

**Cross Connection Control Program
For**

**Sauvie Island Moorage
Water Supply System**

Public Water System Number 4101209

**Prepared By
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I Purpose

A. To protect the public potable water supply served by Sauvie Island Moorage from the possibility of contamination or pollution by isolating, within its customers internal distribution system, such contaminants or pollutants which could backflow or backsiphon into the public water system.

B. To promote the elimination of, or control of, existing cross connections, actual or potential, between the potable water system and sources of non-potable water or other hazardous substances.

C. To provide for the maintenance of a continuing program of cross connection control which will effectively prevent the contamination or pollution of all potable water systems by cross connection.

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 the 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. Sauvie Island Moorage Rules and Regulations adopted.

III Responsibility

The shall be responsible for the protection of the public 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 manager, an approved backflow device is required at the Moorage's water connection to any Customer's premise, the manager or his delegated agent, shall give notice in writing to said customer to install an approved backflow prevention device at each service connection to his premises. The customer shall, within ninety (90) days, install such approved device, or devices, at his own expense, and failure or refusal, or inability on the part of the customer to install said device or devices within ninety (90) days, shall constitute a ground for discontinuing water service to the premises until such device or devices have been property installed.

IV Definitions

A. Approved

Accepted by the 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 suppliers approved public 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. The Oregon Health Division must classify any device as an approved backflow device.

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 (1) 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 property 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 dosing shut-off valves on each side of the check valves and property located test cocks for the testing of the check valve(s).

D.7 Reduced Pressure Principle Backflow Preventer

An assembly consisting of two (2) independently operating approved check valves with an automatically operating differential relief valve located between the two (2) check valves, tightly closing shut-off valves on each side of the check valves plus properly located test cocks for the testing of the check valves and the relief valves.

E. Backpressure

A condition in which the owner's system pressure is greater than the supplier's 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. Division

The State of Oregon Public Health Division

K. Fixture Isolation

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

L. Owner

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

M. Person

Any individual, partnership, company, public, or private corporation, political subdivision or agency of the State Division, agency or instrumentality or the United States or any other legal entity.

N. Permit

A document issued by the Moorage which allows the use of a backflow preventer.

O. 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 effect such water for domestic use.

P. Public Works Director

The moorage manager, or his delegated representative in charge of the Moorage water system, is invested with the authority and responsibility for the implementation of a cross connection control program and for the enforcement of the provisions of the Ordinance.

Q. Utility

Sauvie Island Moorage

R. Water Service Entrance

That point in the owner's water system beyond the sanitary control of the District; generally considered to be the outlet end of the water meter and always before any unprotected branch.

V Administration

- A. The Utility will operate a cross connection control program, to include the keeping of necessary records, which fulfills the requirements of the 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 Utility's program and the Division's regulations if a cross connection is identified.
- C. If the Utility 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 Utility, or their delegated 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.

VII Requirements

A. Utility

- 1. On new installations, the Utility 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, will issue permit and perform inspection and testing.
- 2. For premises existing prior to the start of this program, the Department 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 achieving the correction, and the time allowed for the correction to be made. Ordinarily, ninety (90) days will be shortened depending upon the degree of hazard involved and the history of the device(s) in question.
- 3. The Utility will not allow any cross connection to remain unless it is protected by an approved blackflow preventer for which a permit has been issued and which will be regularly tested to insure satisfactory operation.
- 4. The Utility shall inform the Owner by letter of any failure to comply, within ten (10) working days of the first inspection. The Utility will allow an additional fifteen (15) days for the correction. In the event the Owner fails to comply with necessary correction by the time of the second re-inspection, the Utility will inform the Owner by letter that the water service to the Owner's premises will be terminated within a period not to exceed five (5) days. In the event that the Owner informs the Utility of extenuating circumstances as to why the correction has not been made, a time extension may be granted by the Utility but in no case will exceed an additional thirty (30) days.
- 5. If the Utility determines at any time that a serious threat to the public health exists, the water service will be terminated immediately.
- 6. The Utility shall have on file a list of Private Contractors who are certified blackflow device testers. The Owner of the building or property will pay all charges for these tests.
- 7. The Utility will begin initial premise inspections to determine the nature of existing or potential hazards, year 1998. Initial focus will be on high hazard industries and commercial premises.

B. Owner

- 1. The Owner shall be responsible for the elimination or isolation of all cross connections on his premises.
- 2. The Owner, after having been informed by a letter from the Utility, shall at his expense, install, maintain, and test, or have tested, any and all backflow preventers; on his premises.
- 3. The Owner shall correct any malfunctions of the backflow preventer that is revealed by periodic testing.

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

5. The Owner shall not install a by-pass around any backflow preventer unless there is a backflow preventer of the same type on the by-pass. Owners shall not tamper with backflow devices.

6. The Owner shall install backflow preventers; in a manner approved by the Utility.

7. The Owner shall install only backflow preventers; approved by the Division.

8. Any Owner, having a private well or other private water source, must have a permit if the well or source is cross-connected to the Utility's system. Permission to cross connect may be denied by the Utility. 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 Utility's system.

9. In the event the Owner installs plumbing to provide potable water for domestic purposes which is on the Utility's side of the backflow preventer, such plumbing must have its own backflow preventer installed.

VII Degree of Hazard

The Utility recognizes the threat to the public 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

Any existing backflow preventer shall be allowed by the Utility 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 that degree of hazard.

IX Periodic Testing

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

B. Periodic testing shall be performed by the Utility's certified tester or from a list provided by the Utility. This testing will be done at the owner's expense.

C. Any backflow preventer that fails during a periodic test will be repaired or replaced. When repairs are necessary, upon completion of the repair the device will be re-tested at owners expense to insure correct operation. High hazard situations will not be allowed to continue if the backflow, preventer fails the test and cannot be repaired immediately. In other situations, a compliance date of not more than thirty (30) days after the test date will be established. The owner is responsible for spare parts, repair tools, or a replacement device. Parallel installation of two (2) devices is an effective means of the owner insuring uninterrupted water service during testing or repair of devices and is strongly recommended when the owner desires such continuity.

D. Backflow prevention devices will be tested more frequently than specified in A. above if the Utility feels that there is a history of test failures. Cost of additional testing will be borne by the owner.

X Records and Reports

A. Records

The Utility will initiate and maintain the following:

1. Master files on customer's, cross connection tests and/or inspections.
2. Master files on cross connection permits.
3. Copies of permits and permit applications.
4. Copies of lists and summaries supplied to the Division.
5. Initial listing of low hazard cross connections
6. Initial listing of high hazard cross connections Reports

The Utility will submit the following to the Division:

1. Annual summary of cross connection inspections to the Division.

X I Fees and Charges

The Utility will publish a list of fees or charges and make them available