

State of Florida



# Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD  
TALLAHASSEE, FLORIDA 32399-0850

## -M-E-M-O-R-A-N-D-U-M-

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**DATE:** January 29, 2009

**TO:** Office of Commission Clerk (Cole)

**FROM:** Division of Economic Regulation (Walden)  
Office of the General Counsel (Hartman)

**RE:** Docket No. 080606-WU – Application for amendment of water tariff by O & S Water Company, Inc. to implement Florida Department of Environmental Protection's requirement under Rule 62-555.360, F.A.C., that backflow prevention devices be tested on an annual basis.  
County(ies): Osceola

**AGENDA:** 02/10/09 – Regular Agenda – Tariff Filing - Interested Persons May Participate

**COMMISSIONERS ASSIGNED:** All Commissioners

**PREHEARING OFFICER:** Skop

**CRITICAL DATES:** May 24, 2009 (8-Month Effective Date)

**SPECIAL INSTRUCTIONS:** None

**FILE NAME AND LOCATION:** S:\PSC\ECR\WP\080606A.RCM.DOC

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### Case Background

O & S Water Company, Inc. (O & S or utility) is a Class A utility which provides water service for approximately 2,743 customers in Osceola County. O & S's 2007 annual report shows an annual operating revenue of \$1,165,273 and a net operating income of \$65,484. The service area is located in the St. Johns River Water Management District, where the entire district is considered a water use caution area.

On September 24, 2008, the utility filed an application for approval of a new tariff page requiring that all backflow prevention devices be inspected on an annual basis. The tariff filing

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was suspended by Order No. PSC-08-0797-PCO-WU, issued December 3, 2008, pending further review of the application by Commission staff. The proposed tariff page is attached to this recommendation.

This recommendation addresses staff's review of the filing and recommends approval of the new tariff page (Attachment C). The Commission has jurisdiction pursuant to Sections 367.091 and 367.101, Florida Statutes.

### **Discussion of Issues**

**Issue 1:** Should the utility's proposed tariff sheet requiring that all backflow prevention devices be inspected on an annual basis be approved?

**Recommendation:** Yes. O & S Water Company, Inc.'s proposed tariff sheet allowing disconnection of service if the customer fails to comply with the Department of Environmental Protection's (DEP) rules requiring that all backflow prevention devices be inspected on an annual basis should be approved. The utility should file a proposed customer notice to reflect the Commission-approved tariff sheet. The approved tariff sheet should be effective for service rendered on or after the stamped approval date of the new tariff sheet pursuant to Rule 25-30.475(1), Florida Administrative Code. In addition, the inspection requirement should not be implemented until staff has approved the proposed customer notice. The utility should distribute the notice to the customers no later than with the first bill following the effective date of the tariff and should provide proof of the date the notice was given no less than 10 days after the date of the notice. (Walden)

**Staff Analysis:** Section 367.091(6), Florida Statutes, states that the Commission may withhold consent to the operation of any or all portions of new rate schedules by a vote to that effect within 60 days, giving a reason or statement of good cause for withholding its consent. If the Commission does not withhold consent, the proposed rates may be assumed in effect after 60 days. The Commission suspended the utility's filing in December 2008, pending further review by staff.

The purpose of the filing is to address the DEP requirement for an annual inspection of backflow prevention devices that are installed on customers' service lines in the utility's service area, and to require that these customer installations be inspected by licensed individuals. The basis for the tariff filing is to comply with DEP Rules 62-555.330 and 62-555.360, Florida Administrative Code (F.A.C.). A copy of these rules can be found on Attachment A to this recommendation. Attachment B is an additional reference from the American Water Works Association (AWWA) Manual of Practice No. M14 and relates to backflow prevention device installation and testing, specifically from the section of this AWWA reference that discusses Cross-Connection Control Practices. The utility has an approved Cross-Connection Control Program as required by the DEP. One of the items the program mandates is a backflow prevention device on all connections which may represent a source of contamination due to a lawn irrigation system. Not all customers have backflow prevention devices. Utility records show 423 devices installed and in use. The utility was cited with a deficiency by the DEP in February 2008, noting that only 297 of the 423 backflow prevention assemblies were tested in 2007.

Customers are responsible for piping and appurtenances beyond the utility's water meter toward the dwelling. Rule 25-30.231, F.A.C., requires each utility to operate and maintain in safe and proper condition all of the facilities and equipment used in connection with the distribution, regulation, measurement and delivery of water service to the customer up to and including the point of delivery into the piping owned by the customer. Rule 25-30.210(7), F.A.C., defines Point of Delivery for a water system as the outlet connection of the meter for metered service of the point at which the utility's piping connects with the customer's piping.

Backflow prevention devices are located within the customer's piping. Therefore, the cost of inspection should be borne by the customer.

The utility sent letters in 2007 and 2008 to all customers with backflow prevention devices advising of the annual testing requirement as dictated by the DEP's rule. Notice will continue to be sent annually. A list of plumbers certified in backflow inspection has also been provided to these customers. The cost of testing varies between \$30 and \$60, depending upon the vendor. Customers will have thirty days from the date of the annual notice to complete the testing and provide documentation to the utility.

Staff believes that an effective means to uniformly achieve compliance with the DEP's rules, a good method is to include a new tariff page (Attachment C) in the utility's tariff, that defines with specificity the requirement that annual inspection of backflow prevention devices owned by the customer is necessary. The customer will bear the cost of the inspection since the device is a customer-owned installation. If the customer fails to have the annual inspection conducted and provide documentation of the test to the utility within 30 days of the notice from company, water service will be subject to disconnection upon five additional working days notice to the customer. The notice requirement for discontinuance of service is contained in Rule 25-30.320, F.A.C. This rule provides under paragraph (2)(a), that service may be discontinued for noncompliance with any state regulation governing such utility service. Staff recommends that the utility's request for new Original Sheet No. 16.1 be approved.

The utility should file a proposed customer notice to reflect the Commission-approved tariff sheet. The approved tariff sheet should be effective for service rendered on or after the stamped approval date of the new tariff sheet pursuant to Rule 25-30.475(1), F.A.C. In addition, the inspection requirement should not be implemented until staff has approved the proposed customer notice. The utility should distribute the notice to the customers no later than with the first bill containing the new tariff sheet and should provide proof of the date the notice was given no less than 10 days after the date of the notice.

**Issue 2:** Should the docket be closed?

**Recommendation:** Yes. If no timely protest to the proposed agency action order is filed by a substantially affected person within 21 days, a Consummating Order should be issued and the docket should be closed. In the event there is a timely protest, this docket should remain open pending resolution of the protest. (Walden, Hartman)

**Staff Analysis:** If no timely protest to the proposed agency action order is filed by a substantially affected person within 21 days, a Consummating Order should be issued and the docket should be closed. In the event there is a timely protest, this docket should remain open pending resolution of the protest.

**62-555.330 Engineering References for Public Water Systems.**

In addition to the requirements of this chapter, the requirements and standards contained in the following technical publications are hereby incorporated by reference and shall be applied in determining whether permits to construct or alter public water system components, excluding wells (but including well pumping equipment and appurtenances), shall be issued or denied. Each of these publications is available from the publisher or source listed for the publication. The specific requirements contained in this chapter supersede the requirements and standards contained in these publications. Where there are conflicts between these publications, suppliers of water and construction permit applicants shall comply with any one of the publications. Where there are multiple options or alternatives in these publications, suppliers of water and construction permit applicants shall comply with any one of the options or alternatives. The Department shall allow exceptions to the requirements and standards in these publications if suppliers of water or construction permit applicants provide justification for each exception and provide alternative design and construction features that achieve the same purpose and that afford a similar level of strength, durability, reliability, and public health protection.

(1) *Water Quality and Treatment: A Handbook of Community Water Supplies*, Fifth Edition, 1999, American Water Works Association. Published by McGraw-Hill, Post Office Box 182604, Columbus, OH 43218-2605.

(2) *Water Treatment Plant Design*, Third Edition, 1997, American Society of Civil Engineers and American Water Works Association. Published by McGraw-Hill, Post Office Box 182604, Columbus, OH 43218-2605.

(3) *Recommended Standards for Water Works*, 1997 Edition, Great Lakes – Upper Mississippi River Board of State Public Health and Environmental Managers. Published by Health Research, Inc., Health Education Services Division, P. O. Box 7126, Albany, NY 12224.

(4) Standards of the American Water Works Association (AWWA) in effect on January 1, 2003. Published by the AWWA, 6666 W. Quincy Avenue, Denver, CO 80235.

(5) *Water Fluoridation: A Manual for Engineers and Technicians*, September 1986, Thomas G. Reeves, P.E. Published by the U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Dental Disease Prevention Activity, Atlanta, GA 30333.

**(6) *Recommended Practice for Backflow Prevention and Cross-Connection Control, AWWA Manual M14, Second Edition, 1990, American Water Works Association (AWWA). Published by the AWWA, 6666 W. Quincy Avenue, Denver, CO 80235. [emphasis added]***

(7) *Ultraviolet Disinfection Guidelines for Drinking Water and Water Reuse*, December 2000, National Water Research Institute (NWRI) and American Water Works Association Research Foundation. Published by the NWRI, P.O. Box 20865, Fountain Valley, CA 92728-0865.

(8) *Water Distribution Systems Handbook*, 1999, Larry W. Mays, Editor in Chief. Published by McGraw-Hill, Post Office Box 182604, Columbus, OH 43218-2605.

*Specific Authority 403.861(9) FS. Law Implemented 403.861(7) FS. History—New 11-19-87, Formerly 17-22.630, Amended 1-18-89, 1-3-91, 1-1-93, Formerly 17-555.330, Amended 9-22-99, 8-28-03.*

**62-555.360 Cross-Connection Control for Public Water Systems.**

(1) Cross-connection, as defined in Rule 62-550.200, F.A.C., is prohibited. However, a person who owns or manages a public water system may interconnect to another public water system if that system is operated and maintained in accordance with this chapter.

(2) Community water systems, and all public water systems that have service areas also served by reclaimed water systems regulated under Part III of Chapter 62-610, F.A.C., shall establish and implement a routine cross-connection control program to detect and control cross-connections and prevent backflow of contaminants into the water system. This program shall include a written plan that is developed using recommended practices of the American Water Works Association set forth in *Recommended Practice for Backflow Prevention and Cross-*

*Connection Control*, AWWA Manual M14, as incorporated into Rule 62-555.330, F.A.C.

**(3) Upon discovery of a prohibited cross-connection, public water systems shall either eliminate the cross-connection by installation of an appropriate backflow prevention device acceptable to the Department or shall discontinue service until the contaminant source is eliminated. [emphasis added]**

(4) Only the following are considered to be backflow prevention devices. They shall be installed in agreement with and under the supervision of the supplier of water or his designated representative (plumbing inspector, etc.) at the consumer's meter, at the property line of the consumer when a meter is not used, or at a location designated by the supplier of water or the Department. The devices are:

(a) Air gap separation – A physical separation between the free-flowing discharge end of a potable water supply pipeline and an open or non-pressure receiving vessel. An “approved airgap 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 it be less than 1 inch.

(b) Reduced pressure backflow preventer – A device containing within its structure a minimum of two independently acting approved check valves, together with an automatically operating pressure differential relief valve located between the two check valves. The first check valve reduces the supply pressure 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. The unit shall include tightly closing shutoff valves located at each end of the device, and each device shall be fitted with properly located test cocks.

(c) Atmospheric vacuum breaker – A backflow prevention device which is operated by atmospheric pressure in combination with the force of gravity. The unit is designed to work on a vertical plane only. The one moving part consists of a poppet valve which must be carefully sized to slide in a guided chamber and effectively shut off the reverse flow of water when a negative pressure exists.

(d) Pressure vacuum breaker – A pressure vacuum breaker is similar to an atmospheric vacuum breaker except that the checking unit poppet valve is activated by a spring. This type of vacuum breaker does not require a negative pressure to react and can be used on the pressure side of a valve.

(e) Double check valve assembly – An assembly composed of 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 check valve. A check valve is a valve that is drip-tight in the normal direction of flow when the inlet pressure is one 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.

(f) Residential Dual Check – A compact unit manufactured with two independent spring actuated check valves. The residential dual check is acceptable only as added back-flow prevention in areas served by reuse systems defined in Chapter 62-610, Part III, F.A.C., when the cross connection control program identifies activities specific to paragraphs (5)(a) and (5)(b) of this section.

(5) Cross connection control programs specific to reuse systems defined in Chapter 62-610, Part III, F.A.C., shall consider the following:

(a) Enhanced public education efforts towards prevention of cross connections.

(b) Enhanced inspection programs for portions of the distribution system in areas of reuse for detection and elimination of cross connections.

(c) Dual check valves shall be considered acceptable for reducing risks from back-flow only at residential properties served by reclaimed water unless:

1. Local codes, ordinances, or regulations require greater levels of back-flow prevention.

2. Other hazards exist on the property that require a greater level of back-flow prevention.

*Specific Authority 403.086(8), 403.861(9) FS. Law Implemented 403.086(8), 403.855(3) FS. History–New 11-19-87, Formerly 17-22.660, Amended 1-18-89, 1-3-91, 1-1-93, Formerly 17-555.360, Amended 8-28-03.*

Excerpt from Section 7 – Cross-Connection Control Practices:

*7.4 Typical methods of backflow prevention.* When a hazard has been found and properly classified, effective steps should be taken, when necessary, to require the installation of backflow prevention devices at service connections to prevent possible pollution or contamination of the public system. The devices should be installed on each service connection at the point of delivery and ahead of any outlet.

*7.6 Testing, inspection, and test programs.* Regular testing, inspection, and maintenance of all backflow devices, and appropriate records of the results, are essential parts of any cross-connection program.<sup>1</sup>

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<sup>1</sup> Backflow Prevention and Cross-Connection Control, American Water Works Association, Manual of Practice No. M14, 1966, November 1980 printing, pp. 12-13.

O & S WATER COMPANY, INC.  
WATER TARIFF

ORIGINAL SHEET NO. 16.1

BACKFLOW PREVENTION DEVICE ANNUAL TESTING REQUIREMENT

Pursuant to Rule 62-555.360, Florida Administrative Code, the Florida Department of Environmental Protection requires that all backflow prevention devices be inspected at least once every twelve (12) months by a backflow prevention assembly tester possessing a valid Certification recognized by the American Water Works Association.

In compliance with the Department of Environmental Protection's mandate, the Company requires that all customers with backflow prevention devices arrange for an inspection of such devices, at the customers expense, by a certified backflow prevention assembly tester.

If the results of such test are satisfactory, the results shall be documented by the licensed tester and submitted, by the customer, to the Company in a timely fashion. If the test discloses that the device is not functioning satisfactorily, the customer must, at the customer's expense, arrange for the necessary repairs to be made and the assembly retested by a certified tester. The customer will then submit the satisfactory results to the Company annually.

Satisfactory results of such a test must be submitted within one year of the previous test results. If the customer does not arrange for backflow prevention device testing or does not forward copy of the satisfactory results to the Company, service will be subject to disconnection upon five (5) working days notice to the customer.

EFFECTIVE DATE \_\_\_\_\_

TYPE OF FILING - Tariff

Jack Olsen  
ISSUING OFFICER

President  
TITLE