BUREAU OF WATER
June 1, 2018

To: SCDHEC Certified Backflow Assembly Testers & Public Water Systems in SC

Re: **VERTICAL TUBE TEST PROCEDURE!**

SCDHEC is always working on improving the (3) day Backflow Prevention Certification Workshop. As we evaluate and compare our certification training to other states around the country the one thing that stands out above all else is our use of the vertical tube test procedure for the double check valve assembly. After careful consideration, our office will no longer allow the use of the vertical tube test procedure for the DCVA as of **December 31, 2018**. Listed below are a number of reasons why we have come to this decision.

First and foremost the vertical tube test procedure is only taught in SC and nowhere else in the country. Industry standards throughout the country require the DCVA to be tested with a differential gauge. Be mindful we also teach two other methods to test a DCVA with a differential gauge in the (3) day backflow prevention certification workshop. Those two methods are the differential pressure test (2 hoses) and the direction of flow test (1 hose). So, starting **January 1, 2019** you will have two options to test a DCVA in SC and both are with your differential gauge.

Secondly, the 11 recertification labs have noticed many testers don't know where to hold the vertical tube on the DCVA. If you don't hold the vertical tube at the same level as your downstream test cock that you open to atmosphere, then you won't get an accurate test. Also, testers forget to open two test cocks when testing either check valve. If you only open one test cock and not both, then you never actually test the check valve.

Lastly, the vertical tube test procedure was originally designed to be used on small DCVA's up to 2 inch in size that have ball valves. Once you start testing large DCVA's the vertical tube test procedure requires you to close both gate valves which takes more time and effort.

In closing, public water systems want to see a numerical value for the check valve springs inside the DCVA versus just knowing both check valves hold the minimum of 1.0psi. These reasons above are why SCDHEC is moving away from the vertical tube test and following industry standards by using the differential gauge. If you have any questions, please contact me at (803) 898-3567 or watkinjd@dhec.sc.gov .

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