

**ORDINANCE 18-27**

**TO AMEND TITLE 9  
OF THE BLOOMINGTON MUNICIPAL CODE ENTITLED "WATER"  
(Adding Chapter 9.24 - Standards for the Control of Backflow  
and Cross Connections)**

WHEREAS, the City of Bloomington, Indiana ("City") owns and operates a waterworks system, through its Utilities Service Board, pursuant to IC 8-1.5-2 and IC 8-1.5-3, as amended ("Act"), which waterworks system is subject to the jurisdiction of the Indiana Utility Regulatory commission ("Commission"); and,

WHEREAS, the Indiana Department of Environmental Management and Indiana Plumbing Code require public water supply be protected from contaminants and pollutants entering the public water supply by requiring customer of public water utilities to install and maintain backflow preventers between the customer water system and the public water system; and

WHEREAS, currently, the City has over 3,000 known backflow devices on the public water system and there is no oversight of those devices; and

WHEREAS, the Indiana Department of Environmental Management recommends adoption of standards for the control of backflow and cross connections in order to effectively oversee the installation and maintenance of backflow devices; and

WHEREAS, the City, through its Utilities Service Board, recommends imposition of necessary enforcement mechanisms to ensure protection of the City water distribution system against backflow and cross connection; and

WHEREAS, the Council finds that the implementation of a backflow prevention and cross connection program will protect the health and safety of citizens of the City of Bloomington by better protecting the public water supply from contamination.

NOW, THEREFORE, BE IT ORDAINED BY THE COMMON COUNCIL OF THE CITY OF BLOOMINGTON, MONROE COUNTY, INDIANA, THAT:

SECTION 1. Chapter 9.24 shall be added to Title 9 of the Bloomington Municipal Code, with the heading entered into the Table Contents for Title 9, and shall read as follows:

**Chapter 9.24 STANDARDS FOR THE CONTROL OF BACKFLOW AND CROSS CONNECTIONS**

Sections:

- 9.24.010 Purpose and authority
- 9.24.020 Responsibility
- 9.24.030 Definitions
- 9.24.040 Administration
- 9.24.050 Requirements and policy
- 9.24.060 Admission to property
- 9.24.070 Enforcement procedures
- 9.24.080 Exemptions
- 9.24.090 Right to appeal

**9.24.010 Purpose and authority**

This chapter sets forth uniform requirements for users of the City of Bloomington Utilities' public potable water distribution system and enables the city to comply with all applicable state and federal laws, including the Federal Safe Drinking Water Act of 1974 (42 USC 300), the Indiana Administrative Code (IAC) 327 Section 8 Rule 10, and City of Bloomington Rules, Regulations and Standards of Service Section 17. The objectives of this chapter are:

- (a) To protect the City of Bloomington Utilities' public potable water supply from the possibility of contamination or pollution by isolating within the Customer's internal distribution system(s) or the Customer's private water system(s) such contaminants or pollutants which could backflow into the public water system;
- (b) To promote the elimination or control of existing cross connections, actual or potential, between the Customer's internal potable water system(s) and non-potable water system(s), plumbing fixtures and industrial piping systems;
- (c) To provide for the maintenance of a continuing Backflow Prevention Program of Cross Connection Control which will systematically and effectively prevent the contamination or pollution of all City of Bloomington Utilities' public potable water systems.

This chapter shall apply to all users of the City of Bloomington Utilities' public potable water distribution system. The chapter provides for monitoring, compliance, and enforcement activities; requires user testing and reporting; and establishes administrative review procedures.

#### **9.24.020 Responsibility**

The Utilities Director shall be responsible for the protection of the City of Bloomington Utilities' public potable water distribution system from contamination or pollution due to the backflow of contaminants or pollutants through the water service connection. If, in the judgment of the Utilities Director an approved backflow prevention assembly is required at the Customer's water service connection for the safety of the water system, the Utilities Director, or his designated agent, shall give notice to said Customer to install an approved backflow prevention assembly(s) at each service connection on his premises. The Customer shall immediately install such an approved backflow prevention assembly(s) at the Customer's own expense; and, failure, refusal or inability on the part of the Customer to install, have tested and maintained said assembly(s), shall constitute grounds for penalties and fees, including discontinuing water service to the premises until such requirements have been satisfactorily met.

#### **9.24.030 Definitions**

As used in this chapter, the following words have the following meanings unless otherwise designated. Where words are not defined, they shall have the meanings provided in the City of Bloomington Utilities' "Rules, Regulations and Standards of Service."

"Approved" means accepted by the Utilities Director as meeting an applicable specification stated or cited in this chapter, or as suitable for the proposed use.

"Approval authority" means the Indiana Department of Environmental Management.

"Approved Backflow Prevention Assembly" shall mean an assembly that has been manufactured in full conformance with the standards established by the American Water Works Association entitled: AWWA/ANSI C510-2007 *Standard for Double Check Valve Backflow Prevention Assemblies*; AWWA/ANSI C511-2007 *Standard for Reduced Pressure Principle Backflow Prevention Assemblies*; and, have met completely the laboratory and field performance standard of the Foundation for Cross connection Control and Hydraulic Research of the University of Southern California (USC FCCCHR) established in: "Standards of Backflow Prevention Assemblies", Chapter 10 of the most current edition of the *Manual of Cross connection Control*.

"Backflow" means 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.

"Backflow Preventer or Backflow Prevention Device Assembly" means a device or means designed to prevent backflow or backsiphonage. Common backflow preventers include the following devices: air gap, reduced pressure principle device, double check valve assembly, pressure vacuum breaker, atmospheric vacuum breaker, hose bibb vacuum breaker, and barometric loop.

"City" or "CBU" means the City of Bloomington Utilities, Indiana, acting through its Utilities Service Board.

“Customer” means any person that receives water from City of Bloomington Utilities’ public water supply.

“Cross Connection” means any physical arrangement, including cross connection control devices not in working order, whereby a public water supply distribution system is directly connected, either continuously or intermittently, with any secondary source of supply, sewer, drain, conduit, pool, piping, storage reservoir, plumbing fixture, or other device that contains, or may contain, and is capable of imparting to the public water supply, contaminants, contaminated water, sewage, or other waste or liquid of unknown or unsafe quality. Fire line usage other than for fire suppression or testing shall be considered a cross connection unless determined otherwise.

“Commission” means the Indiana Department of Environmental Management.

“Customer’s water system” shall include those parts of the facilities beyond the termination of CBU’s distribution system which are utilized in conveying potable water to points of use.

“Director” means the Director of the Utility or any duly authorized representative acting on behalf of the Director.

“Distribution system” shall include the network of conduits used for the delivery of water from the source to the Customer’s system including pumps, storage tanks, and appurtenances.

"Person" means any individual, association, organization, partnership, firm, corporation or other entity recognized by law and acting as either the owner or as the owner's agent.

“Potable water” means a source of drinking water, as certified by the Approval Authority in accordance with state and federal regulations, which has been approved for human consumption.

“Premises” means a building, complex, golf course, median, or any other location that receives water provided by the City of Bloomington Utilities.

“Public potable water system” means a public water supply for the provision to the public of water for human consumption through pipes or other construed conveyances, if the system has at least 15 service connections or regularly serves at least 25 individuals daily at least 60 days per year. The term includes any collection, treatment, storage, and distribution facilities under control of the operator of the system and any collection or pretreatment storage facilities not under the operator’s control but that are used primarily in connection with the system.

“Remodeled” means replacing and/or rearranging the Customer’s water system

“Source” shall include all components of the facilities utilized in the production, treatment, storage, and delivery of water to the distribution system.

“User” means any person that receives water from a public potable water supply.

"Utility" means the City of Bloomington Utilities comprised of water, wastewater and stormwater utilities.

“Water Supplier’s System” shall consist of the source facilities and the distribution system; and shall include all those facilities of the water system under the complete control of the Utility, up to the point where the Customer’s system begins.

#### **9.24.040 Administration**

The Utility will operate a cross connection control program, to include the keeping of necessary records, which fulfills the requirements of the Indiana Department of Environmental Management’s, Cross Connection Control Regulations, Indiana Administrative Code (IAC) 327 Section 8 Rule 10, and City of Bloomington Rules, Regulations and Standards of Service Section 17.

Except as otherwise provided herein, the Utilities Director shall administer, implement, and enforce the provisions of this chapter. Any powers granted to or duties imposed upon the Utilities Director may be delegated by the Utilities Director to a duly authorized city employee.

Customers shall allow their property to be inspected for possible cross connections and shall follow the provisions of the Utility's program and the Indiana Department of Environmental Management's Regulations if a cross connection is permitted.

**9.24.050 Requirements and policy**

- (a) No new or existing water service connection to any premises shall be installed or maintained unless the water supply is protected as required by City of Bloomington laws and regulations and this Chapter. Service of water to any premises shall be discontinued by CBU if a backflow prevention assembly required by this Chapter 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 Customer's system shall be open for inspection or testing of cross connection control devices at all times to authorized representatives of CBU to determine whether unprotected cross connections or other structural or sanitary hazards, including violations of these regulations, exist. When such a condition becomes known, the Director may deny or immediately discontinue service to the premises by providing for a physical break in the service line until the Customer has corrected the condition(s) in conformance with the City of Bloomington statutes relating to plumbing and water supplies and the regulations adopted pursuant thereto.
  
- (c) An approved backflow prevention assembly shall also be installed on each service line to a Customer's water system after the water meter and immediately inside the building being served, before the first branch line leading off the service line, wherever the following conditions exist:
  - (1) In the case of premises having an auxiliary water supply which is not or may not be of safe bacteriological or chemical quality and which is not acceptable as an additional source by the Director, the public water system shall be protected against backflow from the premises by installing an approved backflow prevention assembly in the service line(s) commensurate with the degree of hazard.
  
  - (2) In the case of premises that are designated cross connection hazards on which any industrial fluids or any other objectionable substance is handled in such a fashion as to create an actual or potential hazard to the public water system, the public system shall be protected against backflow from the premises by installing an approved backflow prevention assembly in the service line(s) commensurate with the degree of hazard. This shall include the handling of process waters and waters originating from CBU's system which have been subject to deterioration in quality.
  
  - (3) In the case of premises having internal cross connections that cannot be permanently corrected or protected against, or intricate plumbing and piping arrangements, or where entry to all portions of the premises is not readily accessible for inspection purposes, making it impracticable or impossible to ascertain whether or not dangerous cross connections exist, the public water system shall be protected against backflow from the premises by installing an approved backflow prevention assembly in the service line(s).
  
  - (4) In the case of premises where a cross connection has resulted in a contaminant being introduced into a public or Customer water system, the public water system shall be protected against backflow from the premises by installing an approved backflow prevention assembly in the service line(s).
  
  - (5) In the case of premises that have a land irrigation facility buried below ground that has a sprinkler outlet located less than 6 inches above grade, the public water supply shall be protected by installing an approved backflow prevention assembly in the service line.
  
  - (6) In the case of hydrant usage other than firefighting or flushing, the public water supply shall be protected by installing an approved backflow prevention assembly in the service line. Use of hydrants other than firefighting or flushing are prohibited, unless authorized by the Director.

- (d) The type of protective assembly required shall depend upon the degree of hazard which exists as follows:
- (1) In the case of any premises where there is an auxiliary water supply as stated in subsection (c)(1) of this section and it is not subject to any of the following rules, the public water system shall be protected by an approved air gap or an approved reduced pressure principle backflow prevention assembly. In the case of surface water auxiliary supply, the public water system must be protected by an approved air gap.
  - (2) In the case of any premises where there is water or substance that would be objectionable but not hazardous to health, if introduced into the public water system, the public water system shall be protected by an approved double check valve backflow prevention assembly as determined by CBU.
  - (3) In the case of any premises where there is any material dangerous to health, which is handled in such a fashion as to create an actual or potential hazard to the public water system, the public water system shall be protected by an approved air gap or an approved reduced pressure principle backflow prevention assembly.
  - (4) In the case of any premises where there are unprotected cross connections, either actual or potential, the public water system shall be protected by an approved air gap or an approved reduced pressure principle backflow prevention assembly at the service connection.
  - (5) In the case of any premises where, because of security requirements or other prohibitions or restrictions, it is impossible or impractical to make a complete in-plant cross connection survey, the public water system shall be protected against backflow from the premises by either an approved air gap or an approved reduced pressure principle backflow prevention assembly on each service line to the premises.
  - (6) In the case of any premises where there is an irrigation facility buried below ground that has a sprinkler outlet located less than six inches above grade, the public water supply shall be protected by an air gap, a pressure type vacuum breaker, or a reduced pressure principle backflow preventer on the service line to the premises.
  - (7) In the case of hydrant usage other than firefighting or flushing, the public water supply shall be protected by installing an air gap in the service line. Use of hydrants other than firefighting or flushing are prohibited, unless authorized by the Director.
- (e) Any backflow prevention assembly required herein shall be of a make, model and size approved by the Director and shall be installed in a location that allows access to the device for maintenance and testing from floor level without the use of a ladder. The device shall not be installed below ground grade level and must not be subject to flooding, excessive heat, or freezing temperatures.
- (f) It shall be the duty of the Customer at any premises where backflow prevention assemblies are installed to have a field test performed upon installation and thereafter at least once per calendar year. These tests shall be at the expense of the Customer and shall be performed by a cross connection control device inspector registered in the state of Indiana. These assemblies shall be repaired, overhauled or replaced at the expense of the Customer whenever said assemblies are found to be defective. Records of such tests, repairs and overhauls shall be kept for a minimum of three years and submitted as determined by the Director to CBU within 30 days of testing.
- (g) All presently installed backflow prevention assemblies, which do not meet the requirements of this section but were approved devices for the purposes described herein at the time of installation and which have been properly maintained, shall, except for the field testing and maintenance requirements, be excluded from the requirements of these rules so long as the Director is assured that they will satisfactorily protect the public water supply. The backflow prevention assembly shall be replaced by an approved backflow prevention assembly meeting the requirements of this section whenever:

- (1) The Customer service line is modified;
- (2) A higher capacity meter is installed;
- (3) The premises is remodeled;
- (4) The existing device is moved from the present location;
- (5) The existing device requires more than minimum maintenance;
- (6) The Director finds that the maintenance constitutes a hazard to health.

(h) The Director is authorized to make all necessary and reasonable rules and policies with respect to the enforcement of this ordinance.

**9.24.060 Admission to property**

Authorized personnel of the city shall have the right to enter upon all properties subject to this program, at all times and without prior notification, for the purpose of inspection, observation, or record review, as part of this chapter.

**9.24.070 Enforcement procedures**

In the event that any person violates any provision of this chapter, the Director shall implement the city's "Cross Connection Control Enforcement Response Plan" (ERP) which provides a range of enforcement responses available to the Director. The enforcement responses are based on the type and circumstances of the violation. The range of enforcement responses include telephone notice, site visit, notice of violation, agreed order, compliance schedule, administrative fine, or legal action. The Director shall choose the appropriate enforcement response.

**9.24.080 Exemptions**

Exemptions may be made at the Director's discretion.

**9.24.090 Right to appeal**

- (a) Any interested party may appeal any written order or ruling by the Director on any matter covered by this Chapter.
- (b) An appeal shall stay all enforcement activity pending issuance of the Utilities Service Board's written findings. This rule does not apply in any emergency situation.
- (c) All appeals shall include the following information:
  - (1) Appellant's name;
  - (2) Appellant's address;
  - (3) A copy of the Director's order or ruling being appealed; and
  - (4) Remedy being sought by appellant.
- (d) All appeals shall be delivered to the Utilities Service Board no later than fourteen days from receipt of the written order or ruling.
- (e) The matter shall be set for hearing either at a regular or special meeting of the Utilities Service Board.
- (f) The Utilities Service Board shall promptly issue its findings in writing. The decision of the Utilities Service Board shall be final.
- (g) Any appeal of the Utilities Service Board's final decision shall be filed with a court of competent jurisdiction no later than fourteen days from receipt of the Board's written findings.

SECTION 2. If any section, sentence, or provision of this ordinance or the application thereof to any person or circumstance shall be declared invalid, such invalidity shall not affect any of the other parts of this ordinance which can be given effect without the invalid part, and to this end the provisions of this ordinance are declared to be severable.

SECTION 3. This ordinance shall be in full force and effect upon its passage by the Common Council of the City of Bloomington, Monroe County, Indiana, and approval of the Mayor, and after any required waiting and/or notice periods under Indiana law.

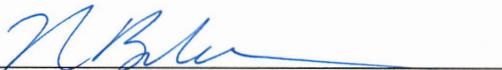
PASSED and ADOPTED by the Common Council of the City of Bloomington, Monroe County, Indiana, upon this 19<sup>th</sup> day of December, 2018.

  
DOROTHY GRANGER, President  
Bloomington Common Council

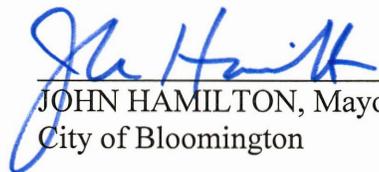
ATTEST:

  
NICOLE BOLDEN, Clerk  
City of Bloomington

PRESENTED by me to the Mayor of the City of Bloomington, Monroe County, Indiana, upon this 20<sup>th</sup> day of December, 2018.

  
NICOLE BOLDEN, Clerk  
City of Bloomington

SIGNED and APPROVED by me upon this 20<sup>th</sup> day of December, 2018.

  
JOHN HAMILTON, Mayor  
City of Bloomington

#### SYNOPSIS

This ordinance introduces a new chapter to Title 9 "Water". The new chapter seeks to reduce and/or eliminate unprotected cross connections and to better regulate installation and continued maintenance of backflow prevention devices all in an effort to better protect the public potable water supply.

*Note: On December 19, 2018, the Council adopted Am 01 to this ordinance which made minor changes to correct errors and omissions.*

Distributed to: Mayor, Clerk, Council Administrator, Legal, Controller, Utilities