

Backflow Valve Update # 20

December 3, 2011

This is Update # 20. The full series is available at www.backflowvideos.org

It has been several months since the last Backflow Valve Update was published because there was nothing to report. However, within the past couple of weeks, things have started to move forward.

Current status of backflow valve revisions.

Here are three very recent emails from Van Hoofnagle and John Sowerby, who are with the Florida Department of Environmental Protection (DEP) and are overseeing the revision of the backflow valve regulations:

“The rule revisions remain attached to our other rule revisions associated with the Department's regulatory plans. So there is still no date yet. I do think that 2012 will be the year that a final rule will be proposed and hopefully adopted.”

“Revision of Rule 62-555.360, as well as revision of several other rules in Chapter 62-555, is on the Department's 2011-2012 Regulatory Agenda. I expect efforts to make these revisions will proceed in 2012. We still are planning to include in our revisions to Rule 62-555.360 provisions to allow use of dual check devices at service connections to residential premises where there is an auxiliary water system.”

“The Department's revisions to Rule 62-555.360 will not dictate who--community water systems (CWSs) or their customers--must own (install, test, and maintain) backflow preventers at CWS service connections. CWSs may own backflow preventers, including dual check devices, at service connections by including them as part of the CWS's meter installation; or CWSs may require that customers own backflow preventers, including dual check devices, at service connections by requiring customers to have them installed in the customer's potable water system immediately downstream from the CWS's meter installation.”

These emails are good news in that there appears to be light at the end of the tunnel and that the simple, reliable and inexpensive Dual-check valve can be the backflow prevention device “at service connections to residential premises where there is an auxiliary water system”, which refers to homeowners who pump their irrigation water from a well or pond. Hats off to **Palm Beach County**, who has championed their use and demonstrated their effectiveness and longevity!

Dual-check valves (\$15-\$20) should not be confused with the more expensive and complicated **Double**-check and RP (RPZ) valves. The DEP has provided data showing that at any given moment, one out of eight RP (RPZ) valves is out of compliance. The complexity of Double-check and RP (RPZ) valves is the reason that costly annual testing and maintenance are required.

Section 120.52(8)(f) of the Florida Statutes mandates that:

“A proposed or existing rule is an invalid exercise of delegated legislative authority if the rule imposes regulatory costs on the regulated person, county, or city which could be reduced by the adoption of less costly alternatives that substantially accomplish the statutory objectives.”

A similar mandate is expressed again in 120.54(1)(d):

“In adopting rules, all agencies must, among the alternative approaches to any regulatory objective and to the extent allowed by law, choose the alternative that does not impose regulatory costs on the regulated person, county, or city which could be reduced by the adoption of less costly alternatives that substantially accomplish the statutory objectives.”

DEP started out with the noble idea of offering Community Water Systems (CWS) a choice of backflow prevention devices. No matter how well meaning their intentions were, the Florida Statutes forbid such a practice. Sections 120.52(8)(f) & 120.54(1)(d) only allow DEP to put forth the “less costly alternative.” And DEP cannot authorize CWSs to impose stricter regulations if those regulations mandate devices or practices that are more expensive. And a CWS does not have the authority to specify to a “regulated person” an alternate backflow device or requirements that are more costly than the “less costly alternatives” which the DEP has already specified.

So, it all boils down to the fact that by law, the DEP can only specify the “less costly” and the CWSs, by law, cannot exceed the DEP’s specification, cost wise.

I presume that the DEP is familiar with these provisions of the Florida Statutes and will not propose Double-check and RP (RPZ) valves as alternatives. If they do, I’m absolutely certain that their violations of the Florida Statutes will be legally challenged.

Dual-check valves **do not provide** terrorists with direct access to contaminate the public water supply. On the other hand, Double-check and RP (RPZ) valves **do provide** terrorists with that access via the test ports. Since there are a number of federal and state terrorism laws that prohibit CWSs from providing the “means” to contaminate the public drinking water supply and since government agencies and their employees must obey the law, I trust that the DEP won’t even want to go there by proposing Double-check or RP (RPZ) valves – which the DEP itself recognizes as dangerous. ¹

If you are unfamiliar with just how easy it is to contaminate a community’s drinking water supply using Double-check and RP (RPZ) backflow valves, please visit my webpage at: www.backflowvideos.org

There is an interesting caveat in the third email. It is that homeowners may be made responsible for buying and installing Dual-check valves on their own property. Both the state and federal Safe Drinking Water Acts make the community water systems (CWSs) responsible for the safety of the drinking water in their mains – not their customers. And this CWS responsibility has been acknowledged. For example:

“... as system operators we have the safety and well being of our customers at the top of our list. Thus, we fully accept the responsibility to police our operating systems and stand accountable for the system's operation. ... I would not expect our customers or other external agencies to be responsible for the operational issues, to include water quality, safety, etc., associated with the operation of the County's potable water system.” ²

The state and federal Safe Drinking Water Acts, through a myriad of regulations require CWSs to supply clean water. CWSs cannot transfer to citizens the responsibility to maintain safe drinking water in their mains. If that were so, I would be allowed to freely wander around my CWS’s water treatment plants to

make sure that everything was OK. Pigs will fly before that happens! Requiring backflow prevention devices to be owned by the CWSs ensures that they assume the responsibility that applicable state and federal laws mandate.

From a plumbing standpoint, attaching the backflow prevention valve directly to the water meter ensures that there will be no inadvertent or intentional backflow into the CWS's mains from any property along the route. Creative irrigation workman and homeowners have been known to cut into the water line just on the other side of the easement line to provide water to an irrigation head in that area - which bypassed any backflow prevention device further in on the property.

During their workshops around the state, the DEP received comments about how often a dual-check valve attached to a meter should be changed out. Here are two of the comments that Hillsborough County provided to the DEP. ³

“Hillsborough County does believe that dual checks are a reasonable alternative to RPZs, and we believe that each residential home covered in those categories should have one, using a multi-year phased approach.”

“We continue to assert that the requirement to change out or refurbish dual checks every 5 years is costly, and we still find no basis of fact in this requirement other than from the manufacturers themselves. Palm Beach County provided data that showed the viability of these devices long after five years. We would prefer to leave these units in place until the meter is changed out. “

And just for the record:

No one in Florida has ever died from a backflow incident.

No one in Hillsborough County, FL (population: 1.2 million) has ever gotten sick from a backflow incident.

The DEP has cited federal EPA data showing that Florida experiences just one backflow incident per year. And based on a case history study published by the Watts Valve Company, there is a 95% chance that the incident is caused by a commercial or government activity.

[The Watts study](#) shows that the overwhelming majority of backflow incidents (95%) were caused by commercial and government activity, while the remaining 5% were usually caused by residential pest control contractors when mixing their chemicals. Not a single incident of the 43 case histories traced any of the backflow incidents back to homeowners who irrigated their lawns from a pond or well!

Likewise, an analysis of a 26-year history of backflow incidents in San Antonio, Texas, showed that 72% took place at commercial and government facilities. And that the remaining 28% were caused by “non-approved toilet ball-cocks”, which lacked the little internal vacuum breaker, thus allowing “Blu-Boy” toilet tank sanitizer to migrate into the home’s potable water supply. But none of the 57 backflow incidents were related to residential irrigation systems.

Several states exempt all residential customers from backflow prevention devices, with the most notable being Wyoming, who found that: "The prevention of one death in 143 years at a cost of \$1.3 billion dollars does not justify the mandatory installation of backflow devices on residential and domestic non-residential services."

Stay tuned!

As usual, I appreciate your positive responses to these Backflow Valve Updates.

Thank you,

A handwritten signature in black ink that reads "David Brown". The signature is written in a cursive style with a long, sweeping underline.

David Brown⁴

1805 Burlington Circle

Sun City Center, FL 33573-5219

Phone: 1-813-634-6048

Email: dbrown28@tampabay.rr.com

Endnotes:

¹ Government officials at all levels are very much aware, as indicated by their internal emails and actions, that Double-check (DC) and RP (RPZ) valves provide direct and easy access to contaminate public water supplies. And these officials get extremely upset with citizens when we stand up and speak out about the dangers of residential DC and RP (RPZ) valves. For example:

Dr. Douglas Holt, Director of the Hillsborough County Health Department, sent a letter to the Hillsborough County Board of County Commissioners requesting them to prohibit my publically demonstrating, at one of their meetings, the ease with which an RP valve can be used to introduce contaminants into a public water supply. (6/5/2007)

Bob DiCecco, Hillsborough County's Cross-connection Control Manager, contacted the FDLE and Homeland Security because I spoke out about the dangers of RPs and DCs in residential areas. (7/2/2007)

Wally Hill, Hillsborough County's Assistant County Administrator, asked the Sheriff's Office to contact Homeland Security because I spoke out about the dangers of RPs and DCs in residential areas. (7/3/2007)

Even Van Hoffnagle, the Administrator of the Drinking Water Section for the DEP, who wrote one of the emails at the beginning of this very Update and who oversees the Safe Drinking Water Act for Florida, requested his staff to contact "law enforcement" because I spoke out about the dangers of RPs and DCs in residential areas. (6/5/2007)

And I did indeed get a visit from the FBI. If the valves were not a true danger, these county and state officials, acting in their official capacity, would not have behaved as they did towards my concerns. But God bless them anyway for making it official that these valves are dangerous!

² Email from Paul Vanderploog, Director, Hillsborough County Water Resource Services to David Brown, 10/10/2007.

³ Letter from Paul Vanderploog, Director, Hillsborough County Water Resource Services to Dan Peterson, Florida Department of Environmental Protection, 8/4/2009.

⁴ Please note that for these Updates, I am "just" a concerned citizen. I do not speak for the DEP. Nor do I speak for the Hillsborough County Cross-connection & Backflow Control Board, although I am the Citizen Representative.