

**ORDINANCE NO. 2009-14**

**AN ORDINANCE AMENDING THE MUNICIPAL CODE OF THE  
VILLAGE OF LAKE BLUFF REGARDING WATER REGULATIONS  
(CROSS CONNECTION PROGRAM)**

**WHEREAS**, the Village of Lake Bluff has adopted and enforces the Illinois Plumbing Code pursuant to Subsection 2901.1 of Section 4-1-3 of the Municipal Code of the Village of Lake Bluff ("**Municipal Code**") and the Village is engaged in the business of distributing, metering and billing for water as set forth in Chapter 1 of Title V of the Municipal Code; and,

**WHEREAS**, the Illinois Pollution Control Board regulations, 35 Ill. Adm. Code 607.104, et seq. requires an active program of cross-connection control which will prevent the contamination or pollution of all potable water supply systems by isolating, within the consumers' water system, contaminants and pollutants which could backflow through the service connection into the public water supply system; and,

**WHEREAS**, in order to accomplish these goals it is necessary to adopt regulations that describe in detail specific procedures and requirements for cross-connection control of the public water supply system and provide for the maintenance of a continuing program of cross connection control which will prevent the contamination or pollution of the public and consumer's potable water systems; and,

**WHEREAS**, Village staff recommends the adoption of the regulations set forth in this Ordinance to govern cross connections within the Village; and,

**WHEREAS**, the Village President and Board of Trustees have determined that it is in the best interests of the Village to amend certain provisions of the Municipal Code as set forth in this Ordinance.

**NOW, THEREFORE, BE IT ORDAINED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF LAKE BLUFF, LAKE COUNTY, ILLINOIS**, as follows:

**Section 1. Recitals.**

The foregoing recitals are incorporated herein as findings of the President and Board of Trustees.

**Section 2. Amendment to Section 5-1A-4.**

Section 5-1A-4, entitled "Village Powers," of Chapter 1, entitled "Water Regulations," of Title V, entitled "Public Ways and Property," of the Municipal Code of the Village of Lake Bluff, as amended, shall be and is hereby amended to hereafter be and read as follows:

"5-1C-11: VILLAGE POWERS:

A. Director of Public Works:

1. The Director of Public Works and his authorized agents shall have free access Monday thru Friday with appropriate authorization, between seven o'clock (7:00) A.M. and six o'clock (6:00) P.M. to all parts of every building or premises in which water is delivered and consumed, to examine the pipes and fixtures and to ascertain if there is any unnecessary waste of water, and to examine and read meters. In the event of the refusal of the owner or occupant of any such premises to allow such access and inspection, the Village shall have the right to seek a search warrant therefor.

2. All work done on the street and contemplated by this Chapter must be done under the supervision of the Director of Public Works, and subject to his direction and approval.

**B. Suspension or Limitation; Use of Water:**

The Village Administrator shall have the power to suspend or limit the use of water supplied by the Village water system as in his judgment the public exigency may require.

**C. Cross Connections:**

**The Village Administrator or his designee shall have the power to enforce the Village's cross connection regulations as set forth in Section 5-1C-11 of this Chapter."**

**Section 3. New Section 5-1C-11.**

Article C, entitled "Construction, Installations, and Connections," of Chapter 1, entitled "Water Regulations," of Title V, entitled "Public Ways and Property," of the Municipal Code of the Village of Lake Bluff, as amended, shall be and is hereby amended to include a new Section 5-1C-11, entitled "Cross Connections," which shall hereafter be and read as follows:

**"5-1C-11: CROSS CONNECTIONS:**

- A. No person, firm or corporation shall establish or permit to be established or maintain or permit to be maintained any cross-connection, defined for the purposes of this Chapter as a connection whereby a private, auxiliary or emergency water supply other than the regular public water supply and also any connection to the public water supply where this supply is directly or indirectly connected to sewers, drains, reservoirs, or other plumbing arrangements or fixtures or other devices which contain or may contain unsafe liquids which may enter the Village water supply or distribution system of said municipality, unless such private, auxiliary or emergency water supply or other connections and the method of connection and use of such supply shall have been approved by the Director of Public Works, Village Administrator or his designee or their authorized agent and the IEPA.
- B. If, in accordance with the Illinois Plumbing Code 77 Illinois Administrative Code 890, IEPA regulations 35 Illinois Administrative Code 680 or in the

judgment of the Village Administrator or his designee, installation of a back-flow prevention device on a connection to the public water supply system used by a consumer or water taker is necessary for the safety of the public water supply system, the Director of Public Works, Village Administrator or his designee or their authorized agent will give notice to the consumer or water taker to immediately install a back-flow prevention device approved by the Director of Public Works, Village Administrator or his designee or their authorized agent. The consumer or water taker shall, at their own expense, install such an approved back-flow prevention device at a location and in a manner in accordance with the Illinois Plumbing Code, the Illinois Environmental Protection Agency ("IEPA") and all applicable Village codes and regulations, and shall have inspections and tests made of such approved devices upon installation and as required by the Illinois Plumbing Code, IEPA, back-flow prevention device manufacturer recommendations and all applicable Village regulations, but in no event less frequently than once per calendar year. It is the responsibility of the water consumer or water taker to prevent backflow into the public water system by ensuring that:

1. Cross Connections are removed, or approved cross connection control devices are installed for control of backflow and back siphonage; and
2. Cross Connection control devices shall be installed in accordance with the manufacturer's instructions and specifications; and
3. Cross Connection control devices shall be inspected at the time of installation and at least annually (or as directed by the Village, IEPA or manufacturer) by a person certified by the IEPA as a cross connection control device inspector (CCCDI). The inspection of mechanical devices shall include physical testing in accordance with the manufacturer's instructions and specifications; and
4. An approved backflow prevention device shall be installed on each service line to a consumer's water system including, but not limited to, situations where the following conditions exist:
  - a) Premises having an auxiliary water supply, unless such auxiliary supply is accepted as an additional source by the Village Administrator or his designee.
  - b) Premises on which any substance is handled which can create an actual or potential hazard to the public water supply system. This shall include premises having sources or systems containing process fluids or waters originating from the public water supply system which are no longer under the sanitary control of the Village.
  - c) Premises having internal cross connections that, in the judgment of the Village Administrator or his designee or a cross connection control device inspector, are not correctable or that have intricate plumbing arrangements which make it impractical to make a complete cross connection survey.
  - d) Premises having a repeated history of cross connections being established or reestablished.

5. An approved backflow prevention device shall be installed on all connections to the public water supply as described in the plumbing code, 77 Illinois Administrative Code 890 and the IEPA regulations, 35 Illinois Administrative Code 653. This shall include all fire sprinkler systems. In addition, an approved backflow prevention device shall be installed on each service line to a consumer or water taker's water system serving, without limitation, the following types of facilities, unless the Village Administrator or his designee determines that no actual potential hazard to the public water supply system exist:
  - a) Hospitals, mortuaries, clinics, nursing homes.
  - b) Laboratories
  - c) Piers, docks, waterfront facilities
  - d) Sewage treatment plants, sewage pumping stations or storm water pumping stations.
  - e) Food or beverage processing plants
  - f) Chemical plants
  - g) Metal plating industries
  - h) Petroleum processing or storage plants
  - i) Radioactive material processing plants or nuclear reactors
  - j) Car washes
  - k) Pesticide, or herbicide, or extermination plants and trucks
  - l) Farm service and fertilizer plants and trucks
  
6. The type of protection required under Section 5-1C-11B4a through Section 5-1C-11B4c shall depend upon the degree of hazard which exists as follows:
  - a) An approved, fixed, proper air gap separation shall be installed where the public water supply system may be contaminated with a substance that could cause a system or health hazard.
  - b) An approved, fixed, proper air gap separation, or an approved, reduced pressure principle, backflow prevention assembly shall be installed where the public water supply system may be contaminated with a substance that could cause a system or health hazard.
  - c) An approved, fixed, proper air gap separation, or an approved, reduced pressure principle backflow prevention assembly or double check valve assembly shall be installed where a public water supply system may be polluted with substances that could cause a pollution hazard not dangerous to health.
  
7. The type of protection required under Section 5-1C-11B4d of this Chapter shall be an approved, fixed proper air gap separation or an approved, reduced pressure principle backflow prevention device.
  
8. Where a public water supply or an auxiliary water supply is used for a fire protection system, reduced pressure principle backflow preventers shall be installed on fire safety systems connected to the public water supply under the following conditions:
  - a) When the fire safety system contains antifreeze, fire retardant, or other chemicals.
  - b) When water is pumped into the system from another

- source.
- c) When water flows by gravity from a non-potable source;
  - d) When water can be pumped into the fire safety system from another source; or
  - e) When there is a connection whereby another source can be connected to the fire safety system.
9. Any addition or alteration to an automatic fire sprinkler system shall be in accordance with the appropriate design standard for the system. If the addition of a backflow prevention device decreases the water pressure below the required pressure for the fire safety system, additional measures shall be taken in each such case to restore the pressure to the operating level required by mechanical means (i.e., a fire pump).
10. Before a backflow prevention device is installed retroactively on a fire sprinkler system, a thorough hydraulic analysis shall be performed including but not limited to the following information:
- a) Revised hydraulic calculations for hydraulically calculated systems in accordance with NFPA 13, 13R, or 13D. Submitted calculations should include the pressure loss anticipated through the backflow prevention device,
  - b) Revised sprinkler system demand for pipe schedule systems,
  - c) Current water supply data based on a water supply test (current within 2 years), including a comparison assuring that any additional pipe lengths or fittings necessary to accommodate the proper installation of the backflow prevention device will not increase the sprinkler system demand beyond the available water supply, and
  - d) All necessary modifications contributing to the additional friction loss.
  - e) All of the aforementioned items (Section 5-1C-11B10a through Section 5-1C-11B10d), including but not limited to a manufacturer's data sheet for the device that indicates the expected pressure loss, must be submitted to the Village Administrator or his designee prior to the installation of the backflow prevention assembly.
11. All backflow prevention devices or methods required by this Section shall be approved by the Research Foundation for Cross Connection Control of the University of Southern California, American Water Works Association, American Society of Sanitary Engineering, or American National Standards Institute, or certified by the National Sanitation Foundation to be in compliance with applicable industry standards.
12. Installation of approved devices shall be made in accordance with 35 Illinois Administrative Code 653.802, and only as specified by the Research Foundation for Cross Connection Control of the University of Southern California, or applicable industry specifications. Maintenance, as recommended by the manufacturer of the device,

shall be performed. Manufacturer's maintenance manual shall be available on site.

13. Where a booster has been installed on the service line or within any premises, such pump shall be equipped with a low pressure, cutoff device designed to shut off the booster pump when the pressure in the service line on the suction side of the pump drops to twenty (20) psi or less. It shall be the duty of the water taker or consumer to maintain the low pressure, cutoff device in proper working order and to certify to the Village Administrator or his designee, at least once a year, that the device is operable.

14. Fire pumps shall be installed per NFPA 20, "Standard For the Installation Of Centrifugal Fire Pumps", and all applicable Village and State of Illinois codes and regulations.

C. It shall be the duty of the Village Administrator or his designee to cause surveys and investigations to be made of commercial, industrial, residential and other properties served by the public water supply to determine whether actual or potential hazards to the public water supply may exist. Such surveys and investigations shall be made a matter of public record and shall be conducted and repeated as often as the Village Administrator or his designee shall deem necessary but not less than every two years. Records of such surveys shall be maintained and available for review for a period of at least five years; and

1) The Village Administrator or his designee or assignees, shall circulate a cross connection control device survey to all consumers or water takers with a potential risk of backflow or back pressure to the Village potable water supply. This survey shall be completed by the property owner or consumer at the premises served and returned to the Village Administrator or his designee within 30 days of the date of the letter. Failure to submit a completed survey will subject the property owner or consumer to the penalties outlined in this Section;

2) The consumer or water taker, if ordered by the Village Administrator or his designee or assignees, shall procure the services of an approved cross connection control device inspector for the inspection of the presence or absence of cross connection control devices within the consumer's premises, and the consumer or water taker shall be responsible for all costs related thereto; and

3) It shall be the responsibility of the water consumer or taker to arrange periodic (not any longer than every two (2) years) surveys of water use practices on the premises to determine whether or not there are actual or potential cross connections to the water system through which contaminants or pollutants could backflow into the private water service or the public potable water system. All cross connection control or other plumbing inspections must be conducted in accordance with 225 ILCS 320/3; and

E. The Village Administrator or his designee shall have the right to enter at any

reasonable time any property served by a connection to the public water supply or distribution system of the Village for the purpose of conducting an inspection to verify (1) the presence or absence of cross-connections and (2) any information submitted by the customer regarding such inspection. On demand the owner, lessees or occupants of any property so served shall furnish to the Village Administrator or his designee or his authorized agent any information which he may request regarding the piping system or systems or water use on such property. The refusal to provide such information, when demanded, shall, within the discretion of the Village Administrator or his designee or his authorized agent, be deemed evidence of the presence of improper connections as provided in this Section.

- F. The Village Administrator or his designee is hereby authorized and directed to discontinue, after reasonable notice to the occupant thereof, the water service to any property wherein any connection in violation of the provisions of this Section is known to exist, and to take such other precautionary measures as he may deem necessary to eliminate any danger of contamination to the public water supply distribution mains. Water service to such property shall not be restored until such conditions have been eliminated or corrected in compliance with the provisions of this Section, and until a reconnection fee of \$100.00 is paid to the Village. Immediate disconnection with verbal notice can be effected when the Village Administrator or his designee or his authorized agent is assured that the imminent danger of harmful contamination of the public water supply exists. Such action shall be followed by written notification of the cause of disconnection. Immediate disconnection without notice to any party can be effected to prevent actual or anticipated contamination or pollution of the public water supply, provided that, in the reasonable opinion of the Village Administrator or his designee or his authorized agent, or the IEPA, such action is required to prevent actual or potential contamination or pollution of the public water supply. Written notification shall follow such action within a reasonable time period. Neither the Village, the Village Administrator or his designee, nor its or his agents or assigns, shall be liable to any consumer or water taker for injury, damages or lost revenues which may result from termination of said customer's water supply in accordance with the terms of this Section, whether or not said termination was with or without notice.
- G. It shall be the duty of the consumer or water taker, at any premises on which backflow prevention devices required by this Section and regulations are installed, to have inspections, tests, maintenance, and repairs made in accordance with the schedules noted in this Section. Each device shall be tested at the time of installation and annually or more frequently if recommended by the manufacturer or required by a regulatory agency.
- 1) A copy of all testing reports must be submitted to the Village Administrator or his designee within thirty (30) working days of the installation. The test results for recertification must be submitted to the Village Administrator or his designee within thirty (30) working days of the renewal date. The date and time of the test, name and license number of cross connection

control device inspector, and the test results must be listed on each report.

- 2) Double check valve assemblies shall be inspected and tested at time of installation and annually thereafter, and required service performed within thirty (30) days.
- 3) Reduce pressure principle backflow prevention assemblies shall be tested at the time of installation and annually or more frequently if recommended by the manufacturer or regulatory agency, and required service shall be performed within five (5) days.
- 4) Testing shall be performed by a person who has been certified by the IEPA as competent to service the device. Proof of approval shall be in writing (CCCDI)
- 5) Records submitted to the Village with respect to the water supply shall be available for inspection by IEPA personnel in accordance with 415 Illinois Compiled Statutes 5/4.
- 6) Each device shall have a tag attached listing the date of the most recent test, name of the CCCDI, and type and date of repairs.
- 7) Whenever backflow prevention devices required by these regulations are found to be defective, they shall be repaired or replaced at the expense of the consumer without delay.
- 8) Backflow prevention devices shall not be bypassed, made inoperative, removed, or otherwise made ineffective without specific authorization by the Village Administrator or his designee.
- 9) A maintenance log shall be maintained by the owner or water taker/consumer and shall include:
  - a) Date of each test.
  - b) Name and CCCDI license number of person(s) performing the test.
  - c) Test results.
  - d) Repairs or servicing required.
  - e) Repairs and date completed.
  - f) Service performed and date completed.

H. The consumer or water taker responsible for back siphon or back pressured material or contamination through back flow, if contamination of the potable water supply system occurs through an illegal cross-connection or an improperly installed, maintained or repaired device, or a device which has been bypassed, shall bear the cost of clean-up of the public water supply system. "

#### **Section 4. Effective Date.**

This Ordinance shall be in full force and effect from and after its passage, approval, and publication in pamphlet form in the manner required by law.

**PASSED** this 13<sup>th</sup> day of April, 2009, by vote of the Board of Trustees of the Village of Lake Bluff, as follows:

**AYES:** (5) Barkhausen, Lesser, O'Hara, Renner and Surkamer

**NAYS:** (0)

**ABSENT:** (1) Peters

**APPROVED** this 13<sup>th</sup> day of April, 2009.

  
\_\_\_\_\_  
Village President

**ATTEST:**

  
\_\_\_\_\_  
Village Clerk

**FIRST READING:** March 23, 2009

**SECOND READING:** April 13, 2009

**PASSED:** April 13, 2009

**APPROVED:** April 13, 2009

**PUBLISHED IN PAMPHLET FORM:** April 14, 2009

# 6185745\_v3

---

**ORDINANCE NO. 2009-14**

---

**AN ORDINANCE AMENDING THE MUNICIPAL CODE OF THE  
VILLAGE OF LAKE BLUFF REGARDING WATER REGULATIONS**

Passed by the Board of Trustees, April 13, 2009

Printed and Published, April 14, 2009

Printed and Published in Pamphlet Form  
by Authority of the  
President and Board of Trustees

VILLAGE OF LAKE BLUFF  
LAKE COUNTY, ILLINOIS

I hereby certify that this document  
was properly published on the date  
stated above.

  
\_\_\_\_\_  
Village Clerk