

CROSS CONNECTION CONTROL PROGRAM POLICY

Adopted March, 1990

Revised October, 2006

I. PURPOSE

- A. To protect the public potable water supply served by the Erie County Water Authority from contamination or pollution which could backflow or back siphon from a customer's internal distribution systems.
- B. To eliminate existing cross connections.

II. AUTHORITY

- A. The Federal Safe Drinking Water Act of 1974, as amended in 1986, and Part 5 of the New York State Sanitary Code, Subpart 5-1 Public Water Supplies, Section 5-1.31, states that the water supplier has the primary responsibility to protect the public water system by containing potential contamination within the premises of the customer through cross connection control by containment.
- B. The Erie County Water Authority Tariff requires that customers install and maintain backflow prevention devices in the service connection to contain their facility, if required to do so by the Authority.
- C. The New York State Department of Health has delegated approval of cross connection control projects to the Erie County Water Authority for all Water Authority customers.

III. RESPONSIBILITY

- A. The Erie County Water Authority (Water Authority) will determine the need for backflow prevention for each customer, existing and proposed, on a case by case basis. If an approved backflow device is required at a service connection to a customer's premises, the Water Authority will give notice in writing to said customer that an approved backflow prevention device shall be installed at each service connection to the premises.
- B. The customer shall submit New York State Department of Health Form DOH-347, Application for Approval of Backflow Prevention Devices, an engineering report, drawings and other information as required, for each existing and proposed service connection to the Water Authority for approval.

- C. The New York State Education Law pertaining to Professional Engineers and Land Surveyors, Article 145ff, Section 7200, requires that a project involving the safeguarding of life, health and property must be designed by a Registered Professional Engineer (P.E.) of the State of New York. The design of backflow prevention device installations is such a project. The only exception to the P.E. requirement for design is that an architect licensed in this New York State may design the installation per New York State Department of Health Public Water Supply Guide titled "Cross Connection Control", dated January, 1981, Section 9, Paragraph A.
- D. The customer shall install, maintain and test each backflow prevention device at said customer's own expense.

IV. REQUIREMENTS

A. ERIE COUNTY WATER AUTHORITY

1. Upon request to the Water Authority for any type or size of water service, the customer will be given information describing the procedures and requirements for approval and installation of backflow prevention devices for containment of the premises.
2. The Water Authority will determine the potential for cross connections and the degree of hazard for any existing or proposed service connection. The customer will be notified in writing of the need to comply with the requirements for installation of the backflow prevention devices. Included with the notification letter will be information describing the requirements for approval and installation of backflow prevention devices for containment of the premises.
3. The installation of backflow prevention devices by large commercial/industrial customers with existing multiple service connections is complex and expensive. Implementation time tables will be established on an individual basis with consideration given to the degree of hazard, time required for design and approval, and budgetary constraints. The time period will be not less than 90 days and not more than 24 months starting with the date of written notification. No extensions of time past 24 months will be granted.
4. If the Water Authority determines at any time that an immediate threat to the public health exists, the water service will be terminated.
5. The Water Authority will meet with customers and perform a physical inspection of the premises as needed.

B. CUSTOMER

1. The customer shall provide the Water Authority any and all information concerning facilities, process, water usage, existing backflow prevention devices and other information as required by the Water Authority.
2. The customer is responsible for all internal cross connection control.
3. The customer, after receiving written notification from the Water Authority of the need to contain his premises with backflow prevention devices, shall at his expense install, modify, inspect, maintain, replace and test as required, any and all backflow preventers on his premises used to contain the premises. The customer will also be responsible for the installation, testing and maintenance of all internal backflow prevention devices.
4. The customer shall install only those backflow preventers approved by the New York State Department of Health.
5. The customer shall arrange for periodic testing of all backflow prevention devices, to be performed at his expense. All containment backflow prevention devices shall be tested at least annually, or more frequently if required by the Water Authority. All testing shall be performed by New York State certified backflow prevention device testers. Any device which fails a test must be repaired or replaced at the customer's expense. Upon completion of repairs or replacement, the backflow prevention device must be retested by a certified tester to ensure proper operation.
6. The customer shall submit New York State Department of Health Form DOH-1013, Report of Test and Maintenance of Backflow Prevention Device, to the Water Authority within 45 days of the installation of a backflow preventer, and thereafter not exceeding one year from the date of the previous test.
7. The customer shall install backflow preventers only as approved by the Water Authority. No unauthorized modifications to the approved design are allowed. If uninterrupted water service is required, multiple backflow preventers shall be installed to allow for testing and maintenance. The customer shall not install an unprotected bypass around any backflow preventer. The customer shall not modify any backflow preventer in any way without the approval of the Water Authority.
8. The customer shall ensure that all drains and drain ports are clear and operating for all backflow preventers. The customer shall ensure that all backflow preventers have adequate security measures.

V. EXISTING BACKFLOW PREVENTION DEVICES IN SERVICE

- A. Existing backflow preventers will be allowed to continue in service by the Water Authority if the existing backflow prevention device is determined to be adequate and effective protection for the degree of hazard of the premises. All periodic testing and maintenance records of existing backflow prevention devices shall be made available to the Water Authority upon request.

VI. TESTING AND RECORD KEEPING

- A. The Authority will keep and maintain records of installed backflow prevention devices and records of periodic tests. Customer will be notified in writing by the Water Authority when a periodic test is past due. If a customer does not comply within 30 days of the test due date, water service may be terminated.
- B. High hazard situations will not be allowed to continue operating unprotected if the backflow preventer fails the periodic test and cannot be repaired or replaced immediately. Parallel installation of multiple backflow prevention devices is recommended where uninterrupted services is required.
- C. Random testing of backflow prevention devices may be performed by Water Authority certified testers to confirm compliance.

VII. PUBLIC FIRE HYDRANTS

- A. No person, except as specifically authorized by the Water Authority, will be allowed to use any fire hydrant for any use whatsoever other than for fire fighting purposes. The use of public fire hydrants for washing streets, flushing sewers or other municipality needs will be done through a backflow-protected meter assembly issued to the municipality by the Water Authority.

VIII. DEGREE OF HAZARD

- A. Domestic services for one or two family residential dwellings in conformance with the following are considered to be non-hazardous and do not require backflow protection.
 - 1. No connections to an auxiliary water supply such as a well, cistern or spring.
 - 2. No booster pump.
 - 3. No water powered sump pump (ejector or siphon pump).
 - 4. No lawn sprinkler or irrigation systems (except those with vacuum breakers, no pumps and no provisions for chemical injection.)
 - 5. No other potential hazards including, but not limited to, boiler feed corrosion inhibitors, antifreeze loops, and single wall heat exchangers.
 - 6. No commercial or agricultural use.

- B. Private fire protection services in conformance with the following are considered to be aesthetically objectionable and require a double check valve assembly to provide cross connection control by containment.
 - 1. No provision for chemical addition.
 - 2. No private fire hydrants.
 - 3. No connections to a secondary water supply.
 - 4. Not within 1,700 feet of an auxiliary water supply such as a pond, lake, river or creek.
- C. Combination services in conformance with the criteria outlined in A and B above are considered to be aesthetically objectionable and require a double check valve assembly to provide cross connection control by containment. A combination service is one which provides both domestic use and fire protection.
- D. All other types of service connections are considered hazardous and require a reduced pressure zone backflow preventer to provide cross connection control by containment.

IX. INSTALLATION OF BACKFLOW PREVENTERS

- A. For all backflow prevention installations:
 - 1. All proposed installations shall be approved by the Water Authority prior to the start of construction.
 - 2. The water meter shall be installed adjacent to and upstream of the backflow preventer. Meters that are larger than 2" must have a by-pass line with valve installed around the meter, but not around the backflow preventer.
 - 3. A shutoff valve shall be installed upstream of the meter.
 - 4. All installations shall comply with the drainage specifications, clearance dimensions and other requirements as determined by the Water Authority.
 - 5. The meter and backflow preventer shall be installed at or as near the right-of-way as possible, not to exceed 150 feet.
- B. Installation in a below grade vault is not allowed. Installation in a vault in a berm is allowed provided that the following conditions are met:
 - 1. The berm/vault shall be located no more than 10 feet from the right-of-way.
 - 2. All drains from the berm/vault shall be gravity drains that discharge to atmosphere.

3. The drain line shall not exceed 25 feet in total length.
 4. The drain line shall be sized to accommodate the maximum discharge from the backflow preventer.
 5. The exterior end of the drain line shall be equipped with a rodent screen and a flapper.
- C. Installation in a building is allowed provided that all of the following conditions are met:
1. The meter and backflow preventer shall be installed on an exterior wall, at a location closest to the point where the water service enters the building.
 2. Waterlines shall not be installed within the building, under a concrete slab, upstream of the meter and backflow preventer.

X. ENFORCEMENT

- A. Failure, refusal or inability on the part of the customer to comply with these requirements will result in denial of new service requests for new customers and termination of service for existing customers.
- B. The decision of the Water Authority regarding the need for backflow prevention is final.
- C. The Water Authority reserves the right to revise these requirements and to allow exceptions on a case by case basis.

XI. REFERENCES

- A. United States Environmental Protection Agency.
- B. New York State Sanitary Code.
- C. New York State Department of Health Public Water Supply Guide, "Cross Connection Control".
- D. NYSDOH "Guidelines for Designing Backflow Prevention Assembly Installations", Supplement to 1981 Cross Connection Control Manual, January, 1992.
- E. Erie County Water Authority Tariff.
- F. Erie County Water Authority Standard Specifications and Details
- G. American Water Works Association Manual M14, "Recommended Practice for Backflow Prevention and Cross Connection Control", Third Edition.