THE CITY OF AUGUSTA, GEORGIA UTILITIES DEPARTMENT

BACKFLOW BY CONTAINMENT PROGRAM

APPROVED BY GEORGIA EPD JANUARY 15, 1997 UPDATED DECEMBER 7, 1999,January 2002, January 2005 January 2008, February 2014

INDEX

Augusta GEORGIA

POLICY AND PROCEDURES
for
BACKFLOW-PREVENTION BY CONTAINMENT

SECTION I. INTENT, PURPOSE AND CONTROL

1. **INTENT**:

To **recognize** that all Consumer's water systems have connections to apparatus, vessels, etc., that could have impurities in varying degrees and, if not properly controlled and contained, could contaminate or pollute both the consumer's water system and the public potable water supply/system. It is also the intent to apply the principle that the type of protection required shall be determined by whether the impurities are hazardous contaminants or non-hazardous pollutants.

2. **PURPOSE:**

(A) To **assist** the consumer in protecting his own potable water system against actual or potential backflow and/or backsiphonage of any contamination or pollution **by controlling** each cross-connection or potential cross-connection within the Consumer's premises. Referred to as **"THE FIRST LINE OF DEFENSE"**.

(B) To **protect** the City of Augusta, Georgia's potable water supply/system against actual or potential backflow **by containing**, within a Consumer's premises, any pollution or contamination that has entered, or may enter, into the consumer's potable water system through any undiscovered or uncontrolled Cross-Connection on said premises.
Referred to as **"THE SECOND LINE OF DEFENSE"**.

(C) To **eliminate** uncontrolled Cross-Connections to non-potable systems as well as uncontrolled interconnections to any potable water system that is not part of the City of Augusta, Georgia's Water System, **By installing** an appropriate Backflow prevention device(s) to isolate such system(s) from the City of Augusta, Georgia's potable water supply/system.

(D) To **establish**, **coordinate**, **execute** and **maintain** a total **Backflow-Prevention Program.**

3. **CONTROL**:
Requires cooperation between City of Augusta, Georgia's Utilities Department, Plumbing Inspection Department and it's water consumers in the execution of, and the adherence to the duties and responsibilities of each, as set forth by this policy and these procedures, in conjunction with other applicable codes, rules and requirements.

SECTION II. RESPONSIBILITIES

1. THE CITY OF AUGUSTA, GEORGIA UTILITIES DEPARTMENT

The Director of Utilities for the City of Augusta, Georgia as authorized through ordinances adopted by the City of Augusta Commission/Council, is primarily responsible for preventing contamination and pollution of the public water supply/systems by instituting a program of **"BACKFLOW PREVENTION BY CONTAINMENT".**

Such responsibility begins at the point of origin for the public potable water supply and includes all of the distribution system, and terminates at the service connection for the consumer's water system. The required consumer-supplied backflow prevention device at the service connection shall provide maximum (Reduced Pressure Zone Assembly - RPZ) or minimum (Double Check Valve assembly - DCV) protection as concluded by the Director or his authorized representative. In addition, the Director shall exercise reasonable vigilance to ensure that the consumer adheres to this Policy and these procedures as stated and outlined herein.

Ordinance #6223 of the Augusta Richmond County Code, Title 5, Article 4 For Backflow Prevention by regulating the construction and maintenance of cross connections, auxiliary intakes, bypasses and interconnections affecting Augusta, Georgia's potable water supply.

2. THE CITY OF AUGUSTA, GEORGIA PLUMBING INSPECTION DEPARTMENT (INSPECTOR)

The Plumbing Inspection Department is primarily responsible for enforcing the plumbing code to prevent contamination and pollution within the consumer's water system through a program of **"BACKFLOW PREVENTION by CROSS-CONNECTION CONTROL"** requiring that all outlets terminate through an approved air gap or be controlled by an approved mechanical back-flow prevention device. Such responsibility begins at the service connection to the premises and extends to the extremities of the Consumer's potable water supply.

3. THE CONSUMER (customer)

The consumer has the responsibility for protecting both potable water in his own system from degradation due to conditions originating on his premises, **by complying with the State of Georgia's plumbing code,** and also by protecting the quality of water in the City of Augusta, Georgia's water supply/system against any potential or actual health hazard(s) generated on or from his premises through uncontrolled cross-connections, **by BACKFLOW PREVENTION AT THE SERVICE CONNECTION.**

Therefore, after the City of Augusta, Georgia's Utilities Department has determined the type of backflow protection that is required at the consumer's service connection, the customer is then responsible for the costs of procurement, installation, testing, repair and maintenance of said device.

SECTION III. GUIDELINES:

This program presents guidelines which have been developed to protect the City of Augusta, Georgia's Water System against contamination or pollution resulting from backflow of objectionable fluids through cross-connections. It is the intent of these guidelines to provide this protection at the **service connection** that may result from backflow through cross-connections. All water users are encouraged to utilize separate systems for their process water use so as to prevent possible pollution or contamination of their internal water supply.

A. Installation of an approved cross-connection control device may be required of water users who represent potential sources of contamination to the public water systems.

A potential source of contamination is defined as, but not limited to, any of the following:

1) Sewerage pumps used for disposing, cleaning, flushing, or unclogging.

2) Water-operated sewerage sump ejectors.

3) Sewer lines used for disposing of filter or softener backwash water or water from Cooling systems, or for providing a quick drain for building lines, or for flushing or blowing out obstructions in a sewer line.

4) Water-cooled equipment that may be sewer connected, such as heat exchangers, compressors, and air conditioning equipment.

5) Contaminated or sewer connected equipment, such as bedpan washers, flushometer valve toilets and urinals, autoclaves, Specimen tanks, sterilizers, pipette washers, cuspidors, aspirators, and autopsy and mortuary equipment.

6) Laboratory equipment that may be chemically or bacteriologically contaminated.

7) Plating facilities involving the use of highly toxic cyanide, heavy metals in solution, acid and caustic solutions.

8) Plating solution filtering equipment with pumps and circulating lines.

9) Industrial fluid systems and lines containing cutting and hydraulic fluids, coolants, hydrocarbon products, glycerin, paraffin, caustic solutions and acid solutions.

10) Shrinking, blueing, dyeing machines with direct connections to circulating systems.

11) Laundry machines having underrim or bottom inlets.

12) Dye vats in which toxic chemicals and dyes are used.

13) Pulp, bleaching, dyeing, and processing facilities that may be contaminated with toxic chemicals.

14) Automatic film processing facilities, such as machines, tanks, vats and other facilities used in processing of film.

15) Open reservoirs, lagoons, tanks or similar facilities.

16) Dehydration tanks and outlet lines from storage and dehydration tanks used for purging purposes.

17) Storage tanks, cooling towers and circulating systems that may be contaminated with bird dropping, algae, bacterial slime or toxic water treatment compounds.

18) Tanks, vats and other vessels used in painting, descaling, anodizing, cleaning, stripping, oxidizing, etching, passivating, pickling, dripping and rinsing operations and lines used for transferring fluids.

19) Tanks, can and bottling washing machines and lines where caustic and acid solutions, detergents and other compounds used in cleaning, sterilizing and flushing.

20) Steam-generating facilities and lines that may be contaminated with corrosion control chemicals or boiler compounds.

21) Steam-connected facilities, such as pressure cookers, autoclaves and retorts.

22) Washers, cookers, tanks, lines, flumes and other equipment used for storing, washing, cleaning, blanching, cooking, flushing or fuming or equipment used for the transmission of foods, fertilizers or wastes.

23) Fire-fighting systems that may be subject to contamination from anti-freeze solutions or other chemicals.

24) Hydraulically operated equipment where community water pressure is used directly and backpressure may occur.

25) Equipment under hydraulic test, such as tanks, valves, fittings, lines, pumps pressure cylinders or other hydraulic facilities that may force liquids back into a public water system.

26) Irrigation systems that may be equipped with pump, injectors, pressurized tanks or vessels.

27) Special effects equipment that injects chemicals and other materials into the water supply.

28) Mud pumps and mud tanks.

29) Oil well casings used for dampening gas pressures.

30) Oil and gas tanks in which hydraulic pressures are used to raise oil or gas levels.

31) Gas and oil lines used for testing, evacuating and slugging.

B. **All Backflow Devices Installed in Augusta, GA shall meet the Buy American ACT Standards 2009**

C. Cross-connection control devices will be installed on each service connection **at the point of delivery and ahead of any outlet**. If the water line is divided at the point of delivery, a device should be installed on each branch.

D. The type of cross-connection control device required will depend on the degree of hazard involved, which will be determined by the City of Augusta Utilities Department.

E. All plans for new construction will be checked prior to construction to determine the degree of hazard and the type of cross-connection control device, if any required at the point of delivery.

F. All cross-connection control devices will be readily accessible for maintenance and testing. They shall not be located where any part of the device will be submerged at any time.

G. All cross-connection control devices shall be inspected and tested by a certified cross-connection control tester at least once per year. A written report of the inspection and testing shall be submitted to the City of Augusta, Georgia Utilities Department.

SECTION 312.9.1, Georgia State Plumbing Code.

H. All cross-connection control devices shall be the same size as piping serving building or fire protection system.

SECTION 8.4.2, Hydraulic Sizing; USC's Manual for Cross-Connection Control 9th Edition FCCHR

I. Water users are encouraged to maintain an ongoing internal cross-connection program by designating one of their employees as the contact official. Duties of the contact official follows:

(1) Inform the City of Augusta, Georgia Utilities Department of any change in water use the may affect the degree of hazard to the public water system.

(2) Perform routine maintenance of any cross-connection control devices.

(3) Oversee any in-plant piping of plumbing changes.

SECTION IV. IMPLEMENTATION and ENFORCEMENT:

1. This **Policy** and These **procedures** shall be implemented immediately for Backflow-Prevention by Containment; in conjunction with the existing Georgia State Plumbing Codes for Backflow Prevention by Cross-Connection Control on new domestic water, fire protection and irrigation system installations.

2. **Implementation** of this policy and these procedures shall also **commence immediately** on existing installations. Priority schedules shall be established and evaluations made by the City of Augusta, Georgia Utilities Department for the Consumer's Retrofit requirement at the service connection, beginning with those consumers with the greatest potential threat to the public potable water supply/system. The City of Augusta, Georgia Utilities Department however shall not be responsible for abatement of cross-connections, which may exist within a consumer's premises. As a minimum, the evaluation shall consider: the existent of cross-connections; nature of the material handled on the property; the probability of a backflow occurring; the degree of piping system complexity; and the potential system modification.

3. **Enforcement** of this policy and these procedures shall be administered by the City of Augusta, Georgia Utilities Department, utilizing it's staff in cooperation with those of the Plumbing Inspection, Environmental Health and Fire Departments of The City of Augusta, Georgia as authorized by the City of Augusta, Georgia Commission/Council.

4. The Following Enforcement actions may be taken on those users not complying with the Backflow and cross-connection control activities for these guidelines.

a. **Warnings:**

Any person found violating the provision for this ordinance shall be served a written notice stating the nature of the violation and shall be provided a reasonable time limit for the satisfactory correction thereof.

b. **Terminate Service:**

If necessary, water service can be terminated and a reconnection fee be established.

SECTION V. INSPECTION of FACILITIES:

1. The consumer, upon request, shall furnish to the City of Augusta, Georgia Utilities Department, any pertinent information regarding the consumer's water system on such premises where backflow and/or backsiphonage are deemed possible through uncontrolled plumbing connections and/or cross-connections.

2. Nothing herein shall relieve the consumer of the responsibility for conducting or causing to be conducted periodic surveys of water use practices on his premises to determine whether there are actual or potential uncontrolled cross-connections within the consumer's water system through which contaminates or pollutants could flow back into his own and/or the City of Augusta, Georgia Utilities Department potable water supply/system. If the premise is classified restricted or high security with no admittance, maximum (RPZ) protection at the service connection is required.

3. Facilities considered to pose an actual or potential contamination and /or pollution threat to the Public potable water supply/system will be subject to inspection by an authorized representative(s) of the City of Augusta, Georgia Utilities Department and when deemed necessary, in accompaniment with a representative(s) from the Plumbing Inspection, Environmental Health, and /or Fire Departments. Inspections will focus on plumbing outlets and potential contaminating or polluting substances within a facility. Inspections will be scheduled at a time mutually agreeable with the consumer's representative(s) and the City of Augusta Utilities Department representative(s). Using information gathered, the City of Augusta, Georgia Utilities Department will determine the degree of potential backflow hazard and specify the type of backflow protection required at the Consumer's Service-connection.

4. If, upon inspection, a facility is found not to be in full compliance with the plumbing code, maximum protection will be required. If the owner brings the facility up to full protection within a ninety-(90) day period, minimum protection will be allowed at the service-connection provided potential hazards within the premises are isolated.

5. After Reasonable notice to the consumer, of a violation of this policy and /or procedures existing on the premises, water service shall be discontinued, a reconnection fee charged and any other precautionary measures taken that are deemed necessary to protect the quality of the water in the City of Augusta, Georgia Utilities Department potable water supply/system. Water service shall not be restored until the danger has been eliminated in compliance with the provisions of this procedure.

6. While in the course of a routine inspection or special investigation, the inspector(s) discovers a condition of imminent or actual high hazard system contamination, the inspecting department's representative shall be authorized to **IMMEDIATELY DISCONTINUE SERVICE** to the facility. Service will not be restored until the hazardous condition has been corrected and reinspected.

7. In the event of accidental contamination or pollution of the public water supply/system, the **Consumer**, if he is so aware, shall **IMMEDIATELY NOTIFY** the City of Augusta, Georgia Utilities Department so that the appropriate measures may be taken to contain and isolate the contaminant and/or pollutant.

NOTE: COST LIABILITIES ARE THE CONSUMER'S RESPONSIBILITY, AND KNOWN FAILURE TO REPORT IS A CRIMINAL OFFENSE PUNISHABLE UNDER COUNTY, STATE AND FEDERAL LAW.

SECTION VI. WATER from OTHER SOURCES and FIRE HYDRANTS

1. When any premises is served by the City of Augusta, Georgia Utilities Department's Water System and said premises continues to have a well or any other source of water. It shall be in violation of this policy and procedures for the plumbing on said premises to be installed or so interconnected that water in the City of Augusta, Georgia's water supply/system and the private water supply can, in any way, become intermingled.

2. **All Backflow Devices Installed in Augusta, GA shall meet the Buy American ACT Standardsof 2009**

3. Upon discovery of an uncontrolled interconnection on any premises being furnished water through the City of Augusta, Georgia water system, as in item #1 above. The owner of said premises shall be notified that the interconnection must be removed and/or controlled within thirty (30) days, and that failure to remove or correct the inter-connection will result in removal of the meter. If the correction is not made within a thirty (30) day period, the meter will be removed and will not be reinstalled until the maximum-type backflow protection is installed at the service-connection, and the owner has paid for all associated costs.

4. Booster pumps installed on the service line to or within any premises, must be approved and permitted by the City of Augusta, Georgia Utilities Department. Such permitted pumps shall be equipped with a low pressure cut- off device designed to shut off the booster pump when the pressure in the suction line of the service side of the pump drops to 15 psi or below. It shall be the duty of the water consumer to maintain the low-pressure cut-off device in proper working order at all times and to certify to the City of Augusta, Georgia Utilities Department, at least once per year that the device is operable.

Note: Consumer shall assume all liabilities.

5. Tanks, tanker trucks, seed spraying trucks and other containers that will be filled with water obtained under the **"Fire Hydrant Water Use Permit"** Policy must be inspected, approved, and permitted by City of Augusta, Georgia Utilities Department for the permanent installation of an approved air gap or reduced pressure zone backflow-prevention device prior to issuance of the Fire Hydrant Water Use Permit. In addition, connecting hoses, etc., to a fire hydrant for purposing other than filling an approved tank or tank truck shall also include, as a minimum, a prior approved and inspected double check valve backflow prevention device.

SECTION VII. SELECTION of DEVICES

The Type of Backflow Prevention Assembly is Determined by the City of Augusta using the criteria and guidelines as set forth in the **American Water Works Association's Manual 14, Second Edition, titled Recommended Practice for Backflow Prevention and Cross-Connection Control**. Assemblies shall have current endorsement from the University of Southern California; Foundation for Cross-Connection and Hydraulic Research, which incorporates standards AWWA C510-89 for double check assemblies, and AWWA C511-89 for reduced pressure zone assemblies or approved equal certifications. The City of Augusta's Backflow Prevention Manager must approve any deviation from these specifications in writing prior to the start of installation.
Requirements for the level of backflow protection are based on the hazard category of the user. Hazard categories define the level of hazard potential to the potable water system from backflow or cross-connection based on the likelihood of and type of material subject to backflow or cross-connection incident. The hazard categories are described below but are not 100% inclusive of all facilities in a respective category.

1. **All Backflow Devices Installed in Augusta, GA shall meet the Buy American ACT Standards 2009**

CATEGORY I –HIGH RISK

Considered to be potential source of a contaminate. Contaminates are toxic substances or those creating a health hazard due to the nature of the product, raw materials or processes in use by the customer. This Category would include such customers **as hospitals, mortuaries, doctor's offices, dentist offices, veterinary offices, multifamily housing or office buildings on a single meter greater than 2 stories, metal plating operations, chemical companies, restaurants, pest control companies and other commercial/industrial customers using toxic chemicals.** Water Service connections to these customers must be protected by a **REDUCED PRESSURE ZONE (RPZ)** (up to three inch (3") Apollo/Conbraco Model #4A-200 or equivalent, Four (4") and larger Apollo/Conbraco Model #40-200 or equivalent) **BACKFLOW PREVENTION ASSEMBY or an AIR GAP** to provide maximum protection. The Alternative to the single RPZ at the meter would be a Double Check Valve (DCVA) Backflow Prevention Assembly at the meter and one or more RPZ's inside the facility at strategic locations to provide isolation/containment protection for the municipal water system. If the DCV/RPZ installation configuration is used then all assemblies must be tested annually with the reports sent to the Backflow Prevention Office. See details for installation of RPZ'S Further in this document.

All Backflow Devices Installed in Augusta, GA shall meet the Buy American ACT Standards 2009

CATEGORY II-MEDIUM RISK

Considered to be a potential source of a pollutant. Pollutants are substances, which are objectionable in nature such as those causing discoloration, odor or taste in the water. Typical customers in this category would include **commercial businesses such as grocery stores, daycare facilities, multifamily housing on a single meter, office buildings and any premises including residences, with an auxiliary water supply**. Water Service connections in this category are required to be protected by a minimum of a **DOUBLE CHECK VALVE (DCVA)** (up to three inch (3") Apollo/Conbraco Model #4A-100 or equivalent, four inch (4") and larger Apollo/Conbraco Model #4SG-100 or equivalent) **BACKFLOW PREVENTION ASSEMBLY AT THE METER**.

All Backflow Devices Installed in Augusta, GA shall meet the Buy American ACT Standards 2009

CATEGORY III-LOW RISK

Those considered being least likely to be a possible source of a contaminant or pollutant. Typically this category includes single family residential customers. **A DUAL CHECK (DUCV)** (¾" and 1" Meters Apollo/Conbraco Model #40-300 or Equivalent) **BACKFLOW PREVENTION ASSEMBLY AT THE METER** shall protect the water service connections to these customers.

All Backflow Devices Installed in Augusta, GA shall meet the Buy American ACT Standards 2009

1. Vacuum breakers and backflow preventers shall be selected on the basis of the impurities involved and the type cross-connection. The impurities shall be classified as Contaminants, **hazardous** and/or pollutants **non hazardous**; and the cross-connection by whether it is a pressure or non pressure as follows:

(a) CROSS-CONNECTION, NONPRESSURE TYPE: This Type of connection, when not protected by a minimum air gap, shall be protected by appropriate backflow preventer (BFP).

(b) CROSS-CONNECTION, PRESSURE TYPE: an appropriate BFP type shall protect This Type Connection only.

CAUTION: A pressure vacuum breaker shall not be used alone on a pressure-type cross-connection.

NOTE: Because an irrigation system serves an environment that is open to the atmosphere, it would not be classified as a pressure-type cross-connection. However, due to the special nature of the installation, minimum protection against backflow shall include a Pressure Vacuum Breaker or double check valve backflow preventer. If chemicals are injected into the system, minimum protection shall include a reduced pressure zone backflow preventer. Section 1105.7 Georgia State Plumbing Code.

2. Vacuum breakers shall be corrosion resistant, all other backflow-prevention devices, including accessories; components and fittings in sizes through 2 inch shall be bronze with threaded connections. Sizes above 2 inch shall be bronze; or iron that has a fused epoxy-coating inside and out, and have flanged connections.

3. Each device shall have a brass identification tag; Securely attached with corrosion resistant mechanical fasteners, and /or be embossed to notate the manufacturer's name, serial number and maximum working pressure and temperature.

4. All cross-connection control devices shall be the same size as piping serving building or fire protection system.

AWWA Manual M14; USC's Manual for Cross-Connection Control 9th Edition FCCHR

SECTION VIII. APPROVAL of DEVICES

All Backflow-prevention devices shall be approved in accordance with the applicable standards of the America Society of Sanitary Engineering (ASSE), the American National Standards Institute (ANSI), The American Water Works Association (AWWA), The University of Southern California Foundation For Cross-Connection Control and Hydraulic Research (USC) 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 City of Augusta, Georgia Utilities Department shall determine whether the device will be allowed.

SECTION IX. LOCATION and INSTALLATION of DEVICES:

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

2. Installation of all backflow-prevention devices shall be in accordance with the following procedures, the Georgia State Plumbing Code, and other Applicable codes and regulations. Installations for containment shall be by a duly licensed plumber, mechanical and/or Utility Contractor; and as approved by the City of Augusta, Georgia Utilities Department.

(a) When a dual or double check valve backflow preventer is used in the containment concept, it shall be installed at or close to the service-connection as practical, in an approved meter box, covered vault or insulated enclosure.

(b) When a reduced pressure zone backflow preventer is installed at the service-connection it shall be above ground in a structure that is protected from freezing. In lieu of the above-ground installation at the service-connection, and at the owners request, the water purveyor and the plumbing official may allow the RPZ to be installed immediately inside the building, in which

case the device would remain under the jurisdiction of the City of Augusta, Georgia Utilities Department and subject to periodic inspections and testing by it's authorized representative.

NOTE: When a backflow preventer is installed in a service pipe inside a structure on any premises for the purpose of containing said premises, it shall be unlawful to tap into such service pipe between the BFP and the service-connection. Any Branch connection(s) on an existing service pipe shall be permanently disconnected or equipped with a backflow preventer(s) commensurate with the degree(s) of hazard.

SECTION 608.14), Georgia State Plumbing Code.

3. Facilities that must have a continuous uninterrupted water supply shall install backflow-prevention devices in parallel for testing and maintenance purposes. In no case shall a bypass arrangement be installed unless it is also equipped with an approved backflow-prevention device.

4. Vacuum breakers and backflow preventers equipped with atmospheric vents, or with relief openings, shall be so installed and so located as to prevent any vent or any relief opening from being submerged. They shall be installed in the position as recommended by the manufacturer, and as prescribed in the following:

(a) **VACUUM BREAKER, ATMOSPHERIC TYPE (AVB):** This Device shall be at least 6 inches above the highest outlet or the overflow level on the nonpotable system

(b) VACUUM **BREAKER, PRESSURE TYPE (PVB): 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.

(c) **VACUUM BREAKER, HOSE TYPE (HVB):** This Device shall be installed directly on the hose hydrant, if not an integral part of the valve. It may not be subjected to continuous pressure, static or flowing; and/or to freezing temperatures, unless it is a model that drains automatically.

CAUTION: Freezeless (frost-proof) hydrants shall include an integral vacuum breaker with the automatic drainage feature, per ASSE Standard-1019.

(d) **BACKFLOW PREVENTER, DUAL CHECK (DuC):** This device shall not be buried in earth but may be installed below ground as in a meter box. A union shall be provided on each end and a full port ball valve shall be near the inlet and outlet sides to allow removal for maintenance. The two checking devices shall be capable of independent operation as per ASSE Standard 1024.

NOTE: When a meter or other device with a bronze strainer, integral or attached, is not immediately upstream of the dual check (DuC), a bronze strainer shall be provided between the inlet shut-off and the DuC.

(e) **BACKFLOW PREVENTER, DOUBLE CHECK VALVE (DCV):** This assembly shall not be buried in earth but models with top and/or side access to both checks may be

installed below ground as in (paragraph 2a). When below ground, a flange or swivel coupling nut shall be on the inlet and outlet sides of the checking device and all assembly bolts on bronze DCV's so installed shall be resistant to electrolysis. A Full-port ball valve in sizes through 2 inch, and a resilient-seat OS&Y gate valve in sizes above 2 inch, shall be on the inlet and outlet sides of the device. The device shall be provided with three ball valve test cocks and a fourth test cock shall be provided on the upstream side of the inlet shut-off valve. Sizes through 2 inch shall be provided with test cocks in the vertical position. All test cocks to be provided with plastic or brass, plugs or caps. No intervening connection(s) shall be between the shut-off valves and the backflow preventer.

NOTE: When a meter or other device with a bronze strainer, integral or attached, is not immediately upstream of the backflow preventer a bronze strainer shall be provided between the inlet shut-off valve and the DCV on sizes through 2 inch.

(f) **BACKFLOW PREVENTER with INTERMEDIATE ATMOSPHERIC VENT (IAV)**: 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 a funnel, at the vent/relief port to a floor drain or other approved location. A resilient-seat shut-off valve and union shall be near the inlet and outlet sides of the device.

NOTE: When a meter or other device with a bronze strainer, integral or attached, is not immediately upstream of the backflow preventer a bronze strainer shall be provided between the inlet shut-off valve and the IAV on sizes through 2 inch.

(g) **BACKFLOW PREVENTER, REDUCED PRESSURE ZONE (RZV):** 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 a funnel, at the vent/relief port to a floor drain or other approved location. Resilient-seat valves, test cocks, and strainer shall be provided as paragraph (e) above. No Intervening branch connection(s) shall be between the shut-offs and backflow preventer.

NOTE: When a reduced pressure zone device is installed in a line subject to periodic no-flow conditions, and supply pressure subject to fluctuation, an auxiliary directional check with soft disc, capable of functioning in any position the BFP may be installed in shall be provided between the inlet shut-off valve and the BFP head to lock the supply pressure in, and prevent unnecessary discharge through the vent/relief port. Make-up lines to chilled water systems and hydronic heating systems are examples of installations where a drop in supply pressure may occur during no flow conditions. When a water pressure-reducing valve is required in the same line with the RPZ device, it is usually possible to locate the reducing valve upstream of the device and to take advantage of the check valve effect of the reducing valve. In Such case, the auxiliary directional check would not be required.

(h) All cross-connection control devices shall be the same size as piping serving building or fire protection system.

AWWA Manual M14; USC's Manual for Cross-Connection Control 9th Edition FCCHR

All Backflow Devices Installed in Augusta, GA shall meet the Buy American ACT Standards 2009

SECTION X. THERMAL EXPANSION

**********SPECIAL CAUTION**********

Thermal Expansion- When water is heated and stored in a consumer's water system, or branch of the system, that has been closed by the installation of backflow-prevention device, or any other checking device; an auxiliary relief valve, or expansion chamber, shall be installed to limit thermal expansion of the water being heated to not more than 80 psi static (no-flow) pressure at any fixture on the system.

Section 607.3 of the Georgia State Plumbing Code.

SECTION XI. FIRE PROTECTION SYSTEMS:

1. **All Backflow Devices Installed in Augusta, GA shall meet the Buy American ACT Standards 2009**

For the purposes of **BACKFLOW-PREVENTION By CONTAINMENT**, if the service connection to a premises; from the City of Augusta, Georgia Utilities Department's potable water supply/system, is intended to be used for fire protection service it shall be classified and/or defined as follows:

(a) **DEDICATED** SERVICE-CONNECTION - one that is designated to supply potable water for fire protection service ONLY.

(b) **COMBINATION** SERVICE-CONNECTION - one that is designated to supply potable water for **BOTH** domestic use and fire protection service.

2. To further associate the sources of water that may be used for fire protection and classes of fire protection systems, the following Georgia State Fire Code Classes shall also apply for Backflow-Prevention by Containment:

CLASS 1 - Directly supplied from Public water mains only; no pumps, tanks, or reservoirs; 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.

CLASS 2 - Directly supplied from Public water mains, same as Class 1, except that authorization has been obtained for a booster pump to be installed in the supply line.

NOTE: Must have a special approval and be permitted by the City of Augusta, Georgia Utilities Department.

(Refer to Section V, 3)

CLASS 3 - Directly supplied from Public water 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 reservoirs or tanks. All storage facilities shall be filled from potable water supply and maintained in potable condition.

CLASS 4 - Directly Supplied from Public water 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 1,700 feet of the pumper connection.

CLASS 5 - Directly supplied from Pubic water mains, and interconnected with auxiliary supplies, such as: pumps taking a suction from reservoirs exposed to contamination or rivers and ponds; driven wells; mills or other industrial water systems; or where antifreeze or additives are used.

CLASS 6 - Directly supplied from Public water mains only, with or without gravity storage or pump suction tanks, and/or interconnections with industrial systems.

3. The Following terminology and definitions for types of fire protection systems shall also be applicable;

(a) Sprinkler System - includes express riser pipes that convey water to laterals that supply sprinkler heads.

(b) Standpipe System - includes bulk riser pipes equipped with hose connections, usually at each floor and roof, for exclusive use by the fire department; plus laterals on each floor of certain facilities that supply water to hose cabinets for use by the occupants to control incipient fires until the fire department arrives.

(c) Combined Systems - includes bulk and express riser pipes that supply both sprinkler and standpipe systems.

4. Fire Systems shall be further classified and defined as:
(a) **NONHAZARDOUS** - containing impurities Class 3 and lower.
Also see, Terminology for Pollutant - appendix.

(b) **HAZARDOUS** - containing impurities Class 4 and higher.
Also see, Terminology for Containment - appendix.

5. Fire protection systems as defined by the State of Georgia Fire Code shall be contained from the City of Augusta, Georgia Utilities Department's potable water supply/system by backflow-prevention devices as indicated and that have approvals as required under Section VII of this procedure and classified or listed by the Underwriters Laboratories and Factory Mutual Insurance, as Follows:

Class 1, 2, and 3 Sprinkler systems and Nonhazardous Standpipe or Combined Systems: shall be contained by installation of a **DOUBLE DETECTOR CHECK** backflow preventer.

Class 4, 5 and 6 Sprinkler systems and hazardous Standpipe or combined systems: shall be contained by then installation of a **REDUCED PRESSURE ZONE DETECTOR CHECK** backflow preventer

Class 1,2,3,4,5 and 6 Systems with Combination Hazards: shall be contained from the public water main by procedures applicable to the component that requires the **higher** degree of protection.

6. All cross-connection control devices shall be the same size as piping serving building or fire protection system.

7. The purpose of certain checking devices used, or likely to be used, within fire protection systems is outlined below to call attention to those that are approved for use as backflow-prevention devices and those that are not.

(a) **DIRECTIONAL CHECKS** - to provide directional flow only.
NOT an approved backflow-prevention device.

(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.
NOT an approved backflow-prevention device.

(c) **SINGLE DETECTOR CHECK** - to detect unauthorized use of water for other than fire service; to detect leaks in fire protection systems: and, with by-pass check, to provide directional flow. **NOT** an Approved Backflow-prevention device.

(d) **DOUBLE CHECK VALVE (DCV)** - to prevent backflow of polluted water into a potable water supply/system; and to provide directional flow.
APPROVED for use with full service Master or FM meters on a combination service connection only.

(e) **DOUBLE DETECTOR CHECK (DDC)** - To prevent backflow of polluted water from a fire protection system into a potable water supply/system; to detect leaks in the fire protection system; and, to provide directional flow.
APPROVED for use on a **dedicated** service connection.

(f) **REDUCED PRESSURE ZONE CHECK (RPZ)** - to prevent backflow of contaminated water into a potable water supply/system; and to provide directional flow.
APPROVED for use on a **Combination** service as in item (d).

(e) **REDUCED PRESSURE DETECTOR CHECK (RPDC)** - to prevent backflow of contaminated water from a fire protection system into a potable water supply/system; to detect unauthorized use of water; to detect leaks in the fire protection system; and, to provide directional flow.
APPROVED for use on a **Dedicated** service as in Item (e).

7. Single detector checks that are used on nonhazardous fire protection systems Class 1, 2 or 3 may not be considered as a component part of a DDC backflow preventer. Specifically, the addition of a second single check to one of these devices **may not** be substituted for a double detector check (DDC) assembly, that is approved for backflow-prevention.

8. It is intended that the approved Double Detector Check (DDC) backflow-preventer be in lieu of; not in addition to, the two checking devices already required in the supply to Class 1 and 2; or the double check valve (BFP) already required on Class 3 Nonhazardous systems, and that the approved Reduced Pressure Detector Check (RPDC) be in lien of the RPZ already required on hazardous systems. The only additional checking device intended is a 3/4-inch Double Check Valve (DVC) or, a Reduced Pressure Zone (RPZ) in the 3/4-inch copper bypass line, in conjunction with the bronze detector meter.

9. The two shut-off valves required for periodic testing of the backflow-prevention device shall be OS&Y, FDA approved fused epoxy coated inside and out, with resilient seats and the inlet valve shall include an approved test cock on the upstream side. Underwriter's Laboratories and Factory Mutual Insurance shall list all components for fire protection service.

10. All cross-connection control devices shall be the same size as piping serving building or fire protection system.

AWWA Manual M14; USC's Manual for Cross-Connection Control 9th Edition FCCHR

All Backflow Devices Installed in Augusta, GA shall meet the Buy American ACT Standards 2009

SECTION XII. TESTS, MAINTENANCE and REPAIRS

1. All Backflow-prevention devices, both existing and new, and all parts thereof, shall be maintained in a safe and reliable operating condition.

2. The Consumer shall be responsible for the cost of testing, maintenance and repair of all backflow-prevention devices downstream of the service-connection within the premises and on his own private system.

3. The Consumer is responsible for backsiphoned material or contamination and/or pollution through backflow and, if contamination or pollution of the City of Augusta, Georgia Utilities Department's public potable water supply/system occurs Through an illegal cross-connection and/or an improperly installed, maintained or repaired device, or a device that has been bypassed, he shall be liable for all associated costs of clean-up required for the public potable water supply/system.

4. Tests, maintenance and repairs on BFP devices are to be made in accordance with the following schedule or more frequently where inspections indicate a need or are specified in manufacturing instructions.

(a) **FIXED AIR GAP SEPARATIONS** - shall be inspected at the time of installation and at least annually thereafter.

(b) **PRESSURE VACUUM BREAKERS** - shall be inspected and tested at the time of installation and at least yearly thereafter.

(c) **DUAL CHECK VALVES** - shall be inspected and tested at the time of installation and on a schedule as determined by the City of Augusta, Georgia Utilities Department.

(d) **DOUBLE CHECK VALVE BACKFLOW PREVENTERS** - shall be inspected and tested at the time of installation and at least annually thereafter.

(e) **REDUCED PRESSURE ZONE BACKFLOW PREVENTERS** - Shall be inspected and tested at the time of installation and at least Annually thereafter.

(f) **SYNTHETIC COMPONENTS WITHIN A DEVICE** - Shall be replaced every Five (5) years or sooner if required.

5. Test Procedures for all backflow-prevention devices shall be as outlined in the **UNIVERSITY OF SOUTHERN CALIFORNIA: FCCCHR; MANUAL OF CROSS-CONNECTION CONTROL.**

6. Testing and repairs shall be performed by a specialist who is certified and /or trained to understand the design and intended operation of the device(s) being tested, and has proven his competency to the City of Augusta, Georgia Utilities Department.

7. A test and maintenance record for each RPZ, DCV, and PVB device used in the containment concept shall be maintained by the consumer. Following each test or repair a report must be sent to the City of Augusta, Georgia Utilities Department's Backflow-Prevention Section and must include the following:

(a) Date of Installation and location of device;

(b) Manufacturer's name, model and serial number;

(c) Date and time of each test or visual inspection;

(d) Name of authorized person-performing test;

(e) Test Results;

(f) Description of repairs or servicing required;

(g) Date repairs completed.

8. All backflow-prevention devices and test data shall be subject to periodic inspection by a representative of the City of Augusta, Georgia Utilities Department. If a device is found to be inoperative or malfunctioning, the consumer will be given a reasonable time to complete corrections required by the inspector or representative. With the exception of cases involving actual or imminent system contamination, the time allotted for corrections will be determined by potential hazard posed to the Public Potable Water Supply/System.

9. If the corrective measures have not been taken in the allotted time, termination of water service will be recommended. If the Director concurs, The Consumer will receive a certified letter of intent to terminate service. Termination procedures will be initiated (10) ten days after receipt. If the Consumer completes the corrections prior to the deadline, termination procedures will be halted.

SECTION XIII. EMERGENCY CONTINGENCY PLAN

When an emergency situation occurs due to a cross- connection or chemical spill, which could potentially contaminate the City of Augusta, Georgia Utilities Department's Public Water Supply/System, the following actions should be taken:

(a) The Following information should be obtained:

(1) Location of the emergency situation.

(2) Date and Time emergency situation occurred.

(3) Name of person reporting.

(4) Type of potential contaminants.

(5) Quantity of potential contaminants.

(6) Physical form of potential contaminants (i.e. gas, liquid, est.)

(b) The information obtained in (a) should be immediately transmitted via radio and/or telephone communication to all appropriate public service departments. Necessary telephone numbers include but are not limited to the following:

City of Augusta, Georgia Utilities Department 706-842-3060

Emergency Management 706-821-1155

Risk Management 706-821-2486

Ga. EPD 1-404-656-4300
U.S. EPA Region IV 1-404-881-4062

(c) The location of the emergency situation should be identified on a water system map and appropriate valves should be identified which may be used to isolate the problem area.

(d) A distribution system service crew and a laboratory technician should be immediately dispatched to the emergency area.

(e) The Laboratory technician will determine the limits of contamination through chlorine residual tests, odor, visual appearance and other appropriate techniques.

(f) The Distribution System Crew will isolate the contaminated area by closing the appropriate valves.

(g) The Distribution System Crew will then flush and sanitize the contaminated lines.

(h) In the event of a chemical spill, a determination must be made if the spill has occurred in reaches of the Savannah River or Augusta Canal, which are upstream of the Water Treatment Plant intake. If so, operation of the raw water pumping station should be immediately stopped.

SECTION XIV. PUBLIC AWARENESS

All Customers will be sent a brochure on Backflow or Backsiphon prevention, a public meeting will be held with the News Media and Brochures will be on the counter at the Water Revenue Collection Offices.

SECTION XV. ADDITIONAL INFORMATION

Any questions regarding this policy and /or procedures may be directed to the:

Augusta
GEORGIA

THE CITY OF AUGUSTA, GEORGIA
UTILITIES DEPARTMENT
BACKFLOW PREVENTUION SECTION
360 Bay Street Suite 180
Augusta, Ga. 30901
Phone (706) 312-4145

APPENDIX

TERMINOLOGY FOR BACKFLOW-PREVENTION PROGRAM

AUTHORITY - the individual, official, board, department or agency established and authorized by county, city and/or other political subdivision created by law to administer and enforce the provisions of the Plumbing Code, The Federal and State Safe Drinking Water Acts, And the Ordinances, Rules, Regulations and policies of The City of Augusta in the State of Georgia.

BACKFLOW - a reverse flow in a water system from the normal or intended direction.

BACKFLOW PREVENTER (BFP) - a device designed to prevent reverse flow in a water system. The term should normally be used where backpressure-type backflow is implied.

BACKFLOW PREVENTER, DOUBLE CHECK VALVE (DCV) - a backpressure- type backflow prevention device designed for continuous or intermittent pressure, including backpressure, where pollutants are involved.

BACKFLOW PREVENTER, DOUBLE DETECTOR CHECK (DDC) - a backpressure- type backflow prevention device designed to serve also as a detector check on fire protection systems where pollutants are involved. It Includes a line- size approved double check valve backflow preventer with a metered bypass, into which has also been incorporated an approved double check valve backflow preventer.

BACKFLOW PREVENTER, DUAL CHECK (DuC) - a backpressure-type backflow-prevention device designed especially for containing water systems to residences, mobile homes, etc. as the second line of defense, and for isolating residential lawn sprinkler systems, ect. Where pollutants only are involved.

BACKFLOW PREVENTER with INTERMEDIATE ATMOSPHERIC VENT (IAV) - a backpressure and backsiphonage-type backflow- prevention device designed to operate under continuous pressure, including backpressure, where low-degree contaminates are involved.

BACKFLOW PREVENTER, REDUCED PRESSURE ZONE (RPZ) -a backpressure and backsiphonage-type backflow prevention device designed to operate under continuous pressure, including backpressure, where contaminants are involved

BACKFLOW PREVENTER, REDUCED PRESSURE DETECTOR CHECK (RPDC) - a Backpressure and backsiphonage-type device designed to serve also as a detector check on fire protection systems where contaminants are involved. It includes a line-size reduced pressure zone backflow preventer with a metered bypass, into which has also been incorporated an approved reduced pressure zone backflow preventer.

BACKFLOW-PREVENTION - a program, an ordinance, a code, a policy; designed to discover, eliminate, to prevent; all unauthorized and uncontrolled backflow and cross-connections.

BACKFLOW-PREVENTION by CROSS-CONNECTION CONTROL - the installation of a backflow-prevention device at each cross-connection on a premises to protect both the premises and the Public Water Supply system **(The First Line of Defense)**.

BACKFLOW PREVENTION by CONTAINMENT - the installation of a backflow preventer at the service-connection to the premises to protect only the Public Water Supply system. **(The Second Line of Defense).**

BACKPRESSURE - an increase in pressure in a Consumer's water system, or branch of the system, above that at the service-connection. It is generally caused by pumps, thermal expansion, or reasons other than a reduction or loss of the incoming pressure. Backpressure is generally more evident in a closed water system.

BACKSIPHONAGE - a reverse flow in a water system caused by a negative pressure in the incoming pipe, when the point of use is at atmospheric pressure. Backsiphonage is generally more evident in an open water system.

BACKSIPHONAGE PREVENTER - a device designed to prevent reverse flow in a water system. The term should be used only where a negative supply pressure is implied.

BACKFLOW-PREVENTION DEVICE SPECIALIST (CERTIFIED TESTER) - an individual who has been trained and qualified to test and repair back-flow prevention devices, and who has proven his/her competency to the City of Augusta, Georgia Utilities Department.

CLOSED WATER SYSTEM - one with checking device installed in the service pipe. A check valve, backflow preventer or pressure-reducing valve would create a closed system.

CONSUMER'S WATER SYSTEM - all potable water piping, valves fittings and appurtenances on the premise side of the service-connection.

CONTAMINANT - any substance that, if introduced into the potable water system, could create a health hazard.

CROSS-CONNECTION - a physical connection or arrangement between two otherwise separate piping systems; one of which contains potable water, the other a nonpotable fluid, or water of unknown quality, where there could be a backflow into the potable system unless it is protected by an appropriate backflow-prevention device.

CROSS-CONNECTION, NONPRESSURE TYPE - a low-inlet installation where a potable water pipe is connected or extended below the overflow rim of a receptacle, or an environment, that contains a nonpotable fluid, and is at atmospheric pressure.

CROSS-CONNECTION, PRESSURE TYPE - an installation where a potable water pipe is connected to a closed vessel, or piping system, that contains nonpotable fluid, and is above atmospheric pressure.

DIRECTOR - The Director of the City of Augusta Utilities Department, in the State of Georgia.

HYDRAULIC SIZING: All cross-connection control devices shall be the same size as piping serving building or fire protection system.

HAZARD, PLUMBING - a danger or potential danger to health, due to contaminants entering the potable water system via uncontrolled cross-connection, which can range in severity from mildly toxic too lethal.

INSPECTOR- an individual qualified in a vocation and authorized to make inspections, interpret codes, regulations and procedures.

OPEN WATER SYSTEM - one with no checking device installed in the service pipe. Water from the consumer's system is free to backflow into the main, for whatever reason.

POLLUTANT - any substance that, if introduced into the potable water system, could be objectionable but could not create a health hazard.

POTABLE WATER - any water that, according to recognized standards, is safe for human consumption.

PUBLIC WATER SUPPLY/SYSTEM - a water system (including but not limited to supply, treatment, transmission and distribution facilities and appurtenances) operated as a Public Utility that supplies potable water to the service-connection of the Consumer's water system. Herein defined, as the Augusta Richmond County Utilities Department.

REPRESENTATIVE - a person authorized to represent the Director of the City of Augusta, Georgia Utilities Department.

SERVICE-CONNECTION - the point of delivery of water to premises: the normal location of the meter. It is the end of the water purveyor's jurisdiction and the beginning of the Plumbing Official's and the Consumer’s, and defined as follows:

DEDICATED - a single service connection that is designated for one use only; (i.e., domestic, fire protection or irrigation.)

COMBINATION - A single service connection that is designated for more than one use; (i.e., domestic and fire protection).

VACUUM BREAKER (VB) - a backsiphonage-prevention device that introduces air into the potable water system when the system pressure approaches zero. It is designed for use where the receptacle or environment being served is subject to atmospheric pressure only.

VACUUM BREAKER, ATMOSPHERIC TYPE (AVB) - a backsiphonage- prevention device designed for use under flow conditions only, not to exceed 12 consecutive hours, and where it will be subject to no static pressure, and no backpressure.

VACUUM BREAKER, PRESSURE TYPE (PVB) - a backsiphonage-prevention device designed to operate under continuous pressure; static or flowing, but no backpressure.

VACUUM BREAKER, HOSE TYPE (HVB) - a backsiphonage-prevention device designed for hose connections only, but not for continuous pressure, static or flowing.

VACUUM RELIEF VALVE - a device designed to limit the degree of vacuum in a vessel or pipe, but not for cross- connection control.

References:

CROSS-CONNECTION CONTROL MANUAL, 1989,
U. S. ENVIRONMENTAL AGENCY

CROSS CONNECTION CONTROL MANUAL,EPA-430/9-73-002, 1975
U. S. ENVIROMENTAL AGENCY

RULES FOR SAFE DRINKING WATER, SECTION: 391-3-5-13;
GEORGIA DEPARTMENT OF NATURAL RESOURCES

PRINCIPLE NO. 5 (BACKFLOW PREVENTION), and SECTION: 1105:
THE GEORGIA STATE PLUMBING CODE, 1982

BACK-FLOW-PREVENTION and CROSS CONNECTION CONTROL MANUAL M-14,
AMERICAN WATER WORKS ASSOCIATION, 1974

CROSS CONNECTION CONTROL HANDBOOK, 1988
FEBCO VALVES

MANUAL OF CROSS CONNECTION CONTROL, 9TH EDITION 1993;
FCCCHR, UNVERSITY OF SOUTHERN CALIFORNIA

A GUIDE TO SELECTION AND INSTALLATION OF BACKFLOW DEVICES,
8TH EDITION #F-SI-BPD
RICHARD CLARY; REGIONAL DIRECTOR; AMER. BACKFLOW PREV. ASSOC.

RICHMOND COUNTY CODE OF ORDINANCE NO. 84-22
RICHMOND COUNTY CROSS CONNECTION CONTOL PROGRAM, OCTOBER 1984
RICHMOND COUNTY, GEORGIA

CITY OF AUGUSTA CODE OF ORDINANCE, SEC 19-70

CITY OF AUGUSTA PROGRAMS FOR WATER CONSERVATION AND CROSS CONNECTION CONTROL SEPT. 1983
AUGUSTA, GEORGIA

AUGUSTA RICHMOND COUNTY CODE OF ORDINANCE, TITLE 5, SECTION 4 BACKFLOW PREVENTION, DECEMBER 7, 1999.

Prepared by
Leroy Anderson, Resident Engineer II, Backflow Manager
Backflow-Prevention Section
Augusta Utilities Department
Augusta, Georgia
1999

The City of Augusta, Georgia
Utilities Department
2760 Peach Orchard Road Augusta, Ga. 30906
Cross-Connection Program
Standard Application

1) Company Name: _____
2) Mailing Address: _____
3) Address of Premises: _____

4) Contact Official:
Name: _____
Title: _____
Phone: _____

5) Give a brief Description of your manufacturing or service activity on the premises:

6) What are the principle raw materials and /or chemicals used?

7) What are your principle products or services?

8) Is water used within the premises for any of the following activities?

Domestic _____
Cooling Water _____
Boiler or Heating _____
Process Water _____
Cleanup or Washdown _____
Fire Protection _____
Other _____

9) List all service connections to the public water supply system, including pipe size and meter size. Attach and refer to a sketch of your water connection system.

10) Are any Cross-connection control devices used to protect the public water supply system from accidental contamination by backflow or back-siphonage? If so, describe and indicate on your sketch a location where the device can be readily monitored.

The information contained in this application is familiar to me and to the best of my knowledge and belief, such information is true, complete and accurate.
Signature of Official: _____
Name: _____
Title:_____Date: _____

The City of Augusta, Georgia
Utilities Department
2760 Peach Orchard Road Augusta, Ga. 30906
Cross-Connection Program
Requirements for Connection to Public Water System

In accordance with the standard application for Cross-Connection Control filed by_____ on _____, 19__, It has been determined that the following Cross-Connection Control Procedures and /or Devices will be required:

_____Reduced pressure principal Backflow preventer

_____Double Check Valve Assembly

_____Vacuum Breaker

_____Annual Inspection

_____Internal Monitoring

_____Other

Special Instructions:

The Contact Official for your company has been designated to be _____. It is the responsibility of the contact official to notify the City of Augusta, Georgia Utilities Department of any change of activity, which may increase the degree of protection, required for Cross-Connection Control. The contact official is also responsible for daily maintenance and annual inspection (if required) of the Cross-Connection Device.

Signature of Contact Official: _____

Name: _____

Title: _____Date: _____

2760 Peach Orchard Road Augusta, Ga. 30906
Cross-Connection Program
Annual Inspection Report

Company Name: _____
Mailing Address: _____
Address of Premises: _____

Contact Official:

Name: _____
Title: _____
Phone: _____

Type of Cross-Connection Control Device(s):
Location of cross-connection Control Device(s):
Date of Inspection_____, 19__.

Please verify all of the above general information listed above. the referenced cross-connection control device(s) must be inspected and the following report filed no later than_____, 19__.

Inspection Report
1) Have water use activities of the premises changed in such way as to require additional cross-connection controls?
2) Describe the techniques and methods used for testing and inspecting the cross-connection control device.
3) Summarize the results of the inspection and list any corrective actions needed.
4) This inspection was performed on _____, 19__.
5) This inspection was performed by_____.
The information contained in this application is familiar to me and to the best of my knowledge and belief, such information is true, complete and accurate.

Signature of Contact Official: _____

Name:_____Title:_____Date:_____

Signature of Inspector:_____Title_____Date:_____