



City of Lynchburg
Department of Utilities

Cross Connection Control and Backflow Prevention Program

Version 2.0
Effective December 1, 2008

Policy Approval

Director of Utilities:

A handwritten signature in blue ink, appearing to be "J. H.", written over a horizontal line.

Date:

12/1/08

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I. Introduction

The City of Lynchburg Department of Utilities is responsible for providing water and wastewater service to the customers of the City of Lynchburg. It is our obligation to insure the health, safety and welfare of our customers by making a continuous effort to provide quality services. The focus of this program is to protect the public water system and our customers.

Water suppliers must identify potential cross-connection hazards and determine necessary protective measures to maintain water quality. This can be accomplished through the Cross-Connection Control and Backflow Prevention Program. The program identifies those activities which pose a threat to the public water supply through cross-connections and outlines appropriate protective measures.

It is the purpose of this program to communicate the requirements for protecting our water supply. If you have any questions concerning the Cross-Connection Control and Backflow Prevention, please contact the City of Lynchburg's Cross Connection Inspector at (434) 455-4261 or write to:

City of Lynchburg
Department of Utilities
525 Taylor Street
Lynchburg, Virginia 24501

II. Regulatory

The City of Lynchburg's Cross-Connection Control and Backflow Prevention Program is the result of regulations written by the Virginia Department of Health's Waterworks Regulations and the International Plumbing Code. Both regulations state that the Water Purveyor must maintain a water system that eliminates any possible cross-connections and protects the connections that can't be eliminated.

Chapter 590 Article 3 of the Waterworks Regulations states "The purveyor shall not install, maintain, or allow to be installed a water service connection to any premises where cross connections to a waterworks or a consumer's water system may exist unless such cross connections are abated or controlled to the satisfaction of the water purveyor." Also stated in the regulations is "The water purveyor shall take positive action to ensure that the waterworks is adequately protected at all times."

Section 608 of the International Plumbing Code states "A potable water supply system shall be designed, installed and maintained in such a manner so as to prevent contamination from non-potable liquids, solids or gases being introduced into the potable water supply through cross connections or any other piping connections to the system."

Backflow in the water distribution system happens as a result of a reversal of the normal flow of water in the system. The two types of backflow are backsiphonage or backpressure. Backsiphonage is the reversal of flow of liquid caused by a partial vacuum in the potable water distribution system. This condition occurs when the supply pressure drops below atmospheric pressure. Backpressure is a condition in which the pressure in a non-potable system is greater than the pressure in a potable water system. Superior pressure will cause non-potable liquids to flow into the potable water distribution system through cross-connections.

Backflow into the water system can make the water unusable or unsafe to drink. The City of Lynchburg's goal is to supply safe drinking water to every customer. The number one priority of the Utilities Department is to supply safe public drinking water.

In order to prevent backflow from entering the water distribution system, the City of Lynchburg requires that a backflow preventer be installed at each service connection where hazards are found. A backflow preventer is a mechanical assembly that prevents the backflow of pollutants or contaminants into the potable water distribution system. There are different requirements based upon the type of service connection and hazards identified at the location. Specific guidelines for backflow preventers at each type of connection, as well as hazard, are outlined in the program to ensure that each connection is properly protected.

Cross-connections may be found but not necessarily limited to the following types of facilities. Any cross-connections that are located must be eliminated by installing the proper backflow prevention assembly.

- ❖ Hospitals, mortuaries, clinics, veterinary establishments, nursing homes, and medical buildings;
- ❖ Laboratories;
- ❖ Piers, docks and waterfront facilities;
- ❖ Sewage treatment plants, sewage pumping stations, or storm water pumping stations;
- ❖ Food and beverage processing plants;
- ❖ Chemical plants, dyeing plants and pharmaceutical plants;
- ❖ Metal plating industries;
- ❖ Petroleum or natural gas processing or storage plants;
- ❖ Radioactive materials processing plants or nuclear reactors;
- ❖ Car washes and laundries;
- ❖ Lawn sprinkler systems, and irrigation systems;
- ❖ Fire service systems;
- ❖ Slaughter houses and poultry processing plants;
- ❖ Farms where the water is used for other than household purposes;
- ❖ Commercial greenhouses and nurseries;
- ❖ Health clubs with swimming pools, therapeutic baths, hot tubs, or saunas;
- ❖ Paper and paper products plants and printing plants;
- ❖ Pesticide or exterminating companies and their vehicles with storage or mixing tanks;
- ❖ Schools or colleges with laboratory facilities;
- ❖ High-rise buildings (four or more stories);
- ❖ Multiuse commercial, office, or warehouse facilities; and
- ❖ Others specified by the purveyor or the division when reasonable cause can be shown for a potential backflow or cross connection hazard.

The Water Purveyor's responsibilities for cross-connection control lies with the containment of the building and service connection. The Water Purveyor is not responsible for any internal cross-connections within the plumbing system of the facility. Recommendations can be made but the responsibility to correct any cross-connections within the facility lies with the Building Code Official, building owner and any contractors performing work on the plumbing system.

Below are some examples of cross-connections and backflows that have occurred in other localities.

Garden Hose Contamination caused by an exterminating company

In Roanoke, Virginia on October 1979 Chlordane, a highly toxic insecticide, was backsiphoned into the water supply. This occurred while the water department was repairing a water main. An employee from an exterminating company working at a home nearby left one end of a hose connected to an outside faucet and the other end in a barrel of diluted insecticide. During the water service interruption, the chlordane was backsiphoned into the house plumbing and the city water main. The city performed extensive flushing of the water mains but the insecticide had adhered to the inside of the pipes. Tests of the water taken six days after the contamination showed Chlordane levels five times greater than considered safe. Residents of the effected area either carried water to their houses from 400 gallon water tanks the city supplied or traveled to homes of friends or relatives to shower and eat meals.

Water into Wine

In December 1970, wine backflowed into the public water system in Cincinnati, Ohio. At a winery in the City, someone inadvertently left open a water valve to a wine distilling tank after flushing out the tank. During a subsequent fermenting process, wine backflowed from the tank into the city water mains and out of the faucets of nearby homeowners. This reversal of flow through the water piping occurred because the pressure in the wine distilling tank was greater than the pressure in the City water system.

Irrigation backflow

On October 1, 1991, two homeowners in the City of Southgate, Michigan, found parasitic worms, or nematodes, in their water. One homeowner found the worms swimming around in his bathtub when he started filling the tub for his child. He also found rust and other debris in his water. There was a water main break, which caused a vacuum in the public water system. The vacuum in the public water system (backsiphonage) pulled dirty ground water and nematodes (worms) from an irrigation system into the public water system.

Crews from the City's Department of Public Services opened fire hydrants and flushed all the water mains located three blocks north and south of where the backflow incident occurred.

III. Elements of the Program

There are some basic elements necessary to administer the program.

- ❖ A procedure for review of plans for new or modified connections to the City water system to determine the need for and require control measures, as necessary;
- ❖ An inspection program to determine the need for and require control measures on existing connections to the City's water system;
- ❖ A testing program to determine the operational effectiveness of the assemblies installed on connections to the City's water system;
- ❖ A system for maintaining records for the program including site inspection, assembly installation and annual testing;
- ❖ Personnel, equipment and organization to perform the above functions.

IV. Required Procedures

There are some specific steps that must be followed in order to comply with the program. A detailed explanation of each step is outlined within the program.

New Construction (including Renovations/Additions)

1. Submittal of plans for review including any necessary waivers to the Technical Review Committee within the Department of Community Development
2. Review of plans by Department of Utilities' staff for plan approval
3. Installation of approved assembly by customer
4. Inspection of site and initial assembly testing by the Cross Connection Inspector for installation approval

Existing Construction

1. Inspection of existing facility/hazard by Cross Connection Inspector with recommendations made regarding level of protection required for facility
2. Installation of approved assembly by customer
3. Inspection of site and initial assembly testing by the Cross Connection Inspector for installation approval

V. New Construction (including Renovations/Additions)

1. Site Plan Review Process

Prior to construction and issuance of any building permits, site plans must be submitted to the Technical Review Committee and approved by the Department of Utilities for water connection to the City System.

Plans shall include:

- ❖ The location of the proposed backflow prevention assembly on the site.
- ❖ Proposed plumbing from the building to the connection and/or water meter.
- ❖ If a sprinkler system is required, proposed system needs to be noted on the site plans.

Where a backflow prevention assembly is required, such assemblies shall be in accordance with the following standards:

Reduced pressure principle backflow preventer and reduced pressure principle fire protection backflow preventer	ASSE 1013 USC Approved
Reduced pressure detector fire protection backflow prevention assemblies	ASSE 1047 USC Approved
Dual check valve type backflow preventer	ASSE 1024 USC Approved
Hose-connection vacuum breaker	ASSE 1011 USC Approved

2. Inspection of Site Plans

The Department of Utilities shall review the plans and advise whether they are approved or disapproved. If disapproved, the Department of Utilities will make recommendations and provide a list of issues for correction. The revised plan shall be resubmitted for additional review.

If there are special circumstances that require the assembly to be located anywhere other than the property line, a Request for Waiver form, see Appendix B, must be completed and submitted to the Department of Utilities for approval. If a waiver is granted, a gate valve will be installed at the property line and/or edge of the water line easement to designate the point at which the Department of Utilities' responsibility ends. Waivers are only reviewed when a physical limitation is encountered on the site. Cost of installation is not a factor in approving waivers.

3. Installation of Approved Assembly

All new commercial construction shall have an approved Reduced Pressure Principle Assembly or Reduced Pressure Detector Assembly installed on each service line. This includes an individual assembly for domestic, irrigation, fire sprinkler systems and private hydrants. (For more information regarding irrigation and fire sprinkler systems, please refer to the appropriate section outlining their specific requirements.)

All Reduced Pressure Assemblies are required to be installed in a horizontal orientation. The Department of Utilities will not approve any assembly that is installed in an incorrect orientation. If you have any questions about the orientation or installation of the assembly, please contact the Cross Connection Inspector.

Domestic Non-Residential Connections

All new non-residential connections (including commercial, industrial, institutional, governmental, etc.) require a Reduced Pressure Assembly that must meet the following ASSE standard:

Reduced pressure principle backflow preventer and reduced pressure principle fire protection backflow preventer	ASSE 1013 USC Approved
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The assemblies shall be located on the private property side as close to the property line as possible. If there are circumstances that require the assembly to be located anywhere other than the property line, a Request for Waiver form must be submitted to the Department of Utilities for approval.

All reduced pressure principle assemblies shall be protected by an ASSE 1060 Heated approved enclosure, located on a 4" thick concrete pad (see City of Lynchburg specifications). This is to protect the assembly from vandalism and freezing temperatures.

Domestic Residential Connections

All new residential construction requires a dual-check-valve type backflow preventer on the connection. This device must meet ASSE standards.

Dual-check-valve type backflow preventer	ASSE 1024 USC Approved
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This device will be installed by the Department of Utilities when the domestic service connection is installed. This is a non-testable device, so the testing requirements outlined in this program do not apply to this particular device.

If an irrigation system exists, a Reduced Pressure Principle Assembly is required (see Irrigation system section for necessary requirements).

Hose bibb vacuum breakers shall be installed on all threaded hose bibbs that do not have an ASSE 1019 anti-siphon approved wall faucet. This device must meet ASSE Standards.

Hose-connection vacuum breaker	ASSE 1011 USC Approved
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4. Initial Assembly Inspection and Testing

Inspection and testing of backflow prevention assemblies is required upon the installation of an assembly. The Cross Connection Inspector will conduct an initial inspection of the assembly for proper installation. If the assembly installation is approved, the Cross Connection Inspector will also test the assembly and record the initial test values.

An annual test will be required for all backflow prevention assemblies on the anniversary month of the initial test. The annual test will be conducted by a private, certified tester registered with the Department of Utilities. This test must be turned into the Cross Connection Inspector 30 days after the completion of the test.

VI. Existing Construction

1. Inspection of existing facility/hazard

An inspection will be conducted on all existing sites to determine if a potential hazard or contamination exists. Inspections will be scheduled in priority according to known degree of hazard associated with the type of customer being served. Services with a high degree of hazard will be inspected first.

If a potential hazard or contamination is identified, the customer will be informed regarding the level of protection that must be installed and the allotted period of time to come into compliance with the program.

Residential customers will be informed of potential cross-connections in and around the home through educational brochures and other information sent periodically in utility bills.

Hazard Locations

A Reduced Pressure principle assembly is required on these lines and must meet the following ASSE standard:

Reduced pressure principle backflow preventer and reduced pressure principle fire protection backflow preventer	ASSE 1013 USC Approved
Reduced pressure detector fire protection backflow prevention assemblies	ASSE 1047 USC Approved

The assemblies shall be located on the private property side as close to the property line as possible. If there are circumstances that require the assembly to be located anywhere other than the property line, a Request for Waiver form must be submitted to the Department of Utilities for approval.

All reduced pressure principle assemblies must be installed in an ASSE approved enclosure, located on a 4" thick concrete pad (see City of Lynchburg specifications). This is to protect the assembly from vandalism and freezing temperatures.

No Hazard Locations

If the building has been inspected and no hazards are found, then no backflow prevention assembly is required. An inspection of the site will be performed annually to see if changes have been made to the existing plumbing or structure. This is to assure continuing protection of the public water supply. A letter will be issued after each site inspection to document the compliant status of the facility.

2. Initial Assembly Inspection and Testing

Inspection and testing of backflow prevention assemblies is required upon the installation of an assembly. The Cross Connection Inspector will conduct an initial inspection of the assembly for proper installation. If the assembly installation is approved, the Cross Connection Inspector will also test the assembly and record the initial test values.

An annual test will be required for all backflow prevention assemblies on the anniversary month of the initial test. The annual test will be conducted by a private certified tester registered with the Department of Utilities. This test must be turned into the Cross Connection Inspector 30 days after the completion of the test.

VII. Installation, Testing and Maintenance

Installation

All reduced pressure assemblies are required to be installed above ground on a concrete pad, in an ASSE 1060 approved heated enclosure for safety and accessibility, and sized to provide sufficient space around the assemblies for maintenance. The relief port of the reduced pressure assembly shall maintain a minimum of 12" to a maximum of 36" between the discharge port and the slab.

All Reduced Pressure Assemblies are required to be installed in a horizontal orientation. The Department of Utilities will not approve any assembly that is installed in an incorrect orientation. If you have any questions about the orientation or installation of the assembly, please contact the Cross Connection Inspector.

Assemblies shall be located on the owner's property at or as near to the property line as possible and out of the main flow of traffic.

Annual Testing

Annual testing of the assembly is the responsibility of the customer. The testing of the assembly shall be performed by a certified tester. The certified test results shall be furnished to the Department of Utilities, Cross Connection Inspector. Annual test results will be maintained on file for a period of ten (10) years.

Testing procedures shall be in accordance with the University of Florida's TREEO center instructions and approved by the Department of Utilities.

Maintenance

Assemblies should be repaired, overhauled or replaced as required by the test results or by the Department of Utilities. Overhaul intervals should be by the manufacturer's recommendations.

VIII. Fire Service Connections

Fire Service Connections Requirements (sprinkler systems and private fire hydrants)

A Reduced Pressure Principle Assembly is required for all fire service connections. The assembly must meet the following ASSE standard and be installed in accordance with the manufacturer's standard details:

Reduced pressure principle backflow preventer and reduced pressure principle fire protection backflow preventer	ASSE 1013 USC Approved
Reduced pressure detector fire protection backflow prevention assemblies	ASSE 1047 USC Approved

If a toxic chemical such as ethylene glycol is being used, the fire protection system is not allowed to be connected to the public water supply.

Maintenance responsibility of the Department of Utilities will end at the inlet gate valve installed prior to the assembly or at the City right of way line. The assembly, valves and fire department connection, if required, shall be maintained by the property owner.

If the backflow assembly is down stream of a water meter a reduced pressure principle assembly is required. If the fire line is unmetered, a reduced pressure detector assembly is required.

The Department of Utilities will perform plan review of any proposed water line extension up to the first gate valve located on the inlet side of the assembly and the plan review of the assembly as it relates to the backflow assembly. The Engineer shall provide details illustrating the type of anchoring that will be used on the inlet side valve so that the valve will not blow off when the assembly is removed.

The City Building Official will review plans past the backflow assembly for code enforcement regarding the internal fire system.

All reduced pressure assemblies are required to be installed above ground on a pad, in an ASSE 1060 approved heated enclosure that shall be located on the owner's property at or as near to the property line as possible and out of the main flow of traffic.

The location will be reviewed by the Department of Utilities for optimum placement. The review of the site plan is not a detailed review of the water

and sewer design when it involves the relocation and/or extension of the City system. However, the site plan (applicable sheets of the site plan) must reflect the approved water and sewer design and show the exact location of the existing facilities. It is important that the Engineer submit utilities plans directly to the Technical Review Committee at the same time or near that time to avoid unnecessary delays in the approval of the site plan and the release of the building permit.

When a Siamese connection is required, it will be installed on the outlet side of the reduced pressure assembly.

Existing Fire Service Connections

If a Double Check Assembly already exists, is in-line testable and there are no additives in the lines that would pose a high hazard, it may be acceptable. If accepted, an immediate test will have to be completed by a certified tester and turned into the Department of Utilities. Annual tests must also be completed by a certified tester and turned into the Department of Utilities.

Maintenance responsibility of the Department of Utilities will end at the inlet gate valve installed prior to the assembly or at the City right of way line. The assembly, valves and fire department connection, if required, shall be maintained by the property owner.

Existing Double check valve assemblies can be located in a vault as long as proper drainage keeps the assembly from being submerged. It is the property owner's responsibility to have drains cleaned out and to maintain the vault.

If a Siamese connection is in place, it must be installed on the outlet side of the double check assembly.

IX. Irrigation Service Connections

All irrigation service connections are classified as high hazards and require a reduced pressure principle assembly. Pressure vacuum breakers are not acceptable.

The assembly must meet the following ASSE standard and be installed in accordance with the manufacturer's standard details:

Reduced pressure principle backflow preventer	ASSE 1013 USC Approved
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The assemblies shall be located on the private property side as close to the property line as possible. If there are circumstances that require the assembly to be located anywhere other than the property line, a Request for Waiver form must be submitted to the Department of Utilities for approval.

All reduced pressure principle assemblies must be installed in an ASSE 1060 approved heated enclosure. This is to protect the assembly from vandalism and freezing temperatures.

When installation is complete, a test of the assembly will be performed by a certified tester with a test report completed on an approved test form and turned into the Department of Utilities within 30 days of installation. The Department of Utilities' Cross Connection Inspector shall inspect the assembly for proper installation. Annual tests shall then be completed by a certified tester and turned into the Department of Utilities.

X. Personnel

Cross Connection Inspector (City Personnel)

The Cross Connection Inspector is responsible for inspection of waterworks for cross-connections and backflow prevention control. The Cross-connection Inspector manages and promotes the program and performs inspections and initial tests of each assembly. The Inspector must be thoroughly trained in the detection and effects of cross-connections and in the use and function of backflow prevention assemblies.

Certified Tester (non-city personnel)

All backflow testers must be State certified as of June 1, 2009. Each tester must furnish proof of certification to the Department of Utilities including certifying agency and expiration of certification. The City will keep a record of all testers and/or testing companies that register with the City on the City's website for public viewing.

XI. Equipment

All testing equipment used by a certified tester is to be maintained and calibrated annually by the tester in accordance with the manufacturer's recommendations. It is the testing company's responsibility to schedule the calibration of their equipment and provide a copy of the calibration report to the City of Lynchburg's Cross Connection Inspector within 30 days for the calibration. It is also the responsibility of the tester to provide all necessary equipment for testing backflow assemblies.

XII. Organization

The backflow program is maintained by the City of Lynchburg, Department of Utilities' Technical Services Division.

Appendix A - Ordinance

Article VI City Code, Chapter 39

AN ORDINANCE TO AMEND AND REENACT THE CODE OF THE CITY OF LYNCHBURG, 1981, BY ADDING THERETO A NEW ARTICLE CONTAINING SECTIONS 39-97 THROUGH 39-104, THE NEW SECTIONS RELATING TO CROSS-CONNECTION AND BACKFLOW PREVENTION, AND BY REPEALING SECTIONS 39-14 AND 39-15, THE REPEALED SECTIONS RELATING TO THE REPAIR OF WATER METERS AND THE PROTECTION OF THE WATER SYSTEM FROM CONTAMINANTS.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF LYNCHBURG:

1. That Chapter 39 of the Code of the City of Lynchburg, 1981, be and the same is hereby amended and reenacted by adding thereto Article VI., Sections 39-97 through 39-104 as follows:

ARTICLE VI. CROSS-CONNECTION AND BACKFLOW PREVENTION

Sec. 39-97. Definitions.

For the purposes of this article, the following terms shall have the following meanings:

- (a) Backflow: The reversal of the normal flow of water or other fluids, mixtures or substances through the distributing pipes of the water system because of an increase in the downstream pressure to a rate that is higher than the supply pressure.
- (b) Backflow preventer: Equipment or measures that are designed to prevent backflow or back-siphonage, such as airgaps, reduced pressure principle devices, double check valve assemblies, pressure vacuum breakers and residential dual check valves.
- (c) Back-siphonage: The reversal of the normal flow of water or other liquids, mixtures or substances through the distributing pipes of the water system because of negative pressure from a vacuum or partial vacuum in the pipes that supply water.
- (d) Cross-connection: Any physical connection between a potable water supply and waste pipe, soil pipe, sewer drain or unapproved source or system, including any potable water supply outlet which is submerged or can be submerged in wastewater or any source of contamination.
- (e) Director: The Director of Utilities or any person designated to act on his behalf.
- (f) Owner: The owner, occupant or tenant of a building or structure.

(g) Plumbing fixtures: Receptacles, devices or appliances that are installed to supply, receive or discharge water or wastewater.

(h) Plumbing system: Water supply and distribution pipes, plumbing fixtures, traps, soil, waste and vent pipes, building drains, building sewers, water-treating and water-using equipment and connection devices and appurtenances that supply water to a building and that are located on the property where the building is located.

(i) Pollution: The presence of any foreign substance in water that tends to degrade its quality.

(j) Water, potable: Water that is free from impurities in amounts that are sufficient to cause disease or harmful physiological effects and that contains bacteriological and chemical qualities which conform to the requirements of the Department of Health's Virginia Waterworks Regulations and of the City.

(k) Water, non-potable: Water that is not safe for human consumption or that is not potable.

Sec. 39-98. Requirements for backflow and cross-connection control.

Every building and structure shall be constructed, equipped and maintained to prevent the pollution of the city water supply from cross-connection, backflow or back-siphonage of liquids.

Sec. 39-99. Cross-connection prohibited.

(a) The city potable water supply system shall be designed, installed and maintained to prevent non-potable liquids, solids or gases from being introduced into the potable water supply through cross-connections or any other pipe connections to the system.

(b) No person shall permit a cross-connection between the city potable water supply system and other systems or equipment that contains water or other substances except when the director, or his designee, approves the cross-connection and the person has installed protective devices that have been approved by the director, or his designee.

Sec. 39-100. Measures to prevent backflow or back-siphonage.

The owner shall install and maintain a backflow preventer, approved by the director, or his designee, on all fixtures, equipment and outlets where backflow or back-siphonage may occur. The owner shall install and maintain a backflow preventer on the water service line when the director, or his designee, determines that a backflow preventer is necessary to protect the water supply from backflow or back-siphonage.

Sec. 39-101. Prevention devices to comply with rules and regulations.

All cross-connection or backflow prevention devices or systems shall be designed, installed and maintained in accordance with the following manuals: Cross-Connection Control Manual, U.S. Environmental Protection Agency,

Office of Water Programs, Water Supply Division; the Virginia Uniform Statewide Building Code; article 3 of the Virginia Waterworks Regulations; and the City of Lynchburg Cross-Connection and Backflow Prevention Control Program. Copies of each manual shall be filed with the director of utilities, or his designee, and shall be made available to any owner who requests to see them.

Sec. 39-102. Responsibility of the director.

(a) The director, or his designee, shall inspect the plumbing system of every building or structure so as to determine that the plumbing system has been installed to prevent the possibility that the city water supply will become polluted by cross-connection, backflow or back-siphonage.

(b) The director, or his designee, shall have the right to enter any building or structure during reasonable hours for the inspection of the plumbing system for cross-connection, backflow or back-siphonage. The owner shall furnish the director, or his designee, with all the information he requests regarding the plumbing system for the property.

Sec. 39-103. Violations.

(a) The director of utilities, or his designee, shall send a notice of violation by certified mail to the owner of any building or structure that is found to be in violation of this article. The director, or his designee, shall establish a reasonable deadline in the notice of violation for the owner to correct the violation. If the owner fails to correct the violation before the expiration of the time given by the director, or his designee, the director, or his designee may terminate water service to the building or deny water service to the building.

(b) If a backflow prevention device is removed or bypassed, if a cross-connection exists or if the pressure in the water system is lowered below ten psi gauge, the director, or his designee, shall take whatever actions he finds necessary to ensure that the water system is safe from pollution.

Sec. 39-104. Penalty.

It shall be unlawful and a class 2 misdemeanor for any person to knowingly permit a violation of this article to remain uncorrected after the expiration of the time that the director, or his designee, provided for correcting the violation. Each day that the violation continues shall be a separate violation and shall be subject to the penalty provided by this section.

2. That the Code of the City of Lynchburg, 1981, be and the same is hereby amended by repealing Sections 39-14 and 39-15.

3. That this ordinance shall become effective July 1, 2003.

Adopted:

Certified:

Clerk of Council

Appendix B – Request for Waiver

**City of Lynchburg Backflow Prevention Control Program
Waiver Request for Alternate Installation Location**

Applicant: _____ Telephone No: _____

Installation Address: _____

Date Submitted: _____

Project information (if applicable):

Project Name: _____ Project No: _____

Project Location: _____

Project Engineer: _____ Telephone No: _____

Detailed description of waiver request (attach drawing if applicable):

Justification / Reason for Request:

City of Lynchburg's Cross Connection Inspector's Comments:

City of Lynchburg Technical Review Representative's Comments:

_____ Approved _____ Disapproved _____
Director of Utilities Date

Appendix C - References

- ❖ Virginia Administrative Code from Virginia Department of Health Chapter 590 Waterworks Regulations
- ❖ International Plumbing Code, Chapter 6
- ❖ Backflow Prevention Theory and Practice, University of Florida Second Edition
- ❖ University of Southern California Cross Connection Manual 9th Edition
- ❖ AWWA Recommended Practice for Backflow Prevention and Cross Connection Control, M14 Third Edition
- ❖ Professional Qualifications Standards for Backflow Prevention Assembly Testers, Repairers and Surveyors, ASSE 5000