CITY OF ISLAND CITY

RECEIVED
JAN 28 2011
FIELD SERVICES
DRINKING WATER PROGRAM

ORDINANCE No.123

Water System, Control of Cross-Connections, and Prevention of Backflow

AN ORDINANCE PROVIDING FOR THE CONTROL OF CROSS-CONNECTIONS WITH THE CITY OF ISLAND CITY WATER SYSTEM AND ADOPTING RULES AND REGULATIONS FOR BACKFLOW PREVENTION IN COMPLIANCE WITH OREGON ADMINISTRATIVE RULES CHAPTER 333-61-70 AND 333-61-99; AND DECLARING AN EMERGENCY.

THE CITY OF ISLAND CITY DOES ORDAIN AS FOLLOWS:

Section 1. General Statement.

A. These standards set forth minimum requirements for safe practice in the delivery of water for domestic use. They are to be interpreted as meeting only the minimum requirements of design, construction, maintenance, and operation of the water utility system.

B. For the purpose of these minimum requirements, the use of the word "shall" indicates a mandatory requirement. The use of the word "should" indicates a recommendation for good waterworks practice.

Section 2. Definitions.

A. *Air Gap Separation* means the physical vertical separation between the free- flowing discharge end of a potable water supply pipeline and the open or non-pressure receiving vessel.

B. *Approval* or *Approved* means approved in writing.

C. *Atmospheric Vacuum Breaker* means a device which allows air to enter the water line when the line pressure is reduced to a gauge pressure of zero or below.

D. *Auxiliary Water Supply* means any supply of water used to augment the supply obtained from the city water system which serves the premises in question.

E. *AWWA* means the American Water Works Association.

F. *Backflow* means the flow in the direction opposite to the normal flow.

G. *Backflow Prevention Device* or *Backflow Prevention Device Assembly* means a backflow prevention device such as a pressure vacuum breaker, a double check valve, or a reduced pressure principle device, and the attached shut-off valves on the inlet and outlet ends of the device assembled as a complete unit.

H. *Check Valve* means a valve which allows flow in only one direction.

I. *Water System* means the potable water system of the City of Island City.

J. *Cross Connection* means any physical arrangement where a public water system is connected, directly or indirectly, with any other water system or auxiliary system, sewer, drain conduit, swimming pool, storage reservoir, plumbing fixture, swamp coolers, or any other device which contains, or maybe contains contaminated water, sewage, 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.

K. *Cross Connection Control Inspector* means an employee of the City who has been trained in Cross Connection Control and is certified by the State of Oregon.

L. *Division* means the Health Division of the Oregon Department of Human Resources.

M. *Double Check Valve Assembly* means an assembly of two independently acting check valves with shut-off valves on each side of the check valves and test cocks for checking the water-tightness of each check valve.

N. *Owner* means any person owning a beneficial interest with a right of possession in property served by the City water system, any occupant of any premises served by the city water system, and any customer or water user of the city water system.

O. *Person* includes any individual, corporation, association, firm, partnership, municipal, state or federal agency, or joint stock company and includes any *receiver,* special master, trustee, assignee or other similar representative thereof.

P. *Potable Water* means safe drinking water.

Q. *Pressure Vacuum Breaker* means a device consisting of one or more spring loaded check *valves* and an independently operating air inlet *valve* installed as a unit between two tightly closing shut off *valves*. The air inlet *valve* is internally loaded to the open position.

R. *Reduced Pressure Principle Backflow Prevention Device (R.P. Device)* means a *device* for preventing backflow which has two check *valves,* a differential relief *valve* located between the two check *valves,* two shut-off *valves,* one on the upstream side and the other on the downstream side of the check *valves,* and four test cocks for checking the water tightness of the check *valves* and the operation of the relief *valve*.

S. *Safe Drinking Water* means water which has sufficiently low concentrations of microbiological, inorganic chemical, organic chemical, radiological or physical substances so that individuals drinking such water at normal *levels* of consumption will not be exposed to disease organisms or other substances which may produce harmful physiological effects.

1. *Service Connection* means the piping connection by means of which water is conveyed from a distribution main of a public water system to a customer's premises. The portion of the service connection which *conveys* water from the distribution main to the customer's property line, or to the service meter where provided, is owned by and under the jurisdiction of the water supplier.

U. *Water System* means the following:

1. The water system shall be considered as made up of two parts: The Utility System and the Customer System.

2. The Utility System shall consist of the source of facilities and the distribution system, and shall include all those facilities of the water system under the complete control of the utility, up to the point where the customer system begins, generally at the water meter, or in case of fire service at the utility control *valve* or detector check.

3. The Customer System will include those parts of the facilities which *convey* domestic water to points of use beyond the termination of the Utility System. The term "Customer System" is that of any user whether or not a charge is made.

Section 3. Cross Connection Control Requirements.

A. Before a water user or the owner of the premises obtaining water from the city water system treats the water in any way or adds any chemical or substance to the water, such person shall obtain approval from the Cross Connection Control Inspector in writing prior to treatment.

B. Backflow prevention *device* assemblies for protecting the city water system shall be installed on the owner's side of the service connection to premises where an approved air gap does not exist and:

1. There is an auxiliary water supply which is connected to the potable water piping.

2. There is an auxiliary water supply which could be connected to the potable water piping, unless all of the following requirements are met:

a. The auxiliary water supply is not, in fact, connected to the potable water piping.

b. The auxiliary water supply is conspicuously posted with a sign identifying it as a non-potable water supply prohibiting it from being connected to the city water supply or any potable water supply system on the premises. The location and contents of the sign shall be determined by the Cross Connection Control Inspector.

c. The owner permits inspections, at such time as the Cross Connection Control Inspector may determine, to establish whether the auxiliary water supply has been connected to the potable water supply system or the city water supply system.

d. If any inspection reveals that the auxiliary water system has been connected to the city water system or any potable water system on the premises, the Cross Connection Control Inspector shall give written notice to the owner requiring the immediate disconnection of the auxiliary water supply until the installation of an approved backflow prevention device assembly

has been installed at the service connection.

3. There is intricate plumbing which makes it impractical to ascertain whether or not cross-connections exist.

4. There is back siphonage potential.

5. Cross-Connections or potential cross-connections exist.

C. The type of backflow prevention device required under paragraph (b) of this section, shall be commensurate with the degree of hazard which exists.

1. An approved air gap of at least twice the inside diameter, but not less than one inch, of the incoming supply line measured vertically above the top rim of the vessel, or an approved reduced pressure (RP) device assembly shall be installed where a potential substance which could backflow is hazardous to health. Such locations are, but not limited to: sewage treatment plants, sewage pumping stations, chemical manufacturing plants, plating plants, hospitals, mortuaries, car washers, and medical clinics;

2. An approved double check valve assembly shall be installed where the substance which could backflow is objectionable, but does not pose as unreasonable risk to health;

3. An approved pressure vacuum breaker or an atmospheric breaker shall be installed where the substance which could backflow is objectionable but does not pose an unreasonable risk to health and where there is no possibility of back pressure in the downstream piping. A shut-off valve may be installed on the line downstream of a pressure vacuum breaker, but shall not be installed downstream of an atmospheric vacuum breaker.

D. Except as set forth in paragraph M of this section, all backflow prevention device assemblies required under this section shall be of a type or model approved by the Division.

E. All backflow prevention device assemblies shall be installed in accordance with OAR chapter 333-61-99 and the City of Island City's Standard Specifications.

F. Backflow prevention device assemblies installed before the effective date of this ordinance which were approved at the time they were installed, but are not on the current list of approved device assemblies maintained by the Division, shall be permitted to remain in service provided they are properly maintained, are commensurate with the degree of hazard, are tested at least annually, and perform satisfactorily. When devices of this type are moved, or require more than minimum maintenance, they shall be replaced by device assemblies which are on the Division list of approved device assemblies.

Section 4. Annual Testing and Repair.

A. The water user or the owner of the premises where one or more reduced pressure device assemblies, double check valve assemblies or pressure vacuum breakers have been installed shall have the device or devices tested, at the owner's or user's expense, at least once per year. Devices shall be tested immediately after installation and after they are moved. Reports on the test shall be prepared by the tester and copies of the reports shall be provided to the water user or the owner of the premises, and to the Cross Connection Control Inspector, within fifteen (15) days of the date the test is conducted. Tests shall be performed by State of Oregon certified testers in conformance with the procedures established by the Foundation for Cross-Connection Control and Hydraulic Research, Manual of Cross-Connection Control 9th ed., December 1993, University of Southern California.

B. If the results of any tests indicate that repairs are necessary, the tester must notify the water user or owner of the premises immediately. All repairs must be made, a new test performed and the results of the test forwarded to the Cross Connection Control Inspector within ten days of the date of the first test.

Section 5. Notices. Any notice required or permitted under this ordinance shall be deemed given upon mailing to the address of the premises served or to the billing address of the water user listed with the city water department.

Section 6. Inspections. All water users and owner of premises served by the city water system shall permit inspections by the Cross Connection Control Inspector, at such times as the Cross Connection Control Inspector may designate, for purposes of determining whether the water user or owner is in compliance with this ordinance.

Section 7. Termination of Service. The Cross Connection Control Inspector may terminate the water service to any premises when:

A. A violation of this ordinance continues after the expiration of any notice period provided under this ordinance.

B. Immediately, upon determination that an emergency exists or that a substantial hazard exists due to the potential for a backflow of hazardous substances.

C. Immediately upon the refusal of any water user or owner of premises to permit inspection, or if the Cross Connection Control Inspector is unable to contact the water user or owner to arrange for an inspection.

Section 8. Cost of Compliance. All costs associated with purchase, installation, inspection, testing, replacement, maintenance, parts, and repairs of the backflow device are the financial responsibility of the water user.

Section 9. Fees. Fees for inspection by the Cross Connection Control Inspector shall be set by resolution.

Section 10. Penalties. Violations of this ordinance shall be punishable by a fine not to exceed $1,000.

Section 11. Separate Violations. Each day that a violation of this ordinance continues shall constitute a separate violation.

Section 12. Constitutionality Saving Clause. If any clause, sentence, paragraph, section, article or portion of this ordinance shall, for any reason, be adjudged invalid or unenforceable by a court of competent jurisdiction, the remainder of the ordinance shall remain in full force and effect.

Section 13. Emergency Clause. Whereas it is necessary to maintain the peace, health, and safety of the citizens of Island City, an emergency is hereby declared to exist. This ordinance therefore shall become in force with the effective date of this ordinance upon its passage by the Council and approval of the Mayor.

PASSED by the Common Council, and APPROVED by the Mayor this 10th of March, 2008.

Mayor

ATTESTED and filed this
10th day of March, 2008

City Recorder