



Follow-Up Review of Audit of Backflow Assembly Devices & Testing at Port Everglades

Office of the County Auditor

Robert Melton, CPA, CIA, CFE, CIG
County Auditor

Audit Conducted by:
Kathie-Ann Ulett, CPA, Deputy County Auditor
Yan Jiang, CPA, Audit Manager
Muhammad Ramjohn, CISA, WTPO, Senior IT Auditor

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OFFICE OF THE COUNTY AUDITOR

115 S. Andrews Avenue, Room 520 • Fort Lauderdale, Florida 33301 • 954-357-7590 • FAX 954-357-7592

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Honorable Mayor and Board of County Commissioners,

We have conducted a follow-up review of Audit of Backflow Assembly Devices & Testing at Port Everglades. The objective of our review was to determine the implementation status of our previous recommendations.

We conclude that seven recommendations were implemented, and one recommendation was partially implemented. We **commend** management on implementation of our recommendations. The status of each of our recommendations is presented in this follow-up report.

We conducted this review in accordance with Generally Accepted Government Auditing Standards. Those standards require that we plan and perform the review to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our review objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our review objectives.

We appreciate the cooperation and assistance provided by the Port Everglades throughout our review process.

Respectfully submitted,

A handwritten signature in blue ink that reads "Bob Melton".

Bob Melton
County Auditor

cc: Bertha Henry, County Administrator
Andrew Meyers, County Attorney
Glenn Wiltshire, Port Everglades Acting Chief Executive/Port Director

IMPLEMENTATION STATUS SUMMARY

FOLLOW-UP REVIEW OF AUDIT OF BACKFLOW ASSEMBLY DEVICES & TESTING AT PORT EVERGLADES

NO.	PREVIOUS RECOMMENDATION	IMPLEMENTATION STATUS			
		IMPLEMENTED	PARTIALLY IMPLEMENTED	NOT IMPLEMENTED	NOT APPLICABLE
1.	Immediately outsource the function of backflow prevention device certification. Management should monitor certifications to ensure they are performed timely and adequately.	✓			
2. (A.1)	Identify and test all backflow assembly devices on the Port at least annually.	✓			
2. (A.2)	Keep adequate records of the installation, testing, repair, and certification of backflow assembly devices.	✓			
2. (B)	Consider using technology (software, database) or a third-party service to track backflow assembly certifications.	✓			
3.	Ensure appropriate procedures are in place to ensure that test kits are used only for authorized purposes at the Port.	✓			
4.	Management review and update the Cross-Connection Control plan for the Port.		✓		
5.	Refrain from the use of any of the test kits until they are calibrated. Management should calibrate backflow preventer test kits annually. Copies of the calibration report should be retained to ensure their valid use in testing backflow assembly devices	✓			
6.	Port management surplus excess test kits to the Division of Water and Wastewater or other County agencies as needed.	✓			

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INTRODUCTION

During the course of our Procurement Audit at Port Everglades (Port), we received allegations of improprieties regarding the use of County-owned backflow assembly testing kits by County employees for their personal business outside of the Port, as well as inadequate certification and testing of backflow assembly devices at the Port.

Scope and Methodology

The Office of the County Auditor conducts audits of Broward County's entities, programs, activities, and contractors to provide the Board of County Commissioners, Broward County's residents, County management, and other stakeholders unbiased, timely, and relevant information for use in promoting government accountability and stewardship and improving government operations.

We conducted a follow-up review of Audit of Backflow Assembly Devices & Testing at Port Everglades, issued on April 4, 2019 (Interim Report). The purpose of this follow-up review is to determine the status of previous recommendations.

We conducted this review in accordance with Generally Accepted Government Auditing Standards. Those standards require that we plan and perform the review to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our review objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our review objectives.

In conducting our follow-up, we reviewed backflow device testing certificates, purchase orders, records stored with a third-party, equipment surplus documents, backflow preventer test kit calibration reports, the draft Cross-Connection Control Plan and interviewed various Port staff. The period reviewed in our follow-up was July 2019 through September 2019. However, transactions, processes, and situations reviewed were not limited by the audit period.

Overall Conclusion

We conclude that seven recommendations were implemented, and one recommendation was partially implemented. We **commend** management on implementation of our recommendations. The status of each of our recommendations is presented in this follow-up report.

Background

Backflow assembly devices are installed in select residential and all commercial properties to prevent the incorrect flow of contaminants such as: foul water, chemicals, and other pollutants into the public drinking water supply. Pollutants caused by toilets with faulty valves, swimming pools, agricultural, and industrial activity may flow back into the public drinking water supply if these devices are not maintained and certified, affecting public health and safety of employees, visitors, and tenants at the Port.



Figure 1: Backflow Assembly Device

City of Fort Lauderdale Agreement

In October 2002, the City of Fort Lauderdale, and the Port entered into the “Large User Agreement to Provide Water and Water and Wastewater Billing services to Broward County Port Everglades Department.” This agreement provides potable drinking water to the Port, their leased properties, and docked ships. Section 14 of the agreement states that the Port is responsible for the following:

- ❖ Complying with all federal, state and local regulations regarding water quality on the County’s side of the meters including, but not limited to:
 - Cross connection control, which includes backflow assembly device maintenance and certification,
 - Line flushing, and
 - Bacteriological sampling and testing

Background of Former Employee 1 (Subject of Allegation 1)

Former Employee 1 began employment with the Port in March 1994, as a Plumber. His duties included but were not limited to; installing pipes and fixtures, repairing plumbing fixtures, and maintaining the general plumbing infrastructure at the Port. During this time, the employee operated three different plumbing companies, including All County Plumbing, at various times during his employment. The employee retired from the Port in May 2016.

Background of Former Employee 2 (Subject of Allegation 1)

Former Employee 2 began employment with the Port in May 2007, as a Plumber. His duties included, but were not limited to; installing pipes and fixtures, repairing plumbing fixtures, and

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maintaining the general plumbing infrastructure at the Port. This employee did not report any outside employment during his service at the Port. The employee resigned from the Port in August 2018.

FOLLOW-UP TO PREVIOUS RECOMMENDATIONS

Findings and recommendations, which are identified herein are only those that are included within Report No. 19-08, Audit of Backflow Assembly Devices & Testing at Port Everglades, dated April 4, 2019, (Interim Report). The current status of each recommendation is presented below.

1. The Backflow Inspection Process at Port Everglades is Inadequate and Has Not Been Managed.

Port management has neglected oversight of backflow device inspections. Many inspections were not done, which created a public health and safety issue at the Port. We noted the following:

- A. Backflow assembly devices are not certified annually to ensure compliance with regulations and standards and to safeguard public health and safety at the Port. (See Finding No. 2)
- B. Backflow preventer test kits are not calibrated annually to ensure accurate readings when testing backflow preventer assembly devices. (See Finding No. 5)
- C. Backflow assembly device certification documentation provided by Hans Johnson was not adequately reviewed.
- D. The responsibility for ensuring inspections and certifications were performed was not formally assigned to appropriate personnel by Port's management.

We recommended management immediately outsource the function of backflow prevention device certification. Management should monitor certifications to ensure they are performed timely and adequately.

Status: Implemented.

2. Backflow Assembly Devices are Not Certified Annually to Ensure Compliance with Regulations and Standards and to Safeguard Public Health and Safety at Port Everglades.

During our review of Backflow assembly Device Testing, we noted the following concerns:

- A. Between calendar years 2013 and 2018, Port's backflow assembly devices were not consistently tested and certified annually as required by local, state, and federal regulations.
- B. All backflow assembly devices are required to be certified at least annually as required by the Port's Cross-Connection Control Plan.
- C. No third-party service is used to report and track backflow assembly certification. Such a service is routinely used by local governments.

We recommended management:

- A.1. Identify and test all backflow assembly devices on the Port at least annually.
- A.2. Keep adequate records of the installation, testing, repair, and certification of backflow assembly devices.
- B. Consider using technology (software, database) or a third-party service to track backflow assembly certifications.

Status:

- A.1. **Implemented**
- A.2. **Implemented**
- B. **Implemented**

3. Former Employees Used County-Owned Backflow Test Kits a Minimum of 156 Times for Personal Financial Gain.

Former employees used County-owned backflow test kits a minimum of 156 times for an employee-owned company, All County Plumbing. Using BSI On line's tracker and Miami-Dade County's tracking database, we identified 156 certifications issued to 53 unique addresses during the period March 2014 to March 2018.

We recommended management ensure appropriate procedures are in place to ensure that test kits are used only for authorized purposes at the Port.

Status: Implemented

4. Port Everglades' Backflow Prevention Policy Manual Has Not Been Updated for 30 Years.

The Port Everglades Authority Jurisdictional Area Cross Connection and Backflow Prevention Policy Manual (Cross-Connection Control Plan) has not been updated for 30 years to ensure compliance with current industry standards, laws and regulations, and City of Fort Lauderdale's contract requirements.

We recommended management review and update the Cross-Connection Control plan for the Port.

Status: Partially Implemented. Management has drafted a new Port Everglades Jurisdictional Area Cross Connection & Backflow Prevention Policy Manual; however, the plan was not finalized as of November 26, 2019, as staff from the Florida Department of Environmental Protection (FDEP) West Palm Beach office indicated in May 2019 that the manual may not be required for the category and class of the Port's water distribution system. A meeting with FDEP is scheduled for mid-December to clarify the requirements, and the draft manual will be finalized after that meeting.

5. Backflow Preventer Test Kits Were Not Calibrated Annually to Ensure Accurate Readings When Testing Backflow Preventer Assemblies.

During our inspection of the Port's backflow preventer test kits, we noted that four of seven (57%) backflow test kits did not have current or previous calibration reports available. Of the remaining three test kits, two certifications expired on October 19, 2017, and one expired on January 30, 2018. Therefore, at the time of our testing, there were zero Port test kits that could be used to certify backflow assembly devices at the Port.

We recommended management refrain from the use of any of the test kits until they are calibrated. Management should calibrate backflow preventer test kits annually. Copies of the calibration report should be retained to ensure their valid use in testing backflow assembly devices.

Status: Implemented

6. The Number of Backflow Preventer Test Kits Purchased is Excessive

During our audit, we were able to locate seven backflow preventer test kits that had been purchased. Because of the lack of adequate purchasing practices at the Port, we are unable to determine whether additional test kits may have been purchased.

We recommended Port management surplus excess test kits to the Division of Water and Wastewater or other County agencies as needed.

Status: Implemented