Henry County Water Authority

Cross Connection Control Program

Effective Date: April 1997

Revised: June 2023

PROGRAM IMPLEMENTATION AND REVISIONS

April 1997 - Henry County Water Authority revised Cross-Connection Control Policy.

April 1997 - Inspections made on medium-risk customers.

March/April 1997- All high-risk customers have been upgraded.

January 1, 1999 - All new residential services will be provided with a dual check valve assembly. Existing meters will be retrofitted with dual check valves when a meter is changed out and in a meter change-out program.

December 2015 – Henry County Water Authority revised Cross-Connection Control Policy.

January 1, 2016 – The Authority will no longer accept test reports without a specific location of the device and meter. Device and meter numbers must be included as well. All tests must be recorded on the most current HCWA Backflow Prevention Test Report form. ALL reports must be submitted to the Authority within 30 days of the test date. Test reports not submitted within 30 days of the test date will be considered null and void. All repairs must be made within 30 days.

June 30, 2023- The Authority will only accept test reports submitted digitally to backflow@hcwa.com.

Table of Contents

CROSS-CONNECTION CONTROL PROGRAM

SECTION 1 - DEFINITIONS

The following terms and definitions shall apply in the interpretation and administration of the Cross-Connection Control Program and applicable rules and regulations.

Air Gap - The unobstructed vertical distance through 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 twice the diameter of the supply pipe measured vertically above the overflow rim of the receiving vessel, in no case less than 1 inch.

Approved Tester - An independent contractor who is certified and approved by Henry County Water Authority to test backflow assemblies for Henry County Water Authority customers. Approved Testers are trained on program requirements and work within these requirements to facilitate accurate and consistent backflow prevention testing for customers.

Auxiliary Intake - Any water supply on or available to the premises other than Henry County Water Authority System's public potable water supply. These auxiliary waters may include water from another purveyor's public potable water supply or any natural source such as a well, river, stream, harbor, etc.

Authority - The Henry County Water Authority

Authority Board - The Governing Body of the Henry County Water Authority

Backflow - The reversal of the normal direction of flow of water caused by either backpressure or back-siphonage.

Backflow Prevention Assembly - Any effective assembly used to prevent backflow into a potable water system. The type of assembly used shall be based on the existing or potential degree of hazard and backflow condition. Assemblies approved for installation by Henry County Water Authority must appear on the current list of Approved Backflow Assemblies as published by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research; otherwise known as being "USC approved".

Backpressure - Any elevation of pressure in the downstream piping system (by pump, elevation of piping, steam pressure, air pressure, etc.) above the supply pressure at the point of consideration, which would cause or tend to cause a reversal of the normal flow.

Back-Siphonage - A form of backflow due to a reduction in system pressure, which causes a sub-atmospheric pressure to exist in the water distribution system.

Containment - Installation of an appropriate device at the service connection to prevent backflow or back-siphonage.

Contaminant - A toxic substance that if introduced into the potable water supply would create a health hazard.

County Commissioners - The Board of Commissioners of Henry County.

Cross Connection - Any actual or potential connection or structural arrangement between a public potable water system and any other source of a system through which it is possible to introduce into any part of the potable water system any used water, industrial fluid, gas, or substance other than the intended potable water with which the system is supplied.

Cross Connection Control Program Manager - Authorized representative of the Henry County Water Authority who shall administer the Cross Connection Control Program.

Cross Connection Non-Pressure Type - A low inlet installation where a potable water supply pipe is connected or extended below the overflow rim of a receptacle or an environment that does not contain potable water and which is at atmospheric pressure.

Cross Connection Pressure Type - An installation where a potable water supply pipe is connected to a closed vessel or a piping system that does not contain potable containment water and which is above atmospheric pressure.

Customer - Any persons, including any individual firm or association, and any municipal or private corporation organized or existing under the laws of this or any other state or county having a service connection to the public water supply.
Double Check Valve Assembly - An assembly composed 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 shall only be used to protect against a non-health hazard.

Dual Check Valve Assembly - An assembly of at least two independently acting check valves in a single housing.

General Manager - The General Manager is the principal administrative person in overall charge of the Henry County Water Authority. Serves as the Agency head and appointing authority for all employees.

Inter-Connection - Any system of piping or arrangement whereby the public water supply is connected directly with a sewer, drain, conduit, pool, storage reservoir, or other device which does or may contain sewage or other waste, or liquid which would be capable of importing contamination to the public water supply.

Isolation - Installation of an appropriate device at the source of a cross-connection on-premises to prevent backflow or back-siphonage.

Person - Any persons, including any individual firm or association, and any municipal or private corporation organized or existing under the laws of this or any other state or county.

Pollutant - A non-toxic substance that if introduced into the potable water supply would be objectionable but would not create a health hazard.

Public Water Supply - Water distribution system for selling or furnishing water and is recognized by the Department of Natural Resources, Environmental Protection Division as the public water supply. The water furnished by the cities of the county is not considered a part of the Authority's public water supply.

Reduced Pressure Backflow Prevention Device - 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 a non-health hazard or a health hazard.

SECTION 2 - PURPOSE, RESPONSIBILITIES AND PROCEDURES

2.1 PURPOSE

To prevent the entry of contaminants or pollutants into any area of the potable water supply through the control of cross-connections. Control shall be accomplished by isolating potential sources of contaminants or pollutants on the customer's premises and or protecting the public supply by isolation and containment at the service connection.

2.2 APPLICABILITY

The provisions of the Cross-Connection Control Program for backflow prevention by isolation and containment are applicable to any customer or system supplied by the public distribution system including irrigation sprinklers, fire protection systems, residential systems, and other service connections.

2.3 RESPONSIBILITIES

a. The Authority Board and, as applicable, the County Commissioners are responsible for establishing regulations regarding the control of cross-connections to the public distribution system.

b. The Authority is responsible for enforcing these regulations in an effort to protect the public water supply system through the prevention of backflow or back-siphonage of contaminants or pollutants. This responsibility begins with the production of water and extends throughout the distribution system to the service connection, applying to new construction as well as existing customers and situations.

c. The Henry County Building Department is responsible for enforcing the adopted plumbing code regulations in an effort to prevent backflow on the customer's premises from entering the customer's own potable water system. As with the Water Authority, this responsibility extends to both new and existing customers.

d. The General Manager is responsible for reviewing appeals of decisions made by the cross-connection control program manager, and

implementing the public awareness program.

e. The customer is responsible for complying with the Cross-Connection Control Program regulations including maintenance, testing, and reporting on certain devices. When required, customers and contractors are to allow onsite inspections to verify compliance with the Authority's cross-connection control program. The customers also have the dual responsibility for protecting the water in their own system from degradation due to conditions originating on their premises and for protecting the quality of water in the public distribution system. The customer is liable for any health hazard due to backflow from unprotected cross-connections on their premises. When a backflow preventer is required at the service connection, the customer is responsible for the cost of procurement, installation, testing, and maintenance.

f. Certified Backflow Tester - All required field testing shall be performed by persons who are certified in the testing of backflow prevention assemblies by the Georgia Statewide Backflow Prevention Assembly Certification Program, as approved by the Division, the American or the University of Florida TREEO Center. A copy of his/her certificate(s) and Application for Listing of Backflow Prevention Testers must be on file with the Authority. All repairs or replacements on a failed device shall be completed within 30 days of failure.

g. The Cross-Connection Control Program Manager or his designee may suspend or impose probationary provisions to a certified tester found guilty of fraud or deceit or who fails to comply with any provision or requirement of the Cross-Connection Control Program and for gross negligence, incompetency, or misconduct in the practice of backflow installation, testing, repair or replacement.

h. Gauge Accuracy - Gauges used in the testing of backflow prevention assemblies shall be tested for accuracy annually in accordance with the University of Southern California Manual of Cross-Connection Control or American Water Works Association Manual 14. A copy of the equipment calibration report must be submitted annually. HCWA Backflow Prevention Test Report form shall include test gauge serial numbers.

2.4 PUBLIC AWARENESS

General methods that the Cross-Connection Control Program Manager may use to inform customers of the potential dangers of illegal and improper cross-connection include the following:

a. Written descriptions of potential cross-connection locations and the need to protect the public water system would be included as special interest

articles for newspaper and local publications.

b. Providing speakers for civic clubs, political bodies, and other functions.

c. Providing informational pamphlets to be distributed at schools and other locations.

2.5 RESOURCES FOR IMPLEMENTATION

a. New Construction Plan Review

i. Both the Authority and Henry County Building Department shall review all plans for new construction.

ii. Both the Authority and Henry County Building Department shall advise customers of regulations in advance and determine that appropriate protection measures and devices are proposed. Devices required by either the Authority or Henry County Building Department will be installed at the developer, builder, or customer's expense.

iii. New construction will be inspected for County plumbing code compliance by the Henry County Building Department to determine that individual cross-connections are isolated from the public water supply.

iv. The Authority will inspect all new service connections for cross-connection control compliance, determine the degree of hazard to the public supply and assign the customer to a risk category. The Authority will refuse service in cases of non-compliance.

b. Existing System and Customers

i. The Cross-Connection Control Program Manager or duly authorized representative will identify by onsite inspection those existing customers or connections to the public supply which represent potential hazards.

ii. Customers will be identified and a priority ranking of high, medium, or low hazard assigned. Hazard levels will be assigned with respect to the likelihood and consequence of

backflow on the site.

iii. Letters will be mailed to identify potential cross-connection customers defining cross-connections and indicating that the County intends to restrict such connections by requiring the installation of backflow prevention devices. The Authority will provide assistance to the owner by providing a listing of persons or companies approved by the Cross Connection Program Control Manager to install and test backflow prevention devices. Customers may appeal their classification to the General Manager.

c. Management and Record Keeping

The Authority has a designated Cross-Connection Control Program Manager. The Program Manager or duly authorized representative will be responsible for performing on-site inspections, record keeping, and sending notifications to customers.

2.6 EMERGENCY NOTIFICATION PROCEDURES

Authority personnel shall use the following notification procedures in the event of a backflow incident:

a. Notification of Authority personnel

i. Notification of General Manager

ii. Notification of Deputy General Manager

iii. Notification of Cross-Connection Control Program Manager

iv. Notification of Water Production Division Manager

v. Notification of Customer Support Services Division Manager

b. EPD Notification

Notify the Environmental Protection Division. The EPD Emergency Response Program (1-800-241-4113).

Other EPD Emergency telephone numbers are (404)-463-1464 and

Fax (404)-656-2453.

c. Henry County Additional Services Notification

Henry County Health Department personnel will be notified and requested to respond in the event of an emergency, so that they may assist with the identification and treatment of the contamination.

d. Water Treatment Plant Personnel Notification

Water Treatment Plant personnel shall be notified as to the type of emergency, so that they may assist in the location, identification, and correction of any cross-connection which may affect the supply system. Laboratory personnel from the plant will be required to take samples of the contaminated water for analysis.

e. Public Notification

If an incident or emergency warrants, customers in the immediate area of the contamination shall be contacted at their residence in person. The following person(s) are authorized to release statements to the public or news media and shall be in charge of handling the emergency in the order listed below:

1. General Manager
2. Deputy Manager
3. Division Manager
4. Production Manager

See Appendix A "Henry County Water Authority Emergency Response Notifications" for contact information.

2.7 EMERGENCY IMPLEMENTATION PROCEDURES

a. Initial Response

The first Authority personnel on the scene of the suspected backflow incident shall obtain the following information for the transmission to the Cross-Connection Control Manager:

i. Location, time, and date of incident.

ii. Name of person(s) or company and phone number.

iii. Type of material involved, if known.

iv. Physical description of contamination (i.e. color of water, odor, taste).

v. Are Henry County or Authority personnel on the scene of the incident (i.e. Fire, Police, Pollution Control, etc.)?

b. Mobilization

i. Authority service crews shall be dispatched to the scene to locate, operate and turn off customer water service, at the meter for all customers in the immediate contaminated area.

ii. Authority service crews shall be prepared to close all necessary valves to isolate a section of the distribution system when instructed to do so. If the distribution system is contaminated, the contamination shall be contained in the smallest area possible.

iii. Authority service crews shall go door to door in the contaminated area warning customers that the water supply may be contaminated. Customers that are not home or do not respond shall have their water turned off at the service connection and a note left on their door explaining that their water may be contaminated and that service has been turned off temporarily.

iv. Authority laboratory technicians shall be dispatched to the backflow site. The laboratory technicians shall collect the necessary samples after the customer's meters and fire service valves have been turned off, and make provisions for further testing if there is a significant change in chlorine residual. Samples will be sent to the state lab for identification of the contaminant.

c. Remedy

After the contaminant and the source of contamination are identified, the following isolation procedures are to be followed:

i. Disconnect cross-connection.

ii. Turn off the water at the service connection of the customer responsible for the backflow emergency.

iii. Turn off all drinking fountains in the building (if applicable) to prevent accidental usage by emergency responders.

iv. Flush the distribution system until lab tests show the contaminant to be at a safe level for human consumption.

v. Once the water in the distribution system is shown to be safe, restore service to customers previously disconnected. Provide information sheets to affected customers informing them of the procedures for flushing the lines within their residence.

vi. Inform the customer that was identified as the source of the backflow that water service will not be restored until the cross-connection that caused the contamination is eliminated.

SECTION 3 - SELECTION, APPROVAL, AND INSTALLATION OF DEVICES

3.1 SELECTION

Vacuum breakers and backflow preventers shall be selected based on the level of risk that each customer represents. The level of risk (high, medium, or low) will be determined by the degree of hazard and the type of cross-connection on each premise. The degree of hazard shall be determined by whether the impurities involved are contaminants or pollutants and whether it is a non-pressure or pressure cross-connection (see Definitions Section).

- High-risk customers shall be required to install an approved reduced pressure zone backflow preventer and have the device tested for proper operation annually. All non-residential accounts are considered high-risk unless a variance is granted.

- Medium-risk customers shall be required to install an approved double-

check backflow preventer and have the device tested for proper operation annually. This category is for non-residential accounts that have been granted a variance or situations deemed necessary by the Cross Connection Department.

- Low-risk customers shall be required to install an approved dual check backflow preventer. This category is for residential services only.

3.2 APPROVAL OF DEVICES

All backflow-prevention devices shall be approved in accordance with the applicable standard of the American Society of Sanitary Engineering, the American National Standards Institute, the American Water Works Association, the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research, and the Georgia State Plumbing Code.

EXCEPTION: If no standard yet exists for a particular device, or if the device is a derivative of one covered by a national standard, the Authority shall determine whether the device will be allowed.

3.3 INSTALLATION OF DEVICES

The location of all backflow-prevention devices shall be in an area that provides a safe working environment for testing and maintenance. This area shall be readily accessible and free from extreme cold, heat, and/or electrical hazards.

Installations for containment shall be determined by a duly licensed plumbing, mechanical, and/or utility contractor; and as approved by the Authority. Installation of all backflow-prevention devices shall be in accordance with the Georgia State Plumbing Code, other applicable codes and regulations, and the following procedures:

a. Backflow Preventer, Low-Risk Category, Dual Check Valve (DuCV) - This device shall not be buried in earth, but may be installed below ground in a meter box. A positive shut-off valve and union shall be near the inlet side of the device. When the device is installed below ground, shut-off valves and unions shall be on both sides.

b. Backflow Preventer, Medium-Risk Category, Double Check Valve

(DCV) - This device shall not be buried in earth but may be installed below ground in a pit, provided ball valve test cocks fitted with brass plugs are used. A positive shut-off valve shall be near the inlet and outlet sides of the device, and three ball valve test cocks provided on the device. A fourth test cock shall be provided on the upstream side of the inlet shut-off valve. When below ground, a union or flange shall be near the inlet and outlet sides. No intervening connections shall be between the shut-off valves and the backflow preventer.

c. Backflow Preventer, High-Risk Category, Reduced Pressure Zone (RPZ) - This device shall not be installed below ground. Where relief valve discharge could cause water damage, it shall be piped via an air gap, or funnel, at the vent/relief port to a floor drain or other approved location. A positive shut-off valve shall be near the inlet and outlet sides of the device, and the three approved test cocks provided on the device. A fourth test cock shall be provided on the upstream side of the inlet shut-off valve. A bronze strainer with a 20-mesh stainless steel screen shall be included between the inlet shutoff valve and the device on sizes through 2-1/2 inches. No intervening branch connection(s) shall be between the shut-offs and the backflow preventer. When the RPZ is installed in a line subject to periodic no-flow conditions, and supply pressure subject to fluctuations, an auxiliary directional check with a soft disc, capable of functioning in any position the BFP might be installed in, shall be provided between the inlet shut-off valve and the BFP head to lock the supply pressure in and prevent discharge through the vent/relief port. When a water pressure-reducing valve is required in the same line as the RPZ device, it is usually possible to locate the reducing valve upstream of the device and take advantage of the check valve effect of the reducing valve. In such a case, the auxiliary directional check would not be required.

d. Vacuum Breaker, Atmospheric Type (VB-AT) - This device shall be installed at least 6 inches above the highest outlet or the overflow level on the non-potable system. It shall be installed downstream of the last shut-off valve.

e. Vacuum Breaker, Pressure Type (VB- PT) - This device shall be installed at least 12 inches above the highest outlet or the overflow level on the non-potable system. It may be installed upstream of the last shut-off valve.

f. Vacuum Breaker, Bose Type (VB-HT) - This device shall be installed directly on the hose threads. It is not an integral part of the valve. It may not be subjected to continuous pressure, static or flowing, nor shall it be attached to a freeze-proof type hydrant unless it is a model specifically designed for this service.

g. Backflow Preventer, Vent Type, Intermediate Atmospheric (BFP-IAV) Vent - This device shall not be installed below ground. Where relief valve discharge could cause water damage, it shall be piped via an air gap, or funnel, at the vent/relief port to a floor drain or other approved location. A positive shut-off valve shall be near the inlet and outlet sides of the device. A bronze strainer with 20-mesh stainless steel screen shall be included between the inlet shut-off valve and the device.

3.4 MAINTENANCE AND TESTING OF DEVICES

All backflow preventers shall be maintained in proper working order. High-risk customers with RPZ backflow preventers and medium-risk customers with DCV backflow preventers shall have the devices tested on an annual basis. The Cross-Connection Control Program Manager shall keep records of the testing, maintenance, and repair of high-risk (RPZ) and medium-risk (DCV) backflow preventers, and shall send out notices to customers when annual inspections come due. All backflow preventers shall be individually factory tested. Field testing and repairs of these devices shall be by persons approved by the Cross-Connection Control Program Manager.

All tests performed on devices attached to the Henry County Water Authority distribution system must be recorded on the most current HCWA Backflow Prevention Test Report form. Effective January 1, 2016, the Authority will no longer accept test reports without a specific location of the device and meter. Device and meter register numbers must be included as well. ALL reports must be submitted to the Authority within 30 days of the test date. Test reports not submitted within 30 days of the test date will be considered null and void. All repairs or replacements on a failed device shall be done within 30 days of failure.

NOTE: A THERMAL EXPANSION CONTROL DEVICE shall be installed between a backflow preventer and a water heater to limit the static pressure increase due to the thermal expansion of the heated water.

SECTION 4 - CROSS-CONNECTION CONTROL PROCEDURES FOR FIRE PROTECTION SYSTEMS

4.1 IDENTIFICATION OF SYSTEMS

To distinguish between systems used exclusively for fire service and those used for both fire service and potable water service, the following definitions shall apply:

a. Combined System - consists of bulk and express risers that supply both standpipe and sprinkler systems. (This system is for fire service only.)

b. Combination System - A standpipe riser that supplies both fire service and potable water service. (This system is relatively new.)

4.2 EXPLANATION OF DEVICES COMMONLY USED

The purpose of certain checking devices currently used, or likely to be used, with fire protection systems is outlined to call attention to those devices approved for cross-connection control and those not approved:

a. Directional Check - to provide directional flow only (not cross-connection control).

b. Alarm Check - to signal an alarm, to summon the fire department, etc., when a sprinkler head flows water; and on wet pipe systems, to provide directional flow (net cross-connection control).

c. Detector Check - to detect unauthorized use of water for other than fire service; to detect leaks in fire protection systems; and to provide directional flow (not cross-connection control).

d. Double Check - to prevent backflow of polluted water from fire protection systems into the potable water systems, and to provide directional flow.

e. Double Detector Check - to prevent backflow of polluted water from fire protection systems into the potable water system; to detect unauthorized use of water; to detect leaks in fire protection systems; and to provide directional flow.

f. Reduced Pressure Check - to prevent backflow of contaminated water from fire protection systems into the potable water systems; to detect unauthorized use of water; to detect leaks in the fire protection system; and to provide directional flow.

4.3 CLASSIFICATION

For the purpose of cross-connection control, fire protection systems shall be classified as Sprinkler, Standpipe, and/or Combined. Sprinkler systems shall be further classified as below:

a. Class 1- directly supplied from public water mains only, no pump, tanks, or reservoir; no physical connection from other water supplies; no antifreeze or additives of any kind; all sprinkler drains discharging to atmosphere, dry wells, or other safe outlets.

b. Class 2 - directly supplied from public mains; same as Class 1, except that booster pumps may be installed in supply lines.

c. Class 3 - directly supplied from public mains; same as Class 1, plus one or more of the following: elevated storage tanks or pressure tanks; fire pumps taking suction from above-ground covered reservoir or tanks. All storage facilities shall be filled from the potable water supply and maintained in a potable condition.

d. Class 4 - directly supplied from public mains; similar to Classes 1 and 2, and with an auxiliary water supply on or available to the premises; or an auxiliary water supply located within approximately 1700 feet of the pumper connection.

e. Class 5 - directly supplied from public mains and interconnected with auxiliary supplies such as pumps taking suction from reservoirs, exposed to contamination, or rivers and ponds or where antifreeze or other additives are used.

f. Class 6 - directly supplied from public water mains only; with or without gravity storage or pump suction tanks, and interconnected with industrial systems.

4.4 STANDPIPE SYSTEMS

Standpipe systems shall be further classified as low hazard (hazard equal to Class 3 or lower sprinklers), and high hazard (hazard equal to Class 4 or higher sprinkler).

4.5 FIRE PROTECTION SYSTEMS

Fire protection systems shall be contained from the public water mains as follows:

a. Class 1 & 2 - Sprinkler systems shall include not less than two checking devices in the water supply lines from public mains. These devices may consist of:

    i. Any combination of two of the following: directional checks, alarm checks, or detector check.
    ii. An approved double-check backflow preventer.
    iii. An approved double detector check backflow preventer.

b. Class 3 - Sprinkler systems and low-hazard standpipe systems shall be contained by the installation of double-check or double-check backflow preventers, approved as required by this Code. In addition, all backflow preventers used on fire protection systems shall be classified by Underwriters Laboratories per U.L. Standard 312.

c. Class 4 & 5 - Sprinkler systems and high-hazard standpipe systems shall be contained by RPZ backflow preventers that are classified by Underwriters Laboratories per U.L. 312.

d. Class 6 - Sprinkler systems and standpipe systems of similar degree of hazard shall be contained by procedures determined after a survey of the premises.

Combined Sprinkler and Standpipe Systems: Shall be contained from the public mains by procedures applicable to the component that represents the higher degree of hazard.

4.6 COMBINED SYSTEMS

Directional checks, alarm checks, and detector checks that are used on standpipes, Class 3 or higher sprinklers, or combined systems, may not be considered as a component part of a backflow preventer unless approved by the Cross-Connection Control Program Manager. Specifically, the addition of a

second check to one of these devices may not be substituted for a double check, or a double detector check, that is approved for cross-connection control, unless such addition results in a device identical to that furnished by the manufacturer and the resulting assembly qualifies for the appropriate backflow preventer label.

4.7 APPROVED DOUBLE CHECK

It is intended that an approved double check is in lieu of, not in addition to, any single check already required in the supply of Class 3 sprinklers, to low hazard standpipes, or to combined systems; or, that an approved double detector check be substituted for any single detector check. In such cases, the net additional device(s) intended by this code are one line-size check and, in the case of the detector, one bypass check.

4.8 VALVE INSTALLATION

The two shut-off valves that are necessary for periodic testing and repair of a backflow preventer need not be attached directly to the inlet and outlet flanges of the device but shall be installed in a location close enough to the device to insure that there is no intervening branch connection(s) between the shut-off valve and the backflow preventer head.

4.9 VALVE APPROVAL

The two shut-off valves required for periodic testing and repair of a backflow preventer, whether supplied by the preventer manufacturer or the fire protection contractor, shall be listed for fire protection service by a nationally recognized testing laboratory such as UL/ULC or FM Approved, and the inlet valve shall include an approved test cock on the upstream side.

SECTION 5 - RULES AND REGULATIONS

5.1 CROSS-CONNECTION CONTROL PROGRAM RULES

Rule 1 No water service connections shall be installed or maintained unless the public water supply is protected against actual or potential contamination or pollution.

Rule 2 It shall be the duty of the Cross-Connection Control Program Manager or duly authorized representative to perform inspections of all

properties served by the public water supply where cross-connections are deemed possible. The frequency of inspections and re-inspections shall be based on the potential health hazards involved and shall be established by the Cross-Connection Control Program Manager.

Rule 3 The Cross-Connection Control Program Manager, or authorized representative shall have the right to enter, upon receiving permission, at a reasonable hour, with prior notification, any property served by the public water supply for the purpose of inspecting the piping system thereof for cross-connections. Upon request, the owner or occupant of any property so served shall furnish to the Cross-Connection Control Program Manager or authorized representative any pertinent information, regarding the piping system, processes, chemicals used or stored on-site, and any biological or radiation hazards. Refusal to allow inspection of the piping or to provide requested pertinent information shall result in the assumption that high-risk cross-connections and hazardous substances exist on the premises. The customer's service shall be categorized as high-risk.

Rule 4 The Authority shall require the use of a reduced pressure zone backflow prevention device on non-residential domestic and irrigation service lines. All commercial customers are considered high-risk unless a variance is requested and granted. Existing commercial services with DCV valves will be allowed until which time the valve must be replaced due to failure or business/customer changes.

Rule 5 The Authority shall allow the use of a double-check valve backflow prevention device only when a variance is granted.

Rule 6 The Authority shall require the use of a dual check valve backflow prevention device on residential service lines.

Rule 7 The Authority shall require new and existing non-residential customers to install reduced pressure zone backflow prevention devices on their service lines if not present. Residential customers that do not have a backflow device shall have a dual check backflow prevention device installed when work is done to the service connection, such as the replacement of a service line, meter, or meter box.

Rule 8 All expenses involved in the purchase, installation, maintenance, and

testing of backflow prevention devices shall be borne by the owner or occupant of the property. All repairs or replacements on a failed device shall be done within 30 days of failure.

Rule 9 Backflow Prevention Assembly - Assemblies “approved for installation” must appear on the current list of Approved Backflow Assemblies as published by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research; otherwise known as being “USC approved”. The method of installation of backflow prevention devices shall be approved by the Cross-Connection Control Manager prior to installation and shall comply with the criteria set forth by the Cross-Connection Control Program.

Rule 10 All backflow prevention devices shall be maintained in proper working order at the expense of the owner or occupant. The Cross-Connection Control Program Manager or duly authorized representative shall have the right to inspect and test all backflow prevention devices for proper operation whenever deemed necessary. Unscheduled testing shall not disrupt water service without prior notification to the occupant or owner of the property. Where no duplicate backflow prevention device exists and water service is critical to the continuance of normal operation or protection of life, property, or equipment, the Cross-Connection Control Program Manager shall notify, in writing, the occupant of the premises of plans to discontinue water service to test the backflow prevention device.

Rule 11 The Authority, as authorized by the Authority Board, is primarily responsible for preventing the contamination or pollution of the public water supply by instituting a program of "Backflow Prevention by Containment." Such responsibility begins at the point of origin of the public water system and includes all of the distribution system, and terminates at the service connection for the customer's water system.

Rule 12 The Building Department, as authorized by the County Commissioners, is primarily responsible for preventing the contamination or pollution of the public water supply by enforcing the County plumbing code. Such responsibility begins at the service connection for the customer's water system and includes all the distribution system within the premise.

Rule 13 The owner or occupant of the property served by the public water

system shall upon request, on an annual basis, have all required backflow prevention devices tested for proper operation and a copy of the test results furnished to the Cross-Connection Control Program Manager. Annual testing and inspection of backflow prevention devices must be performed by a person pre-approved by the Cross Connection Control Program Manager. All expenses involved in the testing and repair of the devices shall be borne by the owner or occupant of the property. The Cross-Connection Control Program Manager shall notify the owner or occupant in writing as to the date of the required testing and the deadline by which a copy of the testing results must be sent.

Rule 14 Any person who now has a cross-connection in violation of this policy shall be allowed a reasonable time within which to comply with the provisions of the policy. After an investigation of existing conditions and an appraisal of the time required to complete the work involved, the Cross-Connection Control Program Manager shall set a required completion date for the installation of an appropriate backflow prevention device.

Rule 15 Whenever any person neglects or refuses to comply with any of the provisions of the rules and policy described herein the Cross-Connection Control Program Manager shall discontinue the public water supply service connection and service shall not be restored until the cross-connection, auxiliary intake, interconnection, or by-pass has been discontinued.

Rule 16 Connections to the public water supply for the purpose of filling mobile tanks or containers shall be protected by an air gap or reduced pressure zone backflow prevention device regardless of the hazard represented.

Rule 17 Temporary construction and miscellaneous other connections to the public water supply through fire hydrants shall be protected by air gaps or reduced pressure zone backflow prevention devices. Temporary connections made by the fire department shall be exempt from this rule.

Rule 18 The owner or occupant of the property served by the public water supply shall be responsible for providing protection against the hazards of Thermal Expansion in a closed domestic/residential heated water system.

Rule 19 Multiple dwellings serviced by one water meter shall be evaluated as to the type of backflow devices and as to the degree of hazard to prevent the entry of contaminants or pollutants into any area of the potable water supply.

APPENDIX A
HCWA Emergency Response Notifications