also be given to the owner or landlord. The notice shall be sent to the appropriate persons by ordinary mail not less than 30 days prior to certification of the lien to the County Treasurer.

(Code of Iowa, Sec. 384.84)

92.09 CUSTOMER DEPOSITS. There shall be required from every customer not the owner of the premises served a $100.00 deposit intended to guarantee the payment of bills for service. Provided, however, if the customer elects to have payments of bills for service automatically withdrawn from their bank account through the automatic clearinghouse procedure, the customer deposit shall be waived.

(Code of Iowa, Sec. 384.84)

92.10 TEMPORARY VACANCY. A property owner may request water service be temporarily shut off at the curb valve when the property is expected to be vacant for an extended period of time. There shall be a fee for restoring service during business hours. The City will not drain pipes or pull meters for temporary vacancies.

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CHAPTER 93

CROSS CONNECTIONS AND BACKFLOW PREVENTION

93.01 DEFINITIONS. The following terms are defined for use in this chapter.

1. "Approved backflow prevention assembly" means backflow assemblies complying with the *Iowa State Plumbing Code* Section 641-25.5(1)b or Section 641-25.5(1)c for containment in a fire protection system.

2. "Auxiliary water supply" means any water supply on or available to the premises other than the City's public water supply such as, but not limited to a private well, pond, or river.

3. "Back-pressure" means the flow of water or other liquids, mixtures, or substances under pressure into the distribution pipes of a potable water supply system from any source(s) other than the intended source.

4. Back-siphonage" means the flow of water or other liquids, mixtures, or substances into the distribution pipes of a potable water supply system from any source(s) other than the intended source, caused by the reduction of pressure in the potable water supply system.

5. "Backflow" means the reversal of the normal flow of water caused by either back-pressure or back-siphonage.

6. "Containment" means a method of backflow prevention which requires a backflow prevention assembly on certain water services. Containment requires that the backflow prevention assembly be installed on the water service as close to the public water supply main as is practical. Directly after the discharge end of the water meter is the best location.

7. "Cross connection" means any connection or arrangement, physical or otherwise, between a potable water supply system and any plumbing fixtures or tank, receptacle, equipment, or device, through which it may be possible for non-potable, used, unclean, polluted, or contaminated water, or other substance, to enter into any part of such potable water system under any condition, including but not limited to lawn or other landscaping irrigation systems, water powered or water assisted sump pumps, yard hydrants, or other potentially hazardous water connections.

8. Customer" means the owner, operator, or occupant of a building or property which has a water service from the public water system, or the owner or operator of a private water system which has water service from the public water system.

9. High hazard cross connection" means a cross connection which may cause an impairment of the quality of the potable water by creating an actual hazard to the public

health, through poisoning or through the spread of disease by sewage, industrial fluids, or wastes.

10. "Isolation" means a preferred method of backflow prevention which requires the installation of a backflow prevention assembly at a suitable location within a plumbing system to isolate a known or possible hazardous cross connection (e.g. boilers, commercial or industrial mixing processes, irrigation systems, etc.) rather than at the water service entrance.

11. "Licensed backflow prevention assembly technician" means a person meeting all requirements for the testing and repair of backflow prevention assemblies and who is licensed and registered with the Iowa Department of Public Health.

12. Reduced pressure principal backflow prevention assembly" also referred to as a "Reduced pressure zone (RPZ)" device means a backflow prevention assembly consisting of two independently acting internally loaded check valves, a different pressure relief valve, four properly located test cocks, and two isolation valves. This assembly is required on all lawn or other landscaping irrigation systems, chemically treated boiler systems, or any system where any potential hazardous chemicals are present or can be introduced into the public water system during a failure of that system.

13. Water Service", depending on the context, means the physical connection between a public water system and a customer's building, property or private water system, or the act of providing potable water from a public water system to a customer.

93.02 WATER UTILITY ADMINISTRATIVE AUTHORITY.

1. The administrative authority for this chapter is the City Council acting through the water utility or such persons or departments as the City Council shall designate.

2. The City shall require the submission of plans, specifications and other information deemed necessary for a building, property, or private water system to which a water service is proposed. The information submitted shall be reviewed to determine if cross connections will exist and the degree of hazard. Each customer shall survey the activities and processes which receive water from the water service and shall report to the City if cross connections exist and the degree of hazard.

3. The owner of a building, property, or private water system shall install, or cause to be installed, an approved backflow prevention assembly for containment as directed by the City before water service is initiated.

4. The City shall have the right to access any property to inspect the plumbing of any building, property, and private water system which has a water service to determine if cross connections exist and the degree of hazard. Failure to grant access for inspection shall be cause for termination of water service.

5. If the City determines that non-potable water may potentially enter the public water supply, the customer shall be required to install the appropriate backflow prevention assembly for containment. If a customer refuses to install a backflow prevention assembly for containment when it is required, water service to the customer may be discontinued until an appropriate backflow prevention assembly is installed.

6. Dual connections with a direct connection to the public water supply and other auxiliary supplies such as wells, ponds, rivers, or industrial waters are strictly prohibited.

7. Cross connections from any well or other source of water to any piping system connected to the Des Moines Water Works distribution mains are prohibited.

8. The customer shall be responsible for ensuring that no cross connections exist within their premises starting at the water service entrance unless approved backflow prevention is installed.

9. The customer shall prevent pollutants and contaminants from entering their facility's potable water supply system or the City's distribution mains by all means necessary to prevent backflow.

10. All water-using devices must be so designed that backflow to the distribution system cannot occur.

11. Where harmful contaminants or pollutants are used with any device or process connected to the water system, the customer must install and maintain an approved testable reduced pressure backflow prevention assembly in accordance with these Rules and Regulations and any applicable plumbing code requirements.

12. All permanently installed underground irrigation systems shall contain an approved testable backflow prevention assembly at the water service entrance designed to prevent backflow to the City's distribution system.

13. All newly constructed fire suppression systems shall contain an approved testable backflow prevention assembly at the water service entrance designed to prevent backflow to the City's distribution system.

93.03 BACKFLOW PREVENTION.

1. All new and existing service lines are subject to the requirements of the State of Iowa and any applicable local Plumbing Codes respecting backflow prevention and in addition are also subject to the specific requirements set forth in this Chapter. State of Iowa requirements are set forth in the Rules of the Public Health Department, Chapter 25 *State Plumbing Code*, Rule 25.1, 641 I.A.C 25.5.

2. An approved backflow prevention assembly for containment as defined in applicable State and local plumbing codes shall be installed at the domestic water service entrance as a condition of service to all newly constructed or remodeled commercial buildings. Any upgrade to an existing service line is deemed a new service.

3. An approved backflow prevention assembly for containment shall be installed at the water service entrance in any existing service where an actual or potential cross connection to non-potable or hazardous substances exists, is created, or is identified by the City. All commercial, multi-tenant properties are deemed to have a potential for cross connections to non-potable or hazardous substances.

4. Private wells and any piping served by a private well shall be physically disconnected from any plumbing pipes and fixtures that will be connected to the City's distribution system. If a well will be left in service, no well equipment or piping shall be allowed to remain in the building even if it is physically separated or isolated with a valve. An approved reduced pressure zone backflow prevention assembly will be required at the service entrance.

5. Backflow prevention assemblies for containment shall be installed immediately following the water meter or as close to that location as deemed practical by the City.

93.04 BACKFLOW PREVENTION ASSEMBLIES FOR FIRE PROTECTION SYSTEMS.

1. A fire protection system using antifreezes or other additives shall be protected by an approved reduced pressure principal backflow prevention assembly.

2. A dry type fire protection system shall be protected by an approved double check valve backflow prevention assembly.

3. Backflow prevention assemblies must be tested annually on a routine scheduled basis by the required licensed technician. The City fire marshal and water utility are both to be copied with test results.

93.05 CUSTOMER REQUIREMENTS.

1. The customer shall be responsible for ensuring that no cross connections exist without an approved backflow prevention assembly.

2. The customer shall immediately notify the City water utility when the customer becomes aware that backflow has occurred in the building, property, or private water system receiving water service, and take measures to confine the contamination or pollution by turning off valves to isolate the area of the incident. The City may order that a water service be temporarily shut off when a backflow occurs in a customer's building, property, or private water system.

3. The customer shall cause installation, operation, maintenance, and testing of the backflow prevention assemblies required by this chapter. Backflow prevention assemblies shall be installed by a licensed plumbing contractor per established plumbing codes. A licensed backflow prevention testing technician, registered with the Iowa Department of Public Health, shall test the backflow prevention assembly at initial installation and annually each year thereafter. Backflow prevention assemblies installed on irrigation systems shall be tested annually by May 31 of each year. Backflow prevention assemblies must be retested when repairs have been completed to ensure the repaired device is operational.

4. The customer shall ensure the City water utility receives the backflow prevention assembly test report upon completion of testing. Failure to provide report within 15 days of the test may result in termination of water service.

93.06 BACKFLOW PREVENTION ASSEMBLY TESTING. All backflow prevention assemblies shall be tested within 10 working days of installation. The customer shall cause each backflow prevention assembly installed at their property to be tested annually by a backflow prevention assembly technician registered with the Iowa Department of Public Health. Such test shall be due on an annual testing date for such premises.

1. Backflow prevention assemblies which are in place but have not been used for more than three months, shall be tested prior to being placed back into service.

2. Any backflow prevention assembly that fails a test and is repaired or replaced, must successfully pass the test prior to being placed into operation.

3. The City requires an annual test however the City may require more frequent testing of backflow prevention assemblies.

4. The City may conduct, at its own cost, additional testing of a backflow prevention assembly to verify test procedures and results.

5. In the event a contamination of the water distribution system should occur from any home or business, that home or business shall be responsible for all costs incurred by the City to resolve said contamination.

6. To suspend the testing requirements for an irrigation system or other system taken out of service, the customer shall have a licensed plumbing contractor disconnect all piping and remove the backflow prevention assembly. When the system is to be placed back into service, the backflow prevention assembly must be re-installed by a licensed plumbing contractor and tested by the required licensed testing technician. The customer must contact the City water utility for an appointment to have the disconnection and reconnection inspected.

93.07 ADMINISTRATION AND ANNUAL TESTING.

1. An administration fee of $15.00 will be applied to the customer's account annually for each backflow prevention assembly installed at the property.

2. Any failure to have backflow devices, that are categorized as containment backflow prevention assemblies, to be tested and a report thereof to be received by the annual backflow test due date will result in the imposition of late fees as follows:

A. If successful test results of the containment backflow device located at the water meter are not received within 15 days of the test due date, a $100.00 late fee will be applied.

B. An additional $200.00 late fee will be applied to the customer's account if a report is not received within 30 days of the annual test due date, and water service may be interrupted until such a time that a successful test result is received.

93.08 TERMINATION AND NON-COMPLIANCE. Water service may be terminated in the case of non-compliance with, but not limited to, the following:

1. Refusal to allow City access to the property to inspect for cross connection at reasonably scheduled times.

2. Unauthorized removal or bypassing of a backflow prevention device required by the City.

3. Providing inadequate backflow prevention when a cross connection exists.

4. Failure to install an approved backflow prevention assembly when required by the City.

5. Failure to test a backflow prevention assembly as required by the City or submit the required test report within 30 days of the test.

6. Failure to comply with any other provisions of this chapter or reasonable requests.

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