

41-00546

CITY OF MT. VERNON

DRAFT

CROSS CONNECTION REGULATIONS

ORDINANCE NO # 96-01 (WHEN PASSED)

Pursuant to Chapter 333, Division 61 of the Oregon Administrative Rules, it is the responsibility of the City of Mt. Vernon to protect its drinking water by instituting and enforcing a cross connection program. Therefore, the following regulations are hereby adopted:

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DEFINITIONS

1.1 "Cross Connection" means any physical arrangement where a public water system is connected, directly or indirectly, with any other non-drinkable water system or auxiliary system, sewer, drain conduit, swimming pool, storage reservoir, plumbing fixture, irrigation systems, hot tubs, solar systems, fire sprinkler systems or other liquid of unknown or unsafe quality which may be capable of imparting contamination to the public water system as a result of backflow. Bypass arrangements, jumper connections, removable sections, swivel or change over devices, or other temporary or permanent devices through which, or because of which, backflow may occur are considered to be cross connections.

1.2 "Backflow" means the flow in the direction opposite to the normal flow or the introduction of any foreign liquids, gases, or substances into the water system that may be available in the building or on the premises.

1.3 "Auxiliary Supply" means any water source or system other than the public water system, that may be available in the building or on the premises.

1.4 "Approved Backflow Prevention Device" means a device to counteract back pressures or prevent siphonage. This device must

appear on the list of approved devices issued by the Oregon State Health Division.

1.5 "Reduced Pressure Principle Device" (RPBD) shall mean an assembly containing two independently acting approved check valves together with a hydraulically operated mechanically independent pressure differential relief valve located between the check valves and at the same time below the first check valve. The device shall include properly located test cocks and tightly closing shut-off valves at the end of the assembly. A check valve is approved if it appears on the list of approved devices issued by the Oregon State Health Division.

1.6 "Premises" means any piece of land to which water is provided including all structures, improvements, and additions.

PURPOSE

The purpose of these regulations is to protect the water supply of the City of Mt. Vernon from contamination or pollution due to any existing or potential cross connection.

CROSS CONNECTIONS REGULATED

No cross connections shall be created, installed, used, or maintained within the territory served by the City of Mt. Vernon except in accordance with these regulations.

BACKFLOW PREVENTION DEVICE REQUIREMENT

Approved backflow prevention devices shall be installed at the expense of the user, either at the service connection or within the premises, as determined by a certified cross connection inspector in each of the following circumstances.

1.1 When the nature and extent of any activity of the premises, or the materials used in connection with any activity of the premises, or materials stored on the premises, could contaminate or pollute the drinking water supply.

1.2 When premise has one or more cross connections as that term is defined in section 1:01 paragraph 2.

1.3 When internal cross connections are not correctable, or intricate plumbing arrangements have made it impractical to ascertain whether or not cross connections exist.

1.4 When there is a repeated history of cross connections being established or re-established.

1.5 When there is unduly restricted entry so that inspections

for cross connections cannot be made with sufficient frequency or with sufficient notice to assure that cross connections do not exist.

1.6 When materials of a toxic or hazardous nature are being used such that, if back siphonage should occur, a health hazard could result.

1.7 When there is any mobile apparatus which uses the City of Mt. Vernon's system or water from any premises within the system.

1.8 When there is a premise where installation of an approved backflow prevention device is deemed to be necessary to accomplish the purpose of these regulations in the judgement of a certified cross connection specialist.

1.9 When an appropriate cross connection report form has not been filed with the office of the City of Mt. Vernon for the particular premise.

INSTALLATION REQUIREMENTS IRRIGATION

To ensure proper operation and accessibility of all backflow prevention devices, the following requirements shall apply to the installation of these devices.

CITY OF MT. VERNON IRRIGATION BACKFLOW INSTALLATION REQUIREMENTS

1.1 Prior to the installation of ANY TYPE of irrigation system on property served by the City of Mt. Vernon a set of plans, prints, drawings, or diagram of the system must be submitted to the City of Mt. Vernon.

The plans shall include location of system (street and lot number), owner's name and address, layout of system and size and description of backflow device. This irrigation plan will be reviewed and kept on file at the City Hall.

Within ten (10) working day the City of Mt. Vernon will return to the submitter initial plan approval or required changes, and a copy of the City of Mt. Vernon's backflow device installation requirements.

The City of Mt. Vernon requires that the minimum backflow prevention on an irrigation system will be the installation of an approved Double Check Valve Assembly.

1.2 The following are the City of Mt. Vernon's requirements for the installation and approval of a Double Check Valve Assembly on all irrigation systems:

- a. In order for a backflow prevention device to be approved by the City of Mt. Vernon, all devices installed after September 1, 1986, must be State of Oregon approved and have resilient seated gate valves or fully ported ball valves. These valves are to be an integral part of the device assembly as sold by the local distributor.

DOUBLE CHECK VALVE ASSEMBLY (DCVA) - INSTALLATIONS

- a. The DCVA shall be installed with adequate space to facilitate maintenance and testing. It shall be inspected and tested after installation to insure its satisfactory operation and proper installation. The DCVA must be tested by a certified state tester, at time of installation.
- b. Care must be used to insure that the DCVA is not installed where the pressure will be maintained above the device's rated and labeled capacity.
- c. Pit or below grade installations of a DCVA must have a 6" gravel bed for pit drainage and pipe plugs must be installed in test cock tappings to lessen the danger of cross connects if the device becomes submerged.
- d. The DCVA must be protected from freezing but must facilitate testing and maintenance. There shall be no connections installed between DCVA and source of supply for the purpose of draining.
- e. Thoroughly flush the lines prior to installation of the DCVA.
- f. Owner or representative must call for an inspection by the City of Mt. Vernon. Backflow device installation service line and all premise plumbing to the DCVA must be exposed on visual inspection.
- g. Water service will not be turned on until final approval is granted, following the acceptance of the DCVA installation and receipt of certified test results.

1.3 Prior to backfill, this installation must be inspected between the DCVA and the source of supply by the City of Mt. Vernon. Inspection will be made by the City of Mt. Vernon within two (2) working days of notice to inspect.

IMPORTANT: Failure to notify the City of Mt. Vernon prior to backfill will result in re-excavation of the device and point of connection to facilitate inspection.

1.4 Final approval shall be granted following the acceptance of the installation and receipt of certified tester results.

1.5 All devices must be tested annually at the beginning of the irrigation season.

NOTE: The installation of a backflow prevention device on the water service line will eliminate the thermal expansion of hot water into the distribution system. Therefore, the City of Mt. Vernon hereby notifies the water user that it is the water users responsibility to maintain temperature pressure relief valves within the premise plumbing.

INSTALLATION REQUIREMENTS COMMERCIAL SERVICES

CITY OF MT. VERNON
COMMERCIAL BACKFLOW INSTALLATION REQUIREMENTS

1.1. Prior to installation of any commercial water service (any service other than residential) in the City of Mt. Vernon service area, a set of plans, prints, drawings or diagrams of the system must be submitted to the City of Mt. Vernon.

The plans shall include locations of buildings, irrigations systems and landscaping, street address, owner's name and mailing address, plumbing and mechanical plans, size of service line and description of intended use of property. This plan will be reviewed and kept on file at City Hall.

Within ten (10) working days the City of Mt. Vernon will return to the submitter initial plan approval. The approval notice will include type of backflow device required (minimum requirement double check valve assembly), and a copy of the City of Mt. Vernon backflow device installation requirements.

1.2 The following are the City of Mt. Vernon's requirements for the installation and approval of a Double Check Valve Assembly on all commercial services:

- a. All devices installed after September 1, 1986, must be State of Oregon approved and have resilient seated gate valves or fully ported ball valves. These valves are to be an integral part of the device assembly as sold by the local distributor.

DOUBLE CHECK VALVE ASSEMBLY (DCVA) - INSTALLATION

- A. The DCVA shall be installed with adequate space to facilitate maintenance and testing. It shall be inspected and tested after installation to insure its satisfactory operation and proper installation. The DCVA must be tested by a certified state tester, at time of installation.
- B. Care must be used to insure that the DCVA is not installed

where the pressure will be maintained above the device's rated and labeled capacity.

- C. Pit or below grade installations of a DCVA must have a 6" gravel bed for pit drainage and pipe plugs must be installed in test cock tappings to lessen the danger of cross connects if the device becomes submerged.
- D. The DCVA must be protected from freezing but must facilitate testing and maintenance. There shall be no connections installed between DCVA and source of supply for the purpose of draining.
- E. Thoroughly flush the lines prior to installation of the DCVA.
- F. Owner or representative must call for an inspection by the City of Mt. Vernon. Backflow device installation service line and all premise plumbing to the DCVA must be exposed on visual inspection.
- G. Water service will not be turned on until final approval is granted, following the acceptance of the DCVA installation and receipt of certified test results.
- H. All devices must be tested annually by a state certified backflow device tester and a completed test report submitted to the City of Mt. Vernon.

NOTE: The installation of a backflow prevention device on the water service line will eliminate the thermal expansion of hot water into the distribution system. Therefore, the City of Mt. Vernon hereby notifies the water user that it is the water users responsibility to maintain temperature pressure relief valves within the premise plumbing.

INSTALLATION REQUIREMENTS FIRE SPRINKLERS

CITY OF MT. VERNON
FIRE SPRINKLER SYSTEMS BACKFLOW
PREVENTION REQUIREMENTS

Pursuant to Chapter 333-61-070 (6) (b) of the Oregon State Health Division Administrative Rules an approved Double Check Valve Assembly DCVA shall be the minimum backflow protection for fire sprinkler systems.

Installation requirements for DCVA's on fire sprinkler systems are as follows:

1. DCVA's may be installed vertically as well as horizontally provided that the device assembly:

- A. Is internally spring loaded - not weighted checks.
 - B. Is 4 inches or smaller.
 - C. Is recommended by the manufacturer for vertical installation.
 - D. Has the normal flow upward.
2. DCVA's may be installed below grade in a vault provided plugs are installed in the test cocks. Maximum height of installation shall not exceed 5 feet for device assemblies larger than 2 inches unless there is a permanently installed platform meeting Occupations Safety and Health (OSHA) standards to facilitate servicing the device.
 3. Clearances for device assemblies 2 inches or smaller must provide that they are accessible for testing and repairing. Adequate drainage must be provided except that the drain shall not be connected to a sanitary or storm water drain.
 4. When intricate plumbing arrangements exist that make it impractical to ascertain water usage or consumption, the City of Mt. Vernon may require the installation of an approved Double Detector Check Valve Assembly.
 5. Prior to establishing water service to the fire sprinkler system the backflow prevention device must be tested by a certified tester and a test report form filed at the Mt. Vernon City Hall.
 6. All backflow prevention devices installed on fire sprinkler systems must be tested annually by a certified tester. A completed test report form must be submitted to the City of Mt. Vernon.
 7. Fire sprinkler systems that incorporate an anti-freeze loop containing any type of chemical shall have an approved reduced pressure principle backflow device (RPBD) installed on the anti-freeze loop.
 8. Installation requirements for RPBD's on hot tubs are as follows:
 - a. RPBD's shall always be installed horizontally, never vertically.
 - b. RPBD's shall always be installed above the 100 year (1%) flood level.
 - c. Relief valves shall never be extended or plugged.
 - d. Protection from freezing shall be provided.
 - e. A provision for an air gapped drain shall be provided.
 - f. RPBD's shall not be installed in an enclosed vault or box unless a bore-sighted drain to daylight is provided.

INSTALLATION REQUIREMENTS HOT TUBS

CITY OF MT. VERNON
HOT TUB BACKFLOW PREVENTION REQUIREMENTS

Pursuant to chapter 333-61-070 of the Oregon State Health Division Administrative Rules the City of Mt. Vernon requires that the minimum backflow protection for any service connection that has a hot tub or spa will be an approved Double Check Valve Assembly (DCVA).

The backflow prevention device shall be installed at the expense of the user either at the service connection or within the premises as determined by a certified cross connection inspector.

The backflow prevention device will be tested by a certified tester immediately after installation and annually thereafter.

The DCVA shall be installed with adequate space to facilitate maintenance and testing. it shall be inspected and tested after installation to insure its satisfactory operation and proper installation. The DCVA must be tested by a certified tester.

- a. The DCVA shall be installed with adequate space to facilitate maintenance and testing. it shall be inspected and tested after installation to insure its satisfactory operation and proper installation. The DCVA must be tested by a certified state tester, at the time of installation.
- b. Care must be used to insure that the DCVA is not installed where the pressure will be maintained above the device's rated and labeled capacity.
- c. Pit or below grade installations of a DCVA must have a 6" gravel bed for pit drainage and pipe plugs must be installed in test cock tappings to lessen the danger of cross connects if the device becomes submerged.
- d. The DCVA must be protected from freezing but must facilitate testing and maintenance. There shall be no connections installed between DCVA and source of supply for the purpose of draining.
- e. Thoroughly flush the lines prior to installation of the DCVA.
- f. Owner or representative must call for an inspection by the City of Mt. Vernon. Backflow device installation service line and all premise plumbing to the DCVA must be exposed on visual inspection.

- g. Water service will not be turned on until final approval is granted, following the acceptance of the DCVA installation and receipt of certified test results.
- h. All devices must be tested annually by a stated certified backflow device tester and a completed test report submitted to the City of Mt. Vernon.

NOTE: The installation of a backflow prevention device on the water service line will eliminate the thermal expansion of hot water into the distribution system. Therefore, the City of Mt. Vernon hereby notifies the water user that it is the water users responsibility to maintain temperature pressure relief valves within the premise plumbing.

ACCESS TO PREMISES

Authorized employees of the City of Mt. Vernon, with proper identification, shall have access during reasonable hours to all parts of a premise and within the building to which water is supplied. However, if any water user refuses access to a premise or to the interior of a structure at reasonable times and on reasonable notice for inspection by a cross connection specialist, a reduced pressure principle device will be required to be installed at the service connection to that premise or service must be discontinued.

ANNUAL TESTING AND REPAIRS

All backflow devices installed within the territory served by the City of Mt. Vernon shall be tested immediately upon installation and annually thereafter by a state certified tester. All such devices found not functioning properly shall be promptly repaired or replaced by the water user. If any such device is not promptly repaired or replaced, the City of Mt. Vernon may deny or discontinue water to the premise. All testing and repairs are the financial responsibility of the water user.

VARIANCES

Any variances from these requirements shall be requested in writing by the owner and approved by the City of Mt. Vernon prior to device installation.

COSTS OF COMPLIANCE

All costs associated with purchase, installation, inspections, testing, replacement, maintenance, parts, and repairs of the backflow device are the responsibility of the water user.

TERMINATION OF SERVICE

Failure on the part of any customer to discontinue the use of all cross connections and to physically separate cross connections is sufficient cause for immediate discontinuance of public water service to the premises. (OAR Chapter 333-061-070, section 1)

DATED _____, 19____

MAYOR

ATTEST

RECORDER