

correctly, per test

(Ord. No. 412, 10-17-88)

Section 30.15 Water and sewer permit application fee

- (a) The public services department shall collect a fee for each application for water and sewer permits.

(Ord. No. 412, 10-17-88; Ord. No. 193, 6-9-2004)

Fire flow testing fee.

- (b) The Director of Public Services is hereby authorized to collect a fee for each fire flow test on hydrants within the city, to be charged to the person or entity so requesting such fire flow test.

(Ord. No. 108B, 2-21-89)

ARTICLE XXXI. CROSS-CONNECTION CONTROL PROGRAM

Section 31.01 Purpose.

- (a) To protect the public potable water supply served by the department of public services from the possibility of contamination or pollution by isolating such contaminants or pollutants which could backflow or backsiphon into the public water system.
- (b) To promote the elimination or control of existing cross-connections, actual or potential, between its customers in-plant potable water system, and non-potable systems.
- (c) To provide for the maintenance of a continuing program of cross-connection control which will effectively prevent the contamination or pollution of all potable water systems by cross-connection.

(Ord. No. 186, 5-15-89)

Section 31.02 Authority.

- (a) As provided in the Federal Safe Drinking Water Act of 1974, (Public Law 93-523), and the Commonwealth of Massachusetts Drinking Water Regulations, 310 CMR 22.22, the water purveyor has the primary responsibility for preventing water from unapproved sources or any other substances from entering the public potable water system.
- (b) The City of Beverly's cross-connection control program shall be implemented as provided in this article in compliance with the applicable requirements of the

Code of Massachusetts Regulations (CMR). In the event of a conflict between the provisions of this article and the requirements of the CMR, the CMR shall control.

(Ord. No. 186, 5-15-89; Ord. No. 334, 8-23-95)

Section 31.03 Responsibility.

- (a) The DPS shall be responsible for the protection of the public potable water distribution system from contamination or pollution due to the backflow or backsiphonage of contaminants or pollutants. If, as a result of a survey of the premises, the DPS determines that an approved backflow prevention device is required at the city's water service connection or as in-plant protection on any customer's premises, the DPS, or its delegate agent, shall issue a cross-connection violation form to the customer to install approved backflow prevention devices. The customer shall, within a time frame determined by the DPS, install such approved device or devices at his own expense, and failure or refusal or inability on the part of the customer to install the device or devices within the specified time frame shall constitute a ground for discontinuing water service to the premises until such device or devices have been properly installed.

(Ord. No. 186, 5-15-89)

Section 31.04 Definitions.

- (a) *Air gap separation*: The method of preventing backflow through the use of an unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank, plumbing fixture, or other device and flood level rim of the receptacle.
- (b) *Approved*: Accepted by the reviewing authority as meeting an applicable specification stated or cited in this regulation or as suitable for the proposed use.
- (c) *Approved back flow prevention device or devices*: A method to prevent backflow approved by the department for use in Massachusetts.
- (d) *Atmospheric vacuum breaker*: An approved backflow device used to prevent back siphonage which is not designed for use under static line pressure.
- (e) *Auxiliary water supply*: Any water supply of unknown or questionable quality on or available to the premises other than the supplier's approved public potable water supply.
- (f) *Back pressure*: Pressure created by mechanical means or other means which causes water or other liquids or substances to flow or move in a direction opposite to that which is intended.

- (g) *Back siphonage*: A form of backflow due to reduced or subatmospheric pressure within a water system.
- (h) *Backflow*: The flow of water or other liquids, mixtures or substances into the distribution pipes of a potable water supply from any source other than the intended source.
- (i) *Back flow preventer with intermediate atmospheric vent*: A device having two (2) independently operating check valves separated by an intermediate chamber with a means for automatically venting it to the atmosphere, in which the check valves are force loaded to a normally closed position and the venting means is force loaded to a normally open position.
- (j) *Barometric loop*: A loop of pipe rising at least thirty-five (35) feet, at its topmost point, above the highest fixture it supplies.
- (k) *DPS*: The city department of public services or its designee if and as permitted by applicable provision in the Code of Massachusetts Regulations.
- (l) *Contaminant*: Any physical, chemical, biological or radiological substance or matter in water.
- (m) *Cross-connection*: Any actual or potential connection between a distribution pipe of potable water from a public water system and any waste pipe, soil pipe, sewer, drain or other unapproved source.
- (n) *Cross-connection violation form*: A violation form designated by the Department, which is sent to the owner by the water supplier with copies sent to the department, plumbing inspectors and board of health delineating cross-connection violations found on the owner's premises and a procedure for corrective action.
- (o) *DEP*: The Massachusetts Department of Environmental Protection.
- (p) *Double check valve assembly*: A backflow prevention device which incorporates an assembly of check valves, with shut-off valves at each end and appurtenances for testing.
- (q) *In-plant protection*: The location of approved backflow prevention devices in a manner which provides simultaneous protection of the public water system and the potable water system within the premises.
- (r) *Owner*: Any person maintaining a cross-connection installation or owning or occupying premises on which cross connections can or do exist.
- (s) *Permit*: A document issued by the department which allows a cross-connection installation.

- (t) *Person*: Any individual, corporation, company, association, trust, partnership, the Commonwealth, a municipality, district, or other subdivision or instrumentality of the United States, except that nothing herein shall be construed to refer to or to include any American Indian tribe or the United States Secretary of the Interior in his capacity as trustee of Indian lands.
- (u) *Pressure vacuum breaker*: An approved backflow prevention device designed to prevent only back siphonage and which is designed for use under static line pressure and which has necessary appurtenances for testing.
- (v) *Reduced pressure backflow preventer*: An approved backflow prevention device incorporating:
 - (i) Two (2) more check valves;
 - (ii) An automatically operating differential relief valve located between the two (2) checks;
 - (iii) Two (2) shut-off valves; and
 - (iv) Necessary appurtenances for testing.
- (w) *Residential dual check*: An assembly of two (2) spring-loaded, independently operating check valves without tightly closing shut-off valves and test cocks. Generally employed immediately downstream of the water meter to act as a containment device.
- (x) *Reviewing authority*: The Massachusetts Department of Environmental Protection.

(Ord. No. 186, 5-15-89; Ord. No. 334, 8-23-95)

Section 31.05 Administration.

- (a) The DPS will operate an active cross-connection control program, to include the keeping of necessary records, which fulfills the requirements of the state DEP's cross-connection regulations and is approved by the department.
- (b) The owner shall allow his property to be inspected for possible cross-connections and shall follow the provisions of the DPS's program and the department regulations.

(Ord. No. 186, 5-15-89)

Section 31.06 Requirements.

- (a) DPS.

- (i) On new installations, the DEP or its designee will provide on-site evaluation and/or inspection of plans in order to determine the type of backflow preventer, if any, that will be required, and notify the owner of plan approval requirements by the appropriate reviewing authority.
 - (ii) For premises existing prior to the start of this program, the DPS will perform surveys of the premises and reviews of as-built plans and issue a cross-connection violation form to the owner detailing any corrective action required, the method of achieving the correction, and the time allowed for the correction to be made. The time period allowed shall depend upon the degree of hazard involved.
 - (iii) The DPS will not allow any cross-connection to remain unless it is protected by an approved backflow preventer for which a permit has been issued and which will be regularly tested to insure satisfactory operation. The DPS may require the installation of a temporary device if the DEP is late issuing a permit.
 - (iv) If the DPS determines at any time that a serious threat to the public health exists, the water service will be terminated immediately.
 - (v) The DPS shall have on its staff, or shall have a delegated representative, a person who is a backflow prevention device tester certified by the Commonwealth.
 - (vi) The DPS will begin initial premises inspections to determine the nature of existing or potential hazard, following the approval of this program by the department, during calendar year 1989. Initial focus will be on high hazard industries and commercial premises.
- (b) Owner.
- (i) The owner shall be responsible for the elimination or protection of all cross-connections on his premises.
 - (ii) The owner shall be responsible for applying for and obtaining all necessary approvals and permits for the maintenance of cross-connections and installation of backflow prevention devices, and applying annually for the renewal of each permit.
 - (iii) The owner shall have any device that fails on inspection or tests repaired by a licensed plumber.
 - (iv) The owner shall inform the DPS of any proposed or modified cross-connection and also any existing cross-connections of which the owner is aware but has not been found by the DPS.
 - (v) The owner shall not install a by-pass around any backflow preventer unless there is a backflow preventer of the same type on the by-pass. Owners who cannot

shut down operation for testing of the device(s) must supply additional devices necessary to allow testing to take place.

- (vi) The owner shall install backflow preventers in a manner approved by the department and by the DPS.
- (vii) The owner shall install only reduced pressure backflow preventers and double-check valve assemblies approved by the state DEP.
- (viii) Any owner of industrial, commercial or institutional premises having a private well or other private water source must have a permit if the well or source is cross-connected to the DPS's system. Permission to cross-connect may be denied by the DPS. The owner may be required to install a backflow preventer at the service entrance if a private water source is maintained even if it is not cross-connected to the commission's system.
- (ix) The owner of any residential premises having a private well or other private water source will not be allowed a physical cross-connection with the public water supply system.
- (x) The owner shall be responsible for the payment of all fees for surveys, permits, device testings, retestings in the case the device fails to operate correctly, and second reinspections for noncompliance with DPS or department requirements.

(Ord. No. 186, 5-15-89; Ord. No. 334, 8-23-95)

Section 31.07 Degree of hazard.

- (a) The DPS recognizes the threat to the public water system arising from cross-connections. As such, the DPS, whereas it is responsible for the quality of the public water supply, may require a containment device on the water service entrance to any customer who, as a result of unprotected cross-connections, could contaminate the public water supply system.

(Ord. No. 186, 5-15-89)

Section 31.08 Enforcement.

- (a) The DPS shall not allow a cross-connection to exist with the public water supply system unless it is considered necessary and all appropriate approvals and permits have been issued. A fine of \$500 per occurrence shall be assessed for a violation of this section.

(Ord. No. 186, 5-15-89)

Section 31.09 Existing in-use backflow prevention devices.

- (a) Any existing backflow preventer shall be allowed by the DPS to continue in service unless the degree of hazard is such as to supersede the effectiveness of the present backflow preventer or result in an unreasonable risk to the public health. Where the degree of hazard has increased, as in the case of a residential installation converting to a business establishment, any existing backflow preventer must be upgraded to a reduced pressure backflow preventer, or a reduced pressure backflow preventer must be installed in the event that no backflow device was present.

(Ord. No. 186, 5-15-89)

- (b) Periodic testing.
- (c) Reduced pressure backflow preventers and double-check valve assemblies shall be tested and inspected at least semiannually by a certified device tester hired by the DPS. All tests shall be witnessed by the DPS's licensed staff tester.
- (d) The testing shall be conducted during regular business hours. Exceptions to this, when at the request of the owner, may require additional charges to cover the increased costs to the DPS.
- (e) Reduced pressure backflow preventers and double check valve assemblies must be tested annually by the owner, independent of the semiannual test by the DPS's representative, and such test must be conducted by a certified tester.
- (f) Any backflow preventer which fails during a periodic test must be repaired or replaced by a licensed plumber. When repairs are necessary, upon completion of the repair, the device will be retested at the owner's expense to insure proper operation. High hazard situations will not be allowed to continue unprotected if the backflow preventer fails the test and cannot be repaired immediately. In other situations, a compliance date of not more than fourteen (14) days after the test date will be established. The owner is responsible for spare parts, repair tools or a replacement device. Parallel installation of two (2) devices is an effective means of the owner insuring that uninterrupted water service remains during testing or repair of devices and is strongly recommended when the owner desires such continuity.
- (g) Backflow prevention devices will be tested more frequently than specified above in subsection (a) in cases where there is a history of test failures and the DPS feels that, due to the degree of hazard involved, additional tests will be borne by the owner.

(Ord. No. 186, 5-15-89; Ord. No. 334, 8-23-95)

Section 31.10 Records and reports.

- (a) Records. The DPS will initiate and main