

Reviewed  
10-30-96

# CROSS CONNECTION CONTROL PROGRAM

MOUNTAINAIR WATER ASSOCIATION

41<sub>7</sub> - 00144

SEPTEMBER 15, 1996

Approved \_\_\_\_\_

Date \_\_\_\_\_

I PURPOSE

A. To protect the potable water supply served by the Mountainair Water Association from contamination or pollution by isolating and preventing backflow or backsiphonage from non-potable sources.

B. To eliminate or control existing cross connections, actual or potential between the potable water supply and sources of contamination or pollution.

C. To institute a continuing program of cross connection control which will prevent the contamination of our potable water supply.

II AUTHORITY

A. The Federal Safe Drinking Water Act of 1974, and the statutes of the State of Oregon, Administrative Rules Chapters #333-61-070, #333-61-071, and #333-61-072 state that water supplier has the primary responsibility for the preventing of water from unapproved sources, or any other substances, from entering the public potable water system.

B. Mountainair Water Association, Rules and Regulations, adopted.

III RESPONSIBILITY

The Mountainair Water Association shall be responsible for the protection of the potable water distribution system from contamination or pollution due to the backflow or backsiphonage of contaminants or pollutants through the water service connection. If, in the judgement of the Board, an approved backflow device is required at the main water connection to any Owner's premise, the Board, or it's designated agent, shall give notice in writing to said Owner to install an approved backflow prevention device at the main water connection to his premises. The Owner shall within ninety (90) days, install such device, or devices, at his own expense. Failure or refusal or inability on the part of the user to install said device within ninety (90) days shall constitute a ground for discontinuing water service to the premises until such device or devices have been properly installed.

#### IV DEFINITIONS

A. Approved

Accepted by the Board as meeting an applicable specification stated or cited in this regulation, or as suitable for the proposed use.

B. Auxiliary Water Supply

Any water supply, on or available, to the premises other than the MWA (Mountainair Water Association) approved potable water supply.

C. Backflow

The flow of water or other liquids, mixtures or substances, under positive or reduced pressure in the distribution pipes of a potable water supply from any source other than its intended source.

D. backflow Preventer

A device or means designed to prevent backflow or backsiphonage. Most commonly categorized as air gap, reduced pressure principle device, double check valve assembly, pressure vacuum breaker, atmospheric vacuum breaker, hose bibb vacuum breaker, and double check with intermediate atmospheric vent. Any device must be classified as an approved backflow device by the Oregon Health Division.

*not an approved  
backflow preventer*

D.1 Air Gap

A Physical separation sufficient to prevent backflow between the free-flowing discharge end of the potable water system

and any other system. Physically defined as a distance equal to twice the diameter of the supply side pipe diameter but never less than one inch.

D.2 Atmospheric Vacuum Breaker

A device which prevents backsiphonage by creating an atmospheric vent when there is either a negative pressure or sub-atmospheric pressure on a water system.

D.3 Double check valve assembly

An assembly of two (2) independently operating spring loaded check valves with tightly closing shut off valves on each side of the check valves, plus properly located test cocks for the testing of each check valve.

D.4 Double Check Valve with intermediate atmospheric vent

A device having two (2) spring loaded check valves separated by an atmospheric vent chamber.

D.5 Hose Bibb Vacuum Breaker

A device which is permanently attached to a hose bibb and which acts as an atmospheric vacuum breaker.

D.6 Pressure Vacuum Breaker

A device containing one (1) or two (2) independently operating approved check valves and an independently operated spring loaded air inlet valve located on the discharge side of the check or checks. Device includes tightly closing shut-off valves on each side of the check valves and properly located test cocks for the testing of the check valves.

E. Backpressure

A condition in which the Owner's system pressure is greater than the supply system pressure.

F. Backsiphonage

The flow of water or other liquids, mixtures or substances into the distribution pipes of a potable water supply system from any source other than its intended source caused by the sudden reduction of the pressure in the potable water supply system.

G. Containment

A method of backflow prevention which requires a backflow preventer at the water service entrance.

H. Contaminant

Any substance that will impair the quality of the water to a degree that it creates a serious health hazard to the public leading to poisoning or the spread of disease.

I. Cross Connection

Any actual or potential connection between the public water supply and a source of contamination or pollution.

J. Fixture Isolation

A method of backflow prevention in which a backflow preventer is located to correct a cross connection at an on-property location rather than at a water service entrance.

K. Owner

Any person who has legal title to, or license to operate or inhabit in, a property upon which a cross connection inspection is to be made or upon which a cross connection is present.

L. Pollutant

A foreign substance that, if permitted to get into the public water system, will degrade its quality so as to constitute a moderate hazard, or impair the usefulness or quality of the water to a degree which does not create an actual hazard to the public health but which does adversely and unreasonably affect such water for domestic use.

M. Water Service Entrance

That point in the Owner's water system beyond the control of the Mountainair Water Association generally considered to be the outlet of the main connection valve on the Owner's property.

## V ADMINISTRATION

A. The Mountainair Water Association will operate a cross connection control program, to include the keeping of necessary records, which fulfills the requirements of the State of Oregon Public Health Division's Cross Connection Regulations.

B. The Owner shall allow his property to be inspected for possible cross connections and shall follow the provisions of the Mountainair Water Association and the Health Division's regulations if a cross connection is identified.

*may be difficult to enforce.*

C. If the Association requires that the public supply be protected by containment, the Owner shall be responsible for water quality beyond the outlet end of the containment device and should utilize a backflow device for that purpose. He may utilize public health officials, or personnel from the Board of the MWA, or their designated representatives, to assist in the survey of the facilities and to assist in the selection of proper fixture outlet devices, and the proper installation of these devices.

## VI REQUIREMENTS

### A. Mountainair Water Association (MWA)

1. On new installations, the MWA will provide on-site evaluation and/or inspection of plans in order to determine the type of backflow preventer, if any, that will be required, and advise the owner in writing if a backflow preventer is required.

2. For premises existing prior to the start of this program, the MWA will perform evaluations and inspections of plans and/or premises and inform the owner by letter of any corrective action deemed necessary, the method of correction, and the time allowed for the correction to be made. Ordinarily, the ninety (90) day period will be shortened depending upon the degree of hazard involved and the history of the device(s) in question.

3. The MWA will not allow any cross connection to remain unless it is protected by an approved backflow preventer which will be regularly tested to insure satisfactory operation.

4. The MWA will inform the Owner by letter of any failure to comply, within ten working days of the first inspection. The Owner will have an additional twenty days to correct the problem. If the Owner fails to correct the problem within twenty days, the MWA shall inform the Owner by letter that his/her water service will be terminated within seven days. If the Owner informs the MWA of extenuating

*does this include testing?*

circumstances as to why the correction has not been made, an extension may be granted not to exceed thirty days.

5. If the MWA determines at any time that a serious threat to the public health exists, the water service will be terminated immediately.

6. The MWA shall have on file a list of private contractors who are certified backflow device testers. All charges for these tests will be paid by the Owner of the building or property.

7. The MWA will begin premise inspections to determine the nature of existing or potential hazards, during 1997. Initial focus will be on commercial enterprises.

#### B. Owner

1. The Owner shall be responsible for the elimination or isolation of all cross connections on his property.

2. The Owner, after having been informed by a letter from the MWA shall at his/her expense, install, maintain and test, or have tested, any and all backflow preventers on his property.

3. The Owner shall correct any malfunctions of the backflow preventer which is revealed by testing.

4. The Owner shall inform the MWA of any proposed or modified cross connections and also any existing cross connections of which the Owner is aware but have not been found by the MWA.

5. The Owner shall not bypass any backflow preventer unless the bypass contains a backflow preventer of the same type. Owners shall not tamper with backflow devices.

6. The Owner shall install only backflow preventers approved by the Oregon Health Division.

Refer to OAR 333-061-0070(4)(2)

7. Any Owner having a private well or other private water source must have permission of the MWA if the well or source is cross connected to the MWA system. Permission to cross connect may be denied by the MWA. The Owner may be required to install a backflow preventer at the service entrance if a private water source is maintained, even if it is not cross connected to the MWA system.

## VII DEGREE OF HAZARD

The MWA recognizes the threat to the water system arising from cross connections. All threats will be classified by degree of hazard and will require the installation of approved backflow prevention devices.

## VIII EXISTING IN-USE BACKFLOW PREVENTION DEVICES

See OAR 333-061-0070(12)

Any existing backflow preventer shall be allowed by the MWA to continue in service unless the degree of hazard is such as to supersede the effectiveness of the preventer, or result in an unreasonable risk to the public health. Where the degree of hazard has increased, as in the case of a residential installation converting to a business establishment, any existing backflow device must be replaced with an approved device suitable for the degree of hazard.

## IX PERIODIC TESTING

A. All testable backflow devices shall be tested and inspected at least annually.

B. Testing shall be done by a certified tester. This testing will be done at the Owner's expense.

C. Any backflow preventer which fails must be repaired or replaced at the Owner's expense. High hazard situations will require immediate repair or replacement. In other cases, a compliance date of not more than thirty days will be established. Parallel installation of two devices is an effective means of insuring uninterrupted water service during testing or repair of devices.

D. Backflow prevention devices will be tested more frequently than annually if the MWA feels there is a history of test failures. Cost of additional testing will be paid by the Owner.



X RECORDS AND REPORTS

A. Records

The Mountainair Water Association will maintain the following:

1. Files on customer's cross connection tests and/or inspections.
2. Files of properties that require backflow preventers.
3. Copies of lists and summaries supplied to the State of Oregon Health Division.
4. Initial listing of low hazard cross connections.
5. Initial listing of high hazard cross connections.

B. Reports

The MWA will submit the following to the Division:

1. Annual summary of cross connection inspections.

*Should notify owners of thermal expansion concerns if backflow preventer is installed at service connection.*

X RECORDS AND REPORTS

A Records

The Mountainair Water Association will maintain the following

1. Files on customer's cross connection tests and/or inspections
2. Files of properties that require backflow preventers
3. Copies of lists and summaries supplied to the State of Oregon Health Division
4. Initial listing of low hazard cross connections
5. Initial listing of high hazard cross connections

B Reports

The MWA will submit the following to the Division:  
1. Annual summary of cross connection inspections

*Handwritten notes:*  
Initial listing of low hazard cross connections  
Initial listing of high hazard cross connections