

# Public Service Commission of Montana

MOUNTAIN WATER COMPANY

(Name of Company)

Sheet No. 180

Canceling Sheet No. 1:123

## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

### SECTION I - DEFINITIONS

- A. Air-Gap Separation: The term "air-gap separation shall mean a physical separation between the free flowing discharge end of a potable water supply pipeline and an open or non-pressure receiving vessel. An approved air gap shall be at least double the diameter of the supply pipe measured vertically above the overflow rim of the vessel - in no case less than one inch.
- B. Approved Backflow Prevention Assembly: The term "approved backflow prevention assembly" shall mean an assembly which is listed by the Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California (FCCC & HR, USC) as an approved backflow prevention assembly.
- C. Approved Water Supply: The term "approved water supply" means any water supply whose potability is regulated by a State or local health agency.
- D. Atmospheric Vacuum Breaker: The term "atmospheric vacuum breaker" (AVB) (also known as the 'non-pressure type vacuum breaker') shall mean an assembly containing a float-check, a check seat and an air inlet port. The flow of water into the body causes the float to close the air inlet port. When the flow of water stops, the float falls and forms a check valve against backsiphonage and at the same time opens the air inlet port to allow air to enter and satisfy the vacuum. A shutoff valve immediately upstream may be an integral part of the assembly. An atmospheric vacuum breaker is designed to protect against a health hazard (i.e. contaminant) under a backsiphonage condition only. No shutoff valve may be installed downstream of an AVB.

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# Public Service Commission of Montana

MOUNTAIN WATER COMPANY

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Sheet No. 181

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## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

- E. Auxiliary Supply: The term "auxiliary supply" means any water supply on or available to the premises other than the approved water supply. These auxiliary supplies may be polluted or contaminated or may be objectionable and constitute an unacceptable water source over which the water purveyor does not have sanitary control.
- F. AWWA Standard: The term "AWWA Standard" means an official standard developed and approved by the American Water Works Association (AWWA).
- G. Backflow: The term "backflow" means the undesirable reversal of water flow or the reversal of water flow containing other liquids, gases, or other substances from a connected source that flows into the distribution pipes of the public water supply system.
- H. Backpressure: The term "backpressure" means any increase of pressure in the downstream piping system (by pump, elevation of piping, or steam and/or air pressure) above the supply pressure at the point where backflow could occur.
- I. Backsiphonage: The term "backsiphonage" shall mean a form of backflow due to a reduction in system pressure which causes a sub-atmospheric pressure to exist at a site in the water system.
- J. Certified Backflow Prevention Assembly Tester: The term "certified backflow prevention assembly tester" means a person who holds a current certificate from any state certification program authorizing the person to test backflow prevention assemblies or who holds a current certificate from the American Society of Sanitary Engineers.

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MOUNTAIN WATER COMPANY

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## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

- K. Contamination: The term "contamination" means a degradation of the quality of the potable water by any foreign substance which creates a hazard to the public health, or which may impair the usefulness or quality of the water.
- L. Critical Level: The term "critical level" shall mean the C-L or C/L marking of the backflow prevention assembly which is the point established by the testing laboratory and marked by the manufacturer, from which the minimum required elevation above the flood rim of a fixture, receptacle or other use is determined. In the absence of such marking, the lowest part of the assembly shall be deemed to be the critical level.
- M. Cross-Connection: The term "cross-connection" means any actual or potential connection between a potable water system used to supply water for drinking purposes and any other water supply system, either public or private, or a wastewater or sewer line or other potential source of contamination so that a flow of water into or contamination of the public water supply system from the other source of water or contamination is possible. By-pass arrangements, jumper connections, removable sections, swivel or changeover assemblies, or other assemblies through which backflow could occur shall be considered to be cross-connections.
- N. Degree of Hazard: The term "degree of hazard" shall mean either a pollutional (non-health) or contamination (health) hazard and is derived from the evaluation of conditions within a system.
- O. Double Check Valve Assembly: The term "double check valve assembly" means an assembly of two internally loaded, independently acting check valves, including resilient seated shut-off valves on each end of the assembly and test cocks for testing the watertightness of each check valve.

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MOUNTAIN WATER COMPANY

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## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

- P. Double Check-Detector Assembly: The term "double check-detector assembly" means a specially designed assembly composed of a line-size approved double check valve assembly with a specific bypass water meter and a meter-sized approved double check valve assembly. The meter shall register accurately for only very low rates of flow and shall show a registration for all rates of flow.
- Q. Fixed Air Gap: The term "fixed air gap" means a backflow prevention assembly manufactured to meet the requirements of an air gap.
- R. Health Agency: The term "health agency" means the Montana Department of Environmental Quality (DEQ) or the Missoula City/County Health Department (MCCHD).
- S. Mountain Water Company: The term "Mountain Water Company" means any public water supply owned or operated by Mountain Water Company, a Montana corporation. This includes, but is not limited to the Missoula and Superior systems.
- T. Non-Potable Water: The term "non-potable water" shall mean water which is not derived from a water supply and system under the authority of the appropriate health authority and is not approved for drinking, personal, or culinary use. Water in a fire, irrigation, reclaimed waste water or industrial water system is deemed non-potable.
- U. Pollution: The term "pollution" shall mean 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 and unreasonably affect the aesthetic qualities of such water for domestic use.

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## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

- V. Person: The term "person" means an individual, corporation, company, association, partnership, municipality, public utility, or other public body or institution.
- W. Premises: The term "premises" means any and all areas on a water user's property which are served or have the potential to be served by the public water system.
- X. Pressure Vacuum Breaker: An assembly that has an independently operating, loaded check valve and an independently operating, loaded air inlet valve located on the discharge side of the check valve. The pressure vacuum breaker must be equipped with properly located test cocks and tightly closing shutoff valves located at each end of the assembly. This assembly is designed to protect only against a backsiphonage condition, not against backpressure. A shutoff valve may be used downstream of a pressure vacuum breaker.
- Y. Public Water Supply: The term "public water supply" means a system for the provision of water for human consumption that has 15 or more service connections or regularly serves at least 25 persons daily for a period of at least 60 days out of the year.
- Z. Reduced Pressure Zone Backflow Prevention Assembly: The term "reduced pressure principle backflow prevention assembly" means an assembly incorporating two internally loaded, independently operating check valves and an automatically operating differential relief valve located between the two checks, including resilient seated shut-off valves on each end of the assembly and the necessary test cocks for testing the assembly.

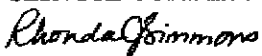
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# Public Service Commission of Montana

MOUNTAIN WATER COMPANY

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Sheet No. 185

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## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

- AA. Reduced Pressure Zone-Detector Backflow Assembly: The term "reduced pressure zone-detector assembly" shall mean a specially designed assembly composed of a line-size approved reduced pressure principle backflow prevention assembly with a specific bypass water meter and a meter-sized approved reduced pressure principle backflow prevention assembly. The meter shall register accurately for only very low rates of flow and shall show a registration for all rates of flow.
- BB. Service Connection: The term "service connection" refers to the point of connection of a user's piping to the Mountain Water Company system.
- CC. Water Supplier: The term "water supplier" means the person who owns or operates the approved water supply system.
- DD. Water User: The term "water user" means any person obtaining water from an approved water supply.

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Sheet No. 186

Canceling Sheet No. 7:129

## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

### SECTION II - CROSS-CONNECTION PROTECTION REQUIREMENTS

#### A. General Provisions

1. Unprotected cross-connections with the public water supply are prohibited.
2. Whenever Mountain Water Company finds that backflow protection is necessary to protect the public water supply, Mountain Water Company will require the water user to install an approved backflow prevention assembly at the water user's expense for continued service or before a new service will be granted.
3. Wherever Mountain Water Company finds that backflow protection is necessary on a water supply line entering a water user's premises, then any and all water supply lines from Mountain Water Company's mains entering such premises, buildings, or structures shall be protected by an approved backflow prevention assembly. The type of assembly to be installed will be in accordance with the requirements of this program.

#### B. Where Protection Is Required

1. Each service connection from the Mountain Water Company water system supplying water to premises having an auxiliary water supply shall be protected against backflow of water from the premises into the public water supply system even if the auxiliary water supply is accepted as an additional source by Mountain Water Company and is approved by the Montana DEQ or the Missoula City/County Health Department (MCCHD).

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## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

2. Each Mountain Water Company service connection supplying water to any premises on which any substance is handled in such a fashion that it may be allowed to enter the public water system shall be protected against backflow from the premises into the public water supply with an approved backflow prevention assembly. This shall include the handling of process waters and waters originating from the Mountain Water Company water system which have been subjected to any change in water quality.
  
3. Backflow prevention assemblies shall be installed on the service connection to any premises having: (a) internal cross-connections that cannot be permanently corrected and controlled to the satisfaction of the state or local Health department and Mountain Water Company, (b) complicated plumbing and piping arrangements or where entry to all portions of the premises are not readily accessible for inspection purposes, making it impracticable or impossible to ascertain whether or not cross-connections exist, or (c) cross-connections that cannot be practically eliminated.

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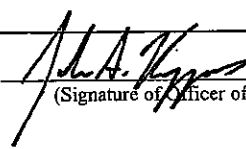
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## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

### C. Type of Protection Required

1. The type of protection that shall be provided to prevent backflow into the approved water supply shall be commensurate with the degree of hazard that exists on the consumer's premises. The types of protective assembly that may be required (listed in an increasing level of protection) include: 1. Double Check Valve Assembly (DCA), 2. Atmospheric Vacuum Breaker (AVB), 3. Pressure Vacuum Breaker (PVB), 4. Reduced Pressure Zone Backflow Prevention Assembly (RP), and 5. Air-gap separation (AG). The water user may choose a higher level of protection than required by Mountain Water Company. The minimum types of backflow protection required to protect the approved water supply from varying degrees of hazard are given in Table I. Situations which are not covered in Table I shall be evaluated on a case by case basis and the appropriate backflow protection determined by Mountain Water Company shall be installed by the water user.

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## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

### D. Exemptions

A cross-connection is exempt from the standards in this program if the following conditions are met:

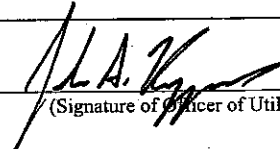
1. The cross-connection is with a public water supply system that has been approved by the DEQ;
2. The owner or operator of the public water supply that is or will be connected to the system with the approved voluntary cross-connection control program:
  - a. sends a written request for an exemption to the public water supplier with the approved voluntary program; and
  - b. submits a sanitary survey conducted within the three years preceding the request for an exemption that:

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Canceling Sheet No. 11:133

## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

- (A) indicates that there are no cross-connections that violate Rule II (1) and (2) within the public water supply system that is or will be connected; and
  - (B) has been conducted by the DEQ or a person who has contracted with the department for the purpose of performing the sanitary survey; or
  - (C) has been determined by the DEQ to be competent and reliable: and
- c. the public water supply system with the approved voluntary program determines in writing that the public water supply that is or will be connected is acceptable as a source.

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## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

### TABLE I

#### TYPE OF BACKFLOW PROTECTION REQUIRED

Degree of Hazard	<u>Minimum Type of Backflow Prevention</u>
(A) Sewage and Hazardous Substances	
(1) Premises on which there are wastewater pumping and/or treatment plants and there is no interconnection with the potable water system. This does not include a single family residence that has a sewage lift pump. An RP may be provided in lieu of an air gap if approved by Mountain Water Company.	AG
(2) Premises on which hazardous substances are handled in such a manner that the substances may enter a potable water system. This does not include a single family residence that has a sewage lift pump. An RP may be provided in lieu of an AG if approved by Mountain Water Company.	AG

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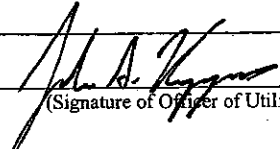
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Canceling Sheet No. 13;135

## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

Degree of Hazard	<u>Minimum Type of Backflow Prevention</u>
(3) Premises on which there are irrigation systems into which fertilizers, herbicides or pesticides are, or can be, introduced.	RP
(4) Premises, including single family residences, on which there are underground irrigation systems. An atmospheric or pressure vacuum breaker may be provided in lieu of an RP if approved by Mountain Water Company.	RP
(B) Premises on which there is an unapproved auxiliary water supply which is interconnected with the public water system. An RP may be provided in lieu of an AG if approved by Mountain Water Company.	AG
(C) Fire Protection Systems	
(1) Premises on which the fire system is supplied from the public water system and interconnected with an unapproved auxiliary water supply. An RP may be provided in lieu of an AG, if approved by Mountain Water Company.	AG

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## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

Degree of Hazard	<u>Minimum Type of Backflow Prevention</u>
(2) Premises on which the fire system is supplied from the public water system and where either elevated storage tanks or fire pumps which take suction from private reservoirs or tanks are used.	DCA
(3) Premises on which the fire system is supplied from the public water system and there is standing water in the fire system or outside fire hose connections.	DCA
(D) Premises on which entry is restricted so that inspections for cross-connections cannot be made with sufficient frequency or at sufficiently short notice to assure that cross-connections do not exist.	RP
(E) Premises on which there is a history of cross-connections being established or re-established.	RP
(F) Premises on which two or more services supply water to the same building, structure, or premises shall have at least an RP assembly on each water service to be located adjacent to and on the customer's side of the respective meters. A DCA may be provided in lieu of an RP if approved by Mountain Water Company.	RP

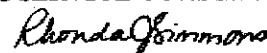
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## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

### Degree of Hazard

### Minimum Type of Backflow Prevention

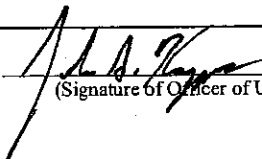
(G) Premises on which the water user has installed a booster pump to increase the supply pressure to the building, structure, or premises shall have at least an RP assembly on each water service to be located adjacent to and on their customer's side of the respective meters. A DCA may be provided in lieu of an RP if approved by Mountain Water Company.

RP

(H) Premises on which there are boilers, water heaters, heat exchangers, cooling towers, air conditioners, or other plumbing arrangements in which corrosion inhibitors, antifreeze, or other chemicals are or can be used shall have at least an RP assembly on each water service to be located adjacent to and on the customer's side of the respective meters. A DCA may be provided in lieu of an RP if approved by Mountain Water Company.

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MOUNTAIN WATER COMPANY

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## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

### Degree of Hazard

### Minimum Type of Backflow Prevention

- (I) Premises on which there is water treatment equipment through which chemicals or other substances are or can be injected into the customer's water supply shall have at least an RP on each water service to be located adjacent to and on the customer's side of the respective meters. A DCA may be provided in lieu of an RP if approved by Mountain Water Company.

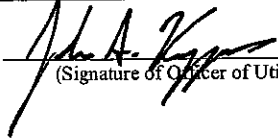
RP

### SECTION III - BACKFLOW PREVENTION ASSEMBLIES

#### A. Approved Backflow Prevention Assemblies

1. Only backflow prevention assemblies which are listed on the "List of Approved Backflow Prevention Assemblies" published by the Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California shall be acceptable for installation by a water user connected to Mountain Water Company's potable supply.
2. Upon request, Mountain Water Company will provide a list of approved backflow prevention assemblies to any interested person.

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## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

### B. Existing Backflow Prevention Assemblies

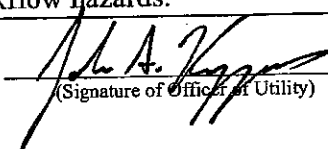
Approved backflow prevention assemblies that are currently in service shall be tested and if found to be in serviceable condition can be left in service after certain information (make, model, size, serial number, and test results) has been provided to Mountain Water Company. The assembly must then be tested yearly by a certified backflow prevention assembly tester (see Section VII) or more frequently if determined necessary by Mountain Water Company. Existing backflow prevention assemblies found to be unserviceable or whose application has been misapplied shall be removed and replaced with an appropriate assembly approved by Mountain Water Company.

### C. Backflow Prevention Assembly Installation

Backflow prevention assemblies shall be installed in a manner prescribed by Mountain Water Company. Location of the assemblies should be as close as practical to the user's connection. Mountain Water Company shall have the final authority in determining the required location of a backflow prevention assembly.

1. Air-gap separation (AG) - The air gap separation shall be located on the user's side of and as close to the service connection as practical. All piping from the service connection to the receiving tank shall be above grade and be entirely visible. No water use shall be provided from any point between the service connection and the air-gap separation. The water inlet piping shall terminate a distance of at least two (2) pipe diameters above the supply inlet, but in no case be less than one (1) inch above the overflow rim of the receiving vessel. Properly installed, the air gap may be used to protect against all levels of backflow hazards.

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## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

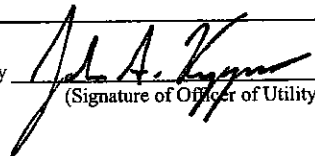
2. Reduced pressure zone backflow prevention assembly (RP) - The approved reduced pressure zone backflow prevention assembly shall be installed on the user's side and as close to the service connection as practical. The assembly shall be installed a minimum of twelve inches (12") above grade and not more than thirty inches (30") above grade measured from the bottom of the assembly and with a minimum of twelve inches (12") side clearance. The assembly shall be installed in a horizontal position and be readily accessible for maintenance and testing. Water supplied from any point between the service connection and the RP assembly shall be protected in a manner approved by Mountain Water. The water user must provide adequate drainage to prevent flooding in the event the RP assembly bypasses water to atmosphere and sufficient protection to prevent the assembly from freezing. Properly installed, the RP may be used to protect against all levels of hazard under both backpressure and backsiphonage conditions.

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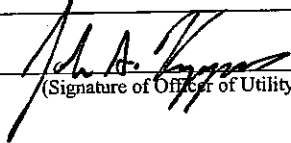
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Canceling Sheet No. 19:141

## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

3. Double check valve assembly (DCA) - The approved double check valve assembly shall be located as close as practical to the user's connection and shall be installed above grade, if possible, and in a manner where it is readily accessible for testing and maintenance. If a double check valve assembly is put below grade it must be installed in a vault such that there is a minimum of six inches (6") between the bottom of the vault and the bottom of the assembly and so that the top of the assembly is no more than a maximum of eight inches (8") below grade. Also there must be a minimum of twenty four (24") of clearance between the side of the assembly with the test cocks and the side of the vault, and also a minimum of twelve inches (12") clearance between the other side of the assembly and the side of the vault. Special consideration must be given to double check valve assemblies of the "Y" type. These assemblies must be installed on their "side" with the test cocks in a vertical position so that either check valve may be removed for service without removing the assembly. Vaults which do not have an integrated bottom must be placed on a three inch (3") layer of gravel. The water user must provide adequate drainage to prevent flooding in the event the assembly leaks or to accommodate spillage during testing and repairs. The water user is responsible for providing adequate protection to prevent freezing of the assembly. The DCA may be used to protect against a non-health hazard under both backpressure and back-siphonage conditions.


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MOUNTAIN WATER COMPANY

(Name of Company)

Sheet No. 199  
Canceling Sheet No. 20:142

## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

4. Pressure Vacuum Breaker (PVB) - The approved pressure vacuum breaker assembly shall be located as close as practical to the user's connection or meter and shall be installed at least 12" inches above all downstream plumbing and the highest fixture flood level rim, outlet, or highest point of water use. In no case should the PVB assembly be used if backpressure could develop in the downstream piping. The PVB shall be installed inline in a vertical position with adequate space to facilitate maintenance and testing. The PVB shall be installed in an area where water spillage through the vacuum relief valve (air inlet) is not objectionable. Adequate drainage to floor drains should be provided to accommodate this spillage. The PVB shall not be installed in a vent hood or where toxic or objectionable fumes or substances could enter and contaminate the potable water piping. Prior to installation, refer to the manufacturer's literature concerning temperature ranges. The PVB must be protected from freezing temperatures and if installed where temperatures will reach 110 degrees F (43 degrees C) or above, the hot water type of assembly must be used. Properly installed, the PVB may be used to protect all levels of hazard under backsiphonage conditions only.

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MOUNTAIN WATER COMPANY

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Sheet No. 200

Canceling Sheet No. 21:143

## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

5. Atmospheric Vacuum Breaker (AVB) - The approved atmospheric vacuum breaker assembly shall be located as close as practical to the user's connection or meter and shall be installed at least six inches above all downstream piping and the highest fixture flood level rim, outlet or highest point of water use. In no case should the AVB assembly be used if backpressure could develop in the downstream piping. The AVB shall be installed inline in a vertical position with adequate space to facilitate maintenance and testing. The AVB shall be installed in an area where water spillage through the vacuum relief valve (air inlet) is not objectionable. Adequate drainage to the floor drain must be provided to accommodate this spillage. The AVB shall not be installed in a vent hood or where toxic or objectionable fumes or substances could enter and contaminate the potable water piping. The AVB shall not be installed where it will be in continuous operation or under continuous pressure for more than 12 consecutive hours. When used for long periods of time the air inlet valve could become stuck in the closed position. The AVB shall not have any valves installed downstream from the assembly (the discharge side of the plumbing should be exposed to the atmosphere). Prior to installation, refer to the manufacturer's literature for temperature ranges. The AVB must be protected from freezing temperatures and if installed where temperatures will reach 110 degrees F (43 degrees C) or above, the hot water type of assembly must be used. Properly installed, the AVB can be used to protect against all levels of hazard under back-siphonage conditions only.

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Sheet No. 201

Canceling Sheet No. 22:144

## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

### D. Backflow Prevention Assembly Testing and Maintenance

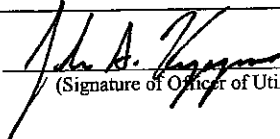
1. The owners of any premises on which, or on account of which, backflow prevention assemblies are installed, shall have the assemblies tested by a person who holds a current certificate from any state certification program authorizing the person to test backflow prevention assemblies or who holds a current certificate from the American Society of Sanitary Engineers. Backflow prevention assemblies must be tested at least annually and immediately after installation, relocation or repair. Mountain Water Company may require a more frequent testing schedule if it is determined to be necessary. Mountain Water Company will maintain records regarding the inspection, testing, repair, and location of backflow assemblies on customer premises. No assembly shall be placed back in service unless it is functioning as required. A report in a form acceptable to Mountain Water Company each time the assembly is tested, relocated or repaired. These assemblies shall be serviced, overhauled, or replaced whenever they are found to be defective and all costs of testing, repair and maintenance shall be borne by the water user. All repair and maintenance of backflow prevention assemblies shall be done by a person meeting all state and local requirements. IF a water user has a water service considered critical (i.e. a water service that can't be shut off, even for a few moments at any time), Mountain Water Company will require either two services to the facility, each having equal backflow protection determined by the degree of actual or potential hazard, or the user may install two assemblies in parallel on the existing service. One assembly can provide water service to the user while the other is tested and/or repaired.

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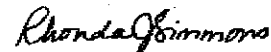
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Canceling Sheet No. 23:145

## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

2. Mountain Water Company will notify affected customers by mail when annual testing of an assembly is needed and also supply users with the necessary forms which must be filled out each time an assembly is tested or repaired.
3. Upon request, Mountain Water Company will provide a list of persons qualified to test backflow prevention assemblies.

### E. Backflow Prevention Assembly Removal

Approval must be obtained from Mountain Water Company before a backflow prevention assembly is removed, relocated, or replaced.

1. Removal: The user of an assembly may be discontinued and the assembly removed from service upon verification by Mountain Water Company that a hazard no longer exists or is not likely to be created in the future;
2. Relocation: An assembly may be relocated following confirmation by Mountain Water Company that the relocation will continue to provide the required protection and satisfy installation requirements. A retest will be required following the relocation of the assembly;
3. Repair: An assembly may be removed for repair provided the the water use is either disconnected until repair is completed and the assembly is returned to service, or the service connection is equipped with other backflow protection approved by Mountain Water Company. A retest will be required following the repair of the assembly;

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Canceling Sheet No. 24:146

## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

4. Replacement: An assembly may be removed and replaced provided the water use is discontinued until the replacement assembly is installed. All replacement assemblies must be approved by Mountain Water company and be commensurate with the degree of hazard involved. The replacement assembly must be tested prior to being put into service.

### SECTION IV - USER SUPERVISOR

At each premise where it is necessary (i.e. Schools, industrial facilities, refineries, manufacturing plants, University campuses, etc.) in the opinion of Mountain Water Company, a user supervisor shall be designated by and at the expense of the water user. This user supervisor shall be responsible for the monitoring of the backflow prevention assemblies and for avoidance of cross-connections. In the event of contamination or pollution of the drinking water system due to a cross-connection on the premises, Mountain Water Company shall be promptly notified by the user supervisor so that the appropriate measures may be taken to overcome the contamination. The water user shall inform Mountain Water Company of the user supervisor's identity on an annual basis and whenever a change occurs.

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Sheet No. 204  
Canceling Sheet No. 25:147

## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

### SECTION V - ADMINISTRATIVE PROCEDURES

#### A. Water System Survey

1. Mountain Water Company may review any request for new services to determine if backflow protection is needed. Plans and specifications must be submitted to Mountain Water Company upon request for review of possible cross-connection hazards as a condition of service for new service connections. If Mountain Water Company determines that a backflow prevention assembly is necessary to protect the public water system, the required assembly must be installed before service will be granted. In addition, where multiple water systems exist on the user's premises, pipelines shall be identified by the user to clearly distinguish between the systems. This will be done in a manner acceptable to Mountain Water. Outlets of water systems shall be posted as deemed necessary to protect the potable water supply and health of the public.
2. Mountain Water Company will conduct surveys of its customers' premises in order to eliminate cross-connections. These surveys will be conducted on a priority basis, generally beginning with those identified as having the highest degree of hazard as outlined in Section 5 of the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research Manual of Cross-Connection Control.
3. Mountain Water Company may, at its discretion, require an inspection or re-inspection for cross-connection hazards on any premise to which it serves water. Conditions that may warrant re-inspection may include, but are not limited to: change of ownership, change of business/user, addition or replacement of equipment, a backflow incident, etc. Any water user who cannot or will not allow an on-premise inspection of his piping system shall be required to install the backflow prevention assembly Mountain Water Company considers necessary.

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## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

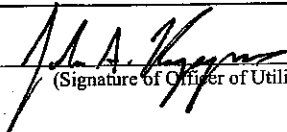
### B. Customer Notification - Assembly Installation

1. Mountain Water Company will notify the water user of the survey findings, listing any required corrective actions to be taken. A period of 60 days will be given to complete all corrective actions required, including installation of backflow prevention assemblies.
2. A second notice will be sent to each water user who does not take the required corrective actions prescribed in the first notice within the 60 day period allowed. The second notice will give the water user a two week period to take the required corrective action. If no action is taken within the two week period, Mountain Water Company may terminate water service to the affected water user until the required corrective actions are taken and inspected by Mountain Water Company personnel.

### C. Customer Notification - Testing and Maintenance

1. Mountain Water Company will notify each affected water user when it is time for the backflow prevention assembly installed on their service connection to be tested. This written notice shall give the water user 30 days to have the assembly tested. A second notice shall be sent to each user who does not have their backflow prevention assembly tested as prescribed in the first notice within the 30 day period allowed. The second notice will give the water user a two week period to have their backflow prevention assembly tested. If no action is taken within the two week period, Mountain Water Company may terminate water service to the affected water user until the backflow assembly is tested and/or repaired and the necessary forms are submitted to Mountain Water Company.


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## CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION

### SECTION VI - WATER SERVICE TERMINATION

#### A. General

When Mountain Water Company encounters water uses that represent a clear and immediate hazard to the public water supply that cannot be immediately abated, Mountain Water Company may institute the procedure for discontinuing the Mountain Water Company water service.

#### B. Basis For Termination

Conditions or water uses that create a basis for water service termination shall include, but are not limited to, the following items:

1. Refusal to install a required backflow prevention assembly;
2. Refusal to test or maintain a backflow prevention assembly;
3. Refusal to repair a faulty backflow prevention assembly;
4. Refusal to replace a faulty backflow prevention assembly;
5. Direct or indirect connection between the public water system and a sewer line;
6. Unprotected direct or indirect connection between the public water system and the system or equipment containing contaminants;
7. Unprotected direct or indirect connection between the public water system and an auxiliary water system;
8. A situation which presents an immediate health hazard to the public water supply system.

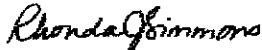
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Sheet No. 207  
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## **CROSS-CONNECTION CONTROL PROGRAM AND PLAN OF OPERATION**

### C. Water Service Termination Procedures

1. For conditions 1, 2, 3, or 4, Mountain Water Company may terminate service to a customer's premises after two written notices have been sent specifying the corrective action needed and the time period in which it must be done. If no action is taken within the allowed time period, water service may be terminated.
2. Conditions 5, 6, 7, or 8 are deemed an immediate threat to public health and Mountain Water Company may take the following steps:
  - a. Make reasonable effort to advise water user of intent to terminate water service;
  - b. Immediately terminate water supply and lock service valve. The water service will remain inactive until correction of violations has been completed and approved by Mountain Water Company.

### **SECTION VII - REQUIREMENTS FOR CERTIFICATION AS A BACKFLOW PREVENTION ASSEMBLY TESTER**

Each applicant for certification as a tester of backflow prevention assemblies shall meet the requirements of a certified backflow prevention assembly tester as defined by the State of Montana.

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