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CLERK OF THE BOARD
OF COUNTY COMMISSIONERS
MIAMI-DADE COUNTY, FLORIDA

MEMORANDUM

Agenda Item No. 5(F)

(Public Hearing 11-3-15)

TO: Honorable Chairman Jean Monestime
and Members, Board of County Commissioners

DATE: September 1, 2015

FROM: R. A. Cuevas, Jr.
County Attorney

SUBJECT: Ordinance relating to Water and Sewer Regulations; amending Article VIII of Chapter 32 of the Code relating to the Miami-Dade Water and Sewer Department's Cross Connection Control Program

Ordinance No. 15-124

The accompanying ordinance was prepared by the Water & Sewer Department and placed on the agenda at the request of Prime Sponsor Commissioner Barbara J. Jordan.

R. A. Cuevas, Jr.
County Attorney

RAC/cp

Memorandum

MIAMI-DADE COUNTY

Date: November 3, 2015

To: Honorable Chairman Jean Monestime
and Members, Board of County Commissioners

From: Carlos A. Gimenez
Mayor

Subject: Ordinance Relating to Water and Sewer Regulations; Amending Article VIII of Chapter 32 of the Code of Miami-Dade County, Florida Relating to the Miami-Dade Water and Sewer Department's Cross Connection Control Program

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RECOMMENDATION

It is recommended that the Board of County Commissioners (Board) adopt the attached Ordinance amending Sections 32-152, 32-154, 32-154.1, 32-155, 32-156, 32-158, 32-163 and 32-169 of Article VIII of Chapter 32 of the Code of Miami-Dade County. The revisions to the County's Code are necessary in order to bring the County's Cross-Connection Control Program into conformance with changes made in May 2014 to the State of Florida's Cross-Connection Control Rules, which are set forth in Section 62-555.360 of the Florida Administrative Code.

SCOPE

The proposed revisions to Chapter 32 will have a countywide impact.

FISCAL IMPACT/FUNDING SOURCE

There is no fiscal impact to the County because fees are not charged by the Miami-Dade Water and Sewer Department (WASD) to the customer for the backflow prevention requirements specified in any of the sections of the Code that are being amended. Because there is no fiscal impact to the County, the five-year forecast of anticipated expenditures/revenues required by Ordinance No. 15-59 is not included in this fiscal impact statement.

There will be an impact to WASD customers in residential buildings with five (5) stories or more, as the existing exemption to install backflow preventers for those types of residential buildings is being deleted in Section 32-158 of the Code. It is estimated that this revision will impact approximately 226 buildings across the County at an estimated cost of $6,000 per building. However, other WASD customers will see savings because the costs for the required backflow preventer equipment will be lower, the annual inspection requirement for certain buildings is being deleted, and the testing frequency requirement is being changed for residential customers. Customers should benefit in the following ways from the revisions to the Code:

- The revision to Section 32-154.1 will allow customers using reclaimed water as an auxiliary source of water supply to install a less expensive backflow preventer in place of the Reduced Pressure Backflow Preventer as long as the auxiliary system is not a high hazard. The customer should see a savings of approximately $500 per unit.

- The revision to Section 32-158(a) extends the exemption from the requirement to install a

backflow preventer from residential buildings with three (3) stories or less to residential buildings with four (4) stories or less that contain only dwelling units. Prior to this revision, residential buildings with four (4) stories were exempt from the installation requirement, however, a certified plumber had to inspect the building's plumbing system on an annual basis. With this revision, the yearly inspection requirement is deleted which saves the customer about $100 to $300 per year, depending on the size of the building and the number of units in the building.

- The revision to Section 32-163 changes the testing frequency requirement of backflow preventers. The testing requirements for residential customers with water service lines no greater than 2-inches have been revised from one (1) year to two (2) years. Additionally, the requirement for residential customers to test newly installed backflow preventers changed from one (1) year to two (2) years, saving the customer about $75 per year as the average cost for each test is approximately $75.

TRACK RECORD/MONITOR

WASD's Deputy Director, Douglas Yoder, will oversee the implementation of the proposed amendments to meet the new requirements of Section 62-555.360 of the Florida Administrative Code.

BACKGROUND

WASD's Cross-Connection Control Program and Backflow Prevention Program have been in place for over 15 years in order to protect the public health by safeguarding the County's drinking water from potential contamination. A cross-connection is any temporary or permanent connection between a public water system or consumer's potable water system and any source or system containing non-potable water or other substances. Backflow is the unwanted flow of non-potable water or other substances through a cross-connection and into the piping of a public water system or consumer's potable water system. For example, the most common cross-connection is the garden hose left submerged in a bucket full of water or other fluid. If there is a significant drop in water pressure levels due to a nearby water main break, a backflow event may occur causing a reversal of flow of contaminated water or other fluids from the garden hose to the potable water system.

Last spring, the State of Florida revised the Florida Administrative Code relating to Cross-Connection Control Programs and Backflow Prevention Programs statewide. Revisions to Section 62-555.360 of the Florida Administrative Code became effective on May 5, 2014. In order to bring WASD's Cross-Connection Control Program and Backflow Prevention Program into conformance with the amendments made to Section 62-555.360 of the Florida Administrative Code, the following revisions to the County's Code are proposed:

1) Section 32-152 includes the addition and revision of several definitions for the Cross-Connection Control Program that apply to all of WASD's water customers.

2) Section 32-154 revises the table which contains the types of customers that must install backflow preventers and the terms used to identify those types of customers. The new table includes three (3) new types of customers that must adhere to the backflow preventer requirement, all of which are already in compliance as they have backflow preventers installed. In addition, the date by which backflow preventers must be installed by these types of customers was revised from January 1, 2016 to June 1, 2016.

3) Section 32-154.1 changes the backflow preventer requirement for customers using reclaimed water as an auxiliary source of water supply. Customers may now install a less expensive backflow preventer in place of the Reduced Pressure Principle Preventer as long as the auxiliary water system is not a high hazard.

4) Section 32-155 deletes the deadline date specified in Section 32-154 to install a backflow preventer for fire suppression systems as existing systems have already been retrofitted countywide. New customers with fire suppression systems are required to install a backflow preventer simultaneously with the installation of the system.

5) Section 32-156 includes the specification requirements of a Dual Check Valve, which is a type of backflow preventer that costs significantly less while still providing protection.

6) Section 32-158(a) revises the current exemptions from the installation of a backflow preventer. The revision extends the exemption from the requirement to install a backflow preventer from residential buildings with three stories or less to buildings with four (4) stories or less without booster pumps that contain only dwelling units, such as small apartment buildings, single family homes and town homes, including all other structures or facilities not listed in Section 32-154 provided there are no cross-connections on the property. Residential buildings with five (5) stories or more which contain only dwelling units such as condominium residences and apartment buildings will no longer be exempt from the requirement to install a backflow preventer.

7) Section 32-163 changes the testing frequency for backflow preventers. Backflow preventers installed on a non-residential or multi-family residential property with service lines greater than 2-inches must be tested at least annually. Prior to this change, the testing requirement did not consider the size of the service line and included residential homes. With the proposed amendment, residential homes with service lines no greater than 2-inches must be tested once every two (2) years, thereby giving residential customers an additional year without the testing requirement. In addition, residential customers are given an additional year before the first test of a backflow preventer is required after the initial installation. Previously, residential customers were required to test their newly installed backflow preventers 12 months after installation. With the amendment, residential customers now may test their backflow preventer 24 months after installation.

8) Section 32-169 changes the delegation of authority to review and modify the Department's future fees and charges from the County Manager to the County Mayor. Any future modification must be established by separate implementing order instead of by separate administrative order.

WASD staff has met with various County and Municipal Officials including the Plumbing Contractors Association, the Department of Health, and the Miami-Dade County Chief Plumbing Inspector and Building Department to discuss these revisions and received unanimous concurrence from all parties concerned.

It is important to note that the recommended changes to the Miami-Dade County Code will not negatively impact the safety of our water system.

Jack Osterholt
Deputy Mayor

Memorandum

MIAMI-DADE COUNTY

Date: November 3, 2015

To: Honorable Chairman Jean Monestime
and Members, Board of County Commissioners

From: Carlos A. Gimenez
Mayor

Subject: Social Equity Statement for Ordinance Relating to Water and Sewer Regulations; Amending Article VIII of Chapter 32 of the Code of Miami-Dade County, Florida Relating to the Miami-Dade Water and Sewer Department's Cross Connection Control Program - Legistar 151859

The purpose of this supplemental memorandum is to provide a Social Equity Statement as required by Ordinance No. 15-83.

The proposed revisions to Chapter 32 of the Code of Miami-Dade County benefit Water and Sewer Department's customers regardless of geographic location, demographics or income levels, as the installation and testing of a backflow preventer serves to protect the County's potable drinking water. The monetary burden associated with the installation and testing of a backflow preventer will be borne by those WASD customers required to install and/or test a backflow preventer.

Jack Osterholt
Deputy Mayor

MEMORANDUM
(Revised)

TO: Honorable Chairman Jean Monestime
and Members, Board of County Commissioners

DATE: November 3, 2015

FROM: R. A. Cuevas, Jr.
County Attorney

SUBJECT: Agenda Item No. 5(F)

Please note any items checked.

_____ **"3-Day Rule" for committees applicable if raised**

_____ **6 weeks required between first reading and public hearing**

_____ **4 weeks notification to municipal officials required prior to public hearing**

_____ **Decreases revenues or increases expenditures without balancing budget**

_____ **Budget required**

_____ **Statement of fiscal impact required**

_____ **Ordinance creating a new board requires detailed County Mayor's report for public hearing**

✓ **No committee review**

_____ **Applicable legislation requires more than a majority vote (i.e., 2/3's ____, 3/5's ____, unanimous _____) to approve**

_____ **Current information regarding funding source, index code and available balance, and available capacity (if debt is contemplated) required**

Approved _____ Mayor
Veto _____
Override _____

Agenda Item No. 5(F)
11-3-15

ORDINANCE NO. 15-124

ORDINANCE RELATING TO WATER AND SEWER REGULATIONS; AMENDING ARTICLE VIII OF CHAPTER 32 OF THE CODE OF MIAMI-DADE COUNTY, FLORIDA RELATING TO THE MIAMI-DADE WATER AND SEWER DEPARTMENT'S CROSS CONNECTION CONTROL PROGRAM; PROVIDING SEVERABILITY, INCLUSION IN THE CODE, AND AN EFFECTIVE DATE

WHEREAS, on May 5, 2014, the State of Florida made revisions to Section 62-555.360 of the Florida Administrative Code, which Section pertains to the requirements for backflow protection for cross-connections to the public water system; and

WHEREAS, Chapter 32, Article VIII of the Code of Miami-Dade County, Florida sets forth the County's Cross-Connection Control Program, which was established in order to implement the provisions of Section 62-555.360 of the Florida Administrative Code; and

WHEREAS, in order to ensure that the County's Cross-Connection Control Program is consistent with the requirements of Section 62-555.360 of the Florida Administrative Code, the County must amend the following sections of the Code of Miami-Dade County, Florida: 32-152, 32-154, 32-154.1, 32-155, 32-156, 32-158, 32-163 and 32-169,

BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA:

Section 1. Article VIII of Chapter 32 of the Code of Miami-Dade County, Florida, is hereby amended to read as follows:[1]

[1] Words stricken through and/or [[double bracketed]] shall be deleted. Words underscored and/or >>double arrowed<< constitute the amendment proposed. Remaining provisions are now in effect and remain unchanged.

Chapter 32. WATER AND SEWER REGULATIONS

* * *

Article VIII. CROSS CONNECTION CONTROL PROGRAM

* * *

Sec. 32-152. Definitions.

* * *

(j) *Backflow preventer* shall mean a mechanical assembly or device or means that prohibits backflow into a potable water system. Only the following types may be approved:

(1) *Air gap separation (AG)* shall mean unobstructed vertical physical separation between the free-flowing discharge end of a potable water supply pipeline and the flood level rim of an open or non-pressure receiving vessel. An approved air gap separation shall be at least double the diameter of the supply pipe measured vertically above the top of the rim of the vessel. In no case shall an air gap separation be less than one (1) inch.

(2) *Double check detector assembly (DCDA)* shall mean a specially designed assembly composed of a line-size approved double check valve assembly with a bypass containing a specific water meter and an approved double check valve assembly. The meter shall register accurately for only very low rates of flow up to three (3) gallons per minute (gpm) and shall show a registration for all rates of flow. The DCDA is used only on fire systems.

(3) *Double check valve assembly (DC)* shall mean an assembly composed of two (2) single, independently acting approved check valves, including tightly closing resilient seated shutoff valves located at each end of the assembly, and fitting with properly located resilient seated test cocks suitable for testing the water tightness of each check valve. A check valve is a valve that is drip-tight in the normal direction of flow when the inlet pressure is one (1) psi 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. This assembly shall be used only to protect against a non-health hazard.

>>(4) *Dual Check Valve (DuC)* shall mean a device consisting of two (2) single, independently acting check valves. The closure element (e.g., poppet) shall be internally weighted or otherwise internally loaded to

promote rapid and positive closure. This assembly shall be used only to protect against a nonhealth hazard.<<

[[~~(4)~~]] >>(5)<< *Pressure vacuum breaker (PVB)* shall mean an assembly consisting of an independently operating internally loaded check valve and an independently operating loaded air inlet valve located on the discharge side of the check valve, with properly located resilient-seated test cocks and tightly closing resilient-seated shutoff valves attached at each end. The PVB prevents backsiphonage, but it is not effective, and should not be used, in backpressure conditions.

[[~~(5)~~]] >>(6)<< *Reduced pressure detector assembly (RPDA)* shall mean a specially designed assembly composed of a line-size approved reduced pressure principle backflow prevention assembly with a bypass containing a specific water meter and an approved reduced pressure principle backflow preventer. The meter shall register accurately for only very low rates of flow up to three (3) gpm and shall show a registration for all rates of flow. The RPDA is used only on fire systems.

[[~~(6)~~]] >>(7)<< *Reduced pressure principle backflow preventer (RP)* shall mean an assembly containing within its structure a minimum of two (2) independently acting approved check valves, together with an automatically operating pressure differential relief valve located between the two (2) check valves. The first check valve reduces the supply pressure by a predetermined amount so that during normal flow and at cessation of normal flow the pressure between the 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 checks less than the supply pressure. These units are equipped with tightly closing resilient seated shut-off valves located at each end of the assembly, and with properly located resilient seated test cocks.

(k) *Backsiphonage* shall mean a form of backflow due to a reduction in system pressure which causes a subatmospheric pressure to exist at a site in the water system.

(l) *Building Official* shall mean that official designated by the appointing authority, as defined in the Florida Building Code.

(m) *Certified backflow preventer tester* shall mean a person who has satisfactorily completed a nationally recognized backflow preventer testing training program that meets or exceeds any existing Florida Department of Environmental Protection (FDEP) standards or that is determined by Miami-Dade County to meet the requirements of the latest edition of AWWA M14 Manual. After satisfactorily completing a backflow preventer testing training program, as described above, the person shall be required to pass a written examination administered under the direction of Miami-Dade County Construction Trades

Qualifying Board (CTQB). All testers are required to be re-certified by Miami-Dade County CTQB every two years. Backflow preventer testers who are currently certified as of the date of the ordinance from which this subsection derives will be permitted to test backflow preventers in Miami-Dade County until such time as the Miami-Dade County exam is first administered or until the existing certification expires whichever occurs later, but not to exceed two (2) years. In no event shall the training institute also serve as an examiner for the Miami-Dade County test. [[~~Code inspector shall have the meaning and powers defined in Section 8CC-3 of the County Code~~.]]

>>(n) *Code inspector* shall have the meaning and powers defined in Section 8CC-3 of the County Code. <<

[[~~(n)~~]] >>(o)<< *Cross-connection* shall mean any temporary or permanent physical connection or arrangement between a public water system and any other system or source through which it is possible, given pressure differentials, for any substance other than potable water to flow into the public water system.

[[~~(o)~~]] >>(p)<< *Department* shall mean the Miami-Dade Water and Sewer Department, including its director, employees, agents, designees, and successors.

[[~~(p)~~]] >>(q)<< *Existing water customer* shall mean a water customer as defined herein for which a water meter is installed and operating on or before [[~~January 1, 2002~~]] >>May 5, 2014<<.

[[~~(q)~~]] >>(r)<< *Florida Fire Prevention Code* shall mean rule 69A-60 Florida Administrative Code.

[[~~(r)~~]] >>(s)<< *Industrial fluid* shall mean any fluid or solution which is intended to be or has been used in or results from activities of manufacture, production, fabrication, repair, packaging, processing or sale of goods or services or growing of agricultural crops or for fire suppression purposes. This may include, but is not limited to: polluted used waters; polluted auxiliary water; all types of process waters; chemicals in fluid form, including pesticides and fertilizers; fuels and oils; acids and alkalis; circulated cooling waters connected to an open cooling tower and/or cooling waters that are chemically or biologically treated or stabilized with toxic substances.

[[~~(s)~~]] >>(t)<< *Internal isolation* shall mean fixture isolation and/or isolation of an area or zone within a customer's premises, downstream of the service connection. Fixture isolation means installing an approved backflow preventer at the source of the potential contamination. Area or zone isolation is confining the potential source of contamination within a specific area.

[[~~(t)~~]] >>(u)<< *NFPA* shall mean National Fire Protection Association, Quincy, Massachusetts.

[[~~(u)~~]] >>(v)<< *Nonhealth hazard* shall mean substances which, although not dangerous to health, may impart offensive solids, color, odor or taste to the public water supply.

//

[[~~(v)~~]] >>(w)<< *New water customer* shall mean a water customer, as defined herein, who applies for the provision of water service after [[~~January 1, 2002~~]] >>May 5, 2014<<.

[[~~(w)~~]] >>(x)<< *Reclaimed water* shall mean waste water which has received at least secondary treatment and basic disinfection and is approved for reuse in compliance with regulations of State agencies.

>>(y) *Residential service connection* shall mean any service connection, including any dedicated irrigation or fire service connection, that is two inches or less in diameter and that supplies water to a building or premise, containing only dwelling units. Non-residential service connection is any other service connection.<<

[[~~(x)~~]] >>(z)<< *Service connection* shall mean the terminal end of water delivery from the public water system, that is, where the utility loses jurisdiction and sanitary control over the water at its juncture with 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. Service connection shall also include water service connection from a fire hydrant and all other temporary or emergency water service connections from the potable water system.

[[~~(y)~~]] >>(aa)<< *State agencies* shall mean the Department of Environmental Protection, the Department of Health, the State Fire Marshal, their successors, and any other instrumentality of the State of Florida charged under provisions of Part VI of Chapter 403, Florida Statutes or other statute or regulation with testing, inspecting, certifying, enforcing, or otherwise assuring compliance with environmental, health and safety standards, especially those for safe drinking water.

[[~~(z)~~]] >>(ab)<< *Tampering* shall mean dismantling, removal, or rendering ineffective after installation, testing and certification, except in order to effect an approved replacement.

[[~~(aa)~~]] >>(ac)<< *Used water* shall mean any water supplied to a customer's water system after it has passed through the service connection.

[[~~(ab)~~]] >>(ad)<< *Water customer* shall mean any individual, municipality, corporation, partnership, firm, association or other entity receiving water service from the Department for consumption or usage within its premises or for resale to ultimate consumers.

* * *

Sec. 32-154. Backflow preventers required.

Certain water customers of the Department shall install a backflow preventer as provided herein. Backflow preventers installed in the facilities listed in (c) [[~~and (d)~~]] below shall be tested by a certified backflow preventer tester.

* * *

(c) Backflow preventers shall be installed by existing water customers in the following facilities by [[~~January~~]] >>June<< 1, [[~~2007~~]] >>2016<<.

>>Category of Customer<<	>>Backflow Preventer<<
>>Beverage processing plant, including any brewery<<	>>RP<<
>>Cannery, packing house, rendering plant, or any facility where fruit, vegetable, or animal matter is processed, excluding any premises where there is only restaurant or food service facility<<	>>RP<<
>>Car wash<<	>>RP<<
>>Chemical plant or facility using water in the manufacturing, processing, compounding, or treatment of chemicals, including any facility where a chemical that does not meet the requirements in paragraph 62-555.320(3)(a), F.A.C., is used as an additive to the water<<	>>RP<<
>>Construction Site<<	>>DC<<
>>Dairy, creamery, ice cream plant, cold-storage plant, or ice manufacturing plant<<	>>RP<<
>>Dye plant<<	>>RP<<
>>Film laboratory or processing facility or film manufacturing plant, excluding any small, noncommercial darkroom facility<<	>>RP<<
>>Hospital; medical research center; sanitarium; autopsy facility; medical, dental, or veterinary clinic where surgery is performed; or plasma center<<	>>RP<<
>>Laboratory, excluding any laboratory at an elementary, middle, or high school<<	>>RP<<
>>Laundry (commercial), excluding any self-service laundry or Laundromat<<	>>RP<<
>>Marine repair facility, marine cargo handling facility, or boat moorage<<	>>RP<<
>>Metal manufacturing, cleaning, processing, or fabricating facility using water in any of its operations or processes, including any aircraft or automotive manufacturing plant<<	>>DC if the facility presents a low hazard; or RP if the facility presents a high hazard<<
>>Mortuary<<	>>RP<<

>>Premises where oil or gas is produced, developed, processed, blended, stored, refined, or transmitted in a pipeline or where oil or gas tanks are repaired or tested, excluding any premises where there is only a fuel dispensing facility<<	>>RP<<
>>Premises where there is an auxiliary or reclaimed water system<<	>>A. At or for a residential service connection: DuC B. At or for a non-residential service connection: DC if the auxiliary or reclaimed water is a low hazard; or RP if the auxiliary or reclaimed water is a high hazard<<
>>Premises where there is a cooling tower<<	>>RP<<
>>Premises where there is an irrigation system that is using potable water and that is connected directly to the distribution system via a dedicated irrigation service connection<<	>>PVB if backpressure cannot develop in the downstream piping; or RP if backpressure could develop in the downstream piping<<
>>Radioactive material processing or handling facility or nuclear reactor<<	>>RP<<
>>Paper products plant using a wet process<<	>>RP<<
>>Plating facility, including any aircraft or automotive manufacturing plant<<	>>RP<<
>>Restricted-access facility<<	>>RP<<
>>Steam boiler plant<<	>>RP<<
>>Tall building – i.e., a building with five or more floors at or above ground level<<	>>DC if the customer has no potable water distribution lines connected to the suction side of a booster pump; or RP if the customer has one or more potable water distribution lines connected to the suction side of a booster pump<<
>>Wastewater treatment plant or wastewater pumping station<<	>>RP<<

* Abbreviations refer to types of preventers described in Section 32-152(j).

AG = Air gap

DC = Double check [[~~value~~]]>>valve<<

>>DuC = Dual check valve<<

PVB = Pressure vacuum breaker

RP = Reduced pressure principle backflow preventer

[[~~(d) Backflow preventers shall be installed by existing water customers in the following facilities by January 1, 2012:~~

~~Facility:~~	~~Backflow Preventer~~
~~Agricultural premises, including livestock, poultry, and produce packing~~	~~RP~~
~~Aircraft plants and aircraft repair service~~	~~RP~~
~~Automotive manufacturing~~	~~RP~~
~~Automotive repair~~	~~RP~~
~~Auxiliary water supply present~~	~~RP~~
~~Brewery, winery, distillery~~	~~RP~~
~~Buildings with four stories or more above ground, or with booster pumps~~	~~RP~~
~~Car washes~~	~~RP~~
~~Cold storage plant, dairy, ice manufacture~~	~~RP~~
~~Cooling system, space heating hot water or steam boiler, single wall heat exchanger, or double wall heat exchanger supplied from the public water system~~	~~RP~~
~~Customer of any type with a history of inadequately protected cross connections~~	~~RP~~
~~Film processing or manufacture~~	~~RP~~
~~Food processing facility, including cannery, packing house, rendering plant, reduction plant, and any industrial facility where animal or vegetable matter is processed; not including food preparation~~	~~RP~~
~~Health care facility: health maintenance organizations, offices of health care providers, dialysis centers~~	~~RP~~
~~Irrigation systems using potable water if no backpressure~~	~~PVB~~

~~If backpressure may exist~~	~~RP~~
~~Laboratory, including those within schools and other businesses~~	~~RP~~
~~Laundry or dry-cleaner with processing facilities on site, excluding self-service laundromats~~	~~RP~~
~~Marina, shipyard, boat storage or service facility, including piers and docks, where an outlet supplies water to vessels~~	~~RP~~
~~Metal manufacturing, cleaning, processing or fabricating plant~~	~~RP~~
~~Motion picture studio where water is used for scene tanks or special effects~~	~~RP~~
~~Oil (animal, vegetable or mineral) or gas production, development, processing, blending, storage, refinery, transmission and/or tank maintenance, testing and repair~~	~~RP~~
~~Paper manufacturing or processing plant~~	~~RP~~
~~Premises with multiple interconnected service connections~~	~~RP~~
~~Premise located within an Industrial District (IU) zoned area~~	~~RP~~
~~Restricted access facility where testers are prohibited entry by law and/or which is exempt from the inspection provisions of the plumbing code~~	~~RP~~
~~Rubber (natural or synthetic) or rubber goods manufacture, excluding small molding or tire retreading operations~~	~~RP~~
~~Sand or gravel pit, classifying or processing plant~~	~~RP~~
~~Tanker type vehicles if feasible~~	~~AG~~
~~Otherwise~~	~~RP~~
~~Travel trailer and recreational vehicle parks~~	~~RP~~]]

[[~~(e)~~]]>>(d)<< When an addition is made to an existing building and the addition is twenty-five (25) percent or more of the area of the existing building, a water customer who owns, operates, uses or engages in a business, facility, substance or activity of a type listed in (c) [[~~or (d)~~]] above shall install an approved backflow preventer of the appropriate type. When repairs and alterations amounting to more than fifty (50) percent of the value of the existing building are made during any twelve (12) month period, a water customer who owns, operates, uses or engages in a business, facility, substance or activity of a

type listed in (c) [[~~or (d)~~]] above shall install an approved backflow preventer of the appropriate type. The value of a building or structure shall be the estimated cost of constructing a new building of like size, design and materials at the site of the original structure, assuming such site to be clear. Cost of additions, alterations and repairs shall be construed as the total cost of labor, materials and services based on current prices for new materials.

[[~~(f)~~]]>>(e)<< All consecutive water systems (wholesale or volume customers) distributing the Department's potable water to their customers must have cross-connection control programs duly approved by their governing authorities, which are operated and maintained in accordance with Chapter 62-555.360, Florida Administrative Code. Any non-complying consecutive water systems may be required to install an approved backflow preventer assembly at the interconnection between the Department and the consecutive system. All consecutive water systems shall use reasonable good faith efforts to comply with the compliance dates specified in section 32-154.

[[~~(g)~~]]>>(f) Any customer that is found to have a backflow preventer installed, that is not in accordance with the type required in Section 32-154(c) and Section 32-155(b) will be required to replace the existing backflow preventer with one of the appropriate type, as specified in Section 32-154(c) and Section 32-155(b) including the small low lying three-sided barrier wall.<<

Sec. 32-154.1. Reclaimed Water Regulations.

All customers of properties using reclaimed water as an auxiliary source of water supply shall install [[~~a reduced pressure principle backflow preventer (RP) assembly~~]] >>an appropriate backflow preventer, as listed in Section 32-154(c)<< on the potable water service connection [[~~. The RP assembly shall be installed~~]]>>, <<immediately adjacent to the water meter serving the property. Existing customers must effect this installation before December 31, 2010. New water customers who own or operate such facilities shall install [[~~a RP assembly~~]] >>an appropriate backflow preventer, as listed in Section 32-154(c),<< as a condition to permitting, issuance of a certificate of occupancy, and installation of a water meter. The Department shall set forth specific limitations and requirements, in accordance with all rules and regulations promulgated by State agencies, in each customer agreement for use of reclaimed water. No reclaimed water shall be provided by the Department except under terms of an agreement with the customer.

Sec. 32-155. Fire suppression systems.

* * *

(b) New water customers and existing water customers who are installing new fire suppression systems shall install backflow preventers on all fire suppression

systems in accordance with the table below [[~~and within the applicable deadline provided in Section 32-154(c) and (d)~~]]:

Class	Minimum Level of Protection*
Class 1	DCDA
Class 2	DCDA
Class 3	DCDA
Class 4	RPDA
Class 5	RPDA

* Abbreviations refer to types of preventers described in Section 32-152(i).

DCDA = double check detector assembly

RPDA = reduced pressure detector assembly

* * *

Sec. 32-156. Technical Requirements.

All approved backflow preventers shall conform to specifications set forth in the applicable building code and to rules and regulations promulgated by State agencies. The following specifications are adopted until and unless superseded:

* * *

>>(e) Dual Check Valve (DuC) shall conform to ANSI/ASSE Standard 1024.<<

[[~~(e)~~]] >>(f)<< Pressure Vacuum Breaker Assembly (PVB) shall conform to ANSI/ASSE Standard 1020-1990.

[[~~(f)~~]] >>(g)<< Double Check Detector Assembly (DCDA) shall conform to ANSI/ASSE Standard 1048-1995.

[[~~(g)~~]] >>(h)<< Reduced Pressure Detector Backflow Assembly (RPD) shall conform to ANSI/ASSE Standard 1047-1995.

[[~~(h)~~]] >>(i)<< Further specifications for backflow preventers and their installation, and additional and modified ones for specific purposes, may be provided in standard details and/or written specifications issued by the Department, in accord with standards

adopted by the [[~~South~~]] Florida Building Code and any regulations promulgated by State agencies.

* * *

Sec. 32-158. Exemptions.

(a) Buildings of [[~~three (3)~~]]>>four (4)<< stories or less without booster pumps which contain only dwelling units (including single family residences, town homes, small apartment buildings), and all other structures or facilities not listed in Section 32-154, shall be exempt from the requirement of installation of a backflow preventer, provided that:

(1) No cross-connections exist or are subsequently installed on the property;

(2) No uses or facilities listed in Section 32-154 receive water through the same service connection; and

(3) Any auxiliary water supply is not cross-connected.

[[~~(b) Buildings of four (4) stories or more which contain only dwelling units (including condominium residences and apartment buildings) shall be exempt from the requirement of installation of a backflow preventer, provided that:~~

~~(1) A certified plumber trained in cross-connection control conducts an annual inspection of the building's plumbing system to determine whether a cross-connection exists;~~

~~(2) Each inspection shall be reported to the Department within five (5) days of such inspection; and~~

~~(3) If an inspection of the building indicates a cross-connection, such cross-connection shall be eliminated pursuant to the provisions of this section.~~]]

[[~~(c)~~]] >>(b)<< Exemptions from or exceptions to the Department's standard details may be granted by the applicable Building Official or his designee for installation of backflow preventers where physical limitations are present, provided that the preventer as installed is tested satisfactorily and certified.

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Sec. 32-163. Testing.

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(c) *[[~~Annual~~]]>>Routine Testing<<.*

(1) All backflow preventers >>installed on a non-residential or multi-family residential property with service size greater than 2-inches<< must be tested >>at least<< annually to assure that they are performing satisfactorily by a certified backflow preventer tester.

>>(2) All backflow preventers installed on a residential property with service size no greater than 2-inches must be tested at least biennially to assure that they are performing satisfactorily by a certified backflow preventer tester.<<

[[~~(2)~~]]>>(3)<< The first [[~~annual~~]]>>routine<< testing of each backflow preventer installed subsequent to enactment of this article shall occur within twelve (12) months of installation >>for non-residential, and within twenty-four (24) months for residential customers<<.

* * *

Sec. 32-169. Fees and charges.

Fees and charges imposed herein shall be subject to annual review and modification. The County [[~~Manager~~]] >>Mayor<< is hereby authorized to establish future modifications to the Department's fees by separate [[~~administrative~~]] >>implementing<< order, which fees shall not become effective until approved by the Board of County Commissioners.

Section 9. If any section, subsection, sentence, clause or provision of this ordinance is held invalid, the remainder of this ordinance shall not be affected by such invalidity.

Section 10. It is the intention of the Board of County Commissioners, and it is hereby ordained that the provisions of this ordinance, including any sunset provision, shall become and be made a part of the Code of Miami-Dade County, Florida. The sections of this ordinance may be renumbered or relettered to accomplish such intention, and the word "ordinance" may be changed to "section," "article," or other appropriate word.

Section 11. This ordinance shall become effective ten (10) days after the date of enactment unless vetoed by the Mayor, and if vetoed, shall become effective only upon an override by this Board.

PASSED AND ADOPTED: November 3, 2015

Approved by County Attorney as to form and legal sufficiency: APW

Prepared by: SED

Sarah E. Davis