

**AN ORDINANCE OF THE CLINTON COUNTY BOARD OF COMMISSIONERS
OF THE STATE OF INDIANA APPROVING A BACKFLOW PREVENTION
PROGRAM**

Findings

The Indiana Department of Environmental Management (“IDEM”) requires municipal water suppliers to develop, implement, and maintain a cross-connection control program. A cross-connection is defined as any physical arrangement whereby a public water supply is connected, directly or indirectly, with any secondary water supply system, sewer, drain, conduit, pool, storage reservoir, plumbing fixture, or other device which contains or may contain water, contaminated liquid, or other waste of unknown or unsafe quality that could impart a contaminant or pollutant to the drinking water as a result of backflow caused by back pressure or back-siphonage.

The attached “EXHIBIT A” is the Frankfort Water Works, City of Frankfort, State of Indiana (“FWW”) Backflow Prevention Program designed to protect public water supply from the risks of contamination caused by backflow.

It is the understanding of Clinton County Board of Commissioners that IDEM is requiring such an Ordinance to be passed by both Clinton County, State of Indiana, and the City of Frankfort, State of Indiana.

NOW, THEREFORE,

**BE IT ORDAINED BY THE CLINTON COUNTY COMMISSIONERS, OF THE
STATE OF INDIANA, AS FOLLOWS:**

1. The attached “EXHIBIT A”, Backflow Prevention Program, is hereby approved and adopted in reference to all items in which could apply to Clinton County.
2. That it is in the best interest of residents of Clinton County, State of Indiana, for such a program to be established and enforced when applicable.


3. That this ordinance shall be in full force and effect upon its adoption by the Board of Commissioners having given their consideration on the date of its adoption.

ADOPTED this _____ day of _____ 2020.

THE CLINTON COUNTY COMMISSIONERS, STATE OF INDIANA


Josh Uitts, Commissioner

Steve Woods, Commissioner



Scott Shoemaker, Commissioner

ATTEST:

Britt Ostler, Clinton County Auditor

EXHIBIT A

EXHIBIT A

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1.0 POLICY STATEMENT AND PURPOSE

The Indiana Department of Environmental Management (IDEM) requires municipal water suppliers to develop, implement, and maintain a cross-connection control program. A cross-connection is defined as any physical arrangement whereby a public water supply is connected, directly or indirectly, with any secondary water supply system, sewer, drain, conduit, pool, storage reservoir, plumbing fixture, or other device which contains or may contain water, contaminated liquid, or other waste of unknown or unsafe quality that could impart a contaminant or pollutant to the drinking water as a result of backflow caused by back pressure or back-siphonage.

The purpose of this program is to:

1. Protect the Frankfort Water Works (FWW) public water supply from the risk of contamination from the backflow or back-siphoning of water from private water services into the water distribution system.
2. Eliminate or regulate existing cross-connections between the customer's water connection and the FWW potable water distribution system. Backflow prevention devices are required where a prohibited cross connection is determined to exist, which allows water to flow in one direction (to the customer) and prevent it from coming back into the distribution system.
3. Maintain a program of cross-connection control that will prevent contamination of the FWW potable water system.

2.0 AUTHORITY

1. Regulations governing cross-connection control are contained in 170 IAC 6-1-20 and 327 IAC 8-10, which provide authority to, and require, public water purveyors to implement and monitor a Cross-Connection Control program. FWW will administer a Backflow Prevention Program that follows the IDEM Cross Connection Control and Backflow Prevention Manual, Indiana State Department of Health practices, and the Indiana Plumbing Code.
2. City Ordinance No. _____ adopting this FWW “Backflow Prevention Program” was approved on _____ (See **Appendix A**).
3. County Ordinance No. _____ adopting this FWW “Backflow Prevention Program” was approved on _____ (See **Appendix A**).
4. If the FWW determines that a backflow prevention assembly is required, the customer shall install the required assembly(s) at the customer’s expense within the timeframe set herein. Failure to install the assembly(s) within the timeframe set herein shall constitute grounds for disconnection of the water service until the assembly(s) has been properly installed and inspected and may result in a fine of not more than Seven Hundred Fifty and 00/100 Dollars (\$750.00).

3.0 RESPONSIBILITY

3.1 Frankfort Water Works

The FWW will be responsible for the oversight and implementation of this policy, which begins at the source of supply and ends at the point of delivery to the customer's water system. This includes providing adequate treatment facilities, public water distribution systems, service piping, and continuous operation and maintenance to provide safe, clean, and adequate water for ordinary domestic consumption.

To ensure that the proper precautions are taken, FWW will:

1. Exercise reasonable vigilance to ensure that the customer has taken the proper steps to protect the public water system.
2. Require the customer to install an approved backflow prevention assembly with respect to the degree of hazard when it is determined that a prohibited cross-connection exists as defined by FWW and IDEM. The customer shall be responsible for:
 - a. installation of the backflow prevention device at their own expense,
 - b. testing the device immediately upon installation,
 - c. subsequent annual testing per regulations,
 - d. proper repair and maintenance of the assembly, and
 - e. keeping adequate records of each test.
3. Maintain a list of customers who require backflow devices along with the type and location of each device. This list will be available for inspection by IDEM staff upon request.
4. Obtain from the backflow tester a copy (electronic, hard copy or any form as required by FWW) of each backflow device test report and keep the three most recent reports for review and inspection by IDEM staff.
5. Ensure customers' backflow assemblies are approved by the appropriate organization at the time of installation. If the assembly was not approved at the time of installation, FWW will notify the customer that an approved assembly must be installed.

3.2 Water Customer

The water customer is responsible for preventing pollutants and contaminants from entering their potable water system and the public potable water system. The customer's responsibility starts at the point of delivery from the public water supply and includes all water conditioning equipment and piping. When it is determined that a cross-connection exists, the customer shall be required to:

1. Install an approved backflow prevention assembly at each service connection at their own expense.
2. Test the device immediately upon installation.
3. Properly repair and maintain the device or devices.
4. Test the device annually per regulations.

5. Maintain regular and adequate records of each test and subsequent maintenance and repair.

3.3 IDEM

IDEM shall be responsible for establishing reasonable guidelines and regulations to ensure the public water supplies are safe and provide an adequate drinking water supply. This includes:

1. Assisting with developing an effective cross-connection control program,
2. Reviewing and approving organizations as training providers of cross-connection control device inspectors in accordance with 327 IAC 8-10-12.
3. Maintaining an updated list of cross-connection control assemblies and devices that are approved by the University of Southern California and Indiana Plumbing Code.
4. Maintaining a list of Indiana Registered Cross-Connection Control Device Inspectors.
5. Assisting water utilities in bringing customers into compliance with cross connection regulations. This includes:
 - a. Right of entry upon lands or water by IDEM officials for the purpose of investigation (IC 13-14-2-2)
 - b. Ordering the water utility to remove the customer service meter or otherwise sever the water service connection to the customer (327 IAC 8-10-10(a))
6. Revoking or suspending the registration of a cross-connection control device inspector, following a hearing under IC 4-21.5, for improper testing, maintenance, reporting, or any other violation of 327 IAC 8-10 or IC 13-18-11-8.

4.0 REQUIREMENTS

4.1 Water System Components

The water system is made up of two parts: the utility system and the customer system.

The utility system consists of the source facilities and the distribution system and includes all those facilities of the water system under the complete control of the utility, up to the point where the customer's system begins:

1. For premises with meters located in a basement or building interior, the customer's system begins from the curb stop.
2. For premises with outside meters, the customer's system begins from the meter outlet.

The source includes all components of the facilities utilized in the production, treatment, storage, and delivery of water to the distribution system.

The distribution system includes the network of pipes used for the delivery of water from the source to the customer's system.

The customer's system includes those parts of the facilities beyond the termination of the utility distribution system that are utilized in conveying utility delivered domestic water to points of use.

4.2 Facilities Designated as Cross-Connection Hazards

1. Industrial
 - a. Aircraft and missile manufacturing plants.
 - b. Automotive plants, including those plants that manufacture motorcycles, automobiles, trucks, recreational vehicles, and construction and agricultural equipment.
 - c. Beverage bottling plants, including dairies and breweries.
 - d. Canneries, packing houses, and reduction plants.
 - e. Metal and plastic manufacturing, fabricating, cleaning, plating, and processing facilities.
 - f. Plants manufacturing paper and paper products.
 - g. Plants manufacturing, refining, compounding, or processing fertilizer, film, herbicides, natural or synthetic rubber, pesticides, petroleum or petroleum products, pharmaceuticals, radiological materials, or any chemical that could be a contaminant to the public water supply.
 - h. Plants processing, blending, or refining animal, vegetable, or mineral oils.
 - i. Sewage, storm water, and industrial waste treatment plants and pumping stations.

- j. Industrial facilities that recycle water.
- k. Any other industrial or manufacturing facility.
- 2. Commercial Customers with Cross-Connection Hazards
 - a. Car washes.
 - b. Chemical, biological, and radiological laboratories, including those in high schools, trade schools, colleges, universities, and research institutions.
 - c. Hospitals, clinics, medical buildings, autopsy facilities, morgues, other medical facilities, and mortuaries.
 - d. Commercial facilities that use herbicides, pesticides, fertilizers, or any chemical that could be a contaminant to the public water supply.
 - e. Commercial laundries and dye works, excluding coin-operated Laundromats.
 - f. Restricted or classified facilities (federal government defense or military installations), or other facilities closed to the supplier of water or to the commissioner.
- 3. Commercial Customers
 - a. Any other commercial facilities which are not specifically listed herein.
- 4. Other Required Customers
 - a. All customers with land irrigation systems, including residential. Either a pressure type vacuum breaker or a reduced pressure principle backflow preventer can be used for cross-connection control.
 - b. All customers with fire service lines. Double check detector assembly should be used for cross-connection control.
 - c. Waterfront facilities, including piers, docks, marinas, and shipyards.

4.3 Installation Procedures

- 1. The customer is to install the proper backflow prevention assembly, as required.
- 2. The customer is to have the assembly inspected by a certified tester for compliance.
- 3. The customer is to pay applicable fees for inspection, testing, and submittal of results by the tester to FWW.
- 4. When the assembly meets all requirements, FWW will activate the water service.

4.4 Installation Requirements

- 1. Installation of backflow prevention devices must be in accordance with the 2016 Indiana Plumbing Code, Rule 327 IAC 8-10, and manufacturer's specifications.
- 2. Installation must be on the customer's private property between the water meter and the first downstream connection. See typical detail in **Appendix B**.
- 3. The assembly must be installed in a sturdy manner and be accessible for maintenance and testing from floor level without use of a ladder or similar temporary apparatus.
- 4. Install the assembly three (3) feet above the ground and protect from freezing. This does not apply to residential irrigation installations.
- 5. The installation of a backflow prevention assembly may create a closed system, and as a result thermal expansion may occur. Under such circumstance, the customer must understand and assume all liability and responsibilities for that event.

4.5 Installation Timelines

1. Industrial
 - a. All industrial customers, as described in 4.2 above, shall install and implement a backflow prevention assembly no later than July 1, 2020.
2. Commercial Customers with Cross-Connection Hazards
 - a. All commercial customers with cross-connection hazards and other required customers, as described in 4.2 above, shall install and implement a backflow prevention assembly no later than January 1, 2021.
3. Commercial Customers
 - a. All commercial customers which are not classified as an industrial customer, a commercial customer with a cross-connection hazard, or an other required customer, as described in 4.2 above, in existence as of January 1, 2021 shall not be required to install a backflow prevention assembly, excepted as provided herein.
 - b. Beginning on January 1, 2021, at such time as a commercial customer which is not classified as a an industrial customer, a commercial customer with a cross-connection hazard, or an other required customer, as described in 4.2 above, provides improvements to its building requiring a building permit, the commercial customer shall install a backflow prevention assembly prior to approval of completion of the improvement by the building inspector.
 - c. Any commercial customer which is not classified as an industrial customer, a commercial customer with a cross-connection hazard, or an other required customer, as described in 4.2 above, which connects to the FWW water supply after January 1, 2021, or comes into existence after January 1, 2021, shall install a backflow prevention assembly prior to connection.
 - d. At such time as any commercial customer which is not classified as an industrial customer, a commercial customer with a cross-connection hazard, or an other required customer, as described in 4.2 above, is disconnected from the FWW water supply, that user shall install a backflow prevention assembly prior to reconnection.
 - e. At any time, if FWW deems that a backflow prevention assembly is required of a commercial customer which is not classified as an industrial customer, a commercial customer with a cross-connection hazard, or an other required customer, as described in 4.2 above, the commercial customer shall receive notice from FWW detailing the timeframe by which the commercial customer must be in compliance and the commercial customer shall install and implement a backflow prevention assembly within the allotted timeframe.

4.6 Residential

Backflow prevention devices are not required for domestic water service to a residence, unless deemed necessary by FWW or as provided herein.

4.7 Commercial and Industrial

Backflow prevention devices are required per facility type identified in Part 4.2 above.

4.8 Bulk Water Customers

1. Any customer who purchases bulk water from FWW must have installed and implemented an approved air gap on each piece of equipment, including but not limited to vehicles, trailers, etc., which shall connect to FWW's water supply.
2. To qualify as an approved air gap, an air gap, as defined in United States Code and Indiana Plumbing Code, should be twice the diameter of the effective opening of the supply pipe. In no case shall the gap be less than one inch.
3. Each bulk water customer shall request and receive an application for a permit from FWW prior to connection and shall notify FWW of each piece of equipment which may be connected to the water supply.
4. FWW shall have the right to inspect each piece of equipment's approved air gap prior to connection.
5. FWW reserves the right to refuse service to any bulk water customer who fails to comply with approved air gap requirements herein.
6. Each piece of equipment which may be connected to the water supply shall be inspected at least annually by FWW.

4.9 Non-compliance

1. Any customer who is required to install and implement a backflow prevention assembly or an approved air gap and fails to do so shall be disconnected from the FWW water supply until such time as a backflow prevention assembly or approved air gap is properly installed and implemented. A customer in non-compliance shall be notified five (5) business days prior to any disconnection.
2. If it is deemed by FWW that the cross-connection or an emergency endangers the public health, safety, or welfare and requires immediate action, a written finding to that effect will be filed with the clerk-treasurer of the City of Frankfort, Indiana, and delivered to the customer's premises and service may be immediately disconnected. The customer shall have an opportunity for hearing within ten (10) days of such emergency disconnection.
3. Any customer who is in non-compliance shall also be subject to a fine of not more than Seven Hundred Fifty and 00/100 Dollars (\$750.00).

4.10 Fire Protection

All unmetered fire sprinkler systems without any means of back pressure, booster facilities, or chemical additives must have a double check-detector check valve assembly as a minimum containment device.

All unmetered fire sprinkler systems with means of back pressure, booster facility, fire department connection, or chemical additives must have a reduced pressure principle-detector assembly as a minimum containment device.

Fire lines are not to be used for any purpose other than fire suppression without written agreement with FWW.

4.11 Fire Hydrants

All private fire hydrants shall be painted red in color.

Owners of private fire hydrants shall cause his or her hydrant(s) to be painted red in color on or before July 1, 2020, at his or her own expense.

If an owner of a private fire hydrant fails to cause his or her hydrant to be painted red in color by July 1, 2020, he or she shall allow FWW or its representative to enter his or her property and paint his or her fire hydrant red. The expenses associated with painting the hydrant red shall be billed back to the owner of the private fire hydrant.

All fire hydrants, whether privately owned or publicly owned, installed after January 1, 2020, shall have Storz Fitting installed.

4.12 Irrigation Systems

All new in-ground irrigation systems that are connected to the FWW system are required to have a separate meter and an above-ground reduced pressure principle backflow preventer with an approved enclosure, such as a Hot Box. This requirement is in accordance with the American Water Works Association (M14) and Standard Plumbing Code recommendations.

All existing lawn irrigation systems that have a double check valve assembly must remove the device and replace with a reduced pressure principle breaker or a pressure type vacuum breaker, as specified in Part 4.5 above.

5.0 ANNUAL INSPECTION, TESTING, RECORD KEEPING

5.1 Frequency of Inspection

It shall be the duty of the customer where backflow prevention assemblies are installed to have certified inspections and operational tests made at least once per year. In those instances, where FWW deems the hazard to be great enough, certified inspections may be required at more frequent intervals.

5.2 Cost

The inspection and testing of devices shall be at the expense of the customer and performed by a certified tester, or by the device manufacturer's certified representative approved by FWW. A current list of certified backflow prevention testers in the State of Indiana can be obtained by contacting IDEM or through the Indiana Professional Licensing Agency.

Whenever said assemblies are found to be defective, customer shall be responsible for the cost of repair, overhaul, or replacement.

5.3 Testing by Utility

FWW reserves the right to interrupt water service for testing the backflow prevention assembly. When it is not possible to interrupt water service, the customer shall provide for the parallel installation of an approved backflow prevention assembly. FWW will not accept an unprotected bypass around a backflow preventer.

Authorized representatives of the FWW shall have the right to enter upon the premises of the customers at all reasonable times for inspecting cross-connection control devices.

6.0 NOTIFICATION BY CUSTOMER

6.1 Testing

The customer shall notify FWW in advance when the tests are to be undertaken so that an official representative may witness the test if so desired. On behalf of the customer, a certified tester shall complete and electronically submit the test report to an online cross-connection control software program utilized by the water utility. The customer is responsible for all fees associated with the test report submittal. Customer will have electronic access to records of tests, repairs, and overhaul.

6.2 Contamination

In the event the customer's private water system becomes contaminated or polluted the customer shall notify FWW immediately.

6.3 Known Backflow

In the event a customer has reason to believe that a backflow has occurred between the customer's private water system and the public water system, the customer must notify FWW immediately in order so that appropriate measures may be taken to isolate and remove the contamination.

6.4 Modifications to Backflow Configuration

Any customer making any modification to the private system's configuration may change the degree of hazard, and shall notify FWW before any modification is made. If FWW determines that such modification requires a different backflow prevention assembly, that assembly must be installed before the modification is made.

7.0 NOTIFICATION BY UTILITY

7.1 Passing of Test

After testing is complete, the customer will be notified by the tester of the passing test and a copy of the test results should be mailed to the customer. The tester will submit the results through the online website of the water utility's backflow prevention software manufacturer.

7.2 Failure of Test

In the event the backflow prevention assembly fails, the tester will notify the customer of the failed test and work with the customer to repair the issue and retest for compliance. The tester will submit the results through the online website of the water utility's backflow prevention software manufacturer.

7.3 Non-Compliance

If a customer fails to have the assembly tested, repaired or replaced, the customer will receive a notice of violation. The violation may deny or immediately discontinue water service to the customer by providing for a physical break in the service line if a backflow prevention assembly is not installed, tested and maintained immediately. If it is found that a backflow prevention assembly has been knowingly been removed or bypassed, water service will be discontinued until the assembly is re-installed and tested.

8.0 ACCEPTABLE CONFIGURATIONS

Backflow prevention devices shall be as approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (USC) or the Indiana Plumbing Code.

A detail of a typical backflow prevention assembly can be found in **Appendix B**.

List of Approved Backflow Prevention Assemblies can be found at the following link:
<http://fccchr.usc.edu/list.html>