

Elmira Water Board
Cross Connection Control Program



Elmira Water Board
261 W. Water St Elmira, N.Y. 14901
Revised March 16, 2016

I. Purpose

A. To Protect the public potable water supply served by the Elmira Water Board from the possibility of contamination or pollution by isolating, within its customers internal distribution system, such contaminants or pollutants which could backflow or back-siphon into the public water system.

B. To promote the elimination or control of existing cross connections, actual or potential, between customers in-plant potable water systems, 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.

II. Authority

A. The Federal Safe Drinking Water Act of 1974, and the statutes of the State of New York grant authority to the water supplier for the primary responsibility for preventing water from unapproved sources, or any other substance, from entering the public water system.

B. Elmira Water Board, Rules and Regulations adopted.

III. Responsibility

The Elmira Water Board (EWB) 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 through the water service connection. If, in the judgment of the EWB an approved backflow

device is required at the city's water service connection to any customer's premises, the EWB's delegated employee, shall give notice in writing to said customer to install an approved backflow prevention device at each service connection to his premises. The customer shall, within 90 days install such approved device, or devices, at his own expense, and failure or refusal, or inability on the part of the customer to install said devices within ninety (90) days, shall constitute a ground for discontinuing water service to the premises until such device or devices have been properly installed.

IV. Definitions

A. Approved

Accepted by the New York State Department of Health (NYSDOH) as meeting an applicable specification stated or cited in this regulation, or as suitable for the proposed use.

B. Auxiliary Water Supply

Any water supply, on or available, to the premises other than the water suppliers approved public potable water supply

C. Backflow

The flow of water or other liquids, mixtures or substances under positive or reduced pressure in the distribution pipes of a potable water supply from any source other than its intended source.

D. Backflow Preventer

A device or means designed to prevent backflow or backsiphonage. Most commonly categorized as air gap, reduced pressure principle device, double check valve assembly, pressure vacuum breaker, atmospheric vacuum breaker, hose bib vacuum breaker, residential dual check, double check with intermediate atmospheric vent, and barometric loop.

D.1 Air Gap

A physical separation sufficient to prevent backflow between the free flowing discharge end of the potable water system and any other system. Physically defined as a distance equal to twice the diameter of the supply side pipe but never less than one inch.

D.2 Atmospheric Vacuum Breaker

A device which prevents backsiphonage by creating an atmospheric vent when there is either a negative pressure or sub atmospheric pressure in a water system.

D.3 Barometric Loop

A fabricated piping arrangement rising at least thirty five (35) feet at its top most point above the highest fixture it supplies. It is utilized in water supply systems to protect against backsiphonage.

D.4 Double Check Valve Assembly

An assembly of two (2) independently operating spring loaded check valves with tightly closing shut off valves on each side of the check valves, plus properly located test cocks for the testing of each check valve.

D.5 Double Check Valve with Intermittent Atmospheric Vent

A device having two (2) spring loaded check valves separated by an atmospheric vent chamber.

D.6 Hose Bibb Vacuum Breaker

A device which is permanently attached to a hose bibb and which acts as an atmospheric vacuum breaker.

D.7 Pressure Vacuum Breaker

A device containing one or two independently operating spring loaded check valves and an independently operated spring loaded air inlet valve

located on the discharge side of the check or checks. Device includes tightly closing shut off valves on each side of the check valves plus properly located test cocks for the testing of the check valves and the relief valve(s).

D.8 Reduced Pressure Principle Backflow Preventer

An assembly consisting of two (2) independently operating approved check valves with an automatically operating differential relief valve located between the two (2) check valves, tightly closing shut off valves on each side of the check valves plus properly located test cocks for the testing of the check valves and relief valve.

D.9 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.

E. Backpressure

A condition in which the owners system pressure is greater than the supplier's system pressure.

F. Backsiphonage

The flow of water or other liquids, mixtures or substances into the distribution pipes of a potable water supply system from any source other than its intended source caused by the sudden reduction of pressure in the potable water supply system.

G. Containment

A method of backflow prevention which requires a backflow prevention device at the water service entrance

H. Cross - Connection

Any actual or potential connection between the public water supply and a source of contamination or pollution.

I. Department

Elmira Water Board

J. Fixture Isolation

A method of backflow prevention in which a backflow preventer is located to correct a cross connection at an in-plant location rather than at a water service entrance.

K. Owner

Any person who has a legal title to, or license to operate or occupy a property upon which a cross connection inspection is to be made or upon which a cross connection is present.

L. Person

Any individual, partnership, company, public or private corporation, political subdivision or agency of the State Department, agency or instrumentality or the United States or any other legal entity.

M. Permit

A document issued by the Department which allows the use of a backflow preventer.

N. Pollutant

A foreign substance, that if permitted to get into the public water system, will degrade its quality so as to constitute a moderate hazard, or impair the usefulness or quality of the water to a degree which does not create an actual hazard to the public health but which does adversely and unreasonably effect such water for domestic use.

O. Water Service Entrance

That point in the owner's water system beyond the sanitary control of the Elmira Water Board; generally considered to be the outlet end of the water meter and always before any unprotected branch.

V. Administration

A. The department will operate a cross connection control program, to include the keeping of necessary records, which meets the requirements of the Commission's Cross Connection regulations and is approved by the Commission.

B. The owner shall allow his property to be inspected for possible cross-connection and shall follow the provisions of the Department program and the Commissions Regulations if a cross-connection is permitted.

C. If the Department requires that the public supply to be protected by containment, the owner shall be responsible for water quality beyond the outlet end of the containment device and should utilize fixture outlet protection for that purpose.

He may utilize public health officials, or personnel from the Department, or their delegate representatives, to assist him in the survey of his facilities and to assist him in the selection of proper outlet devices, and the proper installation of these devices.

VI. Requirements

A. Department

1. For premises existing prior to the start of this program, the Elmira Water Board will perform evaluations and inspections of plans and/or premises and inform the owner by letter of any corrective action deemed necessary, the method of achieving the correction and the time allowed for the correction to be made. Ordinarily ninety (90) days will be allowed, however, this time period may be shortened depending upon the degree of hazard involved and the history of the device(s) in question.
2. The Elmira Water Board will not allow any cross connections to remain unless it is protected by an approved backflow preventer and is tested regularly to insure satisfactory operation.
3. The Elmira Water Board shall inform the owner by letter of any failure to comply by the time of the first re-inspection. The Elmira Water Board will allow an additional fifteen (15) days for the correction. In the event

the owner fails to comply with the necessary correction by the time of the second re-inspection, the Elmira Water Board will inform the owner by letter that the water service to the owners premises will be terminated within a period not to exceed (5) days. In the event that the owner informs the Elmira water Board of extenuating circumstances as to why the correction has not been made, a time extension may be granted by the EWB but in no case will exceed and additional thirty (30) days.

4. If the EWB determines at any time that a serious threat to the public health exists, the water will be terminated immediately.
5. The EWB shall have on file a list of Private Contractors who are certified backflow device testers. All charges for these tests will be paid by the owner of the building or property.

B. Owner

1. The owner shall be responsible for the elimination or protection of all cross connections on his premises.
2. The owner, after having been informed by a letter from the EWB, shall at his expense, install, maintain, and test, or have tested any and all backflow preventers on his premises.
3. The owner shall correct any malfunction of the backflow preventer which is revealed by periodic testing.
4. The owner shall inform the EWB of any proposed or modified cross connections and also any existing cross connections of which the owner is aware but has not been found by the EWB.
5. The owner shall not install a bypass around any backflow preventer unless there is a backflow preventer of the same type on the bypass. Owners who cannot shutdown operation for testing of the device(s) must supply additional devices necessary to allow testing to take place.
6. The owner shall install only backflow preventers approved by the EWB.
7. In the event the owner installs plumbing to provide potable water for domestic purpose which is on the EWB's side of the back flow preventer, such plumbing must have its own backflow preventer installed.

8. The owner shall be responsible for the payments of all fees for permits, annual or semi-annual device testing, retesting in the case that the device fails to operate correctly, and second re-inspections for non-compliance with EWB requirements.

VII. Degree of Hazard

The EWB recognizes the threat to the public water system arising from cross connections. All threats will be classified by degree of hazard and will require the installation of approved reduced pressure principle backflow prevention or double check valves.

VIII. Existing in-use Backflow Prevention devices.

Any existing backflow preventer shall be allowed by the EWB to continue in service unless the degree of hazard is such as to supercede 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 principle device, or a reduced pressure principle device must be installed in the event that no backflow device was present.

IX. Periodic Testing

A. Reduced pressure principle backflow devices shall be tested and inspected annually.

B. Periodic testing shall be performed by a certified tester. This testing will be done at the owner's expense.

C. Any backflow preventer which fails during a periodic test will be repaired or replaced. When repairs are necessary, upon completion of the repair the device will be retested at owner's expense to insure correct 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 thirty (30) days after the test date will be reestablished. 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 uninterrupted water service during testing or repair of devices and is strongly recommended when the owner desires such continuity.

D. Backflow prevention devices will be tested more frequently than specified in A. above, in cases where there's a history of test failures and the EWB feels that due to the degree of hazard involved, additional testing is warranted. Cost of the additional tests will be paid for by the owner.