Cross-Connection Test Procedures

The following method is used for conducting a cross-connection control test on all sites where both recycled water and potable water are intended to be used in separate piping systems. An AWWA-certified Cross-Connection Control Specialist must perform the test.

First part of the test:

1. The potable water system shall be activated and pressurized. The recycled water irrigation system shall be shut down at its point of connection and depressurized. This is usually done by manually bleeding an irrigation control valve and/or quick-coupling valve that is located at the lowest point of elevation in the irrigation system.
2. The potable water system shall remain pressurized for a minimum period of time specified by the Cross-Connection Control Specialist while the irrigation system is depressurized. The minimum period of time the recycled water irrigation system is to remain depressurized shall be determined on a case by case basis, taking into account the size and complexity of the potable water and recycled water irrigation systems, but in no case shall that period be less than one (1) hour.
3. All recycled water irrigation control valves and quick-coupling valves, and any site features that are approved to be supplied with recycled water from the on-site irrigation system shall be tested and inspected for flow. Continuous flow from any part of the recycled water system (irrigation system, decorative fountains, etc.) indicates a cross-connection.
4. All potable interior and exterior water fixtures, including faucets, hose bibs, drinking fountains, toilets, and supply lines to decorative fountains shall be tested and inspected for flow. No flow from any potable water outlet indicates that it may be connected to the recycled water irrigation system.
5. If no cross-connections are discovered, proceed to the second part of the test. If any cross-connections are found, they must be disconnected, and the site must be retested by an AWWA Cross-Connection Specialist per these procedures.

Second part of the test:

1. The potable water system shall be shut down at its point of connection (usually the meter) and completely drained-usually at its drain valve or at the reduced pressure principle backflow device.

2. The recycled water irrigation system shall then be activated and pressurized.
3. The recycled water irrigation system shall remain pressurized for a minimum period of time specified by the Cross-Connection Control Specialist while the potable water system is depressurized. The minimum period of time the potable water system is to remain depressurized shall be determined on a case by case basis, but in no case shall that period be less than one (1) hour.
4. All potable interior and exterior water fixtures, including faucets, hose bibs, drinking fountains, toilets, and supply lines to decorative fountains shall be tested and inspected for flow. Some flow may occur from water breaking loose from an air lock in an overhead water line. The amount of flow to cause a concern is determined by the Cross-Connection Specialist. Continuous flow from any part of the potable water system (that is beyond the drainage generated by an air lock breaking free) indicates a cross-connection.
5. All recycled water irrigation control valves and quick-coupling valves, and any other site features that are approved to be supplied with recycled water from the on-site irrigation system (such as supply lines to decorative fountains) shall be tested and inspected for flow. The absence flow from a recycled water irrigation control valve, quick-coupling valve, or any other recycled water fixture indicates that it may be connected to the potable water system.
6. If no cross-connections are discovered, then the potable water system shall be re-pressurized. If any cross-connections are found, they must be disconnected, and the site must be retested by an AWWA Cross-Connection Specialist per these procedures.
7. The certified AWWA Cross-Connection Control Specialist responsible for completing the above test must indicate the results on a SBWR Cross-Connection Certification Form. Call (408) 277-3671 to obtain the form. This completed form may be faxed to SBWR at (408) 277-4954.