ORDINANCE NO. 3309

AN ORDINANCE TO AMEND §17-31 OF THE GILLETTE CITY CODE TO PROHIBIT CROSS-CONNECTIONS AND PREVENT BACKFLOWS AND SETTING AN EFFECTIVE DATE OF APRIL 1, 2004.

BE IT ORDAINED BY THE GOVERNING BODY OF THE CITY OF GILLETTE, WYOMING:

SECTION ONE. §17-31 of the Gillette City Code is amended to read as follows:

§17-31. Cross Connections and Backflow Prevention

1. PURPOSE.

The purpose of this Ordinance is:

- (A.) To protect the public potable water supply of The City of Gillette from the possibility of contamination or pollution by isolating within 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 systems; 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.

2. RESPONSIBILITY

The City of Gillette Water Division shall protect the public potable water distribution/system from contamination or pollution due to the backflow of contaminants or pollutants through the water service connection by implementing a backflow and cross connection control program. If, in the judgment of Gillette Water Division an approved backflow prevention assembly is required at the customer's water service connection for the safety of the water system, the City of Gillette Water Division Official or his/her designated agent shall give notice in writing to said customer to install such an backflow prevention assembly(s) approved by the Water Division, at specific location(s) on the customer's premises. The consumer shall install such approved assembly(s) at the consumer's own expense within 30 days of written notification. Failure, refusal or inability on the part of the customer to install, have tested and maintain said assembly(s) shall constitute ground for discontinuing water service to the premises until such requirements have been met.

3. WATER SYSTEM

- (A) The water system shall be considered as made up of two parts: The Water Purveyor's System and the Consumer's System.
- (B) Water Purveyor's System shall consist of the source facilities and the distributions system; and shall include all those facilities of the water system under the complete control of the purveyor, up to the point where the consumer's system begins (i.e., the service connection).
- (C) The source shall include all components of the facilities utilized in the production, treatment, storage and delivery of water to the distribution system.
- (D) The distribution system shall include the network of pipes and/or conduits used for the delivery of water from the source to the consumer's system.

(E) The consumer's system shall include those parts of the facilities beyond the termination of the water purveyor's distribution system which are utilized in conveying potable water to points of use.

4. CROSS CONNECTIONS PROHIBITED.

- (A) No water service connection to any premises shall be permitted by the Water Purveyor unless the water supply is protected as required by this City Ordinance. The service of water to any premise shall be discontinued by the Water Purveyor if a backflow prevention assembly required by this ordinance is not installed, tested and maintained, or if it is found that a backflow prevention assembly has been removed, bypassed, or if an unprotected cross-connection exists on the premises. Service will not be restored until such conditions or defects are corrected to the satisfaction of the City of Gillette Water Division. Any backflow prevention assembly required herein shall be a type and size approved by the City of Gillette Water Division. The term "Approved Backflow Prevention Assembly" shall mean an assembly that has been manufactured in full conformance with the standards established by the American Water Works Association entitled: AWWA/ANSI C510-92 Standard for double check valve backflow prevention assemblies AWWA/ANSI C511-92 Standard for Reduced Pressure Principle Backflow Prevention Assemblies. Said AWWA standards and specifications have been adopted by the City of Gillette Water Division.
- (B) The customer's system shall be available for inspection at all reasonable times to authorized representatives of the City of Gillette to determine whether violations of these regulations, exist. When such a condition becomes known, the City of Gillette shall order remediation and may deny or immediately discontinue service to the premises by providing a physical break in the service line until the customer has corrected the condition(s).
- (C) An approved backflow prevention assembly shall also be installed on each service line to a customer's water system at or near the property line or immediately inside the building being served; but, in all cases, before the first branch line leading off the service line wherever the following conditions exist:
- (1) In case of premises having an auxiliary water supply, the public water system shall be protected against backflow from the premises by installing an approved backflow prevention assembly in the service line appropriate to the degree of hazard. The City of Gillette Water Division shall specify the minimum level of backflow protection required.
- (2) In case of premises on which any industrial fluids or any other objectionable substance is handled in such a fashion as to create an actual or potential hazard to the public water system, the public system shall be protected against backflow from the premises by installing an approved backflow prevention assembly in the service line appropriate to the degree of hazard. This shall include the handling of process waters and waters originating from the utility system which have been subject to deterioration in quality. The City of Gillette Water Division shall specify the minimum level of backflow prevention required.
- (3) In the case of premises having (1) internal cross-connection that cannot be permanently eliminated, or (2) intricate plumbing and piping arrangements or where entry to all portions of the premises is not readily accessible for inspection purposes, making it impracticable or impossible to ascertain whether or not dangerous cross-connections exist, the public water system shall be protected against backflow from the premises by installing an approved backflow prevention assembly in the service line.
- (D) The type of protective assembly required under subsection C shall depend upon the degree of hazard which exists as follows:
- (1) In the case of any premise where there is an auxiliary water supply as stated in subsection (4C.1) the public water system shall be protected by an approved air gap or an approved reduced pressure principle backflow prevention assembly.

- (2) In the case of any premise where there is water or substance that would be objectionable but not hazardous to health, if introduced into the public water system, the public water system shall be protected by an approved double check valve backflow prevention assembly, reduced pressure backflow prevention assembly or an air gap.
- (3) In the case of any premise where there is any material dangerous to health, which is handled in such a fashion as to create an actual or potential hazard to the public water system, the public water system shall be protected by an approved air gap or an approved reduced pressure principle backflow prevention assembly. Examples of premises where these conditions will exist include, but are not limited to, sewage treatment plants, sewage pumping stations, chemical manufacturing plants, hospitals, and mortuaries and plating plants.
- (4) In the case of any premise where there are unprotected cross-connections, either actual or potential, the public water system shall be protected by an approved air gap or an approved reduced pressure principle backflow prevention assembly at the service connection.
- (5) In the case of any premise where, because of security requirements or other prohibitions or restrictions, it is impossible or impractical to make a complete inplant cross-connection survey, the public water system shall be protected against backflow from the premises by either an approved air gap or an approved reduced pressure principle backflow prevention assembly on each service to the premise.
- (E) It shall be the responsibility of the consumer/user at any premises where testable backflow prevention assemblies are installed to have a field test performed by a Certified Backflow Prevention Assembly Tester at least once a year. In those instances where the City of Gillette Water Division deems the hazard to be great enough, certified inspections may be required at more frequent intervals. It shall be the responsibility of the consumer/user to have the backflow prevention assemblies repaired or replaced, whenever said assemblies are found to be defective. All certified tests and repairs shall be documented on forms that must be obtained from the City of Gillette Water Division. A copy of the certified test and repair documentation must be provided to the City of Gillette Water Division within 10 days of completion of said tests and repairs. Failure to test or repair a backflow prevention assembly as required shall result in termination of water service to the premises until such time as the device has been tested and/or repaired and determined to be in acceptable working condition.
- (F) A minimum of a dual check valve shall be installed on all service connections, unless it is determined that additional backflow prevention is required as specified in Sections 4C and 4D above.

5. DEFINITIONS

- (A) Auxiliary Water Supply Any water supply on or available to the premises other than the purveyor's public water supply will be considered as an auxiliary water supply. These auxiliary waters may include water from any source(s) other than the City of Gillette's potable water system or any natural source, such as a well, spring, river, stream, harbor, etc., or used waters or industrial fluids. These waters may be contaminated or polluted or they may be objectionable and constitute an unacceptable water source over which the water purveyor does not have sanitary control.
- (B) Backflow The term "backflow" shall mean the undesirable reversal of flow of water or mixtures of water and other liquids, gases or other substances into the distribution pipes of the potable supply of water from any source. See terms backsiphonage and backpressure.
- (C) Backpressure The term "backpressure" shall mean any elevation of pressure in the downstream piping system (by pump, elevation of piping, or steam and/or air pressure) above the supply pressure at the point of consideration which would cause, or tend to cause, a reversal of the normal direction of flow.
- (D) Backsiphonage The term "backsiphonage" shall mean a form of backflow due to a reduction in system pressure, which causes a sub-atmospheric pressure to exist at a site in the water system.

- (E) Backflow Preventer An assembly or means designed to prevent backflow.
- (F) Air Gap The term "air gap" shall mean a physical separation between the free flowing discharge end of a potable water supply pipeline and an open or non-pressure receiving vessel. An "approved air gap" shall be at least double the diameter of the supply pipe measured vertically above the overflow rim of the vessel in no case less than 1 inch (2.54 cm).
- (G) Reduced Pressure Principle Backflow Prevention Assembly The term "reduced pressure principle backflow prevention assembly" shall mean an assembly containing two independently acting approved check valves together with a hydraulic operating, mechanically independent pressure differential relief valve located between the check valves and at the same time below the first check valve. The unit shall include properly located resilient seated test cocks and tightly closing resilient seated shutoff valves at each end of the assembly. This assembly is designed to protect against a non-health (i.e. pollutant) or a health hazard (i.e. contaminate).
- (H) Double Check Valve Backflow Prevention Assembly The term "double check valve backflow prevention assembly" shall mean an assembly composed of two independently acting, approved check valves, including tightly closing resilient seated shutoff valves attached at each end of the assembly and fitted with properly located resilient seated test cocks. This assembly shall only be used to protect against a non-health hazard (i.e., pollutant).
- (I.) Contamination The term "contamination shall mean an impairment of the quality of the water which creates an actual hazard to the public health through poisoning or through the spread of disease by sewage, industrial fluids, waste, etc.
- (J.) Cross-Connection The term "cross-connection" shall mean any unprotected actual or potential connection or structural arrangement between a public or a consumer's potable water system and any other source or system through which it is possible to introduce into any part of the potable system any used water, industrial fluid, gas, or substance other than the intended potable water with which the system is supplied. Bypass arrangements, jumper connections, removable sections, swivel or changeover devices and other temporary or permanent devices through which or because of which backflow can or may occur are considered to be cross-connections.
- (K) Cross-Connection Control by Containment The installation of an approved backflow-prevention assembly at the water service connection to any customer's premises, where it is physically and economically unfeasible to find and permanently eliminate or control all actual or potential cross connections within the customer's water system; or it shall mean the installation of an approved backflow-prevention assembly on the service line leading to and supplying a portion of a customer's water system where there are actual or potential cross connections that cannot be effectively eliminated or controlled at the point of the cross connection.
- (L) Hazard, Degree of The term "degree of hazard" shall mean either a pollutional (non-health) or contamination (health) hazard and is derived from the evaluation of conditions within a system.
- (1.) Hazard Health The term "health hazard" shall mean an actual or potential threat of contamination of a physical or toxic nature to the public potable water system or the consumer's potable water system that would be a danger to human health.
- (2) Hazard Plumbing The term "plumbing hazard" shall mean an internal or plumbing type cross-connection in a consumer's potable water system that may be either a pollutional or a contamination type hazard. This includes but is not limited to cross-connections to toilets, sinks, lavatories, wash trays and lawn sprinkling systems. Plumbing type cross-connections can be located in many types of structures including homes, apartment houses, hotels and commercial or industrial establishments. Such a connection, if permitted to exist, must be properly protected by an appropriate type of backflow prevention assembly.

- (3) Hazard Pollutional The term "pollutional hazard" shall mean an actual or potential threat to the physical properties of the public potable water system or the consumer's potable water system but which would not constitute a health or system hazard, as defined. The maximum degree or intensity of pollution to which the potable water system could be degraded under this definition would cause a nuisance or be aesthetically objectionable or could cause minor damage to the system or its appurtenances.
- (4) Hazard System The term "system hazard" shall mean an actual or potential threat of severe danger to the physical properties of the public or the consumer's potable water system or of a pollution or contamination which would have a protracted effect on the quality of the potable water in the system.
- (M) Pollution The term pollution shall mean an impairment of the quality of the water to a degree which does not create a hazard to the public health but which does adversely and unreasonably affect the aesthetic qualities of such waters for domestic use.
- (N) Water Potable The term "potable water" shall mean a water supply which is intended for human consumption and is subject to the requirements of the Safe Drinking Water Act.
- (O) Water Service Connection The term "service connection" shall mean the individual water service metered or not, to a building, mobile home, campsite or consumer serviced from a public water distribution system, specifically the City of Gillette Water System.
- (P) Water Used The term "used water" shall mean any water supplied by the water purveyor from the public potable water system to a consumer's water system after it has passed through the service connection and is no longer under the control of the water purveyor.
- (Q) Water Purveyor The term Water Purveyor shall mean the City of City of Gillette Water Division.
- (R) Backflow Prevention Assembly Tester Certified The term "certified backflow prevention assembly tester" shall mean a person or company who has a current Class D plumbing contractors license on file with the City of Gillette Building Inspection Division. This person shall also have a current, American Society of Sanitary Engineering (ASSE) Certification and/or the American Backflow Prevention Association (ABPA) tester Certification on file with the City of Gillette Water Division.

SECTION TWO. This Ordinance shall be in full force and effect on April 1, 2004.

PASSED, APPROVED AND ADOPTED this 15th day of March, 2004.

Duane Evenson, Mayor

(SEAL) ATTEST:

Margo Rhoades, City Clerk Published: March 24, 2004