

**ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY
CROSS CONNECTION PREVENTION AND CONTROL ORDINANCE**

8-1-2. SHORT TITLE.

This Ordinance shall be known and may be cited as “The Cross Connection Prevention and Control Ordinance.”

8-1-3. APPLICABILITY.

Compliance with this Ordinance shall be a precondition to receiving or continuing to receive water service from the public water system.

8-1-4. DEFINITIONS.

For the purpose of this Ordinance, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

APPROVED BACKFLOW PREVENTION ASSEMBLY. An assembly or other means designed to prevent backflow. The assembly shall be listed by the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California, accepted by the Water Authority and shall be limited to the following five types of assemblies unless otherwise stated:

(1) **AIR-GAP.** The unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet conveying potable water into a tank, plumbing fixture, receptor and the flood level rim of the receptacle.

(2) **PRESSURE VACUUM BREAKER.** Consists of one independently operating spring-loaded check valve and an independently operating spring-loaded air inlet valve located on the discharge side of the check valve, two full-ported, resilient seated shut-off valves and equipped with properly located resilient seated test cocks.

(3) **REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY.** Consists of two independently acting check valves together with a hydraulically operating, mechanically independent pressure differential relief valve located between the check valves, including two full-ported, resilient seated shut-off valves at each end of the assembly, and equipped with properly located resilient seated test cocks.

(4) **SPILL-RESISTENT PRESSURE VACUUM BREAKER.** Consists of one independently operating spring-loaded check valve and an independently operating spring-loaded air inlet valve located on the discharge side of the check valve, two full-ported, resilient seated shut-off valves and equipped with properly located resilient seated test cock and vent valve.

(5) **DOUBLE CHECK VALVE ASSEMBLY.** Consists of two independently acting, approved check valves, including two full-ported, resilient seated shut-off valves at each end of the assembly and equipped with properly located resilient seated test cocks. Any existing double check valve assemblies are approved to continue in service provided that the assemblies can be maintained, tested and repair parts are available through the manufacturer.

AUXILIARY WATER SUPPLY. Any water source on or available to a premise other than the public water system.

BACKFLOW PREVENTION ASSEMBLY, CONTAINMENT. An assembly installed in a customer's water system to protect the public water system from an actual or potential threat of contamination or pollution of the public water system.

BACKFLOW PREVENTION ASSEMBLY, ISOLATION. An assembly installed within the customer's water system at the point of each cross-connection to protect the customer's potable water system from other non-potable water sources within the customer's water system.

BACKFLOW. The undesirable reversal of water flow.

CERTIFIED BACKFLOW PREVENTION ASSEMBLY TESTER. A person who is currently certified by the Water Authority to test backflow prevention assemblies.

CERTIFIED BACKFLOW PREVENTION ASSEMBLY REPAIRMAN. A person who is a certified backflow prevention assembly tester and licensed by the appropriate mechanical classification in accordance with the New Mexico Construction Industries Licensing Act §§60-13-1 through 60-13-59 NMSA 1978, and holds a current certificate issued by the Water Authority.

CROSS CONNECTION. An actual or potential connection between a potable water system and a non-potable water source.

CROSS-CONNECTION CONTROL CONTAINMENT. The protection of the public water system by the installation of an approved backflow prevention assembly at each service connection to a customer's water system from the public water system, and accepted by the Water Authority.

CROSS CONNECTION CONTROL ISOLATION. The protection of the customer's water system by the installation of an approved backflow prevention assembly within the customer's water system at the point of each and every cross-connection.

CROSS CONNECTION ADMINISTRATOR. The person designated by the Water Authority to administer the cross connection control program and who is charged with certain duties and responsibilities by this Ordinance.

CROSS CONNECTION ENGINEER. The person designated by the Water Authority as a technical expert in cross connection matters and to help the Cross Connection Program Manager enforce the cross connection control ordinance. The Cross Connection Engineer shall be a registered professional engineer in accordance with the State of New Mexico Board of Licensure for Professional Engineers and Surveyors, pursuant to the Engineering and Surveying Practice Act, §§ 61-23-1 through 61-23-32, NMSA 1978 and meet all the requirements of the job description approved by the Executive Director.

CROSS CONNECTION INSPECTOR. The person designated by the Water Authority to assist the Cross Connection Program Manager in the enforcement of the cross connection control ordinance and who is charged with certain duties and responsibilities by this Ordinance. The Cross Connection Inspector shall be a certified Water Operator Level IV and be a certified backflow prevention assembly tester.

CROSS CONNECTION PROGRAM MANAGER. The person designated by the Water Authority to enforce the cross connection control ordinance and who is charged with certain duties and responsibilities by this Ordinance. The Cross Connection Program Manager shall be a certified Water Operator Level IV and be a certified backflow prevention assembly tester.

CUSTOMER. The person responsible for payment of fees as determined pursuant to the Albuquerque Bernalillo County Water Utility Authority Water and Sewer Rates Ordinance as it may be amended.

CUSTOMER'S WATER SYSTEM. The water system on a customer's premises beginning at the service connection.

EXECUTIVE DIRECTOR. The Executive Director of the Water Authority or his/her designee.

HAZARD, CONTAMINATION. Contamination is a hazardous substance that may cause death, illness, injury, or the spread of disease if introduced into a potable water system. Contamination includes, but is not limited to, corrosion inhibitors; anti-freeze solutions; chemical water treatment for boilers and cooling systems; fertilizers, herbicides

and pesticides used in irrigation systems; heavy metals and total coliform bacteria found in fire systems; and other hazardous substances.

HAZARD, POLLUTION. A low hazard substance that will degrade the taste, color, odor or other aesthetic quality of the water if introduced into a potable water system, but will not cause death, injury or spread of disease. Pollution includes, but is not limited to, backflow of domestic water from tall buildings; backflow of domestic hot water from water heaters; and other similar low hazard substances.

NON-RESIDENTIAL WATER CUSTOMER. Any water customer who is served by the public water system and is classified in the Albuquerque Bernalillo County Water Utility Authority Water and Sewer Rates Ordinance as follows:

(1) Commercial. Retail, offices, hotels, motels, shopping centers, none of which use process water in the conduct of business.

(2) Industrial. Manufacturing or process facility, which is engaged in producing a product.

(3) Institutional. Government buildings, hospitals, schools, and other facilities that provide public and quasi-public services.

(4) Multifamily dwelling of three or more stories.

RESIDENTIAL WATER CUSTOMER. Any water customer who is served by the public water system and classified in the Albuquerque Bernalillo County Water Utility Authority Water and Sewer Rates Ordinance as follows:

(1) single-family detached,

(2) townhouses,

(3) duplexes,

(4) triplexes served by common or individual meters,

(5) mobile homes or

(6) multi-family dwelling of less than 3 stories.

PREMISES. A building, a tract of land with buildings, or parts of buildings thereon.

PUBLIC WATER SYSTEM. The potable water system that supplies water service to residential and non-residential water users within the service area of the Water Authority.

SERVICE CONNECTION. The terminal end of the water service from the public water system and point of delivery to the customer's water system, more particularly defined as follows:

(1) The service connection for a metered water service is the downstream end of the water meter or meter setter;

(2) The service connection for un-metered water services and fire lines which serve private fire protection systems is located at the property boundary or at the water utility easement boundary to a customer's premises; and

(3) The service connection for a fire hydrant and all other temporary or emergency water services is located at the point of connection to the public water system.

WATER AUTHORITY. The Albuquerque Bernalillo County Water Utility Authority.

WATER, POTABLE. Water delivered by the public water system intended for human consumption and meeting federal and state drinking water standards.

WATER, NONPOTABLE. Water that is not safe for human consumption or that is of questionable quality. Any water delivered by the non-potable water system and intended for irrigation use or other allowable non-potable applications.

WATER, USED. Any water delivered by the public water system to a customer's water system after it has passed the service connection.

8-1-5. ADOPTION OF TECHNICAL SPECIFICATIONS.

The Water Authority shall adopt technical specifications to define backflow prevention assembly installation standards, guidelines and criteria. The Water Authority shall update the current Manual of Procedures and the Water Authority standards and specifications for public works construction to incorporate the provisions of this Ordinance.

8-1-6. RESPONSIBILITY.

It shall be the responsibility of the Water Authority to administer and enforce the provisions of this Ordinance. This Ordinance also assigns responsibilities to customers and to certified backflow prevention assembly testers and repairmen as described in this section.

(A) Water Authority. The Water Authority shall be responsible for the protection of the public water system from contamination or pollution due to the backflow of contaminants or pollutants through the water service connection. The Water Authority shall enforce all the provisions of this Ordinance that relate to cross connection control by containment; shall approve all cross connection control backflow prevention assemblies; shall administer a continuing cross connection control program; maintain a customer and backflow prevention assembly data base; and shall not knowingly install, maintain or

approve installation of a water service connection unless the public water system is protected as required by this Ordinance.

(B) Customer. All customers shall be responsible, without further notice, for the prevention of contaminants, pollutants or water from auxiliary water supplies from entering the customer's potable water system and the public water system. Customers shall provide approved backflow prevention assemblies as required by local plumbing codes and this Ordinance. The customer's responsibility begins at the service connection and extends throughout the entire length of the water system within the premises. Customers shall install, have tested, and maintain, at their own expense, backflow prevention assemblies as directed by the Water Authority. Test reports shall be delivered to the Water Authority within seven (7) calendar days of testing. Accurate records of all inspections, tests, repairs and replacement of backflow prevention assemblies shall be maintained by the customer for a period of three (3) years.

(C) Certified backflow prevention assembly tester. Only certified backflow prevention assembly testers are permitted to inspect and test backflow prevention assemblies. They shall complete and provide accurate test reports to the Water Authority within seven (7) calendar days of the test, submit test reports to the customer and submit calibration test reports annually to the Water Authority. Report to the customer and the Water Authority any discovered discrepancies or violations which the tester may have observed during the course of testing a backflow prevention assembly.

(D) Certified backflow prevention assembly repairman. Only certified backflow prevention assembly repairmen are permitted to inspect and test backflow prevention assemblies. They shall complete and provide accurate test reports to the Water Authority within seven (7) calendar days of the test, submit test reports to the customer and submit calibration test reports annually to the Water Authority. Report to the customer and the Water Authority any discovered discrepancies or violations which the repairman may have observed during the course of testing and or repairing a backflow prevention assembly. Such repairman shall not change the design, material or operational characteristics of a backflow prevention assembly without prior approval of the Water Authority.

8-1-7. REQUIREMENTS.

(A) Mandatory cross-connection control by containment:

(1) Effective February 15, 2009 all new non-residential premises must have a reduced pressure principle backflow prevention assembly approved by the Water

Authority installed at each domestic service connection to the customer's water system or at a location approved by the Water Authority, as set forth in the Uniform Plumbing Code.

(2) Effective February 15, 2009 all remodeled non-residential premises, when the work area of the building undergoing repairs, alterations or rehabilitation, as defined in the International Existing Building Code, exceeds 50 percent of the aggregate area of the building regardless of the costs of repairs, alteration, or rehabilitation, must have a reduced pressure principle backflow prevention assembly approved by the Water Authority installed at each domestic service connection to the customer's water system or at a location approved by the Water Authority, as set forth in the Uniform Plumbing Code.

(3) All non-residential irrigation water systems connected to the public water system must have a pressure vacuum breaker, spill-resistant pressure vacuum breaker or a reduced pressure principle backflow prevention assembly at the service connection on the public water system. Such devices shall be approved by the Water Authority.

(4) All customers connected to a non-potable water system and the public water system shall install a reduced pressure principle backflow prevention assembly approved by the Water Authority at the potable service connection.

(5) All fire hydrants used for drawing water for filling tanks and tank trucks and for temporary irrigation systems must have an air-gap or approved reduced pressure principle backflow prevention assembly in accordance to the Manual of Procedures and approved by the Water Authority.

(6) Any residential premises having existing private wells and who desire to connect to the public water system shall have two options as follows:

(a) Customers shall permanently abandon the use of private wells by plugging the wells as accepted by the Water Authority prior to connecting to the public water system; or

(b) Customers who choose to maintain their private wells shall completely sever the private well from the premises' potable plumbing system and shall install a reduced pressure principle backflow prevention assembly approved by the Water Authority at the terminal end of the water service from the public water system (e.g., service connection)

(7) Effective February 15, 2009, all new fire line services to fire protection systems shall be equipped with a reduced pressure principal backflow

prevention assembly approved by the Water Authority and Fire Marshal having jurisdiction at each service connection. A double check valve assembly approved by the Water Authority and Fire Marshal having jurisdiction may be installed instead of a reduced pressure backflow prevention assembly provided the fire protection system contains ANSI/NSF Standard 60 or 61 water piping throughout the entire fire protection system, the fire sprinkler drain discharges into atmosphere, and there are no reservoirs, fire department connections, connections from auxiliary water supplies, antifreeze nor other additives.

(8) Premises with existing fire protection systems containing double check valve assemblies are approved to continue in service

(9) Effective February 15, 2009 all remodeled non-residential premises, when the work area of the building undergoing repairs, alterations or rehabilitation, as defined in the International Existing Building Code, exceeds 50 percent of the aggregate area of the building regardless of the costs of repairs, alteration, or rehabilitation with existing fire protection systems without any backflow prevention assemblies must be retrofitted with an approved double check valve assembly approved by the Water Authority and Fire Marshal having jurisdiction. Approved double check valve assemblies must be installed by a person who is licensed by the appropriate mechanical classification in accordance with the New Mexico Construction Industries Licensing Act. Fire sprinkler system hydraulic performance must be verified by an engineer registered in accordance with the State of New Mexico Board of Licensure for Professional Engineers and Surveyors, pursuant to the Engineering and Surveying Practice Act, §§ 61-23-1 through 61-23-32, NMSA 1978.

(10) Once an approved backflow prevention assembly for containment has been installed at a premise, the customer, the backflow prevention tester or the backflow prevention repairman shall not have the device removed. Permanent removal of a containment backflow prevention assembly will result in termination of water service and/or revocation of backflow certification. Backflow prevention assemblies that cannot be repaired must be replaced in kind.

(11) Approved backflow prevention assemblies may be installed inside or outside the premise.

(B) Inspection of premises.

(1) Right of entry. Whenever necessary to make an inspection to enforce any of the provisions of this Ordinance, or whenever the Water Authority or its authorized representative has reasonable cause to believe that there exists in any building or upon any premises, any condition which makes such building or premises unsafe as defined in this Ordinance, the Water Authority or its authorized representative may enter such building or premises at reasonable times to inspect the same or to perform any duty imposed upon the Water Authority by this Ordinance; provided that if such building or premises be occupied, he/she shall first present proper credentials and demand entry; and if such building or premises be unoccupied, the Water Authority shall first make a reasonable effort to locate the owner or other persons having charge or control of the building or premises and demand entry. If entry is refused, the Water Authority shall immediately terminate water service to the premises.

(2) Inspection of premises. The Water Authority shall schedule an inspection at a reasonable date and time and give the customer written notice prior to an inspection. The purpose and authority to conduct such an inspection shall be disclosed in the notice. If actual or potential cross connections, which could result in backflow of contaminants, pollutants, and water from auxiliary water supplies or water from the non potable water system through the water service connection and into the public water system, are determined to exist during the premises inspection, the Water Authority shall evaluate the hazards and proceed as follows:

(a) In the event a contamination hazard is determined to exist, the Water Authority shall immediately terminate water service to the premises. The Water Authority shall restore water service to the premises once the contamination hazard has been controlled or eliminated.

(b) In the event no contamination hazard or substantial dangers are determined to exist, but actual or potential cross connections require control by containment, the Water Authority shall give the customer written notice to install an approved reduced pressure principle backflow prevention assembly at the service connection at the customer's own expense. The backflow assembly shall be installed, inspected and tested within fifteen (15) calendar days from the date of the notice. For good cause, the Water Authority may extend the time to comply with the requirements of this Ordinance.

(C) Re-inspection. Re-inspection of premises shall be conducted by the Water Authority to verify corrective action has been implemented as required by this Ordinance.

(D) Installation of backflow prevention assemblies. Any contractor licensed by the appropriate mechanical classification in accordance with the New Mexico Construction Industries Licensing Act may install backflow prevention assemblies in accordance with the Manual of Procedures. The contractor shall be responsible for obtaining all required approvals, such as approved plans, permits and inspections.

(E) Tests and maintenance of backflow prevention assemblies. Customers shall have their existing containment and isolation backflow prevention assemblies tested at least once a year by a certified backflow prevention assembly tester. Assemblies that fail a test shall be repaired or replaced and immediately retested by a certified backflow prevention assembly repairman. Tests and repairs shall be at the expense of the customer.

All new installations of backflow prevention assemblies shall be tested immediately upon installation and test reports submitted to the Water Authority within seven (7) calendar days. Once the backflow prevention assembly is tested and operating properly, water service to the premises may continue. Water Authority shall inspect all newly installed containment backflow prevention assemblies.

The customer shall submit all test reports to the Water Authority. Water Authority shall provide the test report form to customers, certified backflow prevention assembly testers and repairmen.

(F) Existing backflow prevention assemblies. Any existing backflow prevention assemblies that are not on the current list of approved backflow prevention assemblies may be approved to continue in service provided that the assemblies can be maintained, tested and repaired with parts available through the manufacturer. Whenever obsolete assemblies are replaced, they shall be replaced with current, approved backflow prevention assemblies.

(G) Certification of testers and repairmen. To be certified as a backflow prevention assembly tester, a person shall attend a training course that has been approved by the Water Authority and successfully complete the written and practical examinations administered as part of the approved training course. A person who is licensed by the appropriate mechanical classification in accordance with the New Mexico

Construction Industries Licensing Act and attends and successfully completes the approved training course may be certified as a backflow prevention assembly repairman.

(H) Re-certification of testers and repairmen. A certified tester or repairman who wants to remain active as a backflow assembly tester or repairman shall renew their certification every three (3) years. To re-certify, testers and repairmen have the following options: (1) Complete an approved 40-hour training course; or (2) Complete an approved eight (8) hour training course and accrue sixteen (16) hours of approved continuing education credits. Testers or repairmen shall provide proof of training credits earned and training course attended.

(I) Approved training courses. The Water Authority shall approve training courses. The approved course shall be conducted by an instructor who is a certified tester or repairman; duration of the course shall be at least forty (40) hours; and the minimum material covered shall be based on the University of Southern California's Foundation for Cross Connection Control and Hydraulic Research training course.

The approved re-certification training course shall be conducted by an instructor who is a certified tester or repairman; duration of the course shall be at least eight (8) hours and the course shall include rules, regulations and minimum of six (6) hours practical training and practical examinations.

The instructor conducting the certification and re-certification courses shall administer the written and practical examinations. A performance of over 70% on the written examination and satisfactory completion of the practical examination constitutes successful completion of the course.

(J) Revocation. The Water Authority shall revoke certification of any certified backflow prevention assembly tester or repairman for any of the following reasons:

- (1) falsification of tests, records or reports;
- (2) failure to properly maintain test equipment;
- (3) failure to submit calibration test report annually;
- (4) alterations of an existing backflow prevention assembly without the approval of the Water Authority; or
- (5) failure to inform the Water Authority of an existing cross connection or a fire protection system without an approved backflow prevention assembly.

8-1-8. FEES.

The Water Authority shall assess fees associated with the implementation of this Ordinance as determined and set by the Water Authority Water and Sewer Rate Ordinance. The fees imposed by this Ordinance are as follows:

(A) Inspection fees. An inspection fee plus applicable gross receipts tax shall be assessed for an inspection conducted on the customer's premises. The fee shall be assessed only to those customers whose premises are not in compliance with this Ordinance at the time of inspection and to recover the expenses incurred by the Water Authority to inspect the premises.

(B) Administrative fees. All customers shall be assessed an annual administrative fee plus applicable gross receipts tax for each backflow prevention assembly located at the premises. The fee shall recover the expenses incurred by the Water Authority to maintain records, process notices, enter test results and maintain the database.

(C) Ordinance documents. Copies of this Ordinance may be obtained at the City Treasurer, Albuquerque/Bernalillo County Government Center for a fee.

(D) Manual of Procedures. Copies of the Manual of Procedures may be obtained at the City Treasurer, Albuquerque/Bernalillo County Government Center, and Albuquerque, New Mexico for a fee.

(E) Payment. All fees shall be payable to the office of the Customer Services Division, Albuquerque/Bernalillo County Government Center, Albuquerque, New Mexico, and will become delinquent fifteen (15) days following the due date on the customer's statement.

(F) Penalty. A penalty of 1.5% per month shall be imposed on all delinquent accounts.

(G) Responsibility of payment, liens and deposit. The persons responsible for payment of the fees included in this Ordinance shall be the customer upon whom charges are imposed under with the Water Utility Authority Water and Sewer Rates Ordinance as it may be amended.

8-1-9. ALTERNATE METHODS TO ACHIEVE COMPLIANCE.

(A) Remote installations of containment backflow prevention assemblies. In instances where the containment backflow prevention assembly(ies) cannot be installed at the service connection, the customer may install the approved backflow prevention

assembly(ies) at a remote location with the approval of the Cross Connection Engineer or the Cross Connection Program Manager.

8-1-10. GROUNDS FOR TERMINATION OF WATER SERVICE UNDER THIS ORDINANCE.

(A) Any person who willfully removes or bypasses any approved backflow prevention assembly without prior approval of the Water Authority, falsifies tests records or reports, obtains water from a fire hydrant in violation of cross connection control requirements, connects a building fire protection service to a normal water service thus creating a cross-connection, or otherwise violates any provision of this Ordinance may have water service terminated.

(B) In the event the Cross Connection Engineer or Cross Connection Program Manager determines that a potential contamination exists and may be a threat to the public water system, water service to the premises shall be terminated immediately. The Water Authority shall restore water service to the premises once the customer has controlled or eliminated the contamination hazard.

(C) Failure to install required backflow prevention assemblies as directed by the Water Authority, failure to conduct required tests, failure to submit accurate test reports within seven (7) calendar days of the test, failure to perform testing and maintenance of backflow prevention assemblies, or failure to allow the Water Authority entry into a premises shall constitute grounds for termination of water service to the premises. Service shall not be restored until such conditions or defects are corrected. If water service is terminated for any of these reasons, a turn-off and turn-on water service fee will be assessed to the customer as per the Water Utility Authority Water and Sewer Rates Ordinance.

(D) The Water Authority may terminate water service for non-payment of the fees included in this Ordinance and in accordance with the Water Utility Authority Water and Sewer Rates Ordinance as it may be amended.

8-1-11. TERMINATION OF WATER SERVICE; HEARING.

(A) The Cross Connection Engineer or the Cross Connection Program Manager may terminate the water service to the property for failure on the part of the customer to comply with any provision of this Ordinance.

(B) In order to terminate service, a written notice shall be sent to the customer giving him/her at least ten (10) calendar days notice of the termination of water service

and notice of his/her right to protest the Cross Connection Engineer's or Cross Connection Program Manager's action at a hearing.

(C) In the event a hearing is requested, the water service shall not be terminated until and in accordance with the decision of the hearing officer. However the Cross Connection Engineer or Cross Connection Program Manager shall immediately terminate water service to the premises in the event that contamination is determined to exist or entry for an inspection to a premises is denied.

(D) The customer must request that a hearing be held by delivering such request in writing to the Executive Director on or before the date the water services are to be terminated. In the case of immediate termination, such written request shall be delivered within ten (10) calendar days after the date of termination.

(E) At such hearing, the customer may present evidence as the Hearing Officer finds relevant. The Hearing Officer shall make findings, conclusions and recommendations to the Executive Director. The Executive Director may affirm, overrule or modify the decision to terminate the services. The decision shall be final.

(F) A non-refundable hearing fee of \$50.00 shall accompany each request for hearing pursuant to this Section.