

THE VLPA
PO BOX 222
RANDOLPH CTR. VT., 05061
(802) 728-5400 vlpa@comcast.net

TO: Chairman Christopher Bray
Senate Committee on Natural Resources and Energy
Room 8
115 State Street, Room 8
Montpelier, VT. 05633

March 28, 2018

Dear Chairman Bray and Members of the Natural Resources and Energy Committee:

My name is Brad Talbot and I am director of the Vermont Licensed Plumber's Association (VLPA). Our group is currently composed of over 400 licensed individuals. Additionally, I am a provider of plumbing license renewal CEU seminars. I have been organizing instructors and instructing CEU seminars since 1995, and prior to that I was a plumbing apprenticeship instructor for 15 years.

I write to the Committee with words of clarification and caution with respect to H.410. First, I wish to make an important correction to the text of H.410, written in §2792 Section 1 PURPOSE (b) to wit: "The purpose of this act is to obtain the benefits found in 9 V.S.A. §2792 for the following products to which the State's efficiency standards do not currently apply: air compressors, commercial dishwashers, commercial fryers, hot-food holding cabinets, commercial steam cookers, computers and computer monitors, faucets*, high color rendering index fluorescent lamps, portable air conditioners, portable electric spas, residential ventilating fans, showerheads*, spray sprinkler bodies, telephones, uninterruptible power supplies, urinals*, water closets*, and water coolers."

In fact, the State's flow rates for the above asterisked plumbing products are set by the Vermont Plumbing Code! Thus, H.410's assumption (see underlined text above) that the named plumbing fixtures are not under any State efficiency standard is incorrect. Vermont has been using, and continues to use, the fixture flow standards listed in the IPC's Table 604.4.

For nearly two decades, Vermont's adopted plumbing code has been the International Plumbing Code (IPC), published by the International Code Council (ICC). Vermont uses the 2015 edition, and the review for upgrading to the 2018 IPC edition is in process. The Plumbers' Examining Board is aware that there are other model codes that compete with the IPC. The one most common in western states is the Uniform Plumbing Code (UPC), published by the 'International Association of Plumbing and Mechanical Officials' (IAPMO).

As is, H.410 would attempt to usurp and re-write the IPC's Chapter 6, Table 604.4, 'Maximum Flow Rates and consumption for Plumbing Fixtures and Fixture fittings' with somewhat more stringent flow rates. Interestingly, the wording from H.410 matches the more stringent Plumbing Fixture flow rates found in the **2016 California Plumbing Code**. The California Plumbing Code is cooperative document produced by **IAPMO using the UPC**. Earlier this year, when the Plumbers' Examining Board reviewed the IPC and discussed the UPC, the board agreed that, once again, due to various factors setting Vermont apart from other states, the IPC was a much better fit for Vermont.

To date, the IPC continues to embrace the Federal Efficiency Standards. It has considered, but not yet adopted, other flow rate guidelines from other codes or voluntary partnership programs such as WaterSense or LEED. The IPC does have a history of reasonable decision making. Thus, there's no reason to assume that the future will not bring change concerning this issue. Until such time as the IPC approves more stringent fixture flow rates, or the Plumbers' Examining Board approves amending the IPC, I believe it is in Vermont's best interests to continue to enforce the current existing rates found in IPC Table 604.4.

Now, some words of caution; beware of the 'one size fits all' approach.

Unfortunately, I see the ghost of California floating a list of fixture flow rates for Vermont that most probably meet California's needs quite well. After reading previous testimony, I now know that California is in the top 5 of the ACEEE's scorecard and they consistently score more 'points' on the efficiency 'scorecard' than Vermont does. It makes me wonder – with all due respect to previous testimony, why do we need to compete with California for anything, least wise for points on a scorecard? Again, considering water savings, previous testimony lists the Annual VT savings in 2025 as being '496 million gallons of water'. Seven years from now? Without a frame of reference for comparison? Does anyone know what will happen seven years from now? Make a wild guess, because I tend to believe that an annual half-billion gallons of water savings is somewhat of a wild guess and certainly not a reasonable surety.

There are other 'one size fits all' issues. For example, the proposal to reduce Water Closet flushing from 1.6 gallons per flush (gpf) to 1.28 gpf. Indeed, in many areas of the country, the replacement of 1.6 with 1.28 occurs without problems. Especially in new homes. Nevertheless, owners of older housing stock occasionally provide feedback concerning the needed to clear the bowl by 'double' flushing or an increase in drain clogging. Turning attention to water closet manufacturers, the expensive development of a successfully flushing 1.28 gpf came at a price. The price is now reflected in the higher cost of a 1.28 gpf and sometimes spotty flushing performance when installed in older homes. These facts are important to keep in mind, especially when considering the additional fact that Vermont's housing stock is one of the oldest in the nation.

Briefly, another 'size fits all' issue. Suppose you reduce the water flow of a lavatory faucet from 2.2 gallons per minute (gpm) to 1.75 gpm. When you fill the lavatory bowl, how much water do you save? Answer; none. The bowl remains the same capacity, it's the flow rate that changed. And by reducing the flow rate, in effect, it takes seconds longer to fill the bowl at 1.75 gpm versus 2.2 gpm. In addition, based on the distance the water must travel, the lower flow rate may cause you to run the water several seconds longer to get warm water (before filling the lavatory bowl). Kitchen sinks will also remain the same volume, it will just take longer to fill them. Believe it or not, Vermont's Plumbing Code is working to deal with these issues. New piping supply installation code procedures and designs will mitigate the longer wait time for hot water created by the lower fixture flow rates.

Finally, let's talk enforcement, and in a few words, **there is none.** H.410 states that, 'On or after July 1, 2020, no **new**... (of the plumbing products in H.410)... can be sold, or offered for sale, lease, or rent in the State unless the efficiency of the new product meets or exceeds the efficiency standards set forth in the rules adopted pursuant to section 2795 of this title'. That may be all well and good, but without some way to check sales, how will we know what is being sold? I also note that there is nothing about installation of these 'products'. Am I to assume that **used** or **second-hand** non-compliant products can still be installed in Vermont after July 1, 2020? And what about **new products not purchased, leased, or rented in Vermont** that are non-compliant but installed after July 1, 2020? Again, who is going to check for scofflaws?

Continuing, with respect to enforcement, there are only two State Plumbing Inspectors, and they work for the Division of Fire Safety – not the the Department of Public Service. These inspectors have divided up the 9,000 square mile state of Vermont and are hard pressed to inspect all the commercial work, let alone inspect any residential. The only thing taking some pressure off of them is the fact that 40% of the single-family owner-occupied residential housing is connected to well water and septic drainage. There's less pressure because Vermont statute does not require work notices and plumbing inspection on those residences! Even if we were able to have the Department of Public Service enroll the services of the State Plumbing Inspectors, how do we catch scofflaws? Are we going to have State Plumbing Inspectors time-clock each lavatory faucet to check flow for the correct gpm? I hardly think that customers will self-police themselves. Then again, if they did, it would certainly be newsworthy. I can't be certain about the remaining products listed in H.410, but I can be candid concerning the plumbing related products. I conclude that without enforcement, H.410 will be just another unenforceable law.

In summary, owing to the fact that we currently have an up-to-date (and enforceable) plumbing code that covers fixture flow rates, I strongly suggest that we don't create unnecessary confusion by modifying or amending our current code with selected parts from another. I respectfully request that all the references to faucets, showerheads, urinals, and water closets found in parts and sections of H.410, be stricken from the text of H.410:

1. §2792 PURPOSE; (b)... 'faucets'... 'showerheads'... 'urinals, water closets'...
2. §2793 DEFINITIONS; (24), and all text (A) and (B)
3. §2793 DEFINITIONS; (32), and all text (A through F)
4. §2794 SCOPE; (a)(13) 'faucets', (a)(18) 'showerheads', (a)(22) 'urinals', (a)(23) 'water closets'
5. §2795 EFFICIENCY AND WATER CONSERVATION STANDARDS; (6) ... 'except that for faucets, showerheads, urinals, and water closets, the minimum standard and testing protocol shall be as otherwise set for the in this section.'
6. §2795 EFFICIENCY AND WATER CONSERVATION STANDARDS; (14) and all text (A through D), (16) and all text (A through C)
7. §2796 IMPLEMENTATION; (1) ..'faucet'... 'showerhead'... 'urinal, water closet'...

Please contact me with any questions or comments you may have. Thank you.

Regards,

Bradley R. Talbot, VLPA