

MEMORANDUM

DATE: June 23, 2009
TO: The Board of Directors
FROM: Larry M. Foster, General Manager, James City Service Authority
SUBJECT: JCSA – Irrigation System Backflow Prevention Program

Introduction

This report is prepared at the request of the Board of Directors in response to suggested modifications to the James City Service Authority (JCSA) Residential Backflow Prevention Program by a citizen. The report can be used by the Board to offer guidance on the administration of the program.

Background

Backflow devices are used to prevent the back-siphoning of hazardous chemicals into the public water system. The program is required as part of the JCSA's Permit to Operate a Waterworks issued by the Virginia Department of Health (VDH). A Residential Backflow Prevention Program focuses on backflow devices that are installed in conjunction with irrigation systems, while the program is required implementation is at the discretion of the water utility. In the spring of 2008, the JCSA administration chose to pursue a more proactive approach to its Residential Backflow Prevention Program in an effort to better protect its customers.

This decision was driven by the sheer numbers of irrigation systems – 5,000/6,000 – supported by the JCSA water supply. One out of every four JCSA customers has an irrigation system. Another interesting statistic is that one-third of the irrigation systems in Hampton Roads are supported by the JCSA water system. Compounding the risk is that some irrigation systems have automatic feed systems for lawn fertilizers and chemicals. In this type of situation a backflow event would undoubtedly be disastrous.

History

The JCSA has implemented a Backflow Prevention Program for the commercial/industrial sector for many years. This program includes a joint effort between Code Compliance and the JCSA to review building plans and plumbing permits to insure that backflow devices are installed at the appropriate locations. Each of these devices is entered in a database to monitor annual inspections.

In the spring of 2008, the JCSA administration resolved, in the interest of customer protection, to begin annual inspections for residential backflow devices. The database for irrigation system sub-meters was used to determine the location and ownership of the devices.

A partnership with local plumbers and irrigation system firms was established to encourage/insure adequate firms/individuals with State certification were available to perform the annual test on the devices. These firms/individuals were eventually included in a list provided to the backflow prevention assembly's owner as part of the JCSA implementation of the program.

In the fall of 2008, the first mass mailing to approximately 1,000 device owners was forwarded. The mailing included an overview of the need for the program and guidance on the owner's responsibilities. After the first

mailing an advisory group representing the plumbing/irrigation community and device owners was formed to obtain input on program changes. The advisory group's insight evolved into minor but important changes to the JCSA's plan. In March 2009 the remaining device owners were mailed the informational packet advising them that their device needed to be tested and the results returned to the JCSA by August 30, 2009. To date approximately 2,880 test results have been recorded.

Why Require An Annual Test?

VDH dictates that testing of the backflow prevention devices shall be performed annually. There is no latitude! This is reinforced by the American Water Works Association, Virginia Uniform Statewide Building Code, and International Plumbing Code. The U.S. Environmental Protection Agency (EPA) calls for testing semi-annually but the VDH has established in their requirements an annual test. Each of these organizations is dedicated to providing protection to citizens through extensive research and experience.

Why Use Private Plumber/Irrigation Industry to Perform the Test?

JCSA Administration chose to use private firms to perform the test because we felt that private industry was better suited to provide the service than the JCSA. In addition, in recent years James City County and JCSA have tended to outsource services; i.e. grounds and grinder pump maintenance. In today's economic climate private business has welcomed the opportunity. Had the JCSA chosen to perform the test at least two additional staff members would have been required. JCSA administration did not feel that requesting the additional staff members was prudent at this time.

Is the Tester Placed in a Position of Conflict?

It is possible that a testing firm could take advantage of the situation by finding the device faulty and then replacing it. It is unclear why a good business person would take advantage of the situation. Since this is an annual test, one would think that the annual income and establishing a long-term customer relationship would be paramount to the testing firm. Ultimately, the device will fail requiring repairs or replacement. It would seem that a deliberate test failure would allow short-term gain at the risk of a long-term relationship.

In addition, it is not uncommon in today's environment to ask professionals/businesses to test, diagnose, and address repairs for numerous types of equipment failures and services. Once diagnosed, the owner has the option of getting someone else to perform the repair. This option exists in this situation.

Almost all irrigation system/device owners have a relationship with an irrigation maintenance firm for start-up and shut-down of the system. It is anticipated that as the program matures, the owner will choose this firm to perform the test as part of the annual service contract. This is the most efficient way of accomplishing the goal and would reduce the number of trips to the home. It will also promote the long-term relationship described above.

Can the JCSA Perform the Test?

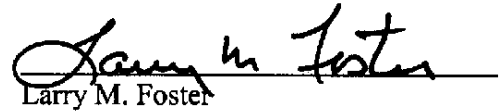
Absolutely, if that is the Board's desire! The costs can be added to the submeter fee already charged to the customer. From experience when the sub-meter fee was implemented it was not well received by many customers.

Fees from private businesses to perform the test range from \$25-\$100. Should the Board want the JCSA to perform the test, an annual fee of \$25-\$30 would be necessary. This would cover the cost to administer the program, two additional staff members, associated benefits, and transportation. The program would require the purchase of two vehicles that are not included in the above costs. (It should be noted that tests cannot be performed when irrigation systems are out of service for the winter from mid-November through early April.)

Recommendation

There are numerous methods with no right or wrong way to accomplish this task. Any method will have strengths and weaknesses that will be identified. The questions and suggestions offered are appreciated and have resulted in a reassessment of the method chosen. This reassessment has resulted in the JCSA administration recommending to the Board that we maintain our current course.

That said, the JCSA administration will gladly make any modification requested by the Board of Directors.


Larry M. Foster

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