# ARTICLE VII

## CONTROL OF BACKFLOW AND CROSS-CONNECTIONS

# Section 7.1 STATEMENT OF POLICY

It is the policy of the Water District to protect the public water system by containing potential contamination within the premises of the user. Consumers are required to follow the applicable provisions of the New York State Sanitary Code, as well as the requirements set forth in the Department's Cross Connection Control Handbook and all applicable federal, state and local regulatory requirements.

# Section 7.2 STATUTORY AUTHORITY

Chapter I, Title 10, New York State Sanitary Code, Part 5, Drinking Water Supplied, 5-1.31, Cross Connection Control requires that a supplier of water shall protect the public water system in accordance with acceptable procedures by containing potential contamination within the premises of the user in the following manner:

By requiring an acceptable air gap, double check valve assembly, reduced pressure zone device or equivalent protective device acceptable and consistent with the degree of hazard posed by the premises served by the connection.

By requiring the users of such connections to submit plans for the installation of protective devices to the supplier of water and the Nassau County Department of Health for approval; and

By assuring that all protective devices installed be tested at least annually.

# Section 7.3 RESPONSIBILITY OF THE DISTRICT

The Board of Commissioners, Superintendent or their designated agent shall inspect plumbing in every building or premises in the Plainview Water District as frequently as in their judgment may be necessary to ensure that such plumbing has been installed in such a manner as to prevent

the possibility of pollution of the water supply of the District by the plumbing. The Board of Commissioners shall notify or cause to be notified in writing the owner or authorized agent of the owner of any such building or premises, to correct, within a reasonable time set by the Board of Commissioners, any plumbing installed or existing contrary to or in violation of the rules and regulations and which in their judgment, may, therefore, permit the pollution of the District's water supply, or otherwise adversely affect the public health.

The Board of Commissioners, or their designated agent, shall have the right of entry into any building, during reasonable hours, for the purpose of making inspection of the plumbing systems installed in such building or premises provided that with respect to the inspection of any single family dwelling, consent to such inspection shall first be obtained from a person of suitable age and discretion therein or in control thereof. This Section is particularly applicable to lawn sprinklers, air conditioning, refrigeration, and aspirating equipment installations.

## Section 7.3.1 Inspection

The District shall cause a routine inspection of all premises served which are not already provided with the approved backflow prevention devices. Such inspections shall be conducted at an interval of no longer than one (1) year for non-residential services and five (5) years for residential services. For the purpose of this ordinance, a multiple dwelling and a residence used in part for business purposes shall be considered to be non-residential. Once it has been determined that a premises requires a backflow prevention device, the owner of said premises shall be notified and required to install and maintain an approved double check valve (DCV), reduced pressure zone (RPZ) device or equivalent protective device as appropriate in accordance with the requirements of this ordinance.

# Section 7.3.2 Right of Entry

The District, or their authorized agent, shall have the right of entry into any premises during reasonable hours for the purpose of making an evaluation of the premises provided that with respect to the inspection of any single family dwelling under this Article consent to such inspection shall first be obtained from a person of suitable age and discretion therein, or in control thereof.

# Section 7.3.3 Multiple Dwellings and Commercial and Industrial Buildings

The District, or its designated agent, may require the owner of any multiple dwelling, commercial or industrial building to designate some qualified person to be in charge of the water supply for that building.

## Section 7.4: DEFINITIONS

When used in this Article, unless otherwise indicated, the following words shall have the following meanings:

**APPROVED BACKFLOW PREVENTION DEVICE** is an air gap, reduced pressure zone device, double check valve assembly or equivalent protective device, as applicable and approved by the New York State Department of Health, to contain existing or potential contamination within a customer's facility.

**AESTHETICALLY OBJECTIONABLE FACILITY** is one in which substances are present which, if introduced into the public water supply system, could be a nuisance to other water customers, but would not adversely affect human health.

Typical examples of such substances are: food grade dyes, hot water, stagnant water from fire lines in which no chemical additives are used, etc.

**AIR GAP** means the unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank-plumbing fixture or other device and the flood level rim of the receptacle. The differential distance shall be at least double the inside diameter of the supply pipe. In no case shall the air gap be less than one (1") inch.

**BACKFLOW** means a flow condition, induced by a differential in pressure that causes the flow of water or other liquids and/or gases into the distribution pipes of a public water supply from any source other than the intended source.

**BACKPRESSURE** means the resulting backflow of water from a plumbing fixture or other customer source(s) into a public water supply system due to a greater pressure within the customer's water system.

**BACKSIPHONAGE** means the backflow of water from a plumbing fixture or other customer source(s) into a public water supply system main due to a temporary negative or sub-atmospheric pressure within the public water supply system.

**CERTIFIED BACKFLOW PREVENTION DEVICE TESTER** is a person having completed the required training course and holding a current certification issued by the New York State Department of Health.

**CONTAINMENT** means cross-connection control that isolates the consumer's entire facility from the public water system so as to provide the protection necessary to prevent contamination of the public water supply in the event of backflow from the consumer's facility.

**CROSS-CONNECTION** means a physical connection through which a water supply could be contaminated.

**DEGREE OF HAZARD** means whether a facility is rated as hazardous, aesthetically objectionable or non-hazardous.

**DOUBLE-CHECK VALVE (DCV) ASSEMBLY** means two single independently acting check valves, including tightly closing shutoff valves located at each end of the assembly and suitable connections for testing the water tightness of each valve.

**HAZARDOUS FACILITY** is one in which substances may be present which, if introduced into the public water system, would or may endanger or have an adverse effect on the health of other water customers. Typical examples are laboratories, sewage treatment plants, hospitals, and mortuaries.

**INTERCONNECTION** is a joining of two independently operated public water distribution systems.

**LOCAL HEALTH DEPARTMENT ENGINEER** is the Nassau County Health Department Engineer.

**NON-HAZARDOUS FACILITY** is one, which does not require the installation of an acceptable backflow prevention device.

**OUTLET** is the open end of the water supply pipe through which the water is discharged.

**POTABLE WATER** is that which complies with the drinking water quality provisions of the State Sanitary Code, Part 5, Drinking Water Supplies.

**REDUCED PRESSURE ZONE (RPZ) DEVICE** means a minimum of two (2) independently acting check valves, together with an automatically operated pressure differential relief valve located between the two (2) check valves. During normal flow and at the cessation of normal flow, the pressure between these two (2) checks shall be less than upstream (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 checks at less than the supply pressure.

The unit must include tightly closing shutoff valves located at each end of the device and each device shall be fitted with properly located test cocks.

**INDIVIDUAL WATER SUPPLY** means any water source or system other than the Plainview Water District supply, which may be available in the building or on the premises.

# Section 7.5 CROSS CONNECTIONS

Cross-connections between the customer's water system in premises served by the District, which are rated aesthetically objectionable and/or hazardous, are prohibited except where an approved backflow prevention device has been installed to prevent contamination of the potable system. The District shall determine the degree of hazard posed by the service connection to the premises and shall determine the type of backflow prevention device that is required to be installed. In each instance where a condition, device or practice has a potential for a cross connection with the water supply, an approved air gap, reduced pressure zone device, a double

check valve assembly or equivalent protective device must be installed commensurate with the degree of hazard encountered.

Individual Water Supply Cross-connections between an individual water supply (i.e. private well) and the potable water supply of the District shall not be made unless specifically approved by the Board of Commissioners and the New York State Department of Health.

# Section 7.6 INTERCONNECTIONS

Interconnections are prohibited except for emergency interconnections with other public water purveyors.

# Section 7.7 DISTRICT REQUIRED BACKFLOW DEVICES

- a) All new residential services must be equipped with, at the very least, an approved double check valve assembly (DCVA).
- b) All non-residential services must be equipped with an approved reduced pressure zone (RPZ) device.

- c) All fire service and by-pass lines must be equipped with an approved DCVA.
- d) Where underground sprinkler systems employ chemicals, an approved RPZ device shall be required.
- e) Services with a private well that is interconnected or has the potential to be interconnected with the public water supply must be equipped with an approved RPZ device.
- f) All underground sprinkler systems and swimming pools with direct fill capability must have installed a minimum of a DCVA.
- g) All wet-pipe systems utilizing antifreeze, corrosion control additives or any other foreign substance, or which are located near an alternative source of supply (canals, ponds, etc.) shall be equipped with an approved RPZ device.

# Section 7.8 APPROVALS, PROCEDURES AND INSTALLATIONS OF BACKFLOW DEVICES

Applications and instructions for the installation of backflow devices are available at the District. Applications are subject to review and approval by the District. The fee associated with the District's review can be found on the "Plainview Water District Fees and Charges" schedule located on our website at <u>www.plainviewwater.org</u>. If a device is installed on a 2" or larger service line, a separate application must be made to the Nassau County Department of Health for their approval. The Nassau County Department of Health also charges for their review of plans in accordance with their latest fee schedule.

In order to insure full containment, backflow devices must be installed immediately after the water meter. No connections shall be made between the meter and the backflow device. All installations shall be made by a duly licensed plumber of the Town of Oyster Bay.

A New York State certified tester must test Backflow devices at least once a year. Records of such tests must be filed with the District as required by New York State law.

The approval procedure is as follows:

#### a. For Devices Less Than 2":

The applicant must file with the District an application on the current New York State Health Department form, together with plans and specifications for the installation of the proposed backflow prevention device. Copies of the form, typical plans previously approved by the Nassau County Department of Health, and specifications for the installation of the backflow devices, as well as a list of devices acceptable to the New York State Department of Health for containment control are available from the District.

#### b. For Devices 2" and Larger:

A separate application must be made to the Nassau County Department of Health and a copy filed with the District. After approval is obtained from the Department of Health, the customer shall have the backflow prevention device installed in accordance with the plans and specifications.

Certification that the device was installed in accordance with the approved plan shall be made to the District by the installer. At the completion of the installation, and within forty-five (45) days, the device shall be tested by a Certified Backflow Prevention Device Tester. A report of the results of the test shall be submitted to the District within thirty (30) days of the test.

## Section 7.9 TECHNICAL REQUIREMENTS

#### a) New Water Supply Connections

- 1. Residential An approved reduced pressure zone (RPZ) backflow prevention device or double-check valve (DCV) shall be installed in an appropriate meter pit or other approved location on all new water supply connections supplying water to any residential premises.
- 2. Commercial, industrial or other non-residential structure connected to the potable water system of the District shall have an RPZ backflow prevention device.

## b) Existing Water Supply Connections

Retroactive hereto, an approved backflow prevention device shall be retrofitted in an appropriate meter pit or location as approved by the District for all existing water supply systems or services, which include but are not limited to:

- 1. An irrigation system;
- 2. A private well that is interconnected or has the potential to be interconnected with the public water supply;
- 3. A solar heating system; and
- 4. Any system rated aesthetically objectionable and/or hazardous by the Nassau County Department of Health or the District.

The same retrofit requirements apply to all industrial, commercial and other nonresidential structures.

## c) Maintenance Requirements

#### **1. General Requirements**

It shall be the responsibility of the building and premises owners to perform required testing and to maintain all backflow prevention devices within their building or on their premises in good working order and to make no piping or other arrangements for the purpose of bypassing the backflow devices. The owner at his sole cost and expense is responsible for complying with the New York State and Nassau County Department of Health's Rules and Regulations for control of backflow and cross-connections.

#### 2. Testing and Repair of Backflow Prevention Devices

Backflow prevention devices installed for the purpose of containment shall be tested annually (when required) starting from the date of the initial test performed at the time of installation. A New York State Department of Health Certified Backflow Prevention Device Tester shall conduct testing. Each backflow device tested shall bear an inspection certificate tag indicating the date of the latest test and the name and address of the Certified Tester who conducted the test. The owner or tester shall file a report of the test on the appropriate Department of Health form with the District within thirty (30) days of conducting the test. Any device, which fails a test, shall be repaired and retested within thirty (30) days.