990

ORDINANCE NO. 19

AN ORDINANCE OF THE TOWN OF GREENWOOD ENTITLED CROSS-CONNECTION CONTROL ORDINANCE

BE IT ENACTED BY THE TOWN OF GREENWOOD:

This Ordinance of the Town of Greenwood, Florida, be and the same is hereby enacted to read as follows:

Section I. Common Title

This Ordinance shall be known and may be cited as the Cross-Connection Control Ordinance of the Town of Greenwood, Florida.

Section 2. Declaration of Policy

It is the policy of the Town of Greenwood in keeping with the laws of the State of Florida and the spirit of the Constitution of the United States of America to provide clean, potable water to its citizens and to prevent contamination of this water supply due to Cross-Connections.

Section 3. Definitions

The terms as used in this ordinance shall be defined as follows:

a. Administrator - That person appointed by the Town Mayor pursuant to this ordinance.

b. Approved - Accepted by the Town of Greenwood.

c. Auxiliary Water Supply - Any water supply on or available to the premises other than the purveyor's approved public potable water supply. These Auxiliary waters may include water from another purveyor's public potable water supply or any natural source(s) such as a well, spring, river, stream, harbor, etc., or "used waters" or "industrial fluids". These waters may be polluted or contaminated or they may be objectionable and constitute an unacceptable water source over which the water purveyor does not have sanitary control.

d. Backflow - The flow of water or other liquids, mixtures or substances under pressure into the distributing pipes of a potable water supply system from any source other than its intended source.

e. Back-Siphonage - The flow of water or other liquids, mixtures or substances into the distributing pipes of a potable water supply system from any source or sources other than its intended source caused by the sudden reduction of pressure in the potable water supply system.

f. Backflow Preventer - A device or means to prevent back-flow or back-siphonage.

(1) Air Gap: The unobstructed vertical distance through the free atmosphere between the lowest opening

from any pipe or faucet supplying the water to a tank, plumbing fixture, or other device and the flood level rim of said vessel. An approved air-gap shall be at least double the diameter of the supply pipe, measured vertically, above the top of the rim of the vessel; and, in no case less than one inch. When an air-gap is used at the service connection to prevent the contamination or pollution of the public potable water system, an emergency by-pass shall be installed around the air-gap and an approved reduced pressure principle device shall be installed in the by-pass system.

(2) Reduced Pressure Principle Device: An assembly of two independently operating approved check valves with an automatically operating differential relief valve between the two check valves, tightly closing shut off valves on either side of the check valves, plus properly located test cocks for the testing of the check and relief valves. The entire assembly shall meet the design and performance specifications and approval of a recognized and Town approved testing agency for backflow prevention assemblies. The device shall operate to maintain the pressure in the zone between the two check valves at a level less than the pressure on the public water supply side of the device, at a cessation of normal flow. In case of leakage of either of the check valves the differential relief valve shall operate to maintain the reduced pressure in the zone between the check valves by discharging to the atmosphere. When the inlet pressure is two pounds per square inch or less, the relief valve shall open to the atmosphere. To be approved these devices must be readily accessible for in-line maintenance and testing and be installed in a location where no part of the device will be submerged.

(3) Double Check Valve Assembly: An assembly of two independently operating approved check valves with tightly closing shut-off valves on each side of the check valves, plus properly located test cocks for the testing of each check valve. The entire assembly shall meet the design and performance specifications and approval of a recognized and Town approved testing agency for backflow prevention devices. To be approved these devices must be readily accessible for in-line testing and maintenance.

g. Contamination - An impairment of the quality of the potable water by sewage, industrial fluids or waste liquids, compounds or other materials to a degree which creates an actual hazard to the public health through poisoning or through the spread of disease.

h. Cross-Connection - Any physical connection or arrangement of piping or fixtures between two otherwise separate piping systems one of which contains potable water; the other non-potable water or industrial fluids of questionable safety, through which, or because of which, backflow or back-siphonage may occur into the potable water system. A water service connection between a public potable water distribution system and a customer's water distribution system which is cross-connected to a contaminated fixture, industrial fluid system or with a potentially contaminated supply or auxiliary water system, constitutes one

type of cross-connection. Other types of cross-connection include connectors such as swing connections, removable sections, four-way valves, spools, dummy sections of pipe, swivel or change over devices, sliding multiport tube, solid connectors, etc.

i. Cross-Connections Controlled - A connection between a potable water system and a non-potable water system with an approved backflow prevention device properly installed that will continuously afford the protection commensurate with the degree of hazard.

j. Cross-Connection Control By Containment - The installation of an approved backflow prevention device at the water service connection to any customer's premises where it is physically and economically infeasable to find and permanently eliminate or control all actual or potential cross-connections within the customer's water system; or it shall mean the installation of an approved backflow prevention device on the service line leading to and supplying a portion of a customer's water system where there are actual or potential cross-connections which cannot be effectively eliminated or controlled at the point of cross-connection.

k. Hazard, Degree Of - The term is derived from an evaluation of the potential risk to public health and the adverse effect of the hazard upon the potable water system.

(1) Hazard - Health: Any condition, device, or practice in the water supply system and it's operation which could create, or in the judgment of the Town of Greenwood, may create a danger to the health and well-being of the water consumer. An example of a health hazard is a structural defect, including cross-connections, in the water supply system.

(2) Hazard - Plumbing: A plumbing type cross-connection in a consumer's potable water system that has not been properly protected by a vacumn breaker, air-gap separation or backflow prevention device. Unprotected plumbing type cross-connections are considered to be a health hazard.

(3) Hazard - Pollutional: An actual or potential threat to the physical properties of the water system or to the potability of the public or the consumer's potable water system, but which would constitute a nuisance or be aesthetically objectionable or could cause damage to the system or its appurtenances, but would not be dangerous to health.

(4) Hazard - System: An actual or potential threat of severe damage to the physical properties of the public potable water system or the consumer's potable water system or of a pollution or contamination which would have a protracted effect on the potable water in the system and its quality.

l. Industrial Fluids System - Any system containing a fluid or solution which may be chemically, biologically or otherwise contaminated or polluted in a form or concentration such as would constitute a health system, pollutional or plumbing hazard if introducted into an approved water system. This may include, but

not be limited to: polluted or contaminated waters; all types of processed waters and "used waters" originating from the public potable water system which may have deteriorated in sanitary quality; chemicals in fluid form; plating acids and alkalis, circulated cooling waters connected to an open cooling tower and/or cooling towers that are chemically or biologically treated or stabilized with toxic substances; contaminated natural waters such as from wells, springs, rivers, bays, harbors, seas, irrigation canals or systems, etc.; oils, gases, glycerine, paraffins, caustic and acid solutions and other liquids and gaseous fluids used in industrial or other purposes or for fire-fighting purposes.

m. Pollution - Means the presence of any foreign substance (organic, inorganic, or biological) in water which tends to degrade its quality so as to constitute a hazard or impare the usefulness or quality of the water to a degree which does not create an actual hazard to the public health but which does adversely and unreasonably affect such waters for domestic use.

n. Water Potable - Any water which, according to recognized standards is safe for human consumption.

o. Water Nonpotable - Water which is not safe for human consumption which is of questionable potability.

p. Water Purveyor - The term purveyor shall mean 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 the Town of Greenwood may be used synonymously.

q. Water Service Connections - The terminal of a service connection from the public potable water system; i.e., where the Water Purveyor loses jurisdiction and sanitary control over the water at its point of delivery to the customer's water system. If a meter is installed at the end of the service connection, then the service connection shall mean the downstream end of the meter. There should be no unprotected takeoffs from the service line ahead of any meter or any backflow prevention device located at the service connection or point of delivery to the customer's water system. Service connection shall mean all temporary or emergency water service connections from the public potable water system.

r. Water Used - Any water supplied by a Water Purveyor from a public water system (potable) to a consumer's water system after it has passed through the point of delivery and is no longer under the sanitary control of the Water Purveyor.

Section 4. Excerpts from State Codes and Regulations.

a. State of Florida, Department of Environmental Regulation, Administrative Rule, Section 17-22.107 (4) (a):

> Cross-connection, which is the physical connection of a water system or other substance of unknown, questionable or unsafe water quality to a public water system, is prohibited. However, a person owning or managing a public water system may inter-connect to the public water system another water system if such other system is regularly examined as to its quality by those persons owning or managing the public water system and the other

water system meets all the requirements contained in Chapter 17-22 Florida Administrative Code. This provision shall apply to all water distribution systems which are either inside or outside of any building or buildings.

b. Standard Plumbing Code Chapter XII, Section 1204.1

Potable water supply piping, water discharge outlets, backflow prevention devices or similar equipment shall be so located as to make impossible their submergence in any contaminated or polluted liquid or substance.

c. Standard Plumbing Code Appendix D, Section D-2 (a) (d):

The plumbing official shall enforce the provisions of this Code so as to insure the potability of the consumer's water supply to the extremities of the consumer's water system. The plumbing 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 Appendix on existing water supply systems.

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, alterations or repairs of the water supply system and has secondary supervisory responsibility to the Health Officer for existing water supply systems.

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 systems and all water sources. Such responsibility extends from the point of origin of the public water supply to and includes 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 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.

The consumer has the prime responsibility of preventing contaminants and pollutants from entering the water 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 is required by this Appendix, 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 Appendix.

d. Standard Plumbing Code Appendix D, Section D-4 (a):

No water service connection 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.

Section 5. Regulation of Cross-Connection Control.

In order to protect the public water supply system from contamination due to cross-connections, the Town of Greenwood hereby establishes the following regulations.

(a) No installation of potable water supply piping or part thereof shall be made in such a manner that it will be possible for used, unclean, polluted or contaminated water, mixtures or substances to enter any portion of such piping from any tank, receptacle, equipment or plumbing fixture by reason of back-siphonage, or any other cause, either during normal use and operation thereof or when any such tank, receptacle, equipment or plumbing fixture is flooded, or subject to pressure in excess of the pressure in the hot or cold water piping.

(b) No person shall make a connection or allow one to exist between pipes or conduits carrying domestic water supplied by any public or private water service system, and any pipes, conduits or fixtures containing or carrying water from any other source or containing or carrying water which has been used for any purpose whatsoever, or any piping carrying chemicals, liquids, gases, or any substance whatsoever, unless there is provided an approved backflow prevention device. The approval of the Town of Greenwood must be obtained before any connection is made between the domestic supply and any contaminated, polluted or auxiliary water system.

(c) No plumbing fixture, device or construction shall be installed or maintained or shall be connected to any domestic water supply, when such installation or connection may provide a possibility of polluting such water supply or may provide a cross-connection between a distribution system of water for drinking and domestic purposes and water which may become contaminated by such plumbing fixture device or construction unless there is provided an approved backflow prevention device.

(d) No water piping supplied by any private water supply system or industrial piping system shall be connected to the public potable water system without the approval from the Town of Greenwood.

(e) Backflow preventers, as specified by the Town of

Greenwood, shall be required, tested, and maintained on the following types of facilities.

(1) Automotive maintenance facilities (RP)
(2) Auxiliary water systems (RP)
(3) Bottling plants (DC)
(4) Buildings with house pumps and/or water storage tanks (DC)
(5) Buildings with sewage injectors (RP)
(6) Canneries, packing houses, or reduction plants (RP)
(7) Car washes with water reclamation system (RP)
(8) Centralized heating and air-conditioning plants (RP)
(9) Chemical plants (RP)
(10) Chemically treated potable water systems (DC)
(11) Commercial laundries (DC)
(12) Dairy and cold storage plants (DC)
(13) Dye works (RP)
(14) Film processing laboratories (RP)
(15) Fire systems with pumps and/or storage tanks (DC)
(16) Fire systems with auxiliary supplies (RP)
(17) Food processing plants (DC)
(18) High schools and colleges (RP)
(19) Hospitals, mortuaries, medical and dental buildings (RP)
(20) Convalescent homes and sanitariums (RP)
(21) Irrigation systems (RP)
(22) Laboratories using toxic materials (RP)
(23) Manufacturing, processing, and fabricating plants (RP)
(24) Mobile home parks (DC)
(25) Oil and gas production facilities (RP)
(26) Plating plants (RP)
(27) Restricted, classified or other restricted and/or closed facilities (RP)
(28) Where cross-connections are maintained (RP)
(29) Sewage and storm drain facilities (RP)
(30) Where the use of a substance, processed water, or water supplied by the Town of Greenwood, is such as to subject the water to deterioration in sanitary quality and to permit its entry into the water system (RP)

*Code for type of backflow preventer: (RP) Reduced Pressure
(DC) Double check

f. Backflow preventers as specified by the Town shall be provided with the following types of plumbing devices.

(1) Air conditioning system with chill water (PVB)
(2) Air conditioning cooling tower (PVB)
(3) Medical aspirator (RP)
(4) Autoclave and sterilizer steam tables (RP)
(5) Boiler industrial feed lines (RP)
(6) Medical and industrial condensers (RP)
(7) Commercial dishwashing machines (AVB)
(8) Suction side pump chlorinators (AVB)
(9) Degreasing equipment (RP)
(10) Hospital digesters (RP)
(11) Town water and sewage pump direct connections (RP)
(12) Hydraulic elevators and industrial processes (RP)
(13) Dental cuspidors and saliva ejectors (RP)
(14) Etching tanks (RP)
(15) Floor drains with trap primers or flush connections (RP)
(16) Garbage can washers (PVB)
(17) Industrial in-plant plumbing systems (RP)

(18) Lawn sprinkling systems (AVB)
(19) Hospital laundry machines (RP)
(20) Industrial plant's protection meter (RP)
(21) Processing tanks (RP)
(22) Pumps for unsafe materials primed with water (RP)
(23) Rubber hoses equipped with hand controls or self closing faucets (PVB)
(24) Home swimming pools (PVB)
(25) Fire protection sprinkling systems (DC)
(26) Steam tables (PVB)
(27) Dairy and stable watering troughs (PVB)
(28) Poultry or livestock water troughs where vaccine is added (PVB)
(29) Below the rim or inverted supply water inlets in devices such as aquariums, bidets, baptistries, bed pan washers, bird baths, fish ponds, foot tubs, sinks, drinking fountains, siphon flush tanks, lavatories, tanks, and other tubs, vats, laboratories apparatus, thereaputic baths, and x-ray equipment tanks (RP)

*Code for type of backflow preventer:
(RP) Reduced Pressure
(DC) Double Check
(PVB) Pressure Vacumn Breaker
(AVB) Atmospheric

g. Backflow preventers may be required by the Town of Greenwood for other facilities not listed if deemed necessary, to protect the water system from possible contamination and/or deterioration.

h. The installation charge for backflow preventers designated shall be determined on an individual basis using current product, labor, and equipment costs. All charges shall be due and payable at time of user service connection. Inspection of all backflow preventer devices may require payment of a reasonable fee, as determined by the Town Council on a uniform basis.

i. The provisions of paragraphs (a) through (g) notwithstanding, the requirements for the installation of a backflow preventer may be waived at the descretion of the Town Mayor or his designee, if such official finds that adequate protection against cross-connections is being provided by the customer. All such protection and/or devices shall be subject to periodic inspection by the Town of Greenwood.

Section 6. Procedures for Enforcement.

a. Existing Facilities

(1) All premises of the type where cross-connections are suspect, shall be surveyed by the Town of Greenwood to determine if a detailed inspection will be required.

(2) The owners of the suspected premises shall be notified in writing (30) days in advance to secure an appointment for inspection of the premises. [See Appendix (A)]. The owner or his authorized representative will be required to accompany the inspector during the tour of the premises.

(3) An inspection form will be completed by the inspector and signed by the owner or his representative [See Appendix (B)]. The owner shall be made aware of any corrective measures that need to be made.

(4) An official letter shall be sent to the owner indicating what corrective measures must be taken [See Appendix (C)].

(5) Upon conformance of the requirements in the notification letter, the owner shall immediately notify the Town of Greenwood to schedule a date for reinspection.

b. New Facilities

(1) Each applicant for a building permit will be required to complete a questionnaire [See Appendix (D)].

(2) If the representative individual making the system cross-connection inspection determines that a potential cross-connection exists, the questionnaire shall be forwarded to the Town of Greenwood. This is the responsibility of the person making the inspection.

(3) The Town of Greenwood will notify the new customer in writing and arrange a meeting to discuss the requirements for backflow prevention. Procedures for inspection of the device will be discussed at this meeting. The customer will be required to provide construction drawings of his proposed facility.

c. Records Required to be Maintained by Owners of Facilities

(1) The owner of a backflow prevention devise shall be notified (30) days in advance by the Town of Greenwood, as to when his device will require testing and/or inspection [See Appendix (E)] .

(2) Attached to the aforementioned notification letter shall be a test and maintenance form which must be completed by the owner's certified backflow prevention tester [See Appendix (F)]. This form, once completed, shall be submitted to the Town of Greenwood no later than (30) days from the inspection date. Failure to do so could result in the enforcement of Section 9 of this ordinance.

Section 7. Certification of Backflow Prevention Device Testers.

A person wishing to become certified as a Backflow Prevention Device Tester must complete a comprehensive training program established by the University of Florida's TREEO Center. Arrangements for attending this program can be made by contacting the TREEO Center Coordinator at (904) 392-2464.

If an individual wishes to be placed on the Town of Greenwood's list of Approved Backflow Prevention Device Testers,

he must submit his request in writing to the Town Mayor, Town of Greenwood, along with a copy of his TREEO Center Certificate of Completion. The individual will be notified in writing of his approval or denial. [See Appendix (G)].

Section 8. Construction Standards for Backflow Prevention Devices.

Appendix (H) contains minimum construction standards for the various types of backflow prevention devices required under the provisions of this ordinance.

Section 9. Penalty for Non-Compliance.

Service of water to any premises shall be disconnected by the Town of Greenwood, if a backflow prevention device required by law, rules or regulations is not installed, tested and maintained; or if it is found that a backflow prevention device has been removed or by-passed, or if unprotected cross-connections exist on the premises and there is inadequate backflow protection at the service connection. Water service will not be restored until such conditions or defects are corrected. All turn-off, turn-on service charges shall be paid by the consumer.

Section 10. This ordinance, upon its adoption, shall become effective November 13, 1990.

INTRODUCED and read in full to the Town Council this 9th day of October, 1990.

PASSED by the Town Council this 13th day of November, 1990.

Harry Vann
CHAIRMAN OF TOWN COUNCIL

ATTEST: Connie Davis
CITY CLERK