



South Carolina:

# "Professionally Installed" Irrigation Systems

## Exempt?!



A year ago, *DW&BP* was reporting the tragic loss of water-supply protection regulations in the State of Mississippi. While those embers were glowing, another state's program was steaming with changes.

The following two memorandums from the South Carolina Bureau of Water describe the irrigation backflow prevention requirements that were effective in June, 2000. At that time, the Bureau of Water stopped accepting dual check valves on irrigation systems and classified systems as high or low hazard. This year, the legislature is taking another shot at dismantling irrigation system protection - a cornerstone of a backflow prevention program.

*DW&BP* readers know that when a state modifies an existing model plumbing code, it is no longer that model code. For example, when an agency in South Carolina adopts the *Standard Plumbing Code* (1997) and the state legislature modifies the code through statute, the *Standard Plumbing Code* is transformed into another document.

The proposed House bill 4767 addressing irrigation sprinkler systems is included in this article for your reference. Note how the irrigation sprinkler special interest group is proposing to exempt itself from backflow prevention requirements.

atmospheric vacuum breaker, pressure vacuum breaker, or reduced pressure principle backflow preventer.

In March of 1999 and March of 2000, this Department mailed every public water system in South Carolina a letter stating the new backflow prevention requirements for lawn irrigation sprinkler systems according to the Southern Building Code Congress International's *1997 Standard Plumbing Code*.

On May 30, 2000, Governor Hodges signed into law House Bill #4767, which exempts lawn irrigation sprinkler systems from being enforced by the building officials unless chemical concentrates are directly injected into the lawn irrigation sprinkler system.



SC Governor  
Jim Hodges

Lawn irrigation sprinkler systems in South Carolina have historically been separated into two categories; residential and commercial. On June 13, 2000, South Carolina Department of Health and Environmental Control (SCDHEC) will categorize lawn irrigation sprinkler systems as a low hazard or non health hazard cross connection, unless chemicals or an unapproved auxiliary water supply is tied into the system. With this in mind, SCDHEC is clarifying the Department's position regarding which backflow prevention devices are approved for lawn irrigation sprinkler systems in South Carolina. Listed below is the approach all public water systems must implement to address all future lawn irrigation sprinkler systems in South Carolina after June 13, 2000.

**For a simple underground lawn irrigation sprinkler system, several backflow prevention devices are acceptable: double check valve assembly (DCVA), pressure vacuum breaker (PVB), or the atmospheric vacuum breaker (AVB). If chemical concentrates are aspirated or injected into lawn irrigation sprinkler systems or there is an unapproved auxiliary water supply tied into lawn irrigation sprinkler systems, this type of system will be considered a high hazard or health hazard cross connection; therefore, the**

### BUREAU OF WATER

June 12, 2000

To: Cross Connection Control  
Program Managers

Re: NEW LAWN IRRIGATION SPRINKLER  
REQUIREMENTS IN SC [South Carolina]

On June 13, 1997, Governor Beasley signed into law Senate Bill #236, which requires every county and municipality in South Carolina to adopt Uniform Building Codes by June 13, 2000. The *1997 Standard Plumbing Code* requires one of three backflow prevention devices on lawn irrigation sprinkler systems and those are:



**only acceptable protective devices will be a reduced pressure principle backflow preventer (RPPA) or an approved air gap separation.**

**The residential dual check will no longer be acceptable for backflow prevention protection on any new lawn irrigation sprinkler systems after June 13, 2000.**

Lawn irrigation sprinkler systems installed prior to June 13, 2000, will not be subject to these requirements. If a residential dual check was installed, the homeowner will be exempt from the annual testing requirements since this is a non testable device. However, if a double check valve assembly was required, it must be tested annually as the *State Primary Drinking Water Regulations* R.61-58.7 (F) paragraphs (8), (a), (b) and (c) state. Please make sure you have conducted a full system survey of your water distribution system and protected all lawn irrigation sprinkler systems with the appropriate backflow prevention device.

If you have any questions regarding this letter, please contact John D. Watkins, Cross-Connection Control Program Coordinator, at (803) 898-3567.

*Sincerely, Alton Boozer, Bureau Chief*



## BUREAU OF WATER

June 12, 2000

**To:** SCDHEC Certified Backflow Prevention Testers, Cross Connection Control Program Managers, and Public Water System Officials.

**From:** John Watkins, Cross Connection Control Program Coordinator

**Re:** Clarification of Backflow Prevention Protection for all **new** lawn irrigation sprinkler systems and the proper procedure on filling out the backflow test report form.

Please read the attached letter [above] from Mr. Alton Boozer, Bureau Chief of Water, with South Carolina Department of Health and Environmental Control (SCDHEC). This letter addresses backflow prevention devices that are approved for lawn irrigation sprinkler systems in South Carolina. This information is imperative for public water systems to implement so that the water purveyor can comply with the *State*

*Primary Drinking Water Regulations* R.61-58.7 (F) Cross Connection Control.

When conducting a sanitary survey of a public water system's cross connection control / backflow prevention program, SCDHEC staff will review and ensure these new backflow prevention requirements are being implemented. These new backflow prevention requirements took effect on **June 13, 2000**. Please be mindful that the residential dual check (non-testable device) is no longer approved for backflow protection on newly installed lawn irrigation sprinkler systems.

SCDHEC certified backflow prevention testers must continue to work with the local water authority / water purveyor and find out the specific backflow prevention devices approved for installation on lawn irrigation sprinkler systems. There are many public water systems that will continue to follow the Standard Plumbing Code and not allow the use of a double check valve assembly (DCVA) or an atmospheric vacuum breaker (AVB). So, before installing a backflow prevention device on a lawn irrigation sprinkler system, call the local water authority / water purveyor to find out their specific backflow prevention requirements.

In closing, SCDHEC requires all certified backflow prevention testers to record **values** on the test report form when using your differential gauge. On all test report forms submitted to the local water authority / water purveyor, not only should you mark the check valve closed tight or leaked, but also include the value your differential gauge is reading. This value reflects the strength of the check valve you are testing.

If you have any questions or comments about this letter, please call John Watkins at (803) 898-3567.

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# News from the South Carolina Legislature



## H 4767

H 4767 General Bill, By Gilham, Allison, Rodgers, Walker and Vaughn

**A BILL TO AMEND SECTION 44-55-40, CODE OF LAWS OF SOUTH CAROLINA, 1976, RELATING TO WATER, SEWAGE, WASTE DISPOSAL, AND THE LIKE SO AS TO PROVIDE THAT CERTAIN PROVISIONS RELATING TO THE PROTECTION AND MAINTENANCE OF WATER SYSTEMS DO NOT APPLY TO A PROFESSIONALLY INSTALLED LAWN SPRINKLER SYSTEM OR LAWN IRRIGATION SYSTEM CONNECTED TO A PUBLIC WATER SYSTEM.**

### A BILL

TO AMEND SECTION 44-55-40, CODE OF LAWS OF SOUTH CAROLINA, 1976, RELATING TO WATER, SEWAGE, WASTE DISPOSAL, AND THE LIKE SO AS TO PROVIDE THAT CERTAIN PROVISIONS RELATING TO THE PROTECTION AND MAINTENANCE OF WATER SYSTEMS DO NOT APPLY TO A PROFESSIONALLY INSTALLED LAWN SPRINKLER SYSTEM OR LAWN IRRIGATION SYSTEM CONNECTED TO A PUBLIC WATER SYSTEM.

Be it enacted by the General Assembly of the State of South Carolina:

SECTION 1. Section 44-55-40(D) of the 1976 Code is amended to read:

“(D) ~~Any~~ A public water system must be adequately protected and maintained so as to continuously provide safe and potable water in sufficient quantity and pressure and free from potential hazards to the health of the consumers. No person may install, permit to be installed, or maintain any unprotected cross-connection between a public water system and any other water system, sewer, or waste line or any piping system or container contain-

ing polluting substances. To facilitate the prevention and control of cross-connections, the department shall certify qualified individuals who are capable of testing cross-connection control devices to ensure their proper operation. This subsection does not apply to a residential lawn sprinkler system or lawn irrigation system that is professionally installed and connected to a public water system, regardless of whether the system is underground or above ground or whether the system has pop-up sprinkler heads.”

SECTION 2. This act takes effect upon approval by the Governor.

The backflow prevention industry is losing ground. Consider the industry losses at the state level in Arizona, Utah, Nebraska, Missouri, Mississippi, and now South Carolina. Public, legislative, and industry education are critical toward maintaining backflow prevention programs. Is there a group of individuals or organization capable of stopping the hemorrhaging of water supply protection laws in the United States? We will keep you, our readers, advised if someone steps forward.

In the meantime, if you would like to assist in the education effort in South Carolina, we suggest that you start with the Bill sponsors:



Representative Merita A. Allison, 518B Blatt Bldg., Columbia, 29201, (803)734-2990



Representative JoAnne Gilham, 326C Blatt Bldg., Columbia, 29201, (803)734-2977



Representative Becky Rogers Martin, 436D Blatt Bldg., Columbia, 29201, (803)734-3068



Representative Robert E. "Bob" Walker, 402C Blatt Bldg., Columbia, 29201, (803)734-3010



Representative Lewis R. Vaughn, 534 Blatt Bldg., Columbia, 29201, (803)734-3141