

A RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF MANATEE COUNTY, FLORIDA, ADOPTING THE MANATEE COUNTY CROSS CONNECTION AND BACKFLOW PREVENTION CODE; PROVIDING FOR SEVERABILITY AND PROVIDING AN EFFECTIVE DATE

WHEREAS, The Board of County Commissioners of Manatee County, Florida, previously adopted on January 24, 1985, Resolution R-85-26 adopting the 1982 Edition of the Standard Plumbing Code, including Appendix D as well as certain local amendments thereto, as the Manatee County Plumbing Code; and

WHEREAS, the Board of County Commissioners of Manatee County, Florida, pursuant to Chapter 63-1600, Laws of Florida, and Chapter 125.56, Florida Statutes (1985), has held a public hearing to consider the adoption of the Cross Connection and Backflow Prevention Code; and

WHEREAS, the Board of County Commissioners determines that local conditions justify more stringent requirements than those specified in certain areas of Appendix D of the Standard Plumbing Code; and

WHEREAS, the Board of County Commissioners of Manatee County, Florida, desires to adopt the Cross Connection and Backflow Prevention Code as the adoption of such Code would be in the best interest of Manatee County in order to protect the health, safety and welfare of its residents.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Manatee County, Florida, as follows:

1. That a new Cross Connection and Backflow Prevention Code for Manatee County, Florida, is hereby adopted, as it appears in Exhibit A, attached hereto and incorporated by reference herein.
2. That a copy of the aforesaid Code thereto shall be kept with the Clerk of the Circuit Court in and for Manatee County, Florida.
3. This Resolution shall become effective on the 20th day of July, 1987, and shall apply to all projects for which construction permits have not been issued on the effective date hereof.

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4. If any part, section, subsection, or other portion of this ordinance, or any application thereof to any person or circumstance is declared to be void, unconstitutional or invalid for any reason, such part, section, subsection, or other portion shall be severable, and the remaining provisions of this ordinance, and all applications thereof not having been declared void, unconstitutional or invalid, shall remain in full force and effect

ADOPTED, with a quorum present and voting, this 4th day of June, 1987.

BOARD OF COUNTY COMMISSIONERS
OF MANATEE COUNTY, FLORIDA

BY Edward W. Chance
Chairman Date

ATTEST: R. B. SHORE
Clerk of the Circuit Court



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MANATEE COUNTY CROSS CONNECTION AND BACKFLOW PREVENTION CODE

101 - GENERAL

101.1 INTENT - It is the intent of this Code to recognize that there are varying degrees of hazard to potable water within the water main and water supply systems, and it is the intent to apply the principle that the degree of protection should be commensurate with the degree of hazard.

101.2 PURPOSE -

The purpose of this Code is:

1. To protect the public water main against actual or potential cross connection, backflow and back-siphonage by isolating, within the premise or private property, contamination or pollution that has occurred or may occur because of some undiscovered or unauthorized cross connection on the premise or private property.
2. To protect the water supply system within the premise or private property against actual or potential cross connections, backflow and back-siphonage by requiring such air gaps, vacuum breakers, backflow preventers, reduced pressure principle backflow preventers and special devices as required by this Code or other applicable regulations.
3. To eliminate cross connections, backflow and back-siphonage of any other source of water or process water used for any purpose whatsoever which may jeopardize the safety of the water supply or which may endanger the health and welfare of the general public.
4. To establish a cross connection, backflow and back-siphonage control program.

101.3 - CONTROL

Cross connection, backflow and back-siphonage control requires cooperation between water purveyors, the public health officer, the Building Official and the consumer. The responsibilities and duties of each shall be as set forth in this Code, and other applicable regulations. Where circumstances do not make feasible or necessary the establishment of a control committee, or the participation in enforcement by the public health officer or the water purveyor, the local governing body may provide the Building Official with other means to administer and enforce the control program.

102 - RESPONSIBILITIES

102.1 - ENFORCEMENT

The Building Official shall enforce the provisions of this Code so as to insure the potability of the consumer's water supply, from the point of entrance of the public water supply to the extremities of the consumer's water system. The Building Official has primary enforcing responsibility of new installations, alterations, or repairs of water supply systems. He shall provide the Health Officer and the Water Purveyor with the assistance required to enforce the provisions of this Code on existing water supply systems.

102.2 - WATER PURVEYOR

The Water Purveyor is primarily responsible for the prevention of contamination and pollution of the public water mains. Such responsibility begins at the point of origin of the public water supply and includes adequate treatment facilities and water mains, and ends at the point of entrance to the consumer's water system, provided adequate backflow and back-siphonage protection is maintained on all water supply systems directly connected to the Water Purveyor's public system. The Water Purveyor has secondary supervisory responsibility to the Plumbing official for new installations, alteration, or repairs of water supply systems and has secondary supervisory responsibility to the Health Officer for existing water supply systems.

102.3 - HEALTH OFFICER

The Health Officer, when administrative head of water quality control, is responsible for supervising the prevention of contamination and pollution of the public water main, all water supply systems and all water sources. Such responsibility extends from the point of origin of the public water supply to and including all extremities of the consumer's supply and its actual use. The Health Officer has prime supervisory responsibility for administration and enforcement of those portions of the Cross Connection, Backflow and Back-Siphonage Control Program applicable to existing water supply systems and water sources. The Health Officer has secondary supervisory responsibility to the Water Purveyor for the public water system.

102.4 - CONSUMER

The consumer has the prime responsibility of preventing contaminants and pollutants from entering the water supply system, and from entering the public water main or water source from his water supply system. The Consumer shall protect his water supply system against actual or potential cross connection, backflow or back-siphonage, as required by this Code, and other applicable regulations. He shall assure that all protective devices are tested and maintained in the working condition required. He shall assure the necessary plumbing permits are obtained for new water supply system installations, and for alterations or repair to existing systems, as required by this Code.

103 - DEFINITIONS

Definitions contained in Chapter 2 of the Standard Plumbing Code shall also apply, except where the following special definitions shall apply:

Approved Backflow Prevention Device - shall mean an assembly that has been manufactured in full conformance with the standards established by this code and, have met completely the laboratory and field performance specification of the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California and are currently listed on their listing of approved devices.

Back-Siphonage Backflow - a reversal of the normal direction of flow in the pipeline due to a negative pressure (vacuum) being created in the supply line with the backflow source subject to atmospheric pressure.

Backflow Preventer - a device to prevent backflow. As there are two conditions of backflow, the device should be identified by the conditions which it is designed to prevent. (See Back Pressure Backflow Preventer, Backflow Preventer - Reduced Pressure Type, Back-Siphonage Backflow Preventer).

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Back Pressure Backflow Preventer - a device to prevent backflow due to a general condition in which the pressure in the system becomes greater than the supply pressure, the system being above atmospheric pressure. (See Double Check Valve Assembly).

Backflow Preventer, Reduced Pressure Type - a device having dual check valves force-loaded, or biased, to a normally closed position, a chamber or zone between the check valves in which pressure is normally lower than the supply pressure, a relief or vent valve force loaded to a normally open position located in the zone to automatically open a passage between the zone and the atmosphere should the zone pressure, for any reason, tend to equalize with or exceed the supply pressure.

Back-Siphonage Backflow Preventer, General - a device or combination of devices for preventing back-siphonage in a water supply line.

Certified Tester/Inspector - the individual performing the actual test or inspection of backflow prevention device. Maybe a licensed plumber, plumbing inspector, fire system inspector, health department inspector, or water department technician holding a certificate for device being tested. Currently approved certification agencies shall be as follows;

TREEO Center, 2900 S.W. 63rd Blvd, Gainesville, Fl
32608

NETTI, University Station Box 13264, Gainesville, Fl
32604

Consumer - any person, firm or corporation using or receiving water from the public water system.

Contaminants - any foreign materials solid or liquid, not common to the potable water supply and which make it unfit or undesirable for human or animal consumption.

Contamination - the admission of contaminants into the potable water supply.

Cross Connection - any connection by means of which contaminants of any kind can be caused to enter the potable water supply system.

Double Check Valve Assembly - An assembly composed of two single, independently acting, check valves, including tightly closing shut-off valves located at each end of the assembly. A valve that is drip-tight in the normal direction of flow when the inlet pressure is one p.s.i. and the outlet pressure is zero. The check valve shall permit no leakage in a direction reverse to the normal flow. The closure element (e.g., clapper) shall be internally weighted or otherwise internally loaded to promote rapid and positive closure and suitable connections for testing the watertightness of each check valve.

Water Purveyor - the owner or operator of the public potable water system supplying an approved water supply to the public. As used herein, the terms Water Purveyor and Municipal Water Authority may be used synonymously.

104 - REGULATIONS

104.1 - Protection against contamination

104.1.1 - No water service connections to any premises shall be installed or maintained unless the potable water and water supply are protected against actual or potential contamination of pollution in the manner required.

104.1.2 - In the event of contamination or pollution of a potable water system, the Consumer shall notify immediately the Building Official, the Health Officer or the Water Purveyor in order that appropriate measures may be taken to overcome the contamination or pollution.

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104.2 - Cross-Connection Hazards and Required Protections

104.2.1 - Type of Backflow Protection Required - An approved backflow prevention device of the type designated shall be installed on each water service connection to the following types of facilities. This list is presented as a minimum guideline and should not be construed as being complete. The type of backflow protection for unlisted facilities will be determined on a case by case basis by the water purveyor, plumbing official or health official. Abbreviations used are as follows:

A.G. - Air Gap Separation

R.P. - Reduced Pressure Principle Backflow Preventer

D.C.V.A. - Double Check Valve Assembly

P.V.B. - Pressure Vacuum Breaker

A.V.B. - Atmospheric Vacuum Breaker

TYPE OF FACILITY	MINIMUM TYPE OF PROTECTION
Breweries, Distilleries, Bottling Plants	D.C.V.A.
Car Wash with recycling system and/or Wax Eductor	R.P.
Chemical Plants	R.P.
Dairies	D.C.V.A.
Dentist Office	R.P.
Fertilizer Plants	R.P.
Film Laboratory or Processing Plant	R.P.
Food or Beverage Plant	D.C.V.A.
Hospitals, Clinic., Medical Buildings (Parallel)	*R.P.
Irrigation Systems	D.C.V.A. or P.V.B.
Laboratories	R.P.
Laundries and Dry Cleaning Plants	D.C.V.A.
Machine Tool Plants (Health or System Hazard)	**R.P.
Machine Tool Plants (Pollutional Hazard)	**D.C.V.A.
Metal Processing Plant (Health or System Hazard)	**R.P.
Metal Processing Plant (Pollutional Hazard)	**D.C.V.A.
Metal Plating Plant	R.P.
Morgues or Mortuaries	R.P.
Nursing Homes	R.P.
Packing Houses or Rendering Plants	R.P.
Paper Products Plant	R.P.
Pesticides (Exterminating Companies)	***P.V.B. Overhead Fill
Petroleum Processing Plant	R.P.
Petroleum Storage Yard (Health or System Hazard)	**R.P.
Petroleum Storage Yard (Pollutional Hazard)	**D.C.V.A.
Pharmaceutical or Cosmetic Plant	R.P.
Piers, Docks or Waterfront Facilities	R.P.
Power Plants	R.P.
Radioactive Material Plants	R.P.
Restaurants, with Soap Eductors and/or Industrial Type Disposal	R.P.
Sand and Gravel Plants	D.C.V.A.
Schools and Laboratories	R.P.
Swimming Pools with Piped Fill Line	A.G. at Pool
Sewage Treatment Plants	R.P.
Sewage Pumping Stations	R.V.B.
Tall Buildings over three stories	*R.P.
Veterinary Establishments	R.P.
In addition to and including those types of facilities listed above, and approved backflow prevention device of type designated shall be installed on each domestic water service connection to any premises containing the following real or potential hazards.	
Premises having an auxiliary water system not connected to public water system	R.P.
Premises having a water storage tank, reservoir, pond, or similar appurtenance	R.P.
Premises having a steam boiler, cooling system, or hot water heating system where chemical water conditioners are used	R.P.

Premises having submerged inlets to equipment R.P.
Premises having self-draining yard hydrants, R.P.
fountains, hose boxes or similar devices
presenting a health or system hazard
(i.e., chemical storage plants, tank
farms, bulk storage yards)
Premises having self-draining yard hydrants, D.C.V.A.
fountains hose boxes or similar devices
presenting a pollutional hazard (i.e., parks,
play fields, cemeteries)
Others specified by the Water Services Division

***Installations Requiring Continuous Service: Parallel Installation**

All backflow prevention devices with test cocks are required to be tested with a minimum frequency of once per year. Testing requires a water shutdown usually lasting five (5) to twenty (20) minutes. For facilities that require an uninterrupted supply of water, and when it is not possible to provide water service from two separate meters, provisions shall be made for a "parallel installation" of backflow prevention devices.

Multi-story buildings which have a number of flushmeters may have to be manually reset.

During testing one device is left on while the other is being tested. Usually the two devices are sized one device size smaller than the service line, e.g. one 2 inch device or two 1½ inch devices, one 8 inch device or two 6 inch devices.

An unprotected bypass around a backflow preventer for use when the device is in need of testing, repair, or replacement is not allowed.

****Health Hazard; System Hazard; Pollutional Hazard**

"Health hazard" means any condition, device, or practice in a water system or its operation that creates, or may create, a danger to the health and well-being of users. The word "severe" as used to qualify "health hazard" means a hazard to health of the user that could reasonably be expected to result in significant morbidity or death. "System hazard" means a condition posing an actual or potential threat of damage to the physical properties of the public water system or a potable consumer's water system. "Pollutional hazard" means a condition through which an aesthetically objectionable or degrading material not dangerous to health may enter the public water system or a potable consumer's water system.

*****Exterminating Companies**

All tanks, tank trucks and spraying apparatus used to convey pesticides in an exterminating process are required to use only designated-protected potable water fill locations. Filling with potable at unspecified locations or private residences is prohibited. All filling locations will consist of over-head piping arrangements with correctly installed pressure vacuum breakers. If for any reason an overhead piping arrangement cannot be used, a reduce pressure zone backflow preventer must be installed on the fill line. All filling locations must be approved by the Water Purveyor or Health Official.

NOTE: Any device, equipment or situation not covered by this cross-connection policy where water is connected or used, which may constitute a potential health hazard will be handled at the discretion of the water purveyor or his authorized agent.

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104.1.4 - Type of Backflow Protection Required - Fire Protection Services - An approved backflow prevention device of the type designated shall be installed on each fire protection service to any premises where the fire protection system contains any of the following components unless the Water Services Division determines that no real or potential health pollutional, or system hazard to the public water system exists. Fire systems may be divided into six (6) general classes. The following are typical:

	Minimum Type of Protection	
Class 1	a closed automatic fire system without pumper connection, i.e., a system having 20 heads or less;	None
Class 2	a closed automatic fire system with pumper connection;	D.C.V.A
Class 3	a closed automatic fire system with pumper connection and an auxiliary water supply on or available to the premises; or an auxiliary water supply which may be located within 1700 feet of the pumper connection	R.P.
Class 4	a closed automatic fire system with a closed pressure tank supply (this class may have a jockey pump interconnected with the domestic water supply and/or an air compressor connection);	R.P.
Class 5	a closed automatic sprinkler system interconnected with an auxiliary water system	R.P.
Class 6	fire system used for the combined purposes of supplying the automatic sprinklers, hose lines, fire hydrants and standpipes and of being used for industrial purposes.	R.P.

(A) Self-draining Fire Hydrants on premises presenting a health for system hazard (i.e., Chemical Plants, Petroleum Storage Plants, Bulk Storage Yards, Stock Yards, Sewer Plants, or similar facilities where ground seepage of toxic materials may occur

D.C.V.A.

(B) Self-draining Fire Hydrants on premises present a pollutional hazard (i.e., Apartment House, Office Complex, Fabricating Plants, or similar facilities where ground seepage of pollutional but not toxic materials may occur

104.2 - Duties and Inspections

104.2.1 - The Building Official, the Health Officer, the Water Purveyor, or their authorized representative shall have the right to enter any building, structure or premises to perform any duty imposed upon him by the Code.

104.2.2 - Nothing herein shall relieve the Consumer of the responsibility for conducting, or causing to be conducted, periodic surveys of water use practices on his premises to determine whether there are actual or potential cross connections in the Consumer's water system through which contaminants or pollutants could flow back into a public water system or a potable Consumer's water system.

104.2.3 - It shall be the duty of the Building Official, the Health Officer and the Water Purveyor to cause inspections to be made of all properties containing potable water systems and where cross connection, backflow and back-siphonage is deemed possible. On request the Consumer shall furnish to the inspection agency any pertinent information regarding the water supply system on such property.

104.2.4 - The Building Official, the Health Officer, the Water Purveyor or their authorized representative shall notify the Consumer of the preventive actions required. The Consumer has the right of appeal to the Code Enforcement Board.

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