

## AMENDMENT A TO ORDINANCE 2006-01

### Article Five

#### Complying with known laws

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## **CROSS CONNECTION**

### **ADMINISTRATION**

**Approved Backflow Device** – All plumbing connected to the Holiday Shores Sanitary District water supply shall be installed in accordance with the Illinois Plumbing Code, 77 Ill. Adm. Code 890. If, in accordance with the Illinois Plumbing Code or in the judgment of the District an approved backflow prevention device is necessary for the safety of the public water supply system, the District shall give notice to the water customer to install an approved device immediately. The water customer shall, at his or her own expense, install an approved device at a location and in a manner in accordance with the Illinois Plumbing Code, rules and regulations of the Illinois Environmental Protection Agency and all applicable local regulations, and shall have inspections and tests made of the approved devices upon installation and as required by the Illinois Plumbing Code, Illinois Environmental Protection Agency and local regulations.

**Cross-Connection Prohibited; Exception** – No person shall establish or permit to be established or maintain or permit to be maintained any connection whereby a private, auxiliary or emergency water supply other than the regular public water supply enters the supply or distribution system of the District, unless the private, auxiliary or emergency water supply and the method of connection and use of the supply shall have been approved by the District and the Illinois Environmental Protection Agency.

**Investigations by the District** – It shall be the duty of the District to cause surveys and investigations to be made of commercial industrial and other properties served by the public water supply to determine whether actual or potential hazards to the public water supply may exist. The surveys and investigations shall be made a matter of public record and shall be repeated at least every two years or as often as the District shall deem necessary. Records of the surveys shall be maintained and available for review for a period of at least five years.

### **Right to Enter Premises**

(A) The District shall have the right to enter at any reasonable time any property served

by a connection to the public water supply or distribution system for the purpose of verifying the presence or absence of cross-connections and that the District shall have the right to enter at any reasonable time any property served by a connection to the public water supply or distribution system for the purpose of verifying information submitted by the customer regarding the required cross-connection control inspection.

(B) On demand, the owner, lessee or occupants of any property so served shall furnish to the District information which they may request regarding the piping system or systems or water use on the property.

(C) The refusal of the information when demanded shall, within the discretion of the District be evidence of the presence of improper connections as provided in this ordinance.

#### **Notice to Customer; Reconnect Fee**

(A) The District 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 ordinance is known to exist, and to take other precautionary measures as the District may deem necessary to eliminate any danger of contamination of the public water supply distribution mains. Water service to the property shall not be restored until the conditions have been eliminated or corrected in compliance with the provisions of this ordinance and until a reconnection fee of \$100.00 is paid to the District Clerk.

(B) (1) Immediate disconnection with verbal notice shall be effected when the District is assured that imminent danger of harmful contamination of the public water supply system exists.

(2) The action shall be followed by written notification of the cause of disconnection.

(3) Immediate disconnection without notice to any party shall be effected to prevent actual or anticipated contamination or pollution of the public water supply, provided that, in the reasonable opinion of the District or the Illinois Environmental Protection Agency, the action is required to prevent actual or potential contamination or pollution of the public water supply.

(C) The District or the agents or assigns shall not be liable to any customer for any injury, damages or lost revenues which may result from termination of the customer's water supply in accordance with the terms of this ordinance, whether or not the termination was with or without notice.

**Contaminations Cost and the Consumer** – The consumer responsible for back siphoned material or contamination through backflow, 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 entire cost of clean-up of the potable water supply system.

#### CROSS-CONNECTION CONTROL CODE

**Purpose** – The purpose of these rules and regulations is:

- (A) To protect the public water supply system from contamination or pollution by isolating within the customer's water system contaminants or pollutants which could backflow through the service connection into the public water supply system;
- (B) To promote the elimination or control of existing cross-connections, actual or potential, between the public or consumer's potable water system and non-potable water systems, plumbing fixtures and sources or systems containing substances of unknown or questionable safety; and
- (C) To 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.

**Application** – These rules and regulations shall apply to all premises served by the public potable water supply of the District.

#### **Responsibility of Owner**

- (A) The owner or official custodian shall be responsible for protection of the public water supply system from contamination due to backflow or back siphonage of contaminants through the customer's water service connection. If, in the judgment of the District or its authorized representative, an approved backflow prevention device is necessary for the safety of the public water supply system, the District shall give notice to the consumer to install the approved backflow prevention device at each service connection to the premises.
- (B) The consumer shall immediately install such approved device or devices at his or her own expense; failure, refusal or inability on the part of the consumer to install the device or devices immediately shall constitute grounds for discontinuing water service to the premises until the device or devices have been installed. The consumer shall retain records of installation, maintenance, testing and repair for a period of at least five years.

(C) The District may require the consumer to submit a cross-connection inspection report to the District to assist in determining whether or not service line protection will be required. All cross-connection inspections shall be conducted by a Cross-Connection Control Device Inspector certified by the Illinois Environmental Protection Agency.

**Definitions** – For the purpose of this subchapter, the following definitions shall be applied unless the context clearly indicates or requires a different meaning.

**AGENCY.** Illinois Environmental Protection Agency.

**APPROVED.** Backflow prevention devices or methods approved by the Research Foundation for Cross-Connection Control of the University of Southern California, Association of State Sanitary Engineers, American Water Works Association, American National Standards Institute or certified by the National Sanitation Foundation.

**AUXILIARY WATER SYSTEM.** Any water source or system on or available to the premises other than the public water supply system and includes the water supplied by the system. These **AUXILIARY WATERS** may include water from another purveyor's public water supply system; or water from a source such as wells, lakes or streams or process fluids; or used water. These waters may be polluted or contaminated or objectionable or constitute a water source or system over which the water purveyor does not have control.

**BACKFLOW.** The backflow of water or other liquids, mixtures or substances into the distribution pipes of a potable water system from any source other than the intended source of the potable water supply.

**BACKFLOW PREVENTION DEVICE.** Any device, method or type of construction intended to prevent backflow into a potable water system. All devices used for backflow prevention in Illinois must meet the standards of the Illinois Plumbing Code and the Illinois Environmental Protection Agency.

**CONSUMER or CUSTOMER.** The owner, official custodian or person in control of any premises supplied by or in any manner connected to a public water system.

**CONSUMER'S WATER SYSTEM.** Any water system located on the customer's premises. A **BUILDING PLUMBING SYSTEM** is considered to be a **CUSTOMER'S WATER SYSTEM**.

**CONTAMINATION.** An impairment of the quality of the water by entrance of any substance to a degree which could create a health hazard.

**CROSS-CONNECTION.** Any physical connection or arrangement between two otherwise separate piping systems, one of which contains potable water and the other a substance of

unknown or questionable safety or quality, whereby there may be a flow from one system into the other.

**DIRECT CROSS-CONNECTION.** A cross-connection formed when a water system is physically joined to a source of unknown or unsafe substance.

**DISTRICT.** Holiday Shores Sanitary District and its' employees and assigns.

**DOUBLE CHECK VALVE ASSEMBLY.** An assembly composed of single, independently acting check valves approved under ACSE Standard 1015; a double check valve assembly and suitable connections for testing the water-tightness of each check valve.

**FIXED PROPER AIR GAP.** The unobstructed vertical distance through the free atmosphere between the water discharge point and the flood level rim of the receptacle.

**HEALTH HAZARD.** Any condition, device or practice in a water system or its operation resulting from a real or potential danger to the health and well-being of consumers. The word "severe", as used to qualify **HEALTH HAZARD**, means a hazard to the health of the user that could be expected to result in death or significant reduction in the quality of life.

**INDIRECT CROSS-CONNECTION.** A cross-connection through which an unknown substance can be forced, drawn by vacuum or otherwise introduced into a safe potable water system.

**INSPECTION.** A plumbing inspection to examine carefully and critically all materials, fixtures, piping and appurtenances, appliances and installations of a plumbing system for compliance with requirements of the Illinois Plumbing Code, 77 Ill. Adm. Code 890.

**NON-POTABLE WATER.** Water that does not meet public health standards for drinking water and is not suitable for human consumption or culinary use. (See 77 Ill. Admin. Code 900.) Any water of unknown quality is considered non-potable. (77 Ill. Admin. Code 890.120.)

**PLUMBING.** The actual installation, repair, maintenance, alteration or extension of a plumbing system by any person. **PLUMBING** includes all piping, fixtures, appurtenances and appliances for a supply of water for all purposes, including without limitation lawn sprinkler systems, from the source of a private water supply on the premises or from the water main in the street, alley or at the curb to, within and about any building or buildings where a person or persons live, work or assemble. **PLUMBING** includes all piping, from discharge of pumping units to and including pressure tanks in water supply systems. **PLUMBING** includes all piping, fixtures, appurtenances and appliances for a building drain and sanitary drainage and related ventilation system of any building or buildings where a person or persons live, work or assemble from the point of connection of

the building drain to the building sewer or private sewage disposal system five feet beyond the foundation walls.

**POLLUTION.** The presence of any foreign substance (organic, inorganic, radiological or biological) in water that tends to degrade its quality so as to constitute a hazard or impair the usefulness of the water.

**POTABLE WATER.** Water that is suitable for human consumption in accordance with the Drinking Water Systems Code, 77 Ill. Admin. Code 900.

**POTENTIAL CROSS-CONNECTION.** A fixture or appurtenance with threaded hose connection, tapered spout or other connection which would facilitate extension of the water supply line beyond its legal termination point.

**PROCESS FLUID(S).** Any fluid or solution which may be chemically or biologically or otherwise contaminated or polluted in a form or concentration such as would constitute a health, pollutional or system hazard if introduced into the public or a consumer's potable water system. This includes, but is not limited to:

- (1) Polluted or contaminated waters;
- (2) Process waters;
- (3) Used waters originating from the public water supply system which may have deteriorated in sanitary quality;
- (4) Cooling waters;
- (5) Questionable or contaminated natural waters taken from wells, lakes, streams or irrigation systems;
- (6) Chemicals in solution or suspension; and
- (7) Oils, gases, acids, alkalis and other liquid and gaseous fluids used in industrial or other processes or for fire fighting purposes.

**PUBLIC WATER SUPPLY.**

- (1) All mains, pipes and structures through which water is obtained and distributed to the public, including wells and well structures, intakes and cribs, pumping stations, treatment plants, reservoirs, storage tanks and appurtenances, collectively or severally, actually used or intended for use for the purpose of furnishing water for drinking or general domestic use and which serve at least 15 service connections or which regularly serve at least 25 persons at least 60 days per year.

(2) A **PUBLIC WATER SUPPLY** is either a “community water supply” or a “non-community water supply.”

**REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION DEVICE.** A device containing a minimum of two independently acting check valves together with an automatically operated pressure differential relief valve located between the two check valves and approved under ASSE Standard 1013. During normal flow and at the cessation of normal flow, the pressure between these two checks shall be less than the supply pressure. In case of leakage of either check valve, the differential relief valve, by discharging to the atmosphere, shall operate to maintain the pressure between the check valves at less than the supply pressure. The unit must include tightly closed shutoff valves located at each end of the device and each device shall be fitted with properly located test cocks.

**SERVICE CONNECTION.** The opening, including all fittings and appurtenances, at the water main through which water is supplied to the user.

**SURVEY.** The collection of information pertaining to a customer’s piping system regarding the location of all connections to the public water supply system and must include the location, type and most recent inspection and testing date of all cross-connection control devices and methods located within that customer’s piping system. The **SURVEY** must be in written form and should not be an actual plumbing inspection.

**SYSTEM HAZARD.** A condition through which an aesthetically objectionable or degrading material not dangerous to health may enter the public water supply system or a consumer’s potable water system.

**USED WATER.** Any water supplied by a public water supply system to a consumer’s water system after it has passed through the service connection and is no longer under the control of the water supply official custodian.

**WATER PURVEYOR.** The owner or official custodian of a public water system.

**WATER SYSTEM.**

(A) The water system shall be considered as made up of two parts: the public water supply system and the consumer’s water system.

(B) The public water supply system shall consist of the source facilities and the distribution system and shall include all those facilities of the potable water system under the control of the District up to the point where the consumer’s water system begins.

- (C) The source shall include all components of the facilities utilized in the production, treatment, storage and delivery of water to the public water supply distribution system.
- (D) The public water supply distribution system shall include the network of conduits used to deliver water from the source to the consumer's water system.
- (E) The consumer's water system shall include all parts of the facilities beyond the service connection used to convey water from the public water supply distribution system to points of use.

***CROSS-CONNECTION PROHIBITED.***

- (A) Connections between potable water systems and other systems or equipment containing water or other substances of unknown or questionable quality are prohibited, except when and where approved cross-connection control devices or methods are installed, tested and maintained to insure proper operation on a continuing basis.
- (B) No physical connection shall be permitted between the potable portion of a supply and any other water supply not of equal or better bacteriological and chemical quality as determined by inspection and analysis by the agency.
- (C) There shall be no arrangement or connection by which an unsafe substance may enter a supply.

***SURVEY AND INVESTIGATIONS.***

- (A) The consumer's premises shall be open at all reasonable times to the District for the inspection of the presence or absence of cross-connections within the consumer's premises and testing, repair and maintenance of cross-connection control devices within the consumer's premises.
- (B) On request of the District or its authorized representative, the consumer shall furnish information regarding the piping system or systems or water use within the customer's premises. The consumer's premises shall be open at all reasonable times to the District for the verification of information submitted by the consumer to the public water supply custodian regarding cross-connection inspection results.
- (C) It shall be the responsibility of the water consumer to arrange periodic surveys of water use practices on his or her premises to determine whether there are actual or potential cross-connections to his or her water system through which contaminants or pollutants could backflow into his or her public potable water system. All cross-connection control or other plumbing inspections must be conducted in accordance with ILCS Chapter 225, Act 320, & 3(1).



(D) It is the responsibility of the water consumer to prevent backflow into the public water system by ensuring that:

- (1) All cross-connections are removed or approved cross-connection control devices are installed for control of backflow and back siphonage.
- (2) Cross-connection control devices shall be installed in accordance with the manufacturer's instructions.
- (3) Cross-connection control devices shall be inspected at the time of installation and at least annually by a person approved by the Agency as a Cross-Connection Control Device Inspector (CCCDI). The inspection of mechanical devices shall include physical testing in accordance with the manufacturer's instructions.
- (4) Testing and records:
  - (a) Each device shall be tested at the time of installation and at least annually or more frequently if recommended by the manufacturer.
  - (b) Records submitted to the District public water supply shall be available for inspection by Agency personnel in accordance with ILCS Chapter 415, Act 5, & 4(e).
  - (c) Each device shall have a tag attached listing the date of most recent test, name of CCCDI and type and date of repairs.
  - (d) A maintenance log shall be maintained and include:
    - (1) Date of each test;
    - (2) Name and approval number of person performing the test;
    - (3) Test results;
    - (4) Repairs or servicing required;
    - (5) Repairs and date completed; and
    - (6) Service performed and date completed.

***WHERE PROTECTION REQUIRED.***

(A) An approved backflow device shall be installed on all connections to the public water supply as described in the Plumbing Code, 77 Ill. Adm. Code 890 and the Agency's regulations 35 Ill. Adm. Code 680. In addition, an approved backflow prevention device shall be installed on each service line to a consumers water system serving premises,

where in the judgment of the District actual or potential hazards to the public water supply system exist.

(B) An approved backflow prevention device shall be installed on each service line to a consumer's water system serving premises where the following conditions exist:

(1) Premises having an auxiliary water supply unless the auxiliary supply is accepted as an additional source by the Superintendent of water and the source is approved by the Illinois Environmental Protection Agency.

(2) 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 District.

(3) Premises having internal cross-connections that, in the judgment of the District and/or the Cross-Connection Control Device Inspector, are not correctable or intricate plumbing arrangements which make it impractical to determine whether or not cross-connections exist.

(4) Premises where, because of security requirements or other prohibitions or restrictions, it is impossible or impractical to make a complete cross-connection survey.

(5) Premises having a repeated history of cross-connections being established or reestablished.

(C) An approved backflow device shall be installed on all connections to the public water supply as described in the Plumbing Code, 77 Ill. Adm. Code 890 and the Agency's regulations 35 Ill. Adm. Code 653. In addition, an approved backflow prevention device shall be installed on each service line to a consumer's water system serving, but not necessarily limited to the following types of facilities unless the Superintendent of Water determines that no actual or potential hazard to the public water supply system exists:

(1) Piers, docks, waterfront facilities;

(2) Sewage treatment plants, sewage pumping stations or storm water pumping stations;

(3) Car washes;

(4) Pesticide or herbicide or extermination plants and trucks; and

(5) Farm service and fertilizer plants and trucks.

***TYPE OF PROTECTION REQUIRED.***

(A) The type of protection required under these regulations shall depend on the degree of hazard which exists as follows:

(1) An approved fixed proper air gap separation shall be installed where the public water supply system may be contaminated with substances that could cause a severe health hazard.

(2) 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.

(3) An approved fixed proper air gap separation or an approved reduced pressure principle backflow prevention assembly or a double check valve assembly shall be installed where the public water supply system may be polluted with substances that could cause a pollution hazard not dangerous to health.

(B) The type of protection required under these regulations shall be an approved fixed proper air gap separation or approved reduced pressure principle backflow prevention connected to the public water supply.

(C) 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 when:

(1) The fire safety system contains antifreeze, fire retardant or other chemicals;

(2) Water is pumped into the system from another source;

(3) Water flows by gravity from a non-potable source or water can be pumped into the fire safety system from any other source; and

(4) There is a connection whereby water from another source can be introduced into the fire safety system.

(D) All other fire safety systems connected to the potable water supply shall be protected by a double check valve assembly on metered service lines and a double detector check valve assembly on unmetered service lines.

#### ***BACKFLOW PREVENTION DEVICES.***

(A) All backflow prevention devices or methods required by these rules and regulations 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 specification.

(B) Installation of approved devices shall be made in accordance with the manufacturer's instructions. Maintenance, as recommended by the manufacturer of the device, shall be performed. The manufacturer's maintenance manual shall be available on-site.

### ***INSPECTION AND MAINTENANCE.***

(A) It shall be the duty of the consumer at any premises on which backflow prevention devices required by these regulations are installed to have inspection, tests, maintenance and repair made in accordance with the following schedule or more often where inspections indicate a need or are specified in manufacturer's instructions.

(1) Fixed proper air gap separations shall be inspected to document that a proper vertical distance is maintained between the discharge point of the service line and the flood level rim of the receptacle at the time of installation and at least annually thereafter. Corrections to improper or by passed air gaps shall be made within 24 hours.

(2) Double check valve assemblies shall be inspected and tested at time of installation and at least annually thereafter and required service performed within five days.

(3) Reduced pressure principle backflow prevention assemblies shall be tested at the time of installation and at least annually or more frequently if recommended by the manufacturer and required service performed within five days.

(B) Testing shall be performed by a person who has been approved by the Agency as competent to service the device. Proof of approval shall be in writing.

(C) Each device shall have a tag attached listing the date of most recent test or visual inspection, name of tester and type and date of repairs.

(D) A maintenance log shall be maintained and include:

(1) Date of each test or visual inspection;

(2) Name and approval number of person performing the test or visual inspection.

(3) Test results;

(4) Repairs or servicing required;

(5) Repairs and date completed; and

(6) Servicing performed and date completed.

(E) 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 as required by division (A) above.

(F) Backflow prevention devices shall not be bypassed, made inoperative, removed or otherwise made ineffective without specific authorization by the District.

### **BOOSTER PUMPS.**

(A) Where a booster pump has been installed on the service line to or within any premises, the pump shall be equipped with a low pressure cut-off device designed to shut-off the booster pump when the pressure in the service line on the suction side of the pump drops to 20 psi or less.

(B) It shall be the duty of the water consumer to maintain the low pressure cut-off device in proper working order and to certify to the District at least once a year that the device is operable.

### **VIOLATIONS.**

(A) The District shall deny or discontinue, after reasonable notice to the occupants thereof, the water service to any premises wherein any backflow prevention device required by these regulations is not installed, tested, maintained and repaired in a manner acceptable to the Superintendent of Water, or if it is found that the backflow prevention device has been removed or bypassed, or if an unprotected cross-connection exists on the premises, or if a low pressure cut-off required by these regulations is not installed and maintained in working order.

(B) Water service to the premises shall not be restored until the consumer has corrected or eliminated such conditions or defects in conformance with these regulations and to the satisfaction of the District and the reconnection fee of \$100.00 is paid.

(C) Water service to the premises shall not be restored until the consumer has corrected or eliminated the conditions or defects in conformance with these regulations and to the satisfaction of the District.

(D) Neither the District nor its assigns shall be liable to any customers of the District for any injury, damages or lost revenues which may result from termination.

### **Water Service Pipe**

The premise water line connecting to the water meter shall be SDR 9 construction or greater.

## Shared Excavations

It shall be unlawful to place any water service pipe in the same excavation with, or directly over, any drainpipe or sewer lateral.

### **Ordinance in Force**

This amendment to Ordinance 2006-01 shall be in full force and effect from and after its passage and approval as provided by law.

Passed and adopted by the Board of Trustees of the Holiday Shores Sanitary District of Madison County, State of Illinois on the 17th day of December, 2007, by the following vote:

Ayes       X      : namely Dennis Van Sandt

Benjamin Cooper

Gregory Christakos

Nay                                 : namely                                 

Approved this 17th day of December, 2007.

Signed: Dennis Van Sandt

President

Attest:

Signed: Donna L. Kinder, District Clerk