CHAPTER I

INTRODUCTION

The intent of the Cross-Connection Control Program is to implement a program to protect the Town’s water quality, and to comply with all applicable state and federal regulations. The procedures described herein ensure the full cooperation of all Cross Connection regulatory departments, the Town of White Springs Water Facilities Department, the Hamilton County Health Department. Upon discovery of a prohibited cross connection, the Cross Connection Control Supervisor shall either eliminate the cross connection by installation of an appropriate backflow device or approved assembly or terminate service until the contaminant source is eliminated. Direct connections between potable and non-potable systems or reclaimed water systems are prohibited.

GENERAL DESCRIPTION OF BACKFLOW AND BACKFLOW PREVENTION

Water distribution systems are designed with the intention of the water flowing in a certain direction from the distribution system to the consumer. However, hydraulic conditions within the system may deviate from the “normal” conditions, causing the water to flow in the opposite direction. Therefore, it is possible (and common) for the water to flow in the opposite direction in an unprotected system. This is called Backflow.

Backflow occurs when the pressure in the distribution system drops, siphoning water from unknown quality sources into the distribution system. This would also siphon any substance which may be in contact with the water system through a cross-connection. This type of backflow is called Back-siphonage and may occur when there is an unusually high use of water or undersized piping in an area.

For example, during firefighting, or when a main water line breaks, water is “sucked” to the point of high usage, possibly drawing non-potable substances with it, filling the water line with these substances. Back-siphonage may occur through cross-connections such as a hose from a maintenance sink in a mop bucket, or a below-the-rim water inlet to a tank containing a toxic solution and improper plumbing installations.

Some water customers have non-potable materials on the premises under pressure. When an unprotected water line is attached to the container or pipes holding the pressurized material, the material may be “pumped” back into the potable water system. This type of backflow is called Backpressure. Backpressure may occur through a cross-connection such as a make-up water line which is connected to a recirculating system containing soap, acid, antifreeze or any non-potable substance (e.g., a well containing non-treated water).

Because of these potential dangers to the water consumer, it is necessary to control cross-connections. There are several types of mechanical assemblies which serve as
Backflow Preventers. Different types of backflow preventers are designed to work under back-siphonage or backpressure conditions. Some are acceptable for high-hazard conditions while others are only acceptable for low-hazard (or non-health hazard) conditions.

This manual provides guidelines for the proper use of Backflow Prevention Devices, within the Town of White Springs service area.
CHAPTER II

DEFINITIONS

1. **Approved:** Accepted by the Town of White Springs Water Treatment Facilities Manager, or Building and Zoning Department Representative.

2. **Auxiliary Water Supply:** Any water supply on or available to the premises other than the purveyor’s approved public potable water supply. These auxiliary waters may include water from another purveyor’s public potable water or any natural source(s) such as well, spring, river, stream, harbor, etc., or “used waters” or “individual fluids.” These waters may be polluted or contaminated or they may be objectionable and constitute an unacceptable water source over which the water purveyor does not have sanitary control.

3. **Backflow:** The flow of water or other liquids, mixtures or substances under pressure into the distributing pipes of a potable water supply system from any source or sources other than its intended source.

4. **Back-Siphonage:** The flow of water or other liquids, mixtures or substances into the distributing pipes of a potable water supply system from any source other than its intended source caused by the sudden reduction of pressure in the potable water supply system.

5. **Backflow Preventer:** A device or approved assembly or means designed to prevent backflow or back-siphonage.

   a) **Air-Gap:** The unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank, reservoir, vessel, plumbing fixture, or other device or approved assembly and the flood level rim of said vessel. An approved air-gap shall be at least double the diameter of the supply pipe, measured vertically, above the top of the rim of the vessel; and, in no case less than one inch. When an air-gap is used at the service connection to prevent the contamination or pollution of the public potable water system, an emergency by-pass shall be installed around the air-gap system and an approved reduced pressure principle device or approved assembly shall be installed on the by-pass system.

   b) **Reduced Pressure Principle Assembly:** An assembly of two independently operating approved check valves with an automatically operating differential relief valve between the two check valves, tightly closing shut-off valves on either side of the check valves, plus properly located test cocks for the testing of the...
check and relief valves. The entire assembly shall meet the design and performance specifications and approval of a recognized and Town approved testing agency for backflow prevention assemblies. The device or approved assembly shall operate to maintain the pressure in the zone between the two check valves at a level less than the pressure on the public water supply side of the device or approved assembly. At cessation of normal flow the pressure between the two check valves shall be less than the pressure on the public water supply side of the device or approved assembly. In case of leakage of either of the check valves the differential relief valve shall operate to maintain the reduced pressure in the zone between the check valves by discharging to the atmosphere. When the inlet pressure is two pounds per square inch or less, the relief valve shall open to the atmosphere. To be approved, these devices or approved assemblies must be readily accessible for in-line maintenance and testing and be installed in a location where no part of the device or approved assembly will be submerged.

c) Double Check Valve Assembly: An assembly of two independently operating approved check valves with tightly shut off valves on each side of the check valves, plus properly located test cocks for the testing of each check valve. The entire assembly shall meet the design and performance specifications and approval of a recognized and Town approved testing agency for backflow prevention device or approved assemblies. To be approved, these device or approved assemblies must be readily accessible for in-line maintenance and testing.

6. **Backflow Tester:** Person certified in the testing of backflow prevention devices.

7. **Contamination:** Means an impairment of the quality of the potable water provided by the Town of White Springs Distribution System.

8. **Cross-Connection:** Any physical connection or arrangement of piping or fixtures between the otherwise separate piping systems one of which contains potable water and the other non-potable water or industrial fluids of questionable safety, through which, or because of which, backflow or back-siphonage may occur into the potable water distribution system and a customer’s water distribution system which is cross-connected to a contaminated supply of auxiliary water system, constitutes one type of cross-connection. Other types of cross-connections include connectors such as swing connections, removable sections, four way valves, spools, dummy sections of pipe, swivel or change-over devices, sliding multiport tube, solid connections, etc.
9. **Cross-Connections-Controlled:** A connection between a potable water system and a non-potable water system with an approved backflow prevention device or approved assembly properly installed that will continuously afford the protection commensurate with the degree of hazard.

10. **Industrial Fluids System:** Any system containing fluid or solution which may be chemically, biologically or otherwise contaminated or polluted in a form or concentration such as would constitute a health system, pollution or plumbing hazard if introduced into an approved water supply. This may include, but not be limited to: polluted or contaminated waters; all types of process waters and "used waters" originating from the public potable water system which may have deteriorated in sanitary quality; chemicals in fluid form; plating acids and alkalies, circulated cooling waters connected to an open treated or stabilized with toxic substances; contaminated natural waters such as from wells, springs, streams, rivers, bays, harbors, seas, irrigation canals or systems, etc.; oils, gases, glycerin, paraffins, caustic and acid solutions and other liquids and gaseous fluids used in industrial or other purposes or for fire-fighting purposes.

11. **Pollution:** Means the presence of any foreign substance (organic, inorganic, or biological) in water which tends to degrade its quality so as to constitute a hazard or impair the usefulness or quality of the water to a degree which does not create an actual hazard to the public health but which does adversely and unreasonably affect such waters for domestic use.

12. **Water Potable:** Any water which, according to recognized standards is safe for human consumption.

13. **Water-Nonpotable:** Water which is not safe for human consumption or which is of questionable potability.

14. **Water Purveyor:** The term water purveyor shall mean the owner or operator of the public potable water system supplying an approved water supply to the public. As used herein, the terms water purveyor and White Springs Water Treatment Facilities may be used synonymously.

15. **Water – Service Connections:** The terminal end of a service connection from the public potable water system; i.e., where the Water Purveyor loses jurisdiction and sanitary control over the water at its point of delivery to the customer’s water system. If a meter is installed at the end of the service connection, then the service connection shall mean the downstream end of the meter. There should be no unprotected takeoffs from the service line ahead of any meter or backflow prevention device or approved assembly located at the point of delivery to the customer’s water system.
Service connections shall also include water service connections from a fire hydrant and all other temporary or emergency water service connections from the public potable water systems.

16. **Water – Used**: Any water supplied by a Water Purveyor from a public potable water system to a consumer’s water system after it has passed through the point of delivery and is no longer under the sanitary control of the Water Purveyor.
CHAPTER III
PROCEDURES

1. **Existing Facilities:**
   
   a) Premises of the type where cross-connections are required, shall be surveyed by White Springs Water Treatment Facilities or Building and Zoning Department, to determine if a cross connection exists.

   b) The owners of the premises shall be notified in writing thirty (30) days in advance to secure an appointment for inspection of the premises. (See Section D). The owner or his authorized representative may be required to accompany the inspector during the tour of the premises.

   c) An inspection form will be completed by the inspector. (See Section D). The owner shall be made aware of any corrective measures that may be required.

   d) All official letters of notification shall be sent to the owner indicating what corrective measures must be taken. (See Section D).

   e) Upon conformance of the requirements in the notification letter, the owner shall immediately notify White Springs Water Treatment Facilities or Building and Zoning Department, to schedule a date for re-inspection.

2. **New Facilities:**
   
   a) Each applicant desiring water service will be required to complete a cross connection control questionnaire (See Form D).

   b) Should a cross connection control device or approved assembly be required, Building and Zoning Department will notify the new customer in writing and arrange a meeting to discuss the requirements for backflow prevention. Procedures for inspection of the device or approved assembly will be discussed at this meeting. The customer will be required to provide construction drawings of his proposed facilities.

3. **Records and Maintenance:**
   
   a) The owner of a backflow prevention device or approved assembly shall be required to keep records of maintenance of cross connection control device or approved assembly.

   b) Attached to the aforementioned notification letter shall be a test and maintenance form which must be completed by the owner or his designated backflow
prevention tester. Backflow prevention device or approved assembly 3/4” in diameter or larger or as specified in writing by White Springs Water Treatment Facilities, shall be tested annually. The testing shall be the responsibility of the customer. White Springs Water Treatment Facilities shall notify the owner of the maintenance requirement 30 days in advance of the maintenance due date.
CHAPTER IV
CROSS CONNECTION CONTROL AND BACKFLOW PREVENTION

1. Backflow Prevention and Cross-Connection Control Policy
White Springs Water Treatment Facilities Manager reserves the right to require backflow prevention device or approved assembly where, in White Springs Water Treatment Facilities’ judgment, a water service connection presents a reasonable and identifiable risk to potentially contaminate the public water system. Such policies and procedures shall comply with Town of White Springs and state guidelines.

2. Recommended Backflow Practices
Backflow prevention device or approved assembly shall be specified by White Springs Water Treatment Facilities in accordance with the AWWA Manual of Practices #14, Recommended Management Practices for Cross Connection Control, current version.

3. Approval of Backflow Prevention Device or approved assembly
White Springs Utility Department shall review all new service connections to determine the contamination risk. Based on the risk assessment, the Utility Department shall recommend or require the appropriate backflow prevention device or approved assembly. The devices shall be installed by the person requesting service prior to the Town making the water service connection.

4. Residential Water Services Requiring Backflow Device or approved Assembly

Residential water services require backflow prevention devices when the following conditions arise:

a) A residence utilizes an irrigation system.

b) A residence is provided with reclaimed water for irrigation purposes.

c) A residence is using a well for irrigation purposes physically separated from the public water service which is used for domestic purposes.

d) Operations are being conducted at the residence which is similar to the commercial listings of section 6.

e) In the judgment of the Water Treatment Facilities Manager, a customer’s installation has the potential to contaminate the public water system.

5. Recommended Backflow Devices for Residential Systems
White Springs Water Treatment Facilities shall make recommendations on
backflow prevention devices with regard to residential water services not covered in section 4.

6. Commercial and Industrial Services Requiring Backflow Prevention Devices

a) Backflow prevention device or approved assembly shall be required for the types of facilities and plumbing fixtures listed for water. For facilities not listed, White Springs Water Treatment Facilities Manager shall have the sole right to require backflow prevention device or approved assembly where it deems necessary to protect the public water system from contamination.

b) All required backflow prevention devices shall be tested and maintained in accordance with the provisions herein. White Springs Water Treatment Facilities shall make recommendations concerning backflow devices for commercial irrigation systems which are not fitted with chemical feed systems.

7. Testing and Maintenance of Backflow Prevention Devices

a) White Springs Water Treatment Facilities shall require testing and maintenance of backflow devices, which have been specifically required by White Springs Water Treatment Facilities or Building and Zoning Department.

b) Maintenance and Testing of backflow devices recommended shall be the responsibility of the customer.

c) Testing of required and recommended devices shall be performed in accordance with the recommended procedures found in AWWA Manual of Practice 14.

d) Responsibility for the testing and maintenance of required and recommended backflow prevention devices, including the payment of any testing fees, past the point of connection at the water meter, shall be the responsibility of the customer.

f) Testing and Maintenance requirements shall be performed as specified by The Town of White Springs at no cost to The Town of White Springs.

g) All new backflow assemblies shall be inspected and tested prior to placing into service.

8. Certification and Testing of Backflow Prevention Devices
a) For required backflow devices, White Springs Water Treatment Facilities shall provide a Test Maintenance Form to customers to ensure compliance with its tests and maintenance procedures. Upon completion of the test, a completed and signed form shall be furnished to White Springs Water Treatment Facilities. Failure on the part of a customer to provide a completed form shall be treated as non-compliance.

b) Testing and Maintenance on required devices shall be performed by a certified backflow prevention tester or other individual with equivalent training acceptable to White Springs Water Treatment Facilities and State of Florida as approved in writing.

c) Information concerning testing and maintenance of recommended backflow prevention devices shall be provided to customers as deemed appropriate by White Springs Water Treatment Facilities.

d) A customer may request the services of White Springs Water Treatment Facilities to perform required testing and maintenance procedures. White Springs Water Treatment Facilities will inform the requesting party as to its ability to provide services. White Springs Water Treatment Facilities may provide such services in consideration of its workload or subcontract such work to a qualified contractor. Such services shall be paid for by the customer. Labor, materials, equipment and other typical charges, including White Springs Water Treatment Facilities usual overhead, shall be charged. In instances of non-payment, White Springs Water Treatment Facilities may assess appropriate charges against the customer’s utility bill.

9. Notification of Non-Compliance

a) White Springs Water Treatment Facilities shall maintain records of testing and maintenance on required backflow prevention devices. Customers operating and maintaining such devices shall be notified as to the required testing frequency by White Springs Water Treatment Facilities. The customer shall have 30 days to complete the required testing.

b) Should a customer fail to test or maintain a required backflow prevention device within the specified time, White Springs Water Treatment Facilities shall issue, by certified mail, a non-compliance notice. The customer shall have 10 days to:

1) Provide White Springs Water Treatment Facilities with a completed test results form which indicates acceptable performance of the backflow prevention unit.
2) Provide White Springs Water Treatment Facilities with a written convincing reason why the device has not been tested which is acceptable to White Springs Water Treatment Facilities.

3) Provide White Springs Water Treatment Facilities with confirmation that the customer will attend a Show Cause Hearing on the date specified in the non-compliance notice. The date of the Show Cause Hearing shall be scheduled to allow White Springs Water Treatment Facilities compliance with Paragraph 11.

10. **Show Cause Hearing for Significant Non-Compliance**

   a) Should a customer in non-compliance fail to take satisfactory corrective measures under sections 9(a) or (b), the customer shall be expected to attend a Show Cause Hearing before the White Springs Water Treatment Facilities Manager, or his designee, at the date and time specified in the non-compliance notice to show cause why the customer service shall not be disconnected for causing or suffering violation of the policy, or other applicable law or regulation. If White Springs Water Treatment Facilities seeks to suspend service, White Springs Water Treatment Facilities shall notify the customer of the nature of the violation for which suspension of service is sought with sufficient specificity as to the character of the violation, and the dates at which such violation occurred to enable the customer to prepare his defense. Such notice shall be sent to the customer by certified mail, return receipt request, or personally delivered at least 10 days prior to the scheduled hearing date.

   b) Following review of the hearing proceedings and evidence submitted, the White Springs Water Treatment Facilities Manager, or his designee, may issue an order to the customer, indicating a specified time which is dependent on the severity of the violation, when water service may be discontinued unless satisfactory corrective action to permanently remove the offending connection from the public water system is taken by the customer.

   c) Any customer aggrieved by such an order may appeal it to a court of competent jurisdiction within 10 days from the date the order is delivered by certified mail unless such connection is in the opinion of White Springs Water Treatment Facilities a direct threat to public health, welfare or safety. In such case, White Springs Water Treatment Facilities shall retain the right to immediately discontinue service.

11. **Inspection of Customer’s Facilities**

   If in the opinion of White Springs Water Treatment Facilities the customer’s facilities constitute a possible risk to contaminate the public water system, White
Springs Water Treatment Facilities shall retain the right to make inspection. Appropriate notice shall be given. Refusal of a customer to provide reasonable access to his premise by White Springs Water Treatment Facilities shall be treated as non-compliance.

12. **New Facilities**

Building and Zoning Department shall review all new connections and identify backflow prevention requirements and/or make backflow prevention recommendations.

13. **New Non-Residential Accounts at Existing Locations**

White Springs Water Treatment Facilities or Building and Zoning Department, reserves the right to require appropriate backflow prevention devices on new nonresidential accounts at existing locations prior to providing water service.
SECTION A
CONSTRUCTION STANDARDS

Types of Backflow Prevention Devices

The following pages illustrate the various types of backflow prevention devices and the typical methods of installation (outdoors).

Backflow prevention devices installed indoors will vary in the method of installation based on location and configuration of the existing or proposed piping system.

TYPICAL INDOOR REDUCED PRESSURE BACKFLOW PREVENTER INSTALLATION
NOTE:

- An Air Gap Separation means the unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank, plumbing fixture or other device and the flood level or overflow rim of the receptacle.

- The “Approved Air Gap Separation” shall be at least double the diameter of the supply pipe measured vertically above the overflow rim of the vessel and in no case shall the gap be less than one (1) inch in diameter.
NOTE:

- The atmospheric vacuum breaker (A.V.B.) cannot be installed where it will be subjected to backpressure. It can only provide protection against back-siphonage of non-toxic pollutants.

- Each device shall be installed in an accessible location to facilitate inspection and servicing.

- Each A.V.B. shall be installed downstream of the last shut-off valve and at least 12 inches above the highest sprinkler head or outlet. (No valves may be located downstream of the device).

- Under no circumstances should the A.V.B. be installed where it will be under continuous operating pressure for more than 12 hours in any 24-hour period.
NOTE:

• The pressure vacuum breaker (P.V.B.) shall not be installed where it will be subjected to backpressure. It provides protection against back-siphonage of both pollutants and contaminants.

• Each P.V.B. shall be installed in an accessible location to facilitate inspection and servicing.

• Each P.V.B. shall be installed on the main line to the irrigation system and at least 12 inches above the highest sprinkler head or outlet. (Valves may be located downstream from the device).
DOUBLE CHECK OR REDUCED PRESSURE
BACKFLOW PREVENTER
SINGLE SERVICE: ¾", 1-1/2", 2"

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<td>2&quot; BACKFLOW PREVENTER ASSEMBLY</td>
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<td>2</td>
<td>2</td>
<td>2&quot; x NOM. NIPPLES – BRASS or PVC</td>
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<td>3</td>
<td>2</td>
<td>2&quot; x 90° ELBOWS – GALVANIZED or PVC</td>
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<tr>
<td>4</td>
<td>2</td>
<td>2&quot; x VARES RISER – GALVANIZED or PVC</td>
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<td>5</td>
<td>*</td>
<td>PEA GRAVEL</td>
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<td>6</td>
<td>*</td>
<td>PLASTIC LINER</td>
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NOTE: Installation shown above is for a 2" service. Change piping materials accordingly for service size.
DOUBLECHECK OR REDUCED PRESSURE BACKFLOW PREVENTER DUAL SERVICE:
¾”, 1”, 1-1/2”, 2”

![Diagram of backflow preventer system]

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<td>4</td>
<td>2” x 90° ELBOWS – GALVANIZED or PVC</td>
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<td>6</td>
<td>2” x 4” NIPPLES – GALVANIZED or PVC</td>
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<td>2” RISER – GALVANIZED</td>
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<td>2” TEES – GALVANIZED</td>
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NOTE: Installation shown above is for a 2” service. Change piping materials accordingly for service size.
REDUCED PRESSURE BACKFLOW PREVENTER
SINGLE SERVICE: 3", 4"

MATERIALS

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<td>3&quot;, 4&quot; PIPE, GALV. (42&quot; LONG)</td>
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<td>7</td>
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NOTE: Field adjust and cut item 6 to the proper length.
### DOUBLE CHECK
BACKFLOW PREVENTER
SINGLE SERVICE: 3”, 4”

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<td>3”, 4” ELBOW, GALV. - 90°</td>
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<td>3”, 4” FLANGE, STEEL PIPE, SCREW – TYPE</td>
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**NOTE:** Field adjust and cut item 6 to the proper length.
DOUBLE CHECK
BACKFLOW PREVENTER
SINGLE SERVICE: 4", 6", 8" VERTICAL INSTALLATION

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NOTE: Min. clearance around device – 12" + 3 times pipe diameter. This type of construction is designed for limited working area. (Fire Sprinkler Systems)
## Materials

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**Note:**
- Field adjust and cut Item 3 to the proper length.
- Do not interchange Items 4 & 5.
DOUBLE CHECK
BACKFLOW PREVENTER
SINGLE SERVICE: 6", 8"

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<td>6&quot;, 8&quot; VALVE, DOUBLE CHECK</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>6&quot;, 8&quot; BEND – 90° F – F</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>6&quot;, 8&quot; ADAPTER, C.I. (48&quot; LONG) F – PE</td>
</tr>
<tr>
<td>3A</td>
<td>1</td>
<td>6&quot;, 8&quot; ADAPTER, C.I. (24&quot; LONG) F- PE (OPT.)</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>6&quot;, 8&quot; ADAPTER, FLANGE, D.I.P.</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>6&quot;, 8&quot; ADAPTER, FLANGE, P.V.C. (DR – 18)</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>6&quot;, 8&quot; VALVE, GATE, C.I., F – F</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>2&quot; IRON PIPE / CONCRETE FOUNDATION</td>
</tr>
<tr>
<td>8</td>
<td>*</td>
<td>PEA GRAVEL</td>
</tr>
<tr>
<td>9</td>
<td>*</td>
<td>PLASTIC LINER</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>REACTION BLOCK</td>
</tr>
</tbody>
</table>

NOTE: • Field adjust and cut Item 3 to the proper length.
• Do not interchange Items 4 & 5.
• This type of construction is designed for limited working area.
REDUCED PRESSURE BACKFLOW PREVENTER
SINGLE SERVICE: 6”, 8”

MATERIALS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QUANTITY</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>6”, 8” VALVE, REDUCED PRESSURE PRINCIPLE</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>6”, 8” BEND – 45° F – F</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>6”, 8” ADAPTER, C.I. (96” LONG) F – PE</td>
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<tr>
<td>3A</td>
<td>1</td>
<td>6”, 8” ADAPTER, C.I. (24” LONG) F – PE (OPT.)</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>6”, 8” ADAPTER, FLANGE, D.I.P.</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>6”, 8” ADAPTER, FLANGE, P.V.C. (DR – 18)</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>6”, 8” VALVE, GATE, C.I., F – F</td>
</tr>
<tr>
<td>7</td>
<td>1 or 2</td>
<td>2” IRON PIPE / CONCRETE FOUNDATION</td>
</tr>
<tr>
<td>8</td>
<td>*</td>
<td>PEA GRAVEL</td>
</tr>
<tr>
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<td>2</td>
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</tr>
</tbody>
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REDUCED PRESSURE BACKFLOW PREVENTER
SINGLE SERVICE: 6", 8"

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QUANTITY</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>6&quot;, 8&quot; VALVE, REDUCED PRESSURE PRINCIPLE</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>6&quot;, 8&quot; BEND – 90° F – F</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>6&quot;, 8&quot; ADAPTER, C.I. (48&quot; LONG) F – PE</td>
</tr>
<tr>
<td>3A</td>
<td>1</td>
<td>6&quot;, 8&quot; ADAPTER, C.I. (24&quot; LONG) F – PE (OPT.)</td>
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<td>4</td>
<td>3</td>
<td>6&quot;, 8&quot; ADAPTER, FLANGE, D.I.P.</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>6&quot;, 8&quot; ADAPTER, FLANGE, P.V.C. (DR – 18)</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>6&quot;, 8&quot; VALVE, GATE, C.I., F – F</td>
</tr>
<tr>
<td>7</td>
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<td>2&quot; IRON PIPE / CONCRETE FOUNDATION</td>
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<td>*</td>
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<tr>
<td>10</td>
<td>2</td>
<td>REACTION LINER</td>
</tr>
</tbody>
</table>

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SECTION B

TYPICAL FACILITIES REQUIRING PROTECTION AGAINST CROSS-CONNECTIONS

There are varying degrees of hazard, and the degree of protection should commensurate with the degree of hazard. The following list of premises shall be served by an approved backflow prevention device of the type designated.

1. Aircraft and Missile Plants – RP
2. Automotive Plants – RP
3. Auxiliary Water Systems (Interconnected) – RP
4. Auxiliary Water Systems (Not Interconnected) – DC
5. Beverage Bottling Plants – DC
7. Buildings with house pumps and/or water storage tank – DC
8. Buildings with sewage ejectors (inadequate in-plant protection) – RP
9. Buildings with sewage ejectors (adequate in-plant protection) – DC
10. Canneries, Packing Houses and Reduction Plants – RP
11. Car Wash with hoses and water reclamation systems – RP
12. Centralized Heating and Air Conditioning Plants – RP
13. Chemical Plants – RP
14. Chemically Treated Potable Water Systems – DC
15. Commercial Laundries – RP
16. Dairies and Cold Storage Plants – DC
17. Dye Works – RP
18. Film Processing Laboratories – RP
19. Fire System with pump and/or storage tank – DC

1 Approved reduced pressure principle backflow preventive device.
2 Approved double check valve assembly backflow preventive device.
20. Fire System with auxiliary supply – RP

21. Food Processing Plants – DC

22. High Schools and Colleges – RP

23. Hospitals (major complexes) – RP

24. Hospitals, Mortuaries, Medical and Dental Buildings, and Sanitariums (New) – RP

25. Irrigation Systems (premises having separate – such as parks, playgrounds, cemeteries, golf courses, schools, estates, ranches, etc.) – RP, PVB, AVB.

26. Laboratories using chemicals – RP

27. Manufacturing, Processing and Fabricating Plants using toxic materials – RP

28. Manufacturing, Processing and Fabricating Plants using nontoxic materials – DC

29. Mobile Home Parks – DC

30. Motion Picture Studios – RP

31. Oil and Gas Production Facilities – RP

32. Paper and Paper Production Plants – RP

33. Plating Plants – RP

34. Radioactive Materials Processing Facilities – RP

35. Restricted, Classified or other closed facilities – RP

36. Rubber Plants and Waterfront Facilities – RP

37. Sand and Gravel Plants – RP

38. Sewage and Storm Drainage Facilities – RP

39. Where a cross connection is maintained – RP

40. Any Threaded Hose spigots (e.g., mop sinks) – AVB
SECTION C

Devices shall be installed as close as possible to the service connection in an accessible location by the Utility. The reduced pressure principle device must be installed above ground.

Approved testing procedures for each type of valve shall be available for certified testers at the White Springs Water Treatment Facilities Cross-Connection Control Office.

RECOMMENDED MANUFACTURERS

The following is a list of approved manufacturers of backflow prevention devices:

<table>
<thead>
<tr>
<th>TYPE</th>
<th>MANUFACTURER</th>
<th>MODEL</th>
<th>SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double Check Valves:</td>
<td>Hersey (BEECO)</td>
<td>FDC #2 709 – QT 709 – RW</td>
<td>¾” – 2” 3” – 10”</td>
</tr>
<tr>
<td>(NON-HEALTH HAZARD)</td>
<td>Watts</td>
<td>805 – Y – BV 805 – RW</td>
<td>¾” – 2” 2-1/2” – 8”</td>
</tr>
<tr>
<td></td>
<td>Febco</td>
<td>805 – Y – BV 805 – RW</td>
<td>¾” – 2” 2-1/2” – 10”</td>
</tr>
<tr>
<td>Reduced Pressure Principle:</td>
<td>Hersey (BEECO)</td>
<td>FRP II 6 – CM</td>
<td>¾” – 2”</td>
</tr>
<tr>
<td>(HEALTH HAZARD)</td>
<td>Watts</td>
<td>009 – QT</td>
<td>¾” – 2”</td>
</tr>
<tr>
<td></td>
<td>Febco</td>
<td>825 – Y – BV 825 – RW</td>
<td>¾” – 2”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>825 – Y – BV 825 – RW</td>
<td>¾” – 2”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>825 – BV</td>
<td>¾” – 2”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>765 – BV</td>
<td>¾” – 2”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8A , 8B</td>
<td>¾”</td>
</tr>
</tbody>
</table>

NOTE: The assemblies listed here have been approved by the Foundation for Cross Connection Control and Hydraulic Research (FCCC & HR) at U.S.C. and are acceptable.

Other makes/models may be approved by the White Springs Water Treatment Facilities, or Building and Zoning Department.
SECTION D

1. FORM A (2 pages): Advance letter notifying existing customer(s) about Inspection and Test & Maintenance Report – Cross Connection Control Devices

2. FORM B: Cross-Connection Survey Form

3. FORM C: Cross-Connection Inspection Checklist

4. FORM D: Cross-Connection Control Questionnaire

5. FORM E: Cross-Connection Control Results of Survey, Inspection & Questionnaire, listing any corrective measures.

6. FORM F: Notification letter placing plumber on certified list.
FORM A

(Date:)

(Customer's Name & Address)

RE: Cross-Connection Control Program

Dear Customer:

The Town of White Springs is required to take reasonable precautions to protect the public water supply from possible hazards that may degrade the water in the community distribution system.

If a customer has a cross-connection in his plumbing, there exists the possibility that contaminated or polluted water could enter the water distribution system through backpressure or back-siphonage.

We are undertaking a program of on-site inspections of all businesses that handle or use hazardous, toxic or non-toxic substances. These businesses include hospitals, doctors' and dentists' offices, car washes, pest control companies, photo labs, commercial cleaners, funeral homes, veterinary clinics, beauty salons, and many more not mentioned in this letter.

I would like to visit your place of business on ______________________________ at________________________, to explain the Cross-Connection Control Program and discuss what this program means to you, the customer. If this date and time is not convenient for you, please contact me at (386) 397-2310.

Your cooperation in this matter will be greatly appreciated.

Sincerely,

White Springs Water Treatment Facilities Manager
Cross-Connection Control Program

Attachment: Test & Maintenance Report
Cross-Connection Control Devices
### TEST & MAINTENANCE REPORT
CROSS CONNECTION CONTROL DEVICES

<table>
<thead>
<tr>
<th></th>
<th>CHECK VALVE #1</th>
<th>CHECK VALVE #2</th>
<th>DIFFERENTIAL PRESSURE RELIEF VALVE</th>
<th>PRESSURE VACUUM BREAKER</th>
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<tbody>
<tr>
<td>INITIATION</td>
<td>1. LEAKED ()</td>
<td>1. LEAKED ()</td>
<td>OPENED AT ___________ LBS.</td>
<td>AIR INLET OPENED AT ____ PSI</td>
</tr>
<tr>
<td></td>
<td>2. CLOSED TIGHT ()</td>
<td>2. CLOSED TIGHT ()</td>
<td>DID NOT OPEN ()</td>
<td>DID NOT OPEN ()</td>
</tr>
<tr>
<td>REPAIRS</td>
<td>CLEARED ()</td>
<td>CLEARED ()</td>
<td>CLEANED ()</td>
<td>CHECK VALVE: LEAKED ()</td>
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<tr>
<td></td>
<td>REPLACED: RUBBER PARTS KIT ()</td>
<td>REPLACED: RUBBER PARTS KIT ()</td>
<td>REPLACED: RUBBER PARTS KIT ()</td>
<td>CLOSED TIGHT ()</td>
</tr>
<tr>
<td></td>
<td>C.V. ASSEMBLY ()</td>
<td>C.V. ASSEMBLY ()</td>
<td>C.V. ASSEMBLY ()</td>
<td>CLEANED ()</td>
</tr>
<tr>
<td></td>
<td>OR DISC ()</td>
<td>OR DISC ()</td>
<td>OR DISC ()</td>
<td>REPLACED: C.V. ASSEMBLY ()</td>
</tr>
<tr>
<td></td>
<td>O-RINGS ()</td>
<td>O-RINGS ()</td>
<td>O-RINGS ()</td>
<td>DISC. AIR INLET ()</td>
</tr>
<tr>
<td></td>
<td>SEAT ()</td>
<td>SEAT ()</td>
<td>SEAT ()</td>
<td>DISC. C.V. ()</td>
</tr>
<tr>
<td></td>
<td>SPRING ()</td>
<td>SPRING ()</td>
<td>SPRING ()</td>
<td>SPRING ()</td>
</tr>
<tr>
<td></td>
<td>STEM/GUIDE ()</td>
<td>STEM/GUIDE ()</td>
<td>STEM/GUIDE ()</td>
<td>RETAINER ()</td>
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<td>RETAINER ()</td>
<td>GUIDE ()</td>
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<tr>
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<td>LOCK NUTS ()</td>
<td>LOCK NUTS ()</td>
<td>LOCK NUTS ()</td>
<td>O-RING ()</td>
</tr>
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<td>OTHER ()</td>
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<td>OTHER ()</td>
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FINISH
<table>
<thead>
<tr>
<th>TEST</th>
<th>CLOSED TIGHT</th>
<th>CLOSED TIGHT</th>
<th>OPEN AT ( \text{LBS.} ) REDUCED PRESSURE</th>
<th>SATISFACTORY</th>
</tr>
</thead>
</table>

NOTE: ALL REPAIRS/REPLACEMENT SHALL BE COMPLETED WITHIN TEN (10) DAYS

REMARKS: ____________________________________________________________

I HEREBY CERTIFY THAT THIS DATA IS ACCURATE AND REFLECTS THE PROPER OPERATION AND MAINTENANCE OF THE UNIT.

CERTIFIED TESTING COMPANY_____________________________________________________

INITIAL TEST BY _______________ CERTIFIED TESTER NO. __________________________

DATE _______________________

REPAIRED BY _______________ DATE _______________________

FINAL TEST BY _______________ CERTIFIED TESTER NO. __________________________

DATE _______________________

WHITE: TO WHITE SPRINGS WATER TREATMENT FACILITIES YELLOW: TO TESTER
BLUE: TO OWNER
FORM B
CROSS-CONNECTION SURVEY FORM

Place: __________________________________________ Date: ________________
Location: _____________________________ Investigator(s): ________________
Building Representative(s) and Title(s):
__________________________________________________________________
__________________________________________________________________

Water Source(s):
__________________________________________________________________
__________________________________________________________________
Piping System(s):___________________________________
__________________________________________________________________

Points of Interconnection:____________________________________________________
__________________________________________________________________
__________________________________________________________________

Special Equipment Supplied with Water and Source: __________________________
__________________________________________________________________
Remarks or Recommendations:_________________________________________
__________________________________________________________________
__________________________________________________________________

Note: Attach sketches of cross-connections found where necessary for clarity of
description. Attach additional sheets for room by room survey under headings.

Room Number or Description        Description of Cross-Connection

Inspected by: ____________________________
### CROSS-CONNECTION INSPECTION CHECK LIST

**Name of Firm:**

**Mailing Address:**

**Time:** ___________  **Date:** ___________  **Water Pressure:** ___________  **pH:** ___________  **Chlorine Res.:** ___________

FORM D

CROSS-CONNECTION CONTROL QUESTIONNAIRE

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Is there another source of water to your property other than the service connection to White Springs Water Treatment Facilities, i.e., a private well? ( ) ( )

2. Are there any facilities (such as a booster pump, elevated tank, presently provided by White Springs Water Treatment Facilities)? ( ) ( )

3. Are there any chemicals used in your operation? ( ) ( )

4. Are there any ejectors used in your operation? ( ) ( )

5. Is there water recycled during the operation of your air conditioner or other equipment in your plant? ( ) ( )

6. Are there any water supply lines submerged in tanks, vats, etc.? ( ) ( )

7. Are there any backflow prevention devices installed in any of your piping? ( ) ( )

Data furnished by:

Customer

Date

Address

Location ID

Reported by:

Title

Remarks:

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________
FORM E

(Customer’s Name & Address)

SUBJECT: Cross-Connection Control
Results of Survey, Inspection and Questionnaire

Dear (Customer’s Name):

On (date of inspection), I met with you and briefly discussed our program of Cross-Connection Control and Backflow Prevention.

Having inspected the plumbing fixtures on your premise, as they apply to cross-connection control, the following is required.

Please contact me at (386) 397-2310 before (date), to make arrangements to have the __________(type) backflow preventer inspected.

Sincerely,
White Springs Water Treatment Facilities
Manager Cross-Connection Control Program
FORM F

(Individual’s Name & Address)

SUBJECT: White Springs Water Treatment Facility List of Approved Backflow Prevention Device Testers

Dear (Individual’s Name):

We are happy (sorry) to inform you that you have been approved (denied) for placement on our list of Certified Backflow Prevention Device Testers. We look forward to working with you and your clients in the future.

Sincerely,

White Springs Water Treatment Facilities
Manager Cross-Connection Control Program