Cherry Creek Valley Water & Sanitation District

Backflow Prevention / Cross-Connection Program Guide

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The Following information is quoted from the:

DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
Water Quality Control Commission COLORADO PRIMARY DRINKING WATER REGULATIONS:

Article 12 Hazardous Cross-Connection

12.1 Control of Hazardous Cross-Connections

A. A public water system or a consecutive distribution system of a public water system shall have no uncontrolled cross-connections to a pipe, fixture, or supply, any of which contain water not meeting all applicable provisions of the Colorado Primary Drinking Water Regulations.

B. A supplier of water shall protect the public water system from contamination in the following manner:
   I. Identify potentially uncontrolled hazardous service cross-connections.
   II. Require system users to install and maintain containment devices on any uncontrolled hazardous service cross-connections, provided the Department has determined that the device is consistent with the degree of hazard posed by the uncontrolled cross-connection.
   III. Installation of containment devices shall be approved by the public water system upon installation.
   IV. All containment devices shall be tested and maintained as necessary on installation and at least annually thereafter, by a Certified Cross-Connection Control Technician.

C. Public water systems shall retain maintenance records of all containment devices. Section
D. 1.6.3 requires these records to be available for inspection by Department personnel. All maintenance records shall be kept for three years.

E. A public water system shall notify the Department of any cross-connection, as defined in section 1.5.2(29), within 10 calendar days of its discovery. The cross-connection shall be corrected within 10 days of being ordered in writing by the Department to correct the problem. Failure to do so may result in an enforcement order.

F. Violations shall be subject to the provisions and penalties prescribed by sections 25.1.114 and 25.1.114.1, Colorado Revised Statutes, and to such other actions as provided by law.

Backflow Prevention Requirements

Overview

In adherence to Colorado's regulations[1] the Backflow Prevention and Cross-Connection Control program protects the public water system from cross-connection contamination by requiring customers to:

Install containment devices on water services feeding specific types of properties, such as commercial buildings and multi-residential units.

Test containment devices after initial installation and annually thereafter to make sure they are functioning properly.

Submit completed test reports to Cherry Creek Valley Water & Sanitation District (CCVW&SD).

Affected customers are notified by postal mail of required device installation and testing. It is the customer's responsibility to hire a qualified professional to install and test a device. Unless otherwise specified, customers should always install a **Reduced Pressure Zone** (RPZ) device.

Affected Properties

Commercial Properties:
All commercial properties are required to have backflow prevention devices installed and tested annually. All Irrigation backflow devices must have annual testing submitted to the District by May 31st of every year.

Residential Properties:
Residential properties have been excluded from any annual testing requirement but may still need backflow prevention devices based on plumbing code. More information can be found by contacting the city inspector's office. Although not required by the state, CCVW&SD encourages homeowners with irrigation systems to test their systems annually to make sure that dirt, bacteria, or chemicals from the lawn cannot enter into the homeowner's drinking water.

Multifamily Residences:
Multifamily Residences (or "commercial-residential" properties as they are sometimes called) are required to have backflow prevention based on their degree of hazard – in this case, the level at which a multifamily residence contains hazards that are equal to that of a commercial property. For example, a multi-unit property with a fire line or a boiler would have to have a backflow prevention device installed and tested. A single-story duplex with a furnace and a water heater would not have to have a backflow prevention device. Multifamily residences are also required to have backflow devices for all irrigation lines. All Irrigation backflow devices must have annual testing submitted to the District by May 31st of every year.

1 Refer to Regulation 11.39 of the Colorado Department of Public Health and Environment's Colorado Primary Drinking Water Regulations.

Containment Device Requirements

Orientation: Devices must be installed in the given orientation that they were tested for as allowed by the University of Southern California's Foundation for Cross-Connection Control and Hydraulic Research (USC FCCC&HR).

USC FCCC&HR Approved: Only those backflow prevention assemblies described in FCC&HR's most current "List of Approved Backflow Prevention Assemblies" shall be used within the District. A copy of the most current list can be found online at www.usc.edu.

Utility, City, and State Standards: Installation of devices must meet all applicable requirements of:

- CCVW&SD's Engineering Standards
- Local plumbing and building codes
- Article 12 of the Colorado Department of Health and Environment's Colorado Primary Drinking Water Regulations.

Containment Device Installation and Testing

Cherry Creek Valley Water & Sanitation District cannot provide installation and testing costs. Prices vary between individual companies which provide this service; therefore, be sure to get several quotes to help you choose. Prices will also be influenced by the size of your water service and the complexity of the installation. Installers and testers can be found in a phone book or online phone directory by looking under "**Backflow Prevention Products & Services**" or "**Plumbing Services**". Only a licensed plumber may install a backflow prevention device and only a certified backflow prevention device tester technician may test a device. Some plumbers are testers. Testing of devices is required annually – once every 12 months. All Irrigation backflow devices must have annual testing submitted to the District by May 31st of every year.

Test Report Forms

For data entry efficiency, we ask that four particular pieces of information be located on the top right corner of every form:

Device Serial Number

Test Date/Time

Tester Certification

Device Test Result (Pass, Fail)

Test Report Submission

Completed test reports must be sent to Cherry Creek Valley Water via one of the following:

Fax: 303-755-4908

Mail: 2325 S Wabash St.
Denver, Co 80231

Email: cbackflows@cherrycreekvalleywaterco.gov

Failed (or missing) containment assemblies must be repaired or replaced (or installed) and then tested within 30 days of receipt of the notice of failure or omission. It is at the sole discretion of

Cherry Creek Valley Water to suspend water service if the premises poses a potential health risk to the public water supply.

Cross-Connection Control Office Contact

To contact Cherry Creek Valley Water and Sanitation District regarding the Cross-Connection Control Program please use one of the following method:

Phone: 303-755-4474

FAX: 303-755-4908

Email: cbackflows@cherrycreekvalleywaterco.gov

Mailing Address: 2325 S Wabash St.

Denver, CO 80231

Surveys

To verify the accuracy of reported information or assess the need for containment devices, Cherry Creek Valley Water and Sanitation District maintenance staff might conduct property surveys. Affected customers will be contacted in these situations to arrange for a time for our staff to access the property. After reviewing the property, a survey form will be provided and must be returned to the CCV&SD office completely filled out within 30 days.