



Cross Connection Control Program

1. Purpose

The Cross Connection Control Program is established to prevent possible contamination of the McCormick CPW potable water system. The purpose of the program is to locate both potential and real hazards through cross connection between our water system and any sources of potential contamination. The program helps to ensure that our water system delivers safe, uncontaminated water to every tap on our system. The program is operated according to guidelines set by both the SC Department of Health and Environmental Control and the McCormick CPW.

2. Definitions

- 2.1. Air Gap. An unobstructed vertical separation, through free air, between the lowest opening from any pipe or faucet conveying water to a tank, plumbing fixture, or receptor and the flood rim of the receptacle. The air gap must be at least twice the diameter of the water supply line above the flood rim of the receptacle but never less than one inch.
- 2.2. Backflow. Reversal of flows in a water distribution system as a result of backpressure or back siphonage.
- 2.3. Backpressure. A pressure at a water connection, higher than the supply pressure, caused by a pump, an elevated tank, elevated piping system, boiler, or any other means that may cause pressure greater than the public supply pressure.
- 2.4. Backflow Prevention Assembly. An assembly or means designed and approved to prevent backflow.
- 2.5. Cross Connection. Any actual or potential connection or physical arrangement between a public water supply and any other source or system through which it is possible to introduce into the potable water supply used water, industrial fluid, gas, or any substance other than the intended potable water which the system supplies.
 - 2.5.1. Cross Connection – High Hazard Category. A connection between an approved public water system and a service or other water system which has or may have any material in the water dangerous to health that is or may be handled under pressure, or subject to negative pressure, is



considered a high hazard category cross connection. Protection shall be by air gap separation or an approved reduced pressure principle backflow prevention assembly.

2.5.2. Cross Connection - Low Hazard Category. A connection between an approved public water system and a service or other water system not hazardous to health by not meeting the standards of the approved public water system and not cross connected within its system with a potentially dangerous substance shall be considered a low hazard category cross connection. Backflow prevention devices approved for low hazard cross connection shall be installed.

3. Policy

State Primary Drinking Water Regulations: R61-58 require that no person shall install or maintain any cross connection between a public water system and any other non-public water system, sewer, or a line from any container of liquids or other substances, unless an approved backflow prevention device is installed between the public water system and the source of contamination. It is the policy of the McCormick CPW that all taps installed on our water system have at a minimum the protection of a residential dual check at the water meter. We realize, however, that at this time it is impossible to fully implement this policy. Many of the older residential water taps are "grand fathered" until such time that the tap and/or meter must be replaced. All new taps into the system require protection devices. The type of device required is determined by the degree of hazard. High hazard locations require a reduced principle (RP) device while low hazard locations require a double check valve assembly (DCVA).

4. Responsibilities

McCormick CPW, the water supplier, has the responsibility for the prevention and/or correction of any cross connections to the city water system. All personnel involved with the operation of the system are required to be aware of the Cross Connection Program and its requirements. Specific responsibilities of various Public Utilities Divisions are described below.

4.1. Public Utilities Administration. The Public Utilities Administration personnel review all requests for new taps onto our water system; ensure that all testable cross connection prevention devices are properly tested annually; and maintain records required for the implementation and administration of the program. This review is intended to identify any unusual conditions or



circumstances that could result in potential cross connection situations. Any unusual situations will be reported to the Water Distribution Supervisor.

4.2. Water Distribution Division. The Water and Sewer Distribution Division has the responsibility to locate and eliminate hazardous or potential cross connections; and evaluate new and existing water connections to ensure that proper cross connection prevention devices are in place.

5. Procedures

The McCormick CPW will use the following procedures in implementing and enforcing the Cross Connection Program:

- Evaluate new and existing connections to ensure that the proper protection devices are in place.
- Maintain records on all installed, tested devices.
- Complete visual and physical inspection of installed devices as required.
- Notify property owners that annual testing is due and ensure that property owners complete annual testing of all testable devices.
- File results of all annual testing.

6. Testing of Protection Devices

When double check valve and/or reduced pressure principle backflow prevention assemblies are installed to protect a public water system against the possibility of backflow from a customer's water service, routine testing of the assemblies shall be performed by a certified tester. All testable cross connection control devices will be tested annually. All testing will be completed by a certified tester in accordance with the guidelines contained in the State Primary Drinking Water Regulation. Testable devices are normally found only on industrial and commercial customer connections. However, residential customers with complex irrigation systems are occasionally required to have testable protection devices (Reference: State Primary Drinking Water Regulation R.61-58.7 (F), paragraph 1-9). The following Procedure governs the testing program.

- Letters are sent to all customers that maintain testable protection devices notifying them that the annual testing is due. Notification letters are maintained on file for a minimum of three years.
- Customers have 30 days from receipt of the notification letter to complete the testing and return the test results to McCormick CPW Water Plant. A certified



second notice will be mailed to customer not responding at the end of the initial 30-day period allowing an additional grace period of 30 days. If customer does not comply in this time frame, the water meter will be cut off and locked. A \$50 Reconnection Fee and the backflow test results must be delivered to the McCormick CPW Water Treatment Plant before water service will be reconnected.

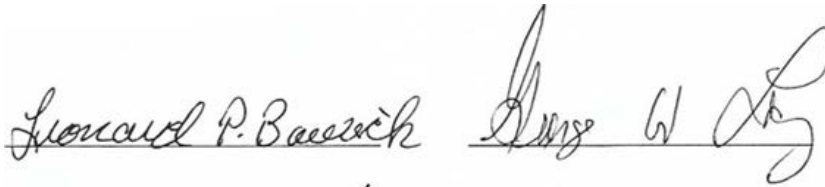
- The McCormick CPW Water Plant maintains test results and any other correspondence with customers for a minimum of three years.

7. Notification of Installations

7.1. Lawn irrigation: Office staff will inform customer at time of tap fee, that a testable double check backflow device is required to be installed. The water department head will also be advised of customer and address of new installations.

7.2. Business customers: Office staff will inform customer to contact water department head to determine backflow requirements.

We the Commissioners are in agreement to adopt this Cross Connection Policy as listed above.

Handwritten signatures of Leonard P. Baerick and Denise W. King.

Date Approved: Feb. 17, 2014