

Cross Connection Control Policy

I. Purpose

- A. To protect the public potable water supply served by the Marion Utility Service 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 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 that will effectively prevent the contamination or pollution of all potable water systems by cross connection.

II. Authority

- A. The implementation of this Policy is authorized by the Marion Utility Service Board Water Rules and Regulations.
- B. This Policy does not supersede the Indiana Plumbing Code or the IDEM Rule 327 IAC 8-10, but is supplementary to them.

III. Responsibility

- A. The **Marion Utility Service Board** 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 said Board, an approved backflow device is required at the city's water service connection to any customer's premises, the Board, or its delegated agent, 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 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 device or devices, shall constitute a ground for discontinuing water service to the premises until such device or devices have been properly installed.
- B. The **customer** has the responsibility for protecting both the public water supply and his internal potable water. After the Board has determined the type and location of backflow protection required, the customer shall be responsible for procuring installing, testing, repair, and maintenance of the required assembly to protect the public water supply. The customer is also responsible for preventing the contamination and pollution of his internal water system through a program of fixture outlet protection. He may utilize public health officials, plumbing inspectors, or other Backflow Specialists to assist him in the survey of his facilities and to assist him in the selection of proper fixture outlet devices, and the proper installation of these devices.

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IV. Policy

- A. No water service connection to any commercial, industrial, and certain other facilities' shall be allowed by the Board unless the water supply is protected as required by the Marion Utility Service Board Water Rules and Regulations and this Cross Connection Control Policy. Service of water to any premise shall be discontinued by the Board if a backflow prevention assembly required by this Policy is not installed, tested and maintained, or if it is found that a backflow prevention assembly has been removed, bypassed, or if an unprotected cross connection exists on the premises. Service will not be restored until such conditions or defects are corrected.
- B. The Board 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 devices (RP) or double check valve assembly (DC).
- C. An approved RP shall be installed on each commercial, industrial, and certain other facilities' service lines at or near the property line or immediately inside the building before the first branch leads off the service line wherever the following conditions exist:
 - a. Any facility that is being constructed or remodeled or is undergoing a change in ownership or occupancy.
 - b. Any existing facility required to have backflow protection per 327 IAC 8-10-4.
 - c. Any existing facility where multiple, potential or actual, protected or unprotected cross connections exist.
 - d. Any existing facility where a customer's water distribution system contains intricate plumbing and piping arrangements or is not readily accessible and available for inspection purposes.
 - e. Any existing facility using a booster pump. In addition, the booster pump shall be operated in accordance with 327 IAC 8-10-3.
 - f. Any existing facility with temporary connections for filling tanks, tanker trucks, spraying trucks, and other containers.
- D. A customer may request to be exempt from the installation of an RP device on the service line. The customer shall submit an application to the Board requesting approval for the installation of an alternate device or a waiver from installing a device. If an exemption is granted and a change in use occurs at the facility, the exemption shall no longer be valid and the customer shall install an RP device or re-apply for an exemption. The following will generally be exempt from the installation of an RP on the service line:
 - a. Fire protection systems that do not contain hazardous chemicals may be protected by a properly installed Double Check Detector Check Assembly.
 - b. Land irrigation systems that are not under back-pressure may be protected by a properly installed Pressure Vacuum Breaker.
- E. Any backflow prevention device existing prior to implementation of this Policy and properly maintained shall be allowed by the Board 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.

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V. Procedures

A. Marion Utility Service Board

- a. The Board will operate a cross connection control program which fulfills the requirements of the Marion Utility Service Board Water Rules and Regulations.
- b. On new installations, the Board will require an RP to be installed on the service line to the facility. The RP information and any exemptions allowed will be tracked on the tap permit in the Utility Engineering Office.
- c. For premises existing prior to the start of this Policy, the Board will inspect facilities and inform the customer by letter of any corrective action deemed necessary and the time allowed for the correction to be made. Ordinarily, sixty (60) days will be allowed for corrective action to occur or a compliance schedule to be agreed upon. The time period may be shortened depending upon the degree of hazard involved and the history of the device(s) in question.
- d. The Board shall inform the customer by letter, of any failure to comply. The Board will allow an additional fifteen (15) days for the correction. In the event the customer fails to comply with the necessary correction by the time of the second re-inspection, the Board will inform the customer by letter, that the water service to the customer's premises will be terminated within a period not to exceed five (5) days. In the event that the customer informs the Board of extenuating circumstances as to why the correction has not been made, a time extension may be granted by the Board.
- e. If the Board determines at any time that a serious threat to the public health exists, the water service will be terminated immediately.
- f. The Board 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 customer of the building or property.
- g. The Board will begin initial premise inspections to determine the nature of existing or potential hazards during the calendar year 2006. Initial focus will be on facilities with contamination hazards.

B. Customer

- a. The Customer shall be responsible for the elimination or protection of all cross connections on his premises.
- b. The Customer shall allow his property to be inspected for possible cross connections and shall follow the provisions of this Policy and the Marion Utility Service Board Water Rules and Regulations.
- c. The Customer, after having been informed by a letter from the Board, shall at his expense, install, maintain, and test, or have tested, any and all backflow preventers on his premises.
- d. The Customer shall correct any malfunction of the backflow preventer which is revealed by periodic testing.
- e. The Customer shall inform the Board of any proposed or modified cross connections and also any existing cross connections of which the Customer is aware but has not been found by the Board.
- f. The Customer shall not install a bypass around any backflow preventer unless there is a backflow preventer of the same type on the bypass. Customers who cannot shut down operation for testing of the device(s) must supply additional devices necessary to allow testing to take place.

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- g. The Customer shall install backflow preventers in accordance with 327 IAC 8-10-7 or in a manner approved by the Board. The Customer shall install only backflow preventers approved 327 IAC 8-10-7 (b) or by the Board.
- h. No water piping supplied by any private water supply shall be connected to the public water supply.
- i. The Customer shall be responsible for the payment of all annual or semi-annual device testing and repairing and retesting in the case that the device fails to operate correctly.
- j. Nothing herein shall release the customer of the responsibility for conducting periodic surveys of water use practices on his premises to determine whether there are any actual or potential uncontrolled cross connections within the customer's water system through which contaminants could backflow into his own and/or the public water supply systems.

VI. Periodic Testing

- A. Backflow prevention devices shall be tested in accordance with 327 IAC 8-10-8 or as determined by the Board.
- B. Periodic testing shall be performed by an Indiana certified tester. This testing will be done at the customer'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 re-tested 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. Parallel installation of two (2) devices is an effective means of the customer insuring uninterrupted water service during testing or repair of devices and is strongly recommended when the customer desires such continuity.
- D. Backflow prevention devices may be required to be tested more frequently than specified above, in cases where there is a history of test failures and the Board feels that due to the degree of hazard involved, additional testing is warranted.

IV. Definitions

- A. 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.
- B. 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, and barometric loop.
 - a Air Gap: A physical separation sufficient to prevent backflow between the free-flowing discharge end of the potable water system and any other system.

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- b 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.
 - c 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 Hose Bibb Vacuum Breaker: A device which is permanently attached to a hose bibb and which acts as an atmospheric vacuum breaker.
 - e 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).
 - f 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 the relief valve.
- C. Backpressure: A condition in which the customer's system pressure is greater than the supplier's system pressure.
- D. 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.
- E. Board: Marion Utility Service Board or its designated representative.
- F. Containment: A method of backflow prevention which requires a backflow prevention preventer at the water service entrance.
- G. 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 or the spread of disease.
- H. Cross Connection: Any actual or potential connection between the public water supply and a source of contamination or pollution.
- I. Customer: Any person who has legal title to, or license to operate or inhabit in, a property upon which a cross connection inspection is to be made or upon which a cross connection is present.
- 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. IDEM Rule 327 IAC 8-10: Rule 327 IAC 8-10 or the most recently promulgated rule.
- L. 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.