

BILL NO. G-18-03-11

GENERAL ORDINANCE NO. G-_____

**AN ORDINANCE ADDING A NEW SECTION TITLED
"CROSS-CONNECTION CONTROL AND BACKFLOW PREVENTION" TO
CHAPTER 52: WATER AND WATERCOURSES OF
THE FORT WAYNE CODE OF ORDINANCES**

WHEREAS, the City of Fort Wayne ("City") operates a water filtration plant to supply potable water to its citizens; and

WHEREAS, cross connections and backflow pose a threat to citizens by enabling contaminants to enter into the public water supply; and

WHEREAS, 675 IAC 16-1.4, as adopted by the Indiana Fire Prevention and Building Safety Commission, requires protection of the public water supply from contaminants due to backflow; and

WHEREAS, 327 IAC 8-10 prohibits water customers from making cross connections; and

WHEREAS, the Indiana Department of Environmental Management authorizes municipalities to establish a continuing program of cross-connection control to systematically and effectively prevent the contamination of the public water supply; and

WHEREAS, the City desires to adopt this Cross-Connection Control and Backflow Prevention ordinance as a complement to state regulations in order to ensure the safety of its residents.

**NOW THEREFORE BE IT ORDAINED BY THE COMMON
COUNCIL OF THE CITY OF FORT WAYNE, INDIANA:**

1 **SECTION 1.** That a new Section titled "CROSS-CONNECTION
2 CONTROL AND BACKFLOW PREVENTION" is added to Chapter 52: WATER
3 AND WATERCOURSES of the Fort Wayne Code of Ordinances, as follows:

4 **Cross-Connection Control and Backflow Prevention**

5 **§ 52.30 GENERAL PROVISIONS**

6 **(A) Purpose.**

7 (1) To provide for the protection of the public potable water system from
8 the possibility of contamination or pollution by isolating within its water
9 customers' private water systems any contaminants or pollutants which
10 could, under adverse conditions, backflow into the public potable water
11 system.

12 (2) To provide for the maintenance of a continuing program of cross-
13 connection control which will, effectively, prevent or control existing or
14 potential cross connections.

15 **(B) Authority.**

16 (1) The Utility has the responsibility to supply safe, potable water to the
17 point of delivery from the public potable water system to the water
18 customer's service line. The Utility, therefore, has the authority to prevent, by
19 appropriate means, the backflow of contaminated or polluted water or any
20 other foreign substance from entering the public potable water system and to
21 require certain backflow prevention assemblies in private customer water
22 systems to prevent backflow into the public potable water system.

23 (2) Public Health agencies have the overall responsibility to protect the
24 health of individuals within their jurisdiction. Therefore, relevant regulations
25 have been promulgated, empowering the health agency to eliminate
26 dangerous plumbing or piping.

27 (3) Water customers have the responsibility to test and maintain their
28 respective private customer water systems free of cross connections and to
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1 comply with all Federal, State, County and City laws, ordinances and
2 regulations pertaining to cross connections.

3 (4) The Utility shall be the interpreter of this chapter and the arbiter and
4 judge as to whether a backflow prevention assembly is required. If such a
5 backflow prevention assembly is required, the Utility shall determine the type
6 and the location of the assembly.

7 (5) This chapter is intended to supplement the Indiana Plumbing Code,
8 675 IAC 16-1.4 and 327 IAC 8-10 and shall not be construed to supersede
9 any of the foregoing provisions.

10 (C) **Policy.** The policy of the Utility is to control backflow by containment of
11 all cross connections which shall be found to exist or which may be installed
12 in the future on private customer water systems. Containment shall be
13 achieved by:

14 (1) Assuring that the customer water system, or any portion thereof,
15 which may create or is causing backflow, is physically disconnected from the
16 public potable water system; or by

17 (2) Installing an approved backflow prevention assembly at the
18 appropriate location to isolate said customer water system from the public
19 potable water system.

20 (D) **Definitions.** As used in this chapter, the following terms have the
21 following meanings:

22 (1) **Air Gap** means an unobstructed vertical distance through atmosphere
23 between the discharge end of a pipeline supplied from a public water supply
24 and the overflow rim of the receiving portion of the customer water system.

25 (2) **Approved Backflow Prevention Assembly** means an assembly that
26 is in accordance with 327 IAC 8-10-7(b).

27 (3) **Backflow** means the flow of water or contaminants into the public
28 potable water system from a source other than the public water supply.

29 (4) **Cross Connection** means any physical arrangement, including cross
30 connection control devices not in working order, whereby the public potable

1 water system is directly connected, either continuously or intermittently, with
2 any secondary source of supply, sewer, drain, conduit, pool, piping, storage
3 reservoir, plumbing fixture, or other device that contains, or may contain, and
4 is capable of imparting to the public water supply, contaminants,
5 contaminated water, sewage, or other waste or liquid of unknown or unsafe
6 quality.

7 (5) **Cross Connection Control Device Inspector** means a person that
8 meets the definition of 327 IAC 8-10-1(8).

9 (6) **Containment** means a method of backflow prevention which requires
10 an approved backflow prevention assembly at the water service entrance.

11 (7) **Customer Water System** means all piping, fixtures, and
12 appurtenances, including secondary sources of supply, used by a customer to
13 convey water on his or her premises.

14 (8) **Degree of Hazard (Pollutant or Contaminant)** means either a "low
15 hazard pollutant" which is only aesthetically objectionable (i.e., unusual taste,
16 odor, beverages, etc.) or a "high hazard contaminant" that could cause illness
17 or death if ingested (i.e., bacteriological, toxic chemicals, radioactive
18 materials, etc.).

19 (9) **Double Check Valve Assembly** means a device or assembly
20 composed of two (2) tightly closing shutoff valves surrounding two (2)
21 independently acting check valves, with four (4) test cocks, one (1) upstream
22 of the four (4) valves and one (1) between each of the four (4) check and
23 shutoff valves.

24 (10) **Health Agency** means the health authority having jurisdiction;
25 Federal, State or local.

26 (11) **Point of Delivery** (see Service Connection).

27 (12) **Private Fire Service** refers to a privately owned arrangement of
28 pipes, fixtures and devices installed for the purpose of providing fire
29 protection/suppression service at a private property over and above that
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1 provided by the public fire protection system, from which water is taken only
2 for the extinguishment of fires.

3 (13) **Public Potable Water System** means a public water supply for the
4 provision to the public of water for human consumption through pipes or
5 other constructed conveyances.

6 (14) **Reduced Pressure Principle Backflow Preventer** means a device
7 composed of two (2) tightly closing shutoff valves surrounding two (2)
8 independently acting pressure reducing check valves that, in turn, surround
9 an automatic pressure differential relief valve, and four (4) test cocks, one (1)
10 upstream of the five (5) valves and one (1) between each of the four (4) check
11 and shutoff valves. The check valves effectively divide the structure into
12 three (3) chambers. Pressure is reduced in each downstream chamber
13 allowing the pressure differential relief valve to vent the center chamber to
14 atmosphere should either or both check valves malfunction.

15 (15) **Service Connection** means the terminal end of a service connection
16 from the public potable water system, i.e., where the Utility loses jurisdiction
17 and sanitary control over the water at its point of delivery to the customer
18 water system.

19 (16) **Testing Results** means the results of inspections or tests conducted
20 pursuant to section 327 IAC 8-10-8(b) on air gaps, reduced pressure principle
21 back-flow preventers, double check valve assemblies, and pressure vacuum
22 breakers.

23 (17) **Temporary Water Service** means water service supplied through a
24 fire hydrant for short-term use, typically for construction projects or other
25 special purposes (excluding preparation of food and drink for human
26 consumption), for which a mobile or stationary meter is required.

27 (18) **Utility** means Fort Wayne City Utilities, operator of the City of Fort
28 Wayne's public potable water system.

29 (19) **Water Customer** means any person who receives water from the
30 City of Fort Wayne.

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2 **§ 52.31 BACKFLOW PREVENTION REQUIRED**

3 Backflow prevention is required when one or more of the following situations
4 apply:

5 (A) By Order of the Indiana Department of Environmental Management in
6 accordance with 327 IAC 8-10-4(d).

7 (B) By order of the Utility, provided that notice is given that specifies the
8 nature of the customer activity that necessitates designation of the facility as
9 a cross-connection hazard and a date by which the facility must comply with
10 the order.

11 (C) For new construction of any of the following types of facilities:

12 (1) Facilities that present a cross-connection hazard as designated in
13 Section 52.32(A)(7);

14 (2) Proposed facilities with unknown tenants, commonly known as “spec
15 buildings”;

16 (3) Facilities that plan to use carbonated fountain soft drink machines;

17 (4) Facilities with a secondary source of supply, including but not limited
18 to, emergency use, fire prevention, irrigation, or economics; or

19 (5) Facilities that plan to use fire protection service lines in the facility.

20 (D) For existing facilities proposing the following types of modifications:

21 (1) Installation of a new customer service line if the facility is one of the
22 types of facilities identified in Section 52.31(C);

23 (2) Modifications to a facility’s customer service line if the facility is one
24 of the types of facilities identified in Section 52.31(C); or

25 (3) Modifications involving the installation of additional or larger
26 capacity meters if the facility is one of the types of facilities identified in
27 52.31(C).

28 (E) For any existing facility with a cross connection.

29 (F) For any use of temporary water service.
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1 **§ 52.32 INSTALLATION, TESTING, REPORTING, AND ACCESS**

2 **(A) Installation of Approved Backflow Prevention Assemblies.**

3 (1) *Use of Backflow Prevention Assembly.* When backflow prevention is
4 required as set forth in Section 52.31, the water customer shall install, at the
5 water customer's expense, an approved backflow prevention assembly that is
6 in accordance with 327 IAC 8-10-7 and provides protection commensurate
7 with the degree of hazard, hydraulic conditions, and is appropriate with the
8 length of time the backflow prevention assembly is subject to be under
9 pressure.

10 (2) *Location.* The backflow prevention assembly shall be located
11 immediately downstream of the water meter and shall not be bypassed by any
12 means. There shall be no taps upstream of the backflow prevention assembly
13 that are not protected by additional backflow prevention assemblies. The
14 existence of backflow prevention assemblies on the water customer's
15 premises other than at this required location shall not negate the requirement
16 at this location. Exact installation, alignment and elevation requirements shall
17 be determined by reference to 327 IAC 8-10-7 and other applicable state and
18 local regulations.

19 (3) *Uninterrupted service.* Water customers needing continuous service
20 that cannot be interrupted for testing the backflow prevention assembly shall
21 install dual backflow prevention assemblies in parallel so that they can be
22 checked separately.

23 (4) *Looped taps.* Heat exchange loops intentionally returning water to the
24 public potable water system shall not be allowed. Any other loop or set of
25 taps into a private customer water system allowing water to return to the
26 public potable water system shall require approved backflow prevention
27 assemblies on all taps.

28 (5) *Private Fire Service.* No connection shall be made to any fire hydrant
29 or private fire service without an approved backflow prevention assembly.
30 Private fire service that is permanent in nature shall incorporate a double

1 check valve assembly in one hundred-percent water systems or a reduced
2 pressure principle backflow preventer in chemical systems. Where domestic
3 service is tapped into a private fire service, the domestic tap shall be subject
4 to all the provisions of this chapter.

5 (6) *Pre-existing facilities.* In general, pre-existing backflow preventers
6 will not be allowed simply because they were approved before the enactment
7 of this chapter. The Utility will review the operation and hazard of each
8 facility with backflow preventers and determine acceptability based on
9 operability and present hazard. If the backflow preventers are found
10 unacceptable, they shall be replaced with an approved backflow prevention
11 assembly, at the water customer's expense, in accordance with this chapter.
12 Pre-existing facilities that have no backflow prevention assembly and where
13 there is a definite present hazard shall be required to install an approved
14 backflow prevention assembly, regardless of whether their plumbing system
15 was previously approved by the City.

16 (7) *Reduced Pressure Principle Backflow Preventer Required.* A reduced
17 pressure principle backflow preventer shall be required for the following
18 designated cross-connection hazards:

19 (a) Aircraft and missile manufacturing plants.

20 (b) Automotive plants, including those plants that manufacture
21 motorcycles, automobiles, trucks, recreational vehicles, and construction
22 and agricultural equipment.

23 (c) Beverage bottling plants, including dairies and breweries.

24 (d) Canneries, packing houses, and reduction plants.

25 (e) Car washes.

26 (f) Chemical, biological, and radiological laboratories, including those
27 in high schools, trade schools, colleges, universities, and research
28 institutions.

29 (g) Hospitals, clinics, medical buildings, autopsy facilities, morgues,
30 other medical facilities, and mortuaries.

1 (h) Metal and plastic manufacturing, fabricating, cleaning, plating,
2 and processing facilities.

3 (i) Plants manufacturing paper and paper products.

4 (j) Plants manufacturing, refining, compounding, or processing
5 fertilizer, film, herbicides, natural or synthetic rubber, pesticides,
6 petroleum or petroleum products, pharmaceuticals, radiological materials,
7 or any chemical that could be a contaminant to the public water supply.

8 (k) Commercial facilities that use herbicides, pesticides, fertilizers, or
9 any chemical that could be a contaminant to the public water supply.

10 (l) Plants processing, blending, or refining animal, vegetable, or
11 mineral oils.

12 (m) Commercial laundries and dye works, excluding coin-operated
13 laundromats.

14 (n) Sewage, storm water, and industrial waste treatment plants and
15 pumping stations.

16 (o) Waterfront facilities, including piers, docks, marinas, and
17 shipyards.

18 (p) Industrial facilities that recycle water.

19 (q) Restricted or classified facilities (federal government defense or
20 military installations), or other facilities closed to the supplier of water or
21 to the commissioner.

22 (r) Any other commercial or industrial facility that is deemed by the
23 Utility to pose a contamination hazard.

24 (B) **Testing Intervals.** The water customer shall have its backflow
25 prevention assembly(ies) tested by a cross connection control device
26 inspector at intervals in accordance with 327 IAC 8-10-8 at the water
27 customer's expense.

28 (C) **Reporting Requirements.** Cross connection control device inspectors
29 shall submit the backflow assembly testing result and assembly repair and/or
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1 overhaul reports to the Utility pursuant to procedures required by the Utility
2 within ten (10) calendar days after the test has been completed.

3 (D) **Access.** Any water customer or owner of a private customer water
4 system shall allow access to the customer's facilities for inspection of the
5 customer water system and for testing of any backflow prevention assembly.
6 If access for inspection is denied for any reason, a maximum hazard shall be
7 assumed requiring a reduced pressure backflow prevention assembly.

8 **§52.33 TEMPORARY WATER SERVICE**

9 (A) With the prior consent of the Utility, a water customer may receive
10 temporary water service.

11 (B) The water customer shall ensure that all temporary water services the
12 water customer receives are metered, unless otherwise approved by the
13 Utility, and that an air gap meeting the requirements of 327 IAC 8-10-7(a) or
14 a reduced pressure principle backflow preventer is in place whenever
15 temporary water service is used.

16 (C) The water customer may rent a meter for temporary water service from
17 the Utility and pay a fee as set forth in the Utility's schedule of non-recurring
18 rates and charges. The water customer may be required to submit a deposit
19 for the meter at the Utility's discretion.

20 (D) Any approved backflow prevention assembly shall be provided at the
21 water customer's sole expense and shall at all times remain the property of
22 the water customer. It is the water customer's responsibility to ensure the
23 approved backflow prevention assembly is in working order at all times
24 temporary water service is being used.

25 (E) If an air gap is used for backflow prevention, it is the water customer's
26 responsibility to ensure that the air gap meets the requirements of 327 IAC 8-
27 10-7(a).

28 (F) Failure to comply with the provisions of this section shall subject the
29 water customer to enforcement procedures outlined in section 52.34.
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2 **§52.34 ENFORCEMENT OF §§ 52.30, 52.31, 52.32, AND 52.33**

3 (A) **Disconnection of Water Service.** Service of water to any customer
4 water system or any temporary water service connection shall be
5 discontinued by the Utility if one or more of the following occurs:

6 (1) It is found that an approved backflow prevention assembly required
7 by this chapter is not installed, tested, maintained and reported appropriately,
8 or if it is found that a backflow prevention assembly has been removed or by-
9 passed on a customer water system connected to the public potable water
10 system, or if an unprotected cross connection exists on the premises. Service
will not be restored until such conditions are corrected.

11 (2) It is found that the water customer or the customer water system,
12 intentionally or unintentionally, is in violation of any other part of §§52.30,
13 52.31, 52.32, or 52.33.

14 (B) **Procedure.**

15 (1) A written notice will be sent by certified mail to the water customer
16 stating the specific violation, the recommended action, the time by which
17 the violation must be cured, and the penalty for failing to cure such
18 violation. The notice also will inform the water customer of the customer's
right to administrative review of the specific alleged violation.

19 (2) When the water customer has been provided with both the notice of
20 noncompliance and fails to cure the same as provided in the written notice,
21 service to the water customer will be discontinued.

22 (3) Discontinued service will consist of closing the control valve to or
23 separating the control valve from the customer water system, or fire hydrant
24 in the case of temporary water service, and the water customer will incur the
25 standard monetary penalties for delinquent water shut-off. The Utility will
26 not restore service to the water customer until the Utility has determined that
the water customer is in compliance with the provisions of this chapter.

1 (C) **Testing Results Reporting Rejections.** If it is found that a cross
2 connection control device inspector is in violation of any part of this chapter
3 or 327 IAC 8-10, the Utility reserves the right to discontinue accepting
4 backflow prevention assembly testing results and assembly repair and/or
5 overhaul reports in any format performed by the cross connection control
6 device inspector found in violation at the discretion of the Utility for a
7 duration of time determined by the Utility.

8 **SECTION 2.** That the City is directed to take all action necessary and
9 proper for the implementation of this Ordinance.

10 **SECTION 3.** That this Ordinance shall be effective after passage and any
11 necessary approval by the Mayor.

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14 _____
Council Member

15 APPROVED AS TO FORM AND LEGALITY:

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18 _____
Carol Helton