or substance to the water.

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## Legal Requirements (cont.)

(8) Premise isolation requirements:

(a) For service connections to premises listed or defined in Table 32 (Premises Requiring Isolation), the water supplier shall ensure an approved backflow prevention assembly or an approved air gap is installed;

(A) Premises with cross connections not listed or defined in Table 32 (Premises Requiring Isolation), shall be individually evaluated. The water supplier shall require the installation of an approved backflow prevention assembly or an approved air gap commensurate with the degree of hazard on the premise, as defined in Table 33 (Backflow Prevention Methods);

(B) In lieu of premise isolation, the water supplier may accept an in-premise approved backflow prevention assembly as protection for the public water system when the approved backflow prevention assembly is installed, maintained and tested in accordance with the Oregon Plumbing Specialty Code and these rules.

(b) Where premise isolation is used to protect against a cross connection, the following requirements apply;

(A) The water supplier shall:

(i) Ensure the approved backflow prevention assembly is installed at a location adjacent to the service connection or point of delivery;

(ii) Ensure any alternate location used must be with the approval of the water supplier and must meet the water supplier's cross connection control requirements; and

(iii) Notify the premise owner and water user, in writing, of thermal expansion concerns.

(B) The premise owner shall:

(i) Ensure no cross connections exist between the point of delivery from the public water system and the approved backflow prevention assemblies, when these are installed in an alternate location; and

(ii) Assume responsibility for testing, maintenance, and repair of the installed approved backflow prevention assembly to protect against the hazard.

(c) Where unique conditions exist, but not limited to, extreme terrain or pipe elevation changes, or structures greater than three stories in height, even with no actual or potential health hazard, an approved backflow prevention assembly may be installed at the point of delivery; and

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### **Legal Requirements (cont.)**

- (d) Where the water supplier chooses to use premise isolation by the installation of an approved backflow prevention assembly on a one- or two-family dwelling under the jurisdiction of the Oregon Plumbing Specialty Code and there is no actual or potential cross connection, the water supplier shall:
  - (A) Install the approved backflow prevention assembly at the point of delivery;
  - (B) Notify' the premise owner and water user in writing of thermal expansion concerns; and
  - (C) Take responsibility for testing, maintenance and repair of the installed approved backflow prevention assembly.
  
- (9) In community water systems, water suppliers shall implement a cross connection control program directly, or by written agreement with another agency experienced in cross connection control. The local cross connection program shall consist of the following elements:
  - (a) Local ordinance or enabling authority that authorizes discontinuing water service to premises for:
    - (A) Failure to remove or eliminate an existing unprotected or potential cross connection;
    - (B) Failure to install a required approved backflow prevention assembly;
    - (C) Failure to maintain an approved backflow prevention assembly; or
    - (D) Failure to conduct the required testing of an approved backflow prevention assembly.
  
  - (b) A written program plan for community water systems with 300 or more service connections shall include the following:
    - (A) A list of premises where health hazard cross connections exist, including, but not limited to, those listed in Table 32 (Premises Requiring Isolation);
    - (B) A current list of certified cross connection control staff members;
    - (C) Procedures for evaluating the degree of hazard posed by a water user's premise;
    - (D) A procedure for notifying the water user if a non-health hazard or health hazard is identified, and for informing the water user of any corrective action required;

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## **Legal Requirements (cont.)**

- (E) The type of protection required to prevent backflow into the public water supply, commensurate with the degree of hazard that exists on the water user's premise, as defined in Table 33 (Backflow Prevention Methods);
- (F) A description of what corrective actions will be taken if a water user fails to comply with the water supplier's cross connection control requirements;
- (G) Current records of approved backflow prevention assemblies installed, inspections completed, backflow prevention assembly test results on backflow prevention assemblies and verification of current Backflow Assembly Tester certification; and
- (H) A public education program about cross connection control.
- (c) The water supplier shall prepare and submit a cross connection control Annual Summary Report to the Department, on forms provided by the Department, before the last working day of March each year.
- (d) In community water systems having 300 or more service connections, water suppliers shall ensure at least one person is certified as a Cross Connection Control Specialist, unless specifically exempted from this requirement by the Department.
- (10) Approved backflow prevention assemblies required under these rules shall be assemblies approved by the University of Southern California, Foundation for Cross Connection Control and Hydraulic Research, or other equivalent testing laboratories approved by the Department.
- (11) Backflow prevention assemblies installed before the effective date of these rules that were approved at the time of installation, but are not currently approved, shall be permitted to remain in service provided the assemblies are not moved, the piping systems are not significantly remodeled or modified, the assemblies are properly maintained, and they are commensurate with the degree of hazard they were installed to protect. The assemblies must be tested at least annually and perform satisfactorily to the testing procedures set forth in these rules.
- (12) Tests performed by Department-certified Backflow Assembly Testers shall be in conformance with procedures established by the University of Southern California, Foundation for Cross Connection Control and Hydraulic Research, Manual of Cross Connection Control, 9th Edition, December 1993, or other equivalent testing procedures approved by the Department.

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### **Legal Requirements (cont.)**

(13) Backflow prevention assemblies shall be tested by Department-certified Backflow Assembly Testers, except as otherwise provided for journeyman plumbers or apprentice plumbers in OAR 333-061-0072 of these rules (Backflow Assembly Tester Certification). The Backflow Assembly Tester shall provide a copy of each completed test report to the water user or premise owner, and the water supplier:

(a) Within 10 working days; and

(b) The test reports will be in a manner and form acceptable to the water supplier.

(14) All approved backflow prevention assemblies subject to these rules shall be installed in accordance with OAR 333-061-0071 and the Oregon Plumbing Specialty Code.

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### **DEFINITIONS**

OAR CHAPTER 333  
333-061-0020 Definitions

- (1) "Approval" or "Approved" means approved in writing.
- (2) "Approved Air Gap (AG)" means a physical separation between the free flowing discharge end of a potable water supply pipeline and an open or non-pressurized receiving vessel. An "Approved Air Gap" shall be at least twice the diameter of the supply pipe measured vertically above the overflow rim of the vessel and in no case less than 1 inch (2.54 cm), and in accord with Oregon Plumbing Specialty Code.
- (3) "Approved Backflow Prevention Assembly" means a Reduced Pressure Principle Backflow Prevention Assembly, Reduced Pressure Principle-Detector Backflow Prevention Assembly, Double Check Valve Backflow Prevention Assembly, Double Check-Detector Backflow Prevention Assembly, Pressure Vacuum Breaker Backsiphonage Prevention Assembly, or Spill-Resistant Pressure Vacuum Breaker Backsiphonage Prevention Assembly, of a make, model, orientation, and size approved by the Department. Assemblies listed in the currently approved backflow prevention assemblies list developed by the University of Southern California, Foundation for Cross-Connection Control and Hydraulic Research, or other testing laboratories using equivalent testing methods, are considered approved by the Department.
- (4) "Backflow" means the flow of water or other liquids, mixtures, or substances into the distributing pipes of a potable supply of water from any sources other than its intended source, and is caused by backsiphonage or backpressure.
- (5) "Backflow Preventer" means a device, assembly or method to prevent backflow into the potable water system.
- (6) "Backflow Prevention Assembly" means a backflow prevention assembly such as a Pressure Vacuum Breaker Backsiphonage Prevention Assembly, Spill-Resistant Pressure Vacuum Breaker Backsiphonage Prevention Assembly, Double Check Valve Backflow Prevention Assembly, Double Check-Detector Backflow Prevention Assembly, Reduced Pressure Principle Backflow Prevention Assembly, or Reduced Pressure Principle-Detector Backflow Prevention Assembly and the attached shutoff valves on the inlet and outlet ends of the assembly, assembled as a complete unit.
- (7) "Backpressure" means an elevation of pressure downstream of the distribution system that would cause, or tend to cause, water to flow opposite of its intended direction.



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OAR CHAPTER 333

333-061-0020 Definitions (cont.)

- (8) "Backsiphonage" means a drop in distribution system pressure below atmospheric pressure (partial vacuum), that would cause, or tend to cause water to flow opposite of its intended direction.
- (9) "Cross Connection" means any actual or potential unprotected connection or structural arrangement between the public or user's potable water system and any other source or system through which it is possible to introduce into any part of the potable system any used water, industrial fluid, gas, or substances other than the intended potable water with which the system is supplied. Bypass arrangements, jumper connections, removable sections, swivel, or change-over devices, and other temporary or permanent devices through which, or because of which, backflow can occur are considered to be cross connections.
- (10) "Degree of Hazard" means either pollution (non-health hazard) or contamination (health hazard) and is determined by an evaluation of hazardous conditions within a system.
- (11) "Department" means the Oregon Department of Human Services (DHS).
- (12) "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 water user.
- (13) "Double Check Valve Backflow Prevention Assembly (DCVA)" means an assembly of two independently acting approved check valves, including tightly closing resilient seated shutoff valves attached at each end of the assembly and fitted with properly located resilient seated test cocks. This assembly is designed to protect against a non-health hazard.
- (14) "Health Hazard (Contamination)" means an impairment of the quality of the water that could create an actual hazard to the public health through poisoning or through the spread of disease by sewage, industrial fluids, waste, or other substances.
- (15) "Multi-purpose Piping System" means a piping system within residential dwellings intended to serve both domestic and fire protection needs. This type of system is considered part of a potable water system.
- (16) "Non-Health Hazard (Pollution)" means an impairment of the quality of the water to a degree that does not create a hazard to the public health, but does adversely affect the aesthetic qualities of such water for potable use.

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OAR CHAPTER 333

333-061-0020 Definitions (cont.)

- (17) "Point of Delivery (POD)" means the point of connection between a public water system and the user's water system. Beyond the point of delivery, the Oregon Plumbing Specialty Code applies. See "Service Connection".
- (18) "Pollutant" means a substance that creates an impairment of the quality of the water to a degree which does not create a hazard to the public health, but which does adversely affect the aesthetic qualities of the water.
- (19) "Potable Water". See Safe Drinking Water.
- (20) "Potential Cross Connection" means a cross connection that would most likely occur, but may not be taking place at the time of an inspection.
- (21) "Premise" means real estate and the structures on it.
- (22) "Premise Isolation" means the practice of protecting the public water supply from contamination or pollution by installing backflow prevention assemblies at or near, the point of delivery where the water supply enters the premise. Premise isolation does not guarantee protection to persons on the premise.
- (23) "Pressure Vacuum Breaker Backsiphonage Prevention Assembly (PVB)" means an assembly consisting of an independently operating, internally loaded check valve and an independently operating loaded air inlet valve located on the discharge side of the check valve. This assembly is to be equipped with properly located resilient seated test cocks and tightly closing resilient seated shutoff valves attached at each end of the assembly. This assembly is designed to protect against a non-health hazard or a health hazard under backsiphonage conditions only.
- (24) "Reduced Pressure Principle Backflow Prevention Assembly (RP)" means an assembly containing two independently acting approved check valves, together with a hydraulically operating, mechanically independent pressure differential relief valve located between the check valves and at the same time below the first check valve. The unit shall include properly located resilient seated test cocks and tightly closing resilient seated shutoff valves at each end of the assembly. This assembly is designed to protect against an on-health hazard or a health hazard.
- (25) "Safe Drinking Water" means water which has sufficiently low concentrations of microbiological, inorganic chemical, organic chemical, radiological or physical substances so that individuals drinking such water at normal levels of consumption, will not be exposed to disease organisms or other substances which may produce harmful physiological effects.

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**333-061-0020 Definitions (cont.)**

- (26) "Service Connection" means the piping connection by means of which water is conveyed from a distribution main of a public water system to a user's premise. For a community water system, the portion of the service connection that conveys water from the distribution main to the user's property line, or to the service meter, where provided, is under the jurisdiction of the water supplier.
- (27) "Thermal Expansion" means the pressure increase due to a rise in water temperature that occurs in water piping systems when such systems become "closed" by the installation of a backflow prevention assembly or other means, and will not allow for expansion beyond that point of installation.
- (28) "These Rules" means the Oregon Administrative Rules encompassed by OAR 333-061-0005 through 333-061-0098.
- (29) "Water Supplier" means a person, group of persons, municipality, district, corporation or other entity, which owns or operates a public potable water system.
- (30) "Water System" means a system for the provision of piped water for human consumption.

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### **OAR CHAPTER 333**

**333-061-0071**

#### **Backflow Prevention Assembly Installation Operation Standards**

- (1) Any approved backflow prevention assembly required by OAR 333-06 1-0070 shall be installed in a manner that:
  - (a) Facilitates its proper operation, maintenance, inspection, and inline testing using standard installation procedures approved by the Department, such as, but not limited to, University of Southern California, Manual of Cross-Connection Control, 9th Edition, the Pacific Northwest Section American Water Works Association, Cross Connection Control Manual, 6th Edition, or the local administrative authority having jurisdiction;
  - (b) Precludes the possibility of continuous submersion of an approved backflow prevention assembly, and precludes the possibility of any submersion of the relief valve on a reduced pressure principle backflow prevention assembly; and
  - (c) Maintains compliance with all applicable safety regulations and the Oregon Plumbing Specialty Code.
- (2) For premise isolation installation:
  - (a) The approved backflow prevention assembly shall be installed at a location adjacent to the service connection or point of delivery; or
  - (b) Any alternate location must be with the advance approval of the water supplier and must meet the water supplier's cross connection control requirements; and
  - (c) The premise owner shall ensure no cross connections exist between the point of delivery from the public water system and the approved backflow prevention assembly.
- (3) Bypass piping installed around any approved backflow prevention assembly must be equipped with an approved backflow prevention assembly to:
  - (a) Afford at least the same level of protection as the approved backflow prevention assembly being bypassed; and
  - (b) Comply with all requirements of these rules.
- (4) All Oregon Plumbing Specialty Code approved residential multi-purpose fire suppression systems constructed of potable water piping and materials do not require a backflow prevention assembly.
- (5) Stand-alone fire suppression systems shall be protected commensurate with the degree of hazard, as defined in Table 33 (Backflow Prevention Methods).

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### **OAR CHAPTER 333**

333-061-0071

### **Backflow Prevention Assembly Installation Operation Standards (cont.)**

- (6) Stand-alone irrigation systems shall be protected commensurate with the degree of hazard, as defined in Table 33 (Backflow Prevention Methods).

#### **Notification:**

Prior to installation of a DCVA, RPBA or PVBA within Ponderosa Pines Water Co. service area the following information will be forwarded to Ponderosa Pines Water Co.:

1. Location of the backflow prevention assembly - street address and lot number.
2. Owners name and address.
3. Description of system which requires the backflow assembly.

#### **Inspection**

##### **Inspection Hours**

Cross connection inspections can be carried out between the hours of 8:00 AM and 5:00 PM Monday through Sunday.

##### **Notice of inspection.**

No notice of Inspections will be given. If the Cross Connect Specialist arrives for an inspection at an inconvenient time, all reasonable efforts will be made to reschedule the inspection at a later date.

##### **Property owners right.**

The property owner may refuse Ponderosa Pines Water Co. employees and representatives access to premises or stop an inspection at any time.

##### **Refusal of access.**

When access to premises for inspection purposes is refused, Ponderosa Pines Water Co. may require that Health Hazard backflow protection assembly be installed on the service line at the property owners expense or that the water service be disconnected to the premises.

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## Implementation

Date: July 21, 2007

### Cross Connection Specialist



William Armstrong

# 3921

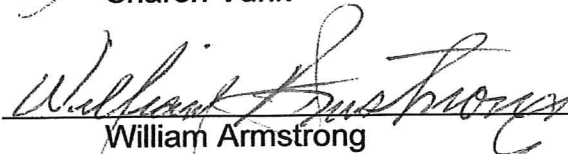
### Ponderosa Pines Water Company Board Of Directors

Position # 1



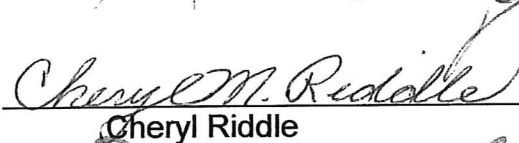
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Position # 2



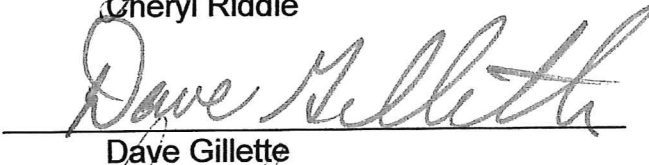
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Position # 3



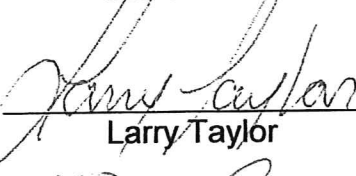
Cheryl Riddle

Position # 4



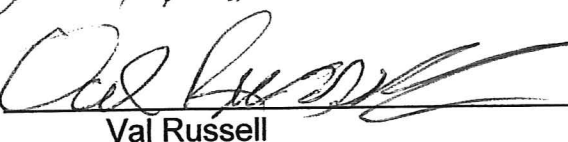
Dave Gillette

Position # 5



Larry Taylor

Position # 6



Val Russell

Position # 7

Tim Pile