

CITY OF GILLETTE CROSS CONNECTION CONTROL and BACKFLOW PREVENTION PROGRAM
Private Water Systems and Private Water Service Lines Connected to the City's Water System
"BACKFLOW 411"
September 2017

Purpose:

The Purpose of the City's Cross Connection Control and Backflow Prevention Program is:

- a) To protect the public potable water supply of the City of Gillette from the possibility of contamination or pollution by isolating the customer's internal distribution system(s) or the consumer's private water system(s) such contaminants or pollutants which could backflow into the public water systems: and,
- b) To promote the elimination or control of existing cross-connections, actual or potential, between the consumer's in-plant potable water system(s) and non-potable water system(s), plumbing fixtures and industrial piping system(s); and,
- c) To provide for the maintenance of a continuing Program of Cross-Connection Control which will systematically and effectively prevent the contamination or pollution of the City of Gillette's potable water systems.

City Regulations:

1. The City's Cross Connection Control Ordinance No. 3309 was approved by the City in 2004. **EXHIBIT A** The City of Gillette was directed to approve this Ordinance in 2004 by the State DEQ. Since 2004, the City Utilities Department has maintained a database of non-residential customers that are required to install, maintain and perform annual testing and certification to ensure their backflow device is functioning properly.
2. DEQ Water Quality Rules & Regulations. **EXHIBIT B** is an excerpt from the current (2017) Water Quality Rules & Regulations with definitions & title sections highlighted that specifically apply to Cross Connection Control (backflow). The table on the last page is helpful.
3. **EXHIBIT C** is a 2016 letter from DEQ that clarifies the requirements for dual check valves and double check valves for residential and non-residential applications.

When in conflict with each other, we will use the more stringent of the two regulations - - which is usually the WDEQ requirements.

Summary of Requirements:

- Per DEQ and City Ordinance 3309, a testable double check valve or a reduced pressure principle (dump) valve is required for all non-residential facilities.
- Per DEQ, anything larger than a three-unit apartment or more than three residential units on a shared service line is considered non-residential.
- Per DEQ and City Ordinance 3309, a simple dual-check (non testable) valve is acceptable for all residential facilities or other facilities if a hazard classification survey has been performed by a certified hazard classification surveyor.
- Per the City's Plumbing Codes, a testable double check valve is required for all new residential installations with an irrigation system.

Certifications:

- Hazard Classification Surveyor - means an individual certified by the USC Foundation for Cross-Connection Control and Hydraulic Research as Cross Connection Control Specialist, the American Association of Sanitary Engineers (ASSE) as a Cross Connection Control Surveyor, or by another state certification program approved by the administrator, or by a water distribution system operator also certified as a backflow device tester employed by the public water supplier for the service where the survey is being conducted.
- Backflow Device Installer – a licensed master plumber, with certification on file with the City of Gillette Building Division.
- Backflow Device Tester – Testable, backflow prevention devices at water service connections shall be inspected and certified by a certified backflow assembly tester at the time of installation. Double Check Valves and Reduced Pressure Principle Valves shall be inspected, tested and certified annually. Certification of the assembly tester shall be by one of the following:
 - (I) The American Society Sanitary Engineers (ASSE),
 - (II) American Backflow Prevention Association (ABPA),
 - (III) A state certification program approved by the WDEQ administrator.

City Priorities:

- As of September 2017, the City is less concerned about the retrofit of low-hazard residential or low-hazard light commercial facilities. We will allow 6 months to 12 months to get the low hazard commercial facilities retro-fitted with an appropriate backflow device.
- The City's highest priority is to retrofit the high-hazard, non-residential facilities that might have the potential to contaminate the public water supply if a back-pressure or back-siphon event were to occur. Examples include commercial facilities that use water to dilute chemicals, mop sinks with hoses on the hose bib into a mop bucket, commercial laundries, buildings with chemical fire suppression systems, etc. These should be retro-fitted as soon as possible.

City Process:

- City sends certified letters to non-residential customers annually, around Labor Day.
 - If the City has no record on file of an existing device, within the letter, we ask the property owner to examine their system and install the necessary backflow device, if one does not exist, within 30 days. (we will allow more time for the low hazard installations. High hazard installations need to be addressed ASAP.)
 - If the City has a record of a device installed at the customer's address, we ask that they provide the annual Testing Report. (See Backflow Device Tester description, above.)
- The property owner contacts a plumber, or other certified professional, and solicits a quote to perform the work. If the quote is acceptable, the property owner hires the plumber, or other certified professional.
- The plumber or other certified installer applies for the necessary building permit(s) through the City's Building Inspection Division and schedules a time to install the device and test the device for both low and high-hazard, non-residential installations.

- Once the plumber performs the install and/or performs the annual inspection test, they fill out a form and send it to the City Utilities Division so we can update our database to send future, annual reminders for future testing and inspection.

Additional Things to Keep in Mind:

- A plumbing permit is required for any modifications to a plumbing system, including the installation of a backflow device. The cost of a City plumbing permit is \$10.
- An expansion tank on the hot water heater is highly recommended if a backflow device is installed to allow the water within the building plumbing system to expand and/or contract without damaging the pipes.
- A pressure reducing device is recommended if the installation is in a high-pressure area of town (like Collins Heights)
- Neither of these devices (expansion tank or PRV) are "required" per the City's backflow ordinance or the DEQ rules & regulations, but our plumbing codes do indeed require for new installations.
- All new buildings permitted after the late 1990's or early 2000's should have an appropriate backflow device. The plumbing codes that were in place in the late 1990's and early 2000's required the installation of an appropriate backflow device for all residential, commercial and industrial.

City Contact Information:

Our water system operators in utilities are available to help property owners and plumbers determine the hazard classification level for the various facilities. Please contact Greg Bowman at 307.686.5276 to schedule an appointment.

In addition to Greg several other key City staff members are available to assist:

- Ken Rogers, Building Official
- Jim Brown, Deputy Building Official
- Vicky Skadsem, Building Division Permit Tech
- Kim King, Building Division Sr. Admin Asst.
- Howard Jones, Water Manager (Utilities)
- Connie Anderson, Utilities Sr. Admin Asst.
- Jill Belecky, Utilities Admin Asst.

Summary and Additional Contact Info:

The City's Cross Connection Control and Backflow Prevention Program is a State of Wyoming DEQ requirement that the City was mandated to adopt per Ordinance in 2004. The US EPA and DEQ perform annual audits of our backflow program to ensure we are keeping up with the retro-fit and new installation of backflow devices for all City water customers. If you have any questions about the State DEQ Regulations, please contact the water/wastewater program at DEQ.

<http://deq.wyoming.gov/wqd/water-wastewater/>