

DALTON UTILITIES

CROSS CONNECTION CONTROL RULES AND REGULATIONS

Enacted By
THE WATER, LIGHT & SINKING FUND COMMISSION
OF DALTON, GEORGIA

Revised May 2015

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Section I: Definitions

Backflow – A reverse flow in a water system from the normal or intended direction. This can be caused by an increase in pressure (backpressure) or decrease in pressure (backsiphonage).

Backflow Preventer (BFP) – A device designed to prevent the reverse flow in a water system. The term is normally used where backpressure type backflow is implied, but in this document also includes backsiphonage type backflow.

Certified Tester – One who has successfully completed a State of Georgia approved training course on the proper techniques of testing backflow preventers devices.

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 backflow into the potable system unless it is protected by an appropriate backflow prevention device.

Customers' Water System – All potable water piping, valves, fittings and appurtenance on the downstream side of the service connection meter.

Pollutant – Any substance that, if introduced into the potable water system, could be objectionable but could not create a health hazard.

Public Water 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 Customer's water system.

Representative – A person authorized to represent Dalton Utilities.

Service Connection – The point of delivery of water to a 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 Customer's. This is defined as the outlet side of the meter, or the outlet side of the isolation valve immediately downstream of the meter.

Standard Plumbing Code – A collection of installation rules and requirements based upon recognized standards, including the Georgia State Minimum Standard Plumbing Code.

Section II. Intent and Purpose

1. Intent:

To protect the health of Dalton Utilities' water customers by limiting the opportunity for contaminants to enter the public water system through uncontrolled cross connections of private services.

2. Purpose:

Public health officials have long been concerned about cross-connections in plumbing systems and in public drinking water supply distribution systems. Such cross-connections, which make possible the contamination of potable water, are ever-present dangers. The federal government established national standards of safe drinking water under the provisions of the Safe Drinking Water Act of 1974. Subsequently, the Georgia Safe Drinking Water Act of 1977 was established and the Georgia Environmental Protection division (EPD) created the Rules for Safe Drinking Water. The water supplier is responsible for compliance to the provisions of the Safe Drinking Water Act, to include a warranty that water quality provided by its operation is in conformance with the Environmental Protection Agency (EPA) and Environmental Protection Division (EPD) standards at the source and is delivered to the customer without being compromised as a result of its delivery through the distribution system.

In compliance with Rule 391-3-5-.13 of the EPD, Dalton Utilities has established these Rules and Regulations for the following purposes:

- a) To assist the customer in protecting the customer's water system against the backflow of any contamination or pollution by controlling each potential cross-connection on said premises.
- b) To protect the Public Water System against actual or potential backflow by containing within a customer's premises, any contamination or pollution that has entered or may enter the customer's water system through an undiscovered or uncontrolled cross-connection on said premises. This will be known as containment or the ability to contain and isolate contaminants within a given system.
- c) To eliminate uncontrolled cross-connections to non-potable systems as well as uncontrolled interconnections to any potable water systems by installing appropriate backflow prevention device(s) to isolate or contain such systems from that of the Public Water System.
- d) To establish, coordinate, execute and maintain a total Backflow Prevention Program that shall conform to the procedures recommended by the American Water Works Association, Manual 14, and the U.S. Environmental Protection Agency Cross-Connection Manual.

- e) To provide public awareness and customer education of the potential dangers posed by cross connections and the need to implement a program to protect the public water system.

Section III. Responsibilities:

1. Dalton Utilities:

- a) Install and maintain backflow preventers devices for all residential customers, and notify all residential customers of backflow preventer installation at least 90 days in advance to allow customers to make necessary upgrades to the customer's water system.
- b) Maintain testing records for all non-residential customers;
- c) Enforce customer compliance with these Rules and Regulations;
- d) Evaluate customers' premises or proposed plans and advise on proper type and placement of backflow prevention devices;
- e) Educate customers on the dangers of backflow and the best management practices for protecting customer and public water systems.

2. The Customer:

- a) Protect the potable water within the customer's internal water distribution system from degradation due to conditions originating on the customer's premises by complying with the plumbing code.
- b) Residential customers are responsible for making any necessary upgrades to customer's water system within 90 days of notification from Dalton Utilities of initial backflow preventer installation.
- c) For non-residential customers, protect the quality of water in Dalton Utilities' system through the installation and maintenance, and annual testing of approved backflow prevention devices. The customer will be responsible for the cost of procurement, installation, testing, maintenance and reporting to Dalton Utilities of said devices. All testing must be performed by a certified tester.

3. The Certified Backflow Prevention Assembly Tester:

The certified tester shall be responsible for performing accurate field tests on backflow prevention assemblies and providing reports of these tests to the customer. Gauges used in the testing of backflow prevention assemblies shall be tested for accuracy annually in accordance with the current version of the University of Southern California Manual of Cross-Connection Control or the American Water Works Association Manual.

Section IV. Selection of Backflow Preventers

1. All backflow preventers shall be selected on the basis of the hazard classification and service type. Selection of the required backflow preventer types will be made by Dalton Utilities and shall be in accordance with the most recent applicable standards of the American Society of Sanitary Engineering (ASSE), the American National Standard Institute (ANSI), the American Water Works Association (AWWA), the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research (FCCCHR) and the Standard Plumbing Codes.
2. The following classifications are not all inclusive. If a customer is covered by more than one category, then the more stringent applies. The hazard classifications are as follows:
 - a) **High Hazard**
 - i) Agriculture where fertilizers, herbicides, and pesticides are used;
 - ii) Cooling systems where chemicals are used to protect the system from Degradation;
 - iii) Industry utilizing hazardous chemicals. Typical operations include plating facilities, chemical manufacturing, dyeing operations, coating operations, oil and gas production, storage or transmission properties, paper and paper products plants, battery plants, automobile part manufacturing, metal manufacturing, cleaning, processing and fabricating, cloth and fabric manufacturing;
 - iv) Carwashes in conjunction with Georgia EPD carwash certification Section 391-3-31-.03;
 - v) Hospitals, medical buildings, sanitariums, morgues, mortuaries, autopsy facilities and clinics, including facilities used by veterinarians;
 - vi) Water and wastewater treatment plants; and
 - vii) Laundries and dry cleaners.
 - b) **Low Hazard**
 - i) Apartments serving 15 or more units, hotels, mobile home parks, single and multistoried commercial offices;
 - ii) Food services: food processing, dairies, cold storage, bottling plants and restaurants (if health hazard exists, becomes a high hazard);
 - iii) Irrigation and sprinkler systems (if chemicals injected, becomes a high hazard);

iv) Schools and colleges;

v) Manufacturing; other than listed under industry in the High Hazard and poses no health threat;

vi) Printing shops; and

vii) Service stations and garages.

c) **Residential**

i) Residential, including apartments with fewer than 15 service connections

3. Vacuum breakers shall be corrosion resistant. Other backflow prevention devices, including accessories, components and fittings 2 inches and smaller, shall be bronze with threaded connections. Sizes 2.5 inches and larger shall be bronze or fused epoxy coated iron inside and outside.
4. Reduced Pressure Zone Assemblies shall be used on all High Hazard service connections, except where a sufficient air gap has been provided and certification is provided that air gap will not be removed. These assemblies shall include either ball valves with Teflon seats or gate valves with resilient seats. These assemblies also require test cocks for testing purposes.
5. Double Check Valve Assemblies shall be used on Low Hazard service connections. These assemblies shall include ball valves with Teflon seats or gate valves with resilient seats. These assemblies also require test cocks for testing purposes.
6. Dual Check Valve Assemblies shall be used on Residential service connections. These assemblies shall include ball valves with Teflon seats or gate valves with resilient seats.
7. Each device shall have a brass identification tag securely attached with corrosion resistant mechanical fasteners. The tag should include the manufacturer's name, serial number, and maximum working pressure and temperature.
8. Fire protection systems are divided into six (6) classes described below. Classes 1-3 require a double detector check valve assembly and classes 4-6 require a reduced pressure detector check valve assembly.
 - a. Class 1 – Direct connections from the public water mains; no pumps, tanks or reservoirs; no physical connection from other water supplies; no antifreeze or other additives of any kind; all sprinkler drains discharging to atmosphere, dry wells, or other safe outlets.
 - b. Class 2 – Same as Class 1 except that booster pumps may be installed in the connections from the street mains.

- c. Class 3 – Direct connection from public water supply mains, plus one or more of the following: elevated storage tanks; fire pumps taking suction from above ground covered reservoirs or tanks; and pressure tanks.
- d. Class 4 – Directly supplied from public water mains, similar to Class 1 and Class 2, with an auxiliary water supply dedicated to fire department use and available to the premises, such as auxiliary supply located within 1,700 feet of the pumper connection.
- e. Class 5 – Directly supplied from public water mains and interconnected with auxiliary supplies, such as pumps taking suction from reservoirs exposed to contamination, or rivers and ponds; driven wells; mills or other industrial water systems; or where antifreeze or other additives are used.
- f. Class 6 – Combined industrial and fire protection systems supplied from the public water mains only, with or without gravity storage or pump suction tanks.

Section V: Location and Installation of Backflow Preventers

- 1. Dalton Utilities shall install backflow preventers for all residential service connections. For all low hazard and high hazard service connections, the customer shall be responsible for the purchase and installation of the appropriate backflow preventers.
- 2. Location of all backflow prevention devices shall be in an area that provides a safe working environment for testing and maintenance. This area shall be readily accessible and free from extreme cold, heat and/or electrical hazards.
- 3. Installation of all backflow prevention devices shall be in accordance with the most recent applicable standards of ASSE, ANSI, AWWA, FCCCHR and the Standard Plumbing Codes.
- 4. Facilities that must have 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 or maintained unless also equipped with an approved backflow prevention device providing the equivalent level of protection.
- 5. Reduced pressure zone assemblies shall not be installed in areas that are subject to the possibility of flooding. This includes vaults or pits that do not have a gravity drain to the ground's surface, which is capable of exceeding the relief valve discharge rate of the assembly.

Section VI: Testing, Maintenance, and Repairs

- 1. All backflow prevention devices shall be maintained in a safe condition and in good working order.

2. Customers of all hazard classifications 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/her own private system.
3. Tests, maintenance, and repairs are to be made in accordance with the manufacturer's instructions and at a minimum annually. Dalton Utilities reserves the right to require testing, maintenance, and repairs on a more frequent basis. Testing maintenance and repairs shall also be conducted in accordance with the most recent editions the FCCCHR manual and the AWWA Manual M-14.
4. Personnel trained and certified under a State of Georgia Backflow Prevention Program, the American Backflow Prevention Association (ABPA), ASSE, or the University of Florida Treco Center must perform testing. A list of local certified testers will be maintained on Dalton Utilities' website.
5. The customer shall maintain testing, maintenance, and repair documentation for a record retention period of 3 years. A statement and any accompanying documentation should be submitted to Dalton Utilities Attn: Backflow Program Coordinator P.O. Box 869, Dalton, GA 30722-0869 certifying the customer has performed all appropriate testing, maintenance, and repairs on all backflow prevention devices under the customer's control in accordance with the requirements of these Rules and Regulations.
6. All backflow prevention devices and testing, maintenance, and repair records shall be subject to periodic inspection by Dalton Utilities. The customer shall repair or replace any backflow prevention assemblies that fail the field test within 30 days and provide appropriate documentation and test reports from said repairs. With the exception of cases involving actual or imminent system contamination, the time allotted for corrections will be determined by the degree of potential hazard posed to the public water supply.
7. If the corrective measures have not been taken in the allotted time, water service will be terminated to prevent the possible contamination of the public water system. Dalton Utilities reserves the right to terminate service immediately with no notification if there is imminent danger to public health due to the connection.

Section VII: Facility Inspection

1. On such premises where backflow is deemed possible through uncontrolled plumbing connections and/or cross connections, the customer shall furnish to Dalton Utilities, upon request, any pertinent information regarding the customer's water system.
2. If the customer fails to provide requested pertinent information, the premises are classified as restricted, or there is high security with no admittance, the maximum protection (high hazard) at the service connection will be required.

3. Facilities considered to pose an actual or potential contamination and/or pollution threat to the public water system may be inspected by Dalton Utilities. Inspections will be scheduled at a time mutually agreeable with the customer and Dalton Utilities.
4. Inspections will focus on plumbing outlets and potential contaminating or polluting substances within a facility. Using information gathered, Dalton Utilities will determine the degree of potential backflow hazard and specify the type of backflow protection required at the customer's service connection and the date by which installation is required.
5. While in the course of a routine inspection or special investigation, Dalton Utilities discovers a condition of imminent or actual high hazard system contamination, service will be immediately discontinued or disconnected. Service will not be restored until the hazardous condition has been corrected and re-inspected.
6. Nothing herein shall relieve the customer of the responsibility for conducting periodic surveys of water use practices on his premises to determine whether there are actual or potential uncontrolled cross connections within the customer's water system through which contaminants or pollutants could flow back into the customer's or public potable water system.

Section VIII: Water from Fire Hydrants and Other Sources

1. In no case shall the plumbing be installed or interconnected so that water in the Dalton Utilities system and a private water supply can, in any way, become intermingled.
2. Upon discovery of an uncontrolled interconnection on any premises being furnished water from Dalton Utilities, the owner of said premises shall be notified that the interconnection must be removed or controlled by a backflow prevention device within thirty (30) days and that failure to remove or correct the interconnection will result in discontinued water service. The water service will not be reconnected until the backflow protection is installed at the service connection.
3. All vehicles that use hydrants to fill or flush their equipment (i.e. Fire trucks, street sweepers, spray trucks, contractor equipment, etc.) must be equipped with an appropriate backflow prevention device or an approved air gap. If not, a backflow prevention device must be obtained from Dalton Utilities and used at all times while connected to the public water system.

Section IX: New and Change of Service Procedures

1. When a customer makes a request for a new service or change in service, a customer service representative will gather the necessary information and forward it to the Watershed Regulatory Department so a determination of the need and type of backflow prevention device can be made.

2. When making a request for a new service or change in service, the customer must provide the following information:
 - a. Name of contact person;
 - b. Whether it is a residence or business;
 - c. If business, name, type (commercial or industrial) and nature of business;
 - d. Size of service connection;
 - e. Mailing and service address;
 - f. Telephone number; and
 - g. Any applicable engineering drawings and/or plans, if requested.
3. The customer will be notified of any backflow prevention requirements at the time of request for a new or change in service. At the time of such request, a commercial or industrial customer will also be notified that the customer shall be responsible for all costs associated with purchase, installation, maintenance, and testing of the device(s).
4. Fire Service applications shall be handled in the same manner as a normal service application.

Section X: Emergency Contingency Plan

1. In the event of accidental contamination of the public potable water system, the customer, if so aware, shall immediately notify Dalton Utilities so that appropriate measures can be implemented.
2. Upon the event of contaminated or polluted water entering the public water system. Dalton Utilities will authorize:
 - a. Isolation procedures;
 - b. Proper public notification; and
 - c. Contaminant or pollutant identification.Dalton Utilities shall also notify EPD as soon as possible, but no later than the end of the next business day. If requested by EPD, Dalton Utilities shall submit a written report of the incident describing the nature and severity of backflow, the actions taken in response to the incident and the plan of actions to prevent such incidents in the future.

Section XI: Enforcement

1. Dalton Utilities shall administer enforcement of these Rules and Regulations.
2. Failure to install, test, maintain, and repair the appropriate backflow prevention device may result in the termination of water service.
3. After reasonable notice to the customer of a violation of these Rules and Regulations, water service may be discontinued and/or any other precautionary measures taken that are deemed necessary, including the assessment of noncompliance fees to protect the public potable water system.

4. A customer may appeal any ruling by a representative of Dalton Utilities to the Chief Executive Officer (CEO) of Dalton Utilities within 30 days. The CEO will review the appeal and render a decision.