



What you need to know about backflow protection and fire sprinkler systems in the new 2015 Minnesota Plumbing Code

This information sheet provides some highlights relating to building water supply backflow requirements and transitional guidance relating to the installation of fire protection systems. This is not intended to be a comprehensive list of the Code. To access the plumbing code, please visit <http://www.dli.mn.gov/CCLD/codes15.asp>

Backflow Protection (Chapter 4714, section 603.5.15)

1. Low hazard fire sprinkler system application (wetted system without introduction of any chemicals) connected to the building water supply system must be provided with a double check valve assembly (DC). *A single detector check valve is no longer acceptable under this code.*
2. High hazard fire sprinkler system application (with introduction of inhibitors, chemicals, etc) connected to the building water supply must be provided with a reduced pressure zone backflow assembly (RP).
3. Fire department connections (FDC) with secondary nonpotable water sources taken from river, lakes, or fire trucks carrying unsafe or treated water must be provided with an RP backflow device. The local fire department should also be consulted for determination of proper backflow protection.
4. *Exception:* One- or two- family dwellings or townhouse buildings with stand-alone residential fire sprinkler systems (separated from the domestic water supply system via a “tee” connection) may continue to have a single check valve if the fire protection system is piped with materials approved in the new plumbing code for potable water piping.

Types of Backflow Devices (Chapter 4714, Table 603.2)

1. Acceptable double check assembly (DC).
 - a. Double check detector fire protection backflow prevention assembly must be listed to ASSE 1048; or
 - b. Double check valve backflow prevention assembly must be listed to ASSE 1015, AWWA C510, or CSA B64.5.1)
2. Acceptable reduced pressure zone (RP)
 - a. Reduced pressure reduced pressure detector fire protection backflow prevention assembly zone must be listed to ASSE 1047; or
 - b. Reduced pressure principle backflow prevention assembly must be listed to ASSE 1013, AWWA C511, CSA B64.4 or CSA B64.4.1
3. Installation of DC and RP devices must be in accordance with the manufacturer’s installation instructions and provided with minimum of 12 inches above finished floor for maintenance.

Testing of Backflow Devices (Chapter 4714, section 603.5.23)

1. DC and RP devices must be tested and inspected annually, and notifications of installation are required.
2. DC and RP devices must be tested by a DLI certified backflow prevention tester. For more information about this, see <http://www.dli.mn.gov/CCLD/PlumbingBackflow.asp>

DLI Code Transition Guidance

1. Fire sprinkler systems reviewed and approved under the existing 2012 plumbing code, Chapter 4715, prior to January 23, 2016, can proceed with construction in accordance with the approved plans and permit application.
2. Fire sprinkler systems designed and date stamped by the designer prior to January 23, 2016, can be submitted for review and approval for permit application under the existing 2012 plumbing code, Chapter 4715.
3. Large projects currently under design to the existing plumbing code, Chapter 4715, and will be signed by the designer after the effective date of Jan. 23, 2016, a reasonable extension may be requested through the Authority Having Jurisdiction.
4. Fire sprinkler systems designed after January 23, 2016, backflow protection must be designed to meet the new plumbing code, Chapter 4714.