

ERIE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES - WATER RULES

ADOPTED JANUARY 13, 1992

AMENDED RESOLUTIONS:

RESOLUTION NO. 92-14

NO. 92-30, 03-207, 04-311, 08-283, 10-270

11-304, 12-284, 13-332, 14-433, 15-435

RULE 29 - CROSS CONNECTION BACKFLOW PREVENTION

Section I. PURPOSE

- A. To protect the public potable water supply served by the Erie County Water District 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 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.

Section II. AUTHORITY

- A. The Federal Safe Drinking Water Act of 1974, and the statutes of the State of Ohio Chapters Administration Code, OEPA Chapters 3745-95-02 through 3745-95-08, and the Ohio Plumbing Code Sections 608.1 through 608.17, the Erie County Water District has the primary responsibility for preventing water from unapproved sources, or any other substances, from entering the public potable water system.
- B. Adoption of the Erie County Water District "Rules for the Maintenance, Protection, Use and Operation of the Erie County Water Distribution System.

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Section II. AUTHORITY (Continued)

- C. The service connection, which ends at the outlet side of the water meter, is the point where Ohio EPA/Water Supplier authority ends and DOC/Plumbing Officials authority begins.

If the Water Supplier requires a containment principle backflow preventer then the Water Supplier's authority is extended to the outlet side of the containment principle assembly.

If the water meter is installed outside the building in a meter box, the service connection still ends at the outlet side of the water meter, but the Water Supplier retains authority over the containment principle backflow preventer even though it may be installed inside the building.

The service connection for a fire protection system ends at the outlet side of the check valve apparatus required by the Water Supplier.

Responsibility does not mean that the Water Supplier is responsible for maintenance to the outlet side of the meter, just a responsibility for the water quality to that point.

The only exception to the outlet side of the water meter rule is the point of interconnection between the water user's system and an auxiliary water source, which falls under the authority of the Ohio EPA/Water Supplier regardless of the location.

- D. The Water Supplier has the authority to require a containment principle backflow prevention assembly at any premises regardless of the isolation protection provided at the individual fixtures.

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RULE 29 - CROSS CONNECTION BACKFLOW PREVENTION**Section III. RESPONSIBILITY AND CROSS CONNECTION SURVEYS**

The Erie County Sanitary Engineer 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.

The supplier of water is required to conduct periodic surveys of the water users' premises to determine if there are any cross-connections and to evaluate the consumer's water use practices to determine the degree of hazard to the public system. Such survey's may be conducted any time the physical location of a commercial/industrial business address changes or if any water problems, customer complaints, suspicious use, or fluctuating meter reads are reported. Said reports will be conducted at a minimum of once every three (3) years. The cost for said surveys for multi/condo, commercial and institutional facilities will be \$100.00 per day and \$150 per day for industrial facilities. Invoices will be prepared and distributed by Erie County DOES.

If, in the judgment of the Erie County Sanitary Engineer, an approved backflow device is required at the County's water service connection to any Owner/Occupant's premises, the Engineer, or his delegated agent, shall give notice in writing to said customer to install an approved backflow prevention device at each service connection to the premises, the Engineer, or his delegated agent, shall give notice in writing to said Owner/Occupant to install an approved backflow prevention device at each service connection to the premises.

The Owner/Occupant shall have up to ninety (90) days to install such approved device, or devices, at his own expense, and failure or refusal, or inability on the part of the Owner/Occupant to install said device or devices shall constitute a ground for discontinuing water service to the premises until such device or devices have been properly installed. However, this time period may be shortened depending upon the degree of hazard involved.

RULE 29 - CROSS CONNECTION BACKFLOW PREVENTION

Section IV. DEFINITIONS

- A. APPROVED: Accepted by the Erie County Sanitary Engineer, or delegated agent, as meeting an applicable specification stated or cited in the regulation, or as suitable for the proposed use.
- B. AUXILIARY WATER SUPPLY: Any water supply, on or available, to the premises other than the purveyor's 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 bibb vacuum breaker, residential dual check, double check with intermediate atmospheric vent, and barometric loop.
 - 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. Physical separation is defined as a distance equal to twice the diameter of the supply side pipe diameter but never less than one (1) inch.

Air Gap Separation Survey's will be conducted annually by the DOES Water Purveyor or his designee and will include a fee of \$50.00 per facility/location. Invoices will be mailed by DOES. If not paid within thirty (30) days, a penalty of may occur per Erie County Water Rule 13.
 - 2. ATMOSPHERIC VACUUM BREAKER: A device which prevents backsiphonage by creating an atmospheric vent when there is either a negative pressure or subatmospheric pressure in a water system.
 - 3. BAROMETRIC LOOP: A fabricated piping arrangement rising at least thirty-five (35) feet at its top most point above the highest figure it supplies. It is utilized in water supply systems to protect again backsiphonage.

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Section IV. DEFINITIONS (Continued)

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.
5. DOUBLE CHECK VALUE WITH INTERMEDIATE ATMOSPHERIC VENT: A device having two (2) spring loaded check valves separated by an atmospheric vent chamber.
6. HOSE BIBB VACUUM BREAKER: A device which is permanently attached to a hose bibb and which acts as an atmospheric vacuum breaker.
7. PRESSURE VACUUM BREAKER: A device containing one or two independently operated 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 and properly located test cocks for the testing of the check valve(s).
8. REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTOR:
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 the relief valve.
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.

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Section IV. DEFINITIONS (continued)

- E. BACKPRESSURE: A condition in which the Owner/Occupant's 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. CERTIFIED BACKFLOW TESTER/INSTALLER: Backflow prevention devices are to be installed and/or tested only by a plumber certified by the Ohio Department of Commerce and shall be an Erie County Registered Contractor per Water Rule 24.

Gages used for backflow prevention test and inspections need to be calibrated once every two (2) years. The certification of calibration should be accessible, as the County representative or the Plumbing Inspector may request to see it at any time they feel necessary.

- H. COMMISSION: The State of Ohio Control Commission.
- I. CONTAINMENT: A method backflow prevention which requires a backflow prevention preventer at the water service entrance under the jurisdiction of purveyor of water.
- J. CONTAMINANT: A substance that will impair the quality of the water to a degree that it creates a serious health hazard to the public leading to poisoning to the spread of disease.
- K. CROSS-CONNECTION: Any actual or potential connection between the public water supply and a source of contamination or pollution.
- L. DELEGATED AGENT: The Erie County Health Department staff is authorized to act as a "Delegated Agent" of the Erie County Department of Environmental Services to inspect plumbing, including, but not limited to surveys, containment devices, air gaps, etc.

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Section IV. DEFINITIONS (continued)

- M. DEGREE OF HAZARD: An evaluation of the potential for backflow to occur and the toxicity of substances that could backflow.
- N. DELEGATED AGENT: The Erie County Health Department staff is authorized to act as a "Delegated Agent" of the Erie County Department of Environmental Services to inspect plumbing, including, but not limited to surveys, containment devices, air gaps, etc.
- O. DEPARTMENT: Erie County Department of Environmental Services (ECDOES)
- P. ERIE COUNTY SANITARY ENGINEER: The Engineer or his delegated representative in charge of the Erie County Department of Environmental Services is invested with the authority and responsibility for the implementation of a cross-connection control program and the backflow prevention program and for the enforcement of the provisions of the ordinance.
- Q. ISOLATION BACKFLOW PRINCIPLE: A program designed to isolate any cross-connections which exist within the owners premises through the use of adequate backflow prevention devices isolating any hazard to that particular location and protecting the remainder of the owners' potable water system from contamination. Under the jurisdiction of the Erie County Health Department and the Plumbing Inspection Department.
- R. OWNER/OCCUPANT: Any person who has legal title to, or license to operate or habitat in, a property upon which a cross-connection inspection is to be made or upon which a cross-connection is present.
- S. 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.
- T. PERMIT: A document issued by the Erie County General Health District which sanctions the use of a containment backflow preventer.
- U. 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.

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Section IV. DEFINITIONS (continued)

V. PROHIBITED CONNECTIONS:

1. Water Lift Pump/Water Ejection Pump: Water operated back-up sump pumps pose a potential backflow hazard by the way of the cross-connection between the drinking water supply and the contaminated water in the sump pit. This potential hazard is increased during flood conditions. Therefore, Erie County PROHIBITS the use of this type of connection on ALL premises served by the Erie County Water System.
2. Yard Hydrants: Installation of yard hydrants where water is available or accessible for drinking or culinary purposes and having drip openings below ground surface is PROHIBITED unless such hydrants are equipped with approved devices to prevent entrance of ground water into chambers connected with the water supply.

W. WATER SERVICE ENTRANCE: That point in the Owner/Occupant's water system beyond the sanitary control of the District; generally considered to be the outlet end of the water meter and always before any unprotected branch.

X. WATER SUPPLIER: Employee of the Erie County Department of Environmental Services responsible for Ohio Environmental Protection Agency reporting concerning potable water or his agent; also known as Water Purveyor.

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Section V. ADMINISTRATION

The Department will operate a Cross-Connection Control Program and Backflow Prevention Program, to include the keeping of necessary records, which fulfills the requirements of the Commission's Cross-Connection Regulations and is approved by the Commission.

- A. The Department will operate a Cross-Connection Control Program and Backflow Prevention Program, to include the keeping of necessary records, which fulfills the requirements of the Commission's Cross-Connection Regulations and is approved by the Commission.
- B. The Owner/Occupant shall allow the property to be inspected for possible cross-connections and shall follow the provisions of the Department's program and the Commission's Regulations if a cross-connection is permitted.
- C. If the Department requires that the public supply be protected by containment, the Owner/Occupant shall be responsible for water quality beyond the outlet end of the containment device and should utilize fixture outlet protection for that purpose.

The Owner/Occupant may utilize public health officials, or personnel from the Department, or their delegated representatives, to assist in the survey of facilities and to assist in the selection of proper fixture outlet devices, and the proper installation of these devices.

Section VI. REQUIREMENTS

- A. DEPARTMENT
 - 1. On new installations, the Department (Water Supplier/Water Purveyor) will provide on-site inspection (survey) and/or review of plans in order to determine the type of backflow preventer, if any, that will be required.
 - 2. For premises existing prior to the start of this program, the Department (Water Supplier/Water Purveyor) will review plans and/or inspect the premises and inform the Owner/Occupant 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.

RULE 29 - CROSS CONNECTION BACKFLOW PREVENTION

Section VI. REQUIREMENTS (Continued)

3. The Department (Water Supplier/Water Purveyor) will not allow a water service connection to any premises where an actual or potential cross-connection to a public water system or a consumer's water system may exist unless such actual or potential cross-connections are abated to the satisfaction of the supplier of water.
4. The Department (Water Supplier/Water Purveyor) shall inform the Owner/Occupant by letter, of any failure to comply, by the time of the first re-inspection. The Department (Water Supplier/Water Purveyor) will allow an additional thirty (30) days for the correction. In the event the Owner/Occupant fails to comply with the necessary correction by the time of the second re-inspection, the Department (Water Supplier/Water Purveyor) will inform the Owner/Occupant by letter, that the water service to the Owner/Occupant's premises will be terminated within a period not to exceed fifteen (15) days. In the event that the Owner/Occupant informs the Department (Water Supplier/Water Purveyor) of extenuating circumstances as to why the correction has not been made, a time extension may be granted by the Department (Water Supplier/Water Purveyor), but in no case will exceed an additional sixty (60) days.
5. If the Department (Water Supplier/Water Purveyor) determines at any time that a threat to the public water supply, the water service may be terminated immediately.
6. The Department (Water Supplier/Water Purveyor) 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/Occupant.

RULE 29 - CROSS CONNECTION BACKFLOW PREVENTION

Section VI. REQUIREMENTS (Continued)

B. OWNER/OCCUPANT

1. The Owner/Occupant shall be responsible for the elimination or protection of all cross-connections to the premises.
2. The Owner/Occupant after having been informed by a letter from the Department (Water Supplier/Water Purveyor) shall at his expense, install maintain, and test, or have tested, any and all backflow preventers on the premises.
3. The Owner/Occupant shall correct any malfunctions of the backflow preventer which is revealed by periodic testing and retest to show correct operation of device.
4. The Owner/Occupant shall inform the Department (Water Supplier/Water Purveyor) of any proposed or modified cross-connections and also any existing cross-connections of which the Owner/Occupant is aware, but has not been found by the Department.
5. The Owner/Occupant shall not install a bypass around any backflow preventer unless there is a backflow preventer of the same type on the bypass. Owner/Occupant cannot shut down operation for testing of the device(s) must supply additional devices necessary to allow testing to take place.
6. The Owner/Occupant shall install backflow preventers in a manner approved by the Department (Water Supplier/Water Purveyor).
7. The Owner/Occupant shall install only backflow preventers approved by the Department or the Commission.
8. Any Owner/Occupant having a private well or other private water source must have a permit if the well or source is cross-connected to the Department's system. Permission to cross-connect may be denied by the Department (Water Supplier/Water Purveyor). The Owner/Occupant 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 Department's system.

RULE 29 - CROSS CONNECTION BACKFLOW PREVENTION

Section VI. REQUIREMENTS (Continued)

B. OWNER/OCCUPANT (Continued)

9. In the event the Owner/Occupant installs plumbing to provide potable water for domestic purposes which is on the Department's side of the backflow preventer, such plumbing must have its own backflow preventer installed.
10. The Owner/Occupant shall be responsible for the payment of all fees for permits: upon initial installation, 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 Department (Water Supplier/Water Purveyor) or Commission requirements. This includes Cross Connection Survey fees and Air Gap Separation Survey fees.

Section VII. DEGREE OF HAZARD

The Department (Water Supplier/Water Purveyor) 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 a backflow prevention device(s) to be determined by the Department (Water Supplier/Water Purveyor).

Section VIII. PERMITS

The Department (Water Supplier/Water Purveyor) shall not permit a cross-connection within the public water supply system.

- A. Cross-connection permits that are required for each backflow prevention device are obtained from the Erie County General Health District. A fee determined by the Erie County General Health District will be charged for the initial permit.
- B. A permit may be required for installation of an isolation device. Contact the Erie County General Health District at (419) 626-5623 for consultation with the Plumbing Inspector.

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Section IX. EXISTING IN-USE BACKFLOW PREVENTION DEVICES

Any existing backflow preventer shall be allowed by the Department (Water Supplier/Water Purveyor) 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 increase, 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.

An air gap may be required if degree of hazard warrants.

Section X. PERIODIC TESTING

- A. All backflow prevention devices will be tested upon initial installation and shall be tested and inspected once every twelve (12) months.
- B. Testing and installation shall be performed by a Certified Backflow Tester/Installer. This testing will be done at the Owner/Occupant's expense. The County charges \$10.00 every year for residential backflow prevention device tested to be paid by the Certified Backflow Tester/Installer. The County charges \$20.00 for every industrial/commercial account for the first device and \$10.00 for every additional device to be paid by the Certified Backflow Tester/Installer. No additional charge will be incurred for retests of backflow prevention devices. Outdated test report forms will not be accepted. The current test report form is available at our web site. Upon test report submittal, separate checks are to be issued for each commercial address tested. Residential and commercial properties cannot be combined on same check.
- 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 re-tested at Owner/Occupant'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 established. The Owner/Occupant is responsible for the spare parts, repair tools, or a replacement device. Parallel installation of two (2) devices is an effective means of the Owner/Occupant insuring that uninterrupted water service during testing or repair of device and is strongly recommended when the Owner/Occupant desires such continuity.

RULE 29 - CROSS CONNECTION BACKFLOW PREVENTION

Section X. PERIODIC TESTING (Continued)

- D. Backflow prevention devices will be tested more frequently than specified in cases where there is a history of test failures and the Department (Water Supplier/Water Purveyor) feels that due to the degree of hazard involved, additional testing is warranted. Cost of the additional tests will be borne by the Owner/Occupant.
- E. Failure to perform and report annual testing shall result in customer water
- F. **BACKFLOW TESTING REQUIREMENTS**
The Certified Backflow Tester/Installer will identify annually each backflow device with a tag displaying the following minimal information:

SERIAL #	123456
DATE TESTED	1/1/2014
TESTER	XYZ COMPANY
PHONE#	(012) 345-6789

Section XI. RECORDS

The Department (Water Supplier/Water Purveyor) will maintain master files on customer backflow preventer tests and/or inspections and correspondence.

Record of isolation devices will be maintained for the Erie County Health Department.

Section XII. HEALTH DEPARTMENT INSPECTIONS

The Erie County Health Department staff is authorized to act as a delegated representative of the Erie County Department of Environmental Services to inspect plumbing, including, but not limited to surveys, isolation devices, air gaps, etc. and will receive 80% of testing fees associated within these parameters.

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Section XIII. UNPAID CROSS CONNECTION SURVEY CHARGES

Pursuant to Ohio Revised Code, Section 6117.02, the Board of Erie County Commissioners shall certify the unpaid Cross Connection Survey Charges, together with any penalties, to the County Auditor, who shall place them upon the real property tax list and duplicate against the property served by the connection. The certified amount shall be a lien on the property from the date placed on the real property tax list and duplicate and shall be collected in the same manner as taxes, except that, notwithstanding section 323.15 of the Revised Code, a County Treasurer shall accept a payment in that amount when separately tendered as payment for the full amount of the unpaid charges and associated penalties. The lien shall be released immediately upon payment in full of the certified amount.