2011

Amigo Villa Water Service
Cross Connection Program
Revision January 2011

41-00013

1) Section 1: Cross Connections
   a) Member responsibility
      i) No member shall establish or maintain an unprotected cross connection to Amigo Villa water service.
      ii) If an unprotected cross connection is found in a member water system, the member will be informed of the condition in writing and given 30 days to correct the condition or install an approved backflow prevention device. If the member does not comply within the 30 days, the provisions of Section 3 will be enforced.
      iii) The member shall comply with the provisions of Section 2.
      iv) The member shall own and maintain any required backflow prevention devices.
      v) The member shall provide sufficient information for the Board of Directors to evaluate the degree of any potential, suspected, or actual cross connection.
   b) Board responsibility
      i) Provide assistance.
      ii) Administer this program.
2) Section 2: Backflow Prevention Requirements
   a) All backflow prevention devices required shall be of a type and model approved by the Oregon State Human Resources Department, Health Division, installed in accordance with OSHD requirements and the provisions of this section.
   b) Backflow prevention devices shall:
      i) be put in by a qualified installer at member expense
      ii) be installed on each service line of the member system at or near the property line
      iii) be installed immediately inside the building being served, if approved,
      iv) and in all cases before the first branch line leading off the service whenever any of the following exist:
         (1) where there is an auxiliary water supply which is or can be connected to the potable water piping
         (2) where there is piping for conveying fluids other than potable water and where that piping is installed and operated in a manner which could cause a cross connection
         (3) where there is intricate plumbing which make it impracticable to determine whether or not cross connections exist
         (4) where there has been a history of repeating the same or similar cross connection even though these have been removed or disconnected
         (5) where there is a building over 3 stories in height or any plumbing system greater than 30 feet above the service main
         (6) where there is backflow or back siphon potential
         (7) where the system is not open for inspection
         (8) where the system is subject to submersion.

c) Back flow prevention devices shall be commensurate with the degree of hazard which exists
   i) Air gap or reduced pressure device.
      (1) An approved air gap of at least twice the inside diameter, but not less than 1 inch of the incoming supply line.. The gap is measured vertically above the top rim of the vessel.
      (2) An approved reduced pressure backflow prevention device shall be installed where the substance which could backflow is a contaminant or health hazard.
      (3) Examples where these condition may exist includes auxiliary water systems.
   ii) Double check valve or double detector check valve backflow device.
      (1) An approved double check valve or double check detector check valve backflow prevention device shall be installed when the substance which could backflow is a contaminant or objectionable but does not pose an unreasonable health risk.
   iii) Pressure vacuum breaker or atmospheric vacuum breaker.
      (1) An approved pressure vacuum breaker or an atmospheric vacuum breaker shall be installed where the substance which could backflow is objectionable but does not pose an unreasonable health risk and there is no possibility of back pressure in the downstream piping.
         (a) A shutoff or control valve may be installed downstream of a pressure vacuum breaker but not downstream of an atmospheric vacuum breaker.

d) Examples of locations requiring backflow prevention devices are listed but are not limited to:
   i) Irrigation systems. An approved atmospheric vacuum breaker or approved pressure vacuum breaker provided no back pressure is possible and no chemical injection or mixing exists.
   ii) Private fire protection service. An approved backflow prevention device with a monitoring meter or detection system to detect unauthorized use or leakage within the system and a remote meter shall be required. The type of backflow prevention device shall be as follows:
      (1) An approved double detector check valve backflow prevention device shall be required for low and medium hazards. Low and medium hazards are systems with or without pumper connection but no auxiliary water supplies available, chemical or additive detectable cross connection, and serving a building 3 stories or less.
      (2) An approved reduced pressure principle backflow prevention device and a single detector check shall be required for high hazards. High hazards are systems with auxiliary water supplies, chemical additives and detectable cross connections.
   iii) New construction. Where adequate plans and specifications are not available and no realistic evaluation of the proposed water uses can be determined, the installation of maximum backflow protection may be required at the service connection.

e) Inspections and leak tests.
   i) Inspection and leak tests are necessary
      (1) Upon installation
      (2) Upon moving the device
      (3) Annually
      (4) Or more often when successive inspection indicates repeated failure.
   ii) Inspection, testing, repairs and / or replacement of the backflow prevention device shall be at the expense of the member.
   iii) Inspection, testing, repairs and / or replacement of the backflow prevention device shall be done by qualified personnel.
   iv) Test and repair or replacement shall be performed within 30 days from notice to test.
   v) Records shall be submitted to the Board of Directors within 30 days of completed tests.
   vi) Amigo Villa Water Service provides annual test scheduling at a group rate for members desiring to be included. Members must notify the Board of Directors to be included.

3) Section 3: Water service denial
   a) Water service may be immediately discontinued by a physically break in the service until the member has corrected conditions noted in this program.
      i) In the case of emergency
      ii) Where a reduced pressure principle backflow prevention device is required
      iii) Where an immediate threat to life, member health, or water system operation is found to exist
      iv) In other cases after a reasonable time period; the testing, repair, replacement of backflow prevention devices, or other requirement of this program is not performed.

Monday, October 16, 2006

Mike Donovan
Operator of Record
Amigo Villa Water Service
4195 40th Ave. SE
Albany, OR 97322
924-3954

Subject:

Dear Customers;

The Oregon Department of Human Services has mandated all Public Water Systems conduct a Cross Connection Program as stated in OAR-333-061-0070. The Amigo Villa Water Board has adopted the Enabling Authority to ensure compliance in protecting our water system. I have included the State's suggested Enabling Authority for Cross Connection Control

The primary domestic concern is dealing with Irrigation Systems, Hot Tubs, and Pools. All In-Ground Irrigation systems require a backflow prevention device/s, whether manual or automatically controlled. Attached you will find a list of devices appropriate to protect our water system along with installation and testing requirements. As system operator, I am required to report to the State the location, type, testing and maintenance done on each device and the name and certification number of the tester at least once a year. The Customer is responsible to provide this information to the water system Secretary IAW the OAR. All costs associated with installation, testing and repairing if required are born by the Customer. **Note: See the exception as listed in the Cross Connection program.**

I have included the Cross Connection Program which includes the Enabling Authority information as modified to suite our system, as well a short description of what constitutes backflow. **For a full list of the applicable OAR, contact me at 924-3954 or Sherry Eason at 926-7769.**

If you do not have items listed in the second paragraph as described above, a simple hose bib vacuum breaker may suffice to protect the house and water system from back siphoning from hoses, soaker hoses etc. Note: Houses built after 1992 have Hose Bibs which include vacuum breaker.

I would like to thank all those who were identified as requiring backflow devices for installing them in an expeditious manner.

Sincerely,

Mike Donovan
Amigo Villa Water Service

Amigo Villa Water Service

CROSS CONNECTION CONTROL PROGRAM

SECTION ONE

Cross-connections

Member's responsibility.

(1) No member shall establish or maintain a cross- connection to Amigo Villa's water supply.

(2) If .a cross-connection is found. in a member's water system, the member will be informed of this condition in writing and given30 days to correct the problem or install an approved backflow prevention Device. If the member does not comply within the 30 days, the provisions of Section Two shall be enforced.

(3) The member shall comply with the provisions of Section Two of this program.

(4) The member shall own and maintain any required backflow prevention assemblies.

(5) The member shall provide sufficient information for the Board of Directors to evaluate the degree of any potential, suspected, or actual cross-connection.

SECTION TWO

Backflow prevention requirements

(1) All backflow prevention assemblies required herein shall be of a type and model approved by the Linn County Buildings and Planning Department and Oregon State Human Resources Department, Health Division (OSHD), and shall be installed *in* accordance with OSHD requirements and the provisions of Section Two (3) of this program.

(2) Installation. Backflow prevention assemblies shall be installed by a State-licensed installer, at member's expense on each service line of the member's system at or near the property line or, if approved, immediately inside the building being served, but in all cases, before the first branch line leading off the service line wherever any of the following conditions exist:

(a) Where there is an auxiliary water supply which is or can be connected to the potable water piping.

(b) Where there is piping for conveying fluids (liquids or gases) other than potable water and where that piping is installed and operated in a manner which could cause a cross- connection.

(c) Where there are intricate plumbing arrangements which make it impracticable to ascertain whether or not cross- connections exist.

(d) Where there has been a history of repeating the same or similar cross-connections even though these have been removed or disconnected.

(e) Where there is a building over three stories in height or any plumbing system that is greater than or equal to 30 feet above the main from which it is served.

(g) Where the system is not open for inspection.

(h) Where the system is subject to being submerged

(3) **Device Type.** The type of protective assembly required under Section Two(2) shall be commensurate with the degree of hazard which exists as follows:

(a) **Air Gap or Reduced Pressure Assembly.** An approved air gap of at least twice the inside diameter, but not less than one inch, of the incoming supply line, measured vertically above the top rim of the vessel or an approved reduced pressure principle backflow prevention (RP) assembly shall be installed where the substance which could backflow is a contaminant or hazard to health. Examples of premises where these conditions may exist include, but are not limited to, sewage treatment plants, pump stations, sewage piping, chemical manufacturing plants, hospitals, mortuaries, planting plants, car washes, medical clinics, and *auxilliary* water systems.

(b) **Double Check Valve or Double Detector Check Valve Assembly.** An approved double check valve (DC) assembly or double detector check valve (DOC) assembly shall be installed where the substance which could backflow is a second contaminant or objectionable but does not pose an unreasonable risk to health.

(c) **Pressure Vacuum Breaker or Atmospheric Vacuum Breaker.** An approved pressure vacuum breaker or an atmospheric vacuum breaker shall be installed where the substance which could backflow is objectionable but does not pose an unreasonable risk to health and where there is no possibility of back pressure in the downstream piping. A shutoff or control valve may be installed on the line downstream of a pressure vacuum breaker but shall not be installed downstream of atmospheric vacuum breaker.

(4) **Locations.** Examples of locations requiring backflow prevention assembly are listed below, but are not limited to:

(a) *Irrigation Systems.* In the case of irrigation systems, an approved atmospheric vacuum breaker or an approved pressure vacuum breaker may be authorized, provided no back pressure is possible and no chemical or material injection or mixing exists.

(b) *Private Fire Protection Services.* In the case of all private fire protection services, an approved backflow prevention assembly with a monitoring meter or detection system to detect unauthorized use or leakage within the system and a remote meter shall be required. The type of backflow prevention device shall be as follows:

(I) an approved double detector check valve assembly shall be required for low and medium hazards. Low and medium hazards are systems with or without pumper connection but no auxiliary water supplies available, chemical or additive detectable cross-connection, and serving a building three stories of less.

(ii) An approved reduced pressure principle backflow prevention assembly and a single detector check shall be required for high hazards. High hazards are systems with auxiliary water supplies, chemical additives, detectable cross connections.

(c) New Construction. Where adequate plans and specifications are not available and no realistic evaluation of the proposed water uses can be determined, the installation of maximum

(5) **Inspections and Leakage Tests**. It shall be the duty of the member owner at any premises where backflow protective assemblies are installed to have thorough inspections and leakage tests made immediately upon installation of assemblies, when assemblies are moved, and at least once a year, or more often in those instances where successive inspections indicate repeated failure. The frequency of these tests or the replacement of the assembly because of failure shall conform to State of Oregon regulations. The inspections, tests, repairs, and/or replacement of assemblies shall be at the expense of the member owner and shall be performed by a Backflow Device tester who is licensed by the Oregon State Health Division. Test and repair or replacement shall be performed within 30 days from receipt of notice to test. Records of such tests, repairs, and overhaul shall be kept by the member owner and a copy submitted to the Board of Directors within 30 days of completed tests. Should the Customer desire to be included on an annual testing put together by the person responsible for Backflow Testing; the reporting requirement to the Water Board will be waived. Billing for the testing and any corrections will still be billed directly to the Customer. **Exception: a group rate at a reduced price is available if there are five or more units to be tested. The results will then be reported directly to Amigo Villa Water, thus relieving the necessity of the Customer to report. It is the Customers responsibility to notify the System Operator prior to May 1st to be included in the group rate.**

SECTION THREE.

Water service denied upon failure to meet requirements.

Water service to the premises may be immediately discontinued or denied by a physical break in the service until the member has corrected the following conditions as required in Section One to Section Two of this program:

(1) In the case of extreme emergency, or where a reduced pressure principle backflow assembly is Required, and where an immediate threat to life, or member health, or water system operation is found to exist.

(2) In other cases after a reasonable length of time the test, repairs, and replacement of assemblies or any other requirement within this program is not performed.

What is Backflow?

An unforeseen change in water pressure which causes water to flow backward, drawing a contaminant into the water supply is called a backflow. Backflow creates a health risk.

Backflow can occur anytime the drinking water supply comes in contact with a harmful substance. For example, attaching a fertilizer sprayer to a garden hose or even placing your hose in a soap bucket for car washing can cause backflow.

The potential for backflow with hose-fed drip irrigation or soaker hoses pose a particular risk to water quality. The porous nature of this ground level tubing allows water to flow into and out of the system. A protected hose bib minimizes the risk of pooled water contaminated with dog waste or garden chemicals flowing back into the water supply through your hose-fed system. Bacterial growth inside hoses and tubing is also a risk. For these reasons it is not a good idea to drink out of your hose.

What You Can Do

Backflow can be prevented. In 1992 a change in the Plumbing Code required hose bibs used in new construction to include backflow protection.

Customers who live in houses built before 1992 may protect their drinking water supply by installing a hose bib vacuum breaker. Hose bib vacuum breakers simply thread onto the hose bib, allowing you to thread your hose onto the vacuum breaker.

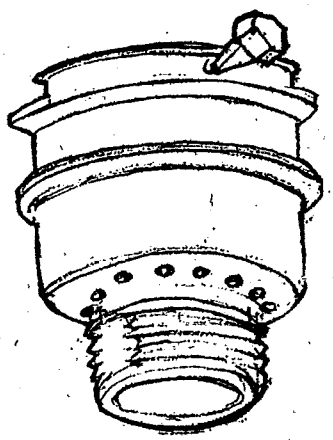
A hose bib vacuum breaker can protect your home water supply from these potential hazards. To ensure ongoing protection you will want to buy a hose bib vacuum breaker that will last.

What to Look For

Look for these qualities when shopping for a hose bib vacuum breaker:

- A.S.S.E. or I.A.P.M.O. approval (These approvals ensure that the device meets the standards set by the Plumbing Code.)
- a hose-bib vacuum breaker made of brass
- a drain to prevent freeze damage
- a break off pin to prevent the vacuum breaker from being removed once it is installed

You can find hose bib vacuum breakers at most plumbing or irrigation supply stores.



Hose-bib Vacuum Breaker
(shown at actual size)

Though the most common threat of backflow is through your garden hose, potential hazards also exist in wells, underground irrigation systems, swimming pools, hot tubs, heating/cooling and fire sprinkler systems. These systems require specific backflow protection devices according to Plumbing Code and Oregon Health Division Rules. Please call the EWEB Water Division if you have questions about these requirements.