



Comments on WaterSense® Notice of
Intent (NOI) to Develop a Draft Specification
for Bath and Shower Diverters

June 20, 2017



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Commenter: Greg Chick
Affiliation: Ramona's Plumber
Comment Date: December 13, 2016

Email Text:

Please excuse my blunt comment, cheap die cast tub spouts corrode and leak. The public's perception of what a diverter spout has been selling for is likely to curtail a price/cost increase. And without regular replacement of corroded and thus leaky spouts, the issue has challenges. Mandating better spouts to be made for new installs is fine, but those spouts, regardless of a new positive seal need to be made from something better than die cast pot metal.

I am not in any way connected with the Delta company but they make a durable relatively cheap diverter spout. 100% seal and I have not seen troubles with them. Again, I am just a service repair plumber that has seen failure and want to suggest the best option and the list the failure of poor materials.

Thank you for your indulgence.
Greg Chick, Ca. Lic. 315036, C-36, LEED AP, ARCSA AP, CWA, owner
diyplumbingadvice.com having over 10 million viewers who want to save water & fix leaks.

Commenter: Tom Burke
Affiliation: Victoria + Albert Baths Ltd
Comment Date: February 3, 2017

Email Text:

Dear Watersense

Let me begin by advising that we wholly support an improvement to the current ASME A112.18.1/CSA B125.1 standard in regards to reducing the leak rates

VII. Summary of Information Requests

Scope.

1. Yes, the definition is acceptable
2. No, the definitions here are not good enough, a tub-to-shower diverter is not restricted to only being embedded into the wall
3. Yes, use the same definitions for marketing to avoid confusion for the consumer

Marking and Product Documentation

1. Current bath and shower diverters are not marked to communicate any information about a leak rate and this is correct and should remain. If we begin to mark for leak rates we will end up covering the products in varying flow rates and references that a consumer will not be able to understand without a copy of the standard. Many consumers will not know if a 0.1gpm leak is acceptable and they will solely rely on the standards being written to ensure products that are inferior cannot pass the standards. It can also lead to customers confusing flow rate from the showerhead to the leak rate at the diverter. To summarise, we do **not** believe marking diverters should be a practice.

With the information shown in the research in for the NOI we would support a change to the ASME A112.18.1/CSA B125.1 standard to reduce the current allowable leak rates from the diverters.

Thanks Tom



volcanic limestone baths

Tom Burke, Product Development Manager

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Commenter: Mark Malatesta
Affiliation: LIXIL Water Technology America
Comment Date: February 8, 2017

Email Text:

Lixil Water Technologies America - LWTA (American Standard, DXV and Grohe) has been a loyal partner with the EPA WaterSense program since its inception. LWTA values this partnership because the basis of the WaterSense Program is to conserve water while still providing consumers with high performing products. And LWTA appreciates the fact that the EPA has always valued LWTA input as a manufacturer. LWTA appreciates the manner in which the EPA develops their specifications and allows all stakeholders the opportunity to comment on their proposals. With that in mind I would like to provide the following comments on behalf of LWTA in advance of the February 8, 2017 webinar.

1. The NOI introduction clearly identifies the main cause for leaking bath and shower diverters to be “old leaky diverters” or “products ... used for many years beyond the typical life cycle”. Developing a new specification that can only address new products does not affect previously installed product. EPA mentions that this specification will bring attention to this product type which may cause consumers to change out old bath and shower diverters. Studies on existing WaterSense certified products, like toilets and showerheads, indicate low percentages (~20%) of consumer install base have actually converted to WaterSense certified products. WaterSense specifications for toilets and showerheads have existed for 10 and 7 years, respectively. If consumers have not converted to WaterSense certified toilets and showerheads, we find it hard to believe they will convert their bath and shower diverters.
2. One of the EPA’s main arguments for going to “0-0” rated diverters is that 1,150 models are listed in the CEC database. Unfortunately, the CEC database does NOT identify if any of the 1,150 diverters are “bath and shower automatic reset diverters”. This is vital information as the proposed WaterSense specification is referencing the ASME A112.18.1/CSA B125.1-2012 testing requirements. Clause 5.6.1.5.2 requires automatic reset diverters to reset itself to the tub position. From a design perspective it is extremely difficult to design an automatic reset diverter to have 0-0 leakage and rest itself to the tub position. The CEC does require manufacturers to list all types of bath and shower diverters and some have positive shut-off. The positive shut-off diverter will result in 0-0 leakage rate, but it does NOT automatically reset. Please note that Pull Type, Push Type, Turn Type, etc. is not an indicator of an automatic reset diverter.
3. We believe this specification will have a very small effect on water conservation. This is based on the fact that this specification only affects brand new product, and most manufacturers design product to meet the CEC requirements of 0.01 gpm leakage rate.
4. The 0-0 requirement will force many manufacturers to implement very expensive design changes, because manufacturers do not want to lose the WaterSense certification on existing bath & shower trims sets that include WaterSense certified showerheads. The alternative would be to drop the WaterSense

- certification on such trims, because the 0-0 requirement cannot be achieved on the existing automatic reset diverters. The result of this would be many existing WaterSense certified showerhead models being dropped from listing and the loss of the annual sales numbers for all of those models.
5. As a manufacturer LWTA values and participates in all of the other applicable WaterSense specifications, because we see an advantage to marketing those products with the WaterSense mark. LWTA does not see any value in the development of a specification for bath and shower diverters. LWTA expects significant costs to redesign our products and to certify and maintain another certification files. At the same time LWTA believes that bath and shower diverters represent a minimal piece of the market. It does not seem logical to focus significant resources here, that will result in limited impact on water conservation.

Regards,

Mark Malatesta

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Commenter: Marianne Balfe
Affiliation: Marriott International
Comment Date: February 8, 2017

Email Text:

Hello, Veronica,

It is nice to hear from you, thanks for reaching out!

Diverters are certainly a water waste problem for us, particularly when properties install inexpensive plastic diverters instead of investing in more durable/reliable metal diverters.

I already have another call from 1-2p ET but if I can wrap it up early and join your call, I will. Otherwise, I will review the NOI and respond back through your system.

I look forward to catching up one of these days. Next time I have extra time on a HQ (MD) trip, I'll reach out!

Best regards,

Marianne

Marianne Balfe | Director of Energy and Environmental Sustainability | The Americas |
Marriott International | phone 415-377-1362

Commenter: Russ Horner
Affiliation: Water Management Inc.
Comment Date: February 8, 2017

Email Text:

Veronica –

Great to hear from you. I will be out today, but Tom will be able to join the call. Interesting topic – we run across problems with diverters all the time. The problem seems to be getting a little bigger now that more back pressure is created as a result of lower flow showerheads.

Thanks again for reaching out. I hope we can talk or see each other soon.

Best Regards,

Russ Horner



W: 703-370-9070 x113

Cell: 703-989-0089

Commenter: David Schwartzkopf
Affiliation: Willoughby Industries, Inc.
Comment Date: February 8, 2017

Email Text:

Thanks for the informative webinar and fielding my questions and concerns today as you did. I am open to review further if it is useful.

I also wanted to let you know that I have transitioned into a semi-retired mode where I am only in the office two days a week (typically Tuesdays and Wednesdays), so I may not be in the office if you call. However, my schedule is fairly flexible, so feel free to reach me at other contact points where I am more frequently available and responsive:

[personal information deleted]

Also, I will be in the DC area visiting grandkids in Vienna, VA, toward the end of the week. I do not know if you are open to face-to-face meetings and giving tours of your facility while my grandkids are at school; but I'd be open for that. If that is not possible or feasible, the phone and email channels are fine.

David Schwartzkopf
Engineering Assistant
Willoughby Industries, Inc.
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Indianapolis, IN 46268
Phone 317-875-0830



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Commenter: Matt Sigler
Affiliation: Plumbing Manufacturers International
Comment Date: February 17, 2017

Email Text:

EPA Staff –

Please accept PMI's comment letter in regards to the EPA WaterSense NOI to develop a draft specification for bath and shower diverters. If you have any questions, please feel free to contact me at your convenience.

Regards,

Matt Sigler
Plumbing Manufacturers International
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Email Attachment: Letter to EPA – Draft Specification for Bath and Shower Diverters FINAL.pdf

February 17, 2017

U.S. Environmental Protection Agency
Office of Water – WaterSense Program
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460
watersense-products@epa.gov

RE: EPA WATERSENSE® DRAFT SPECIFICATION FOR BATH AND SHOWER
DIVERTERS

Dear EPA Office of Water:

Plumbing Manufacturers International (PMI) appreciates this opportunity to provide comments to the U.S. Environmental Protection Agency (EPA) regarding the WaterSense® Draft Specification for Bath and Shower Diverters. PMI is the international, U.S.-based trade association representing 90% of U. S. plumbing products sold in the

United States. We have made the promotion of water safety and efficiency a top priority and have included this in our mission statement¹. PMI's members are industry leaders in producing safe, reliable and innovative water efficient plumbing technologies and have supported the WaterSense® program since its inception. In addition, PMI and our member companies are longstanding partners in EPA's WaterSense® program.

In regards to EPA's notice of intent (NOI) to develop a draft specification for bath and shower diverters, PMI and our members oppose the draft specification for the following reasons:

- Since the EPA WaterSense® program has matured to include a wide variety of water efficient products, EPA and industry should now focus on accelerating the replacement of older installed products versus developing a new specification that will result in little to no savings and not address the root cause of tub spout leakage, as detailed below. Based on the July 2015 study, titled "U.S. Market Penetration of WaterSense® Shower Heads, Lavatory Faucets and Toilets," the market penetration rates of WaterSense® products throughout the United States are fairly low. According to the study, the following percentages of U.S. homes have WaterSense® products installed²:
 - Lavatory faucets = 25.4%
 - Showerheads = 28.7%
 - Water closets = 7.0%
- The proposed "0-0" pre- and post-life cycle requirement is a potential safety hazard as there must be a slight amount of leakage out of a tub spout in order for the diverter to automatically reset. Otherwise, the diverter will remain activated, resulting in a possibly dangerous thermal shock situation as the shower is activated by the next bather.
- The draft specification does not account for the natural water quality variation effects on long-term diverter performance, such as calcium build-up due to hard water conditions. These conditions, which require regular attention by the homeowner, are the root cause as to why diverters leak over time, not current manufacturing practices.
- EPA has identified in the NOI that the volume of wasted water per household per year, based on the California Energy Commission's (CEC) Appliance Efficiency Regulations, is 53 gallons pre-life cycle and 264 gallons post-life cycle. It should be noted that most manufacturers comply with the requirements of the CEC since they sell diverters in California and don't generally carry different stock keeping units (SKUs) of diverters based on U.S. regions. Therefore, the difference in water saved per CEC regulations and the proposed values in the draft specification equate to a

¹ PMI's Mission: To promote the water efficiency, health, safety, quality and environmental sustainability of plumbing products while maximizing consumer choice and value in a fair and open marketplace. To provide a forum for the exchange of information and industry education. To represent openly the members' interests and advocate for sound environmental and public health policies in the regulatory/legislative processes. To enhance the plumbing industry's growth and expansion.

² US Market Penetration of WaterSense Shower Heads, Lavatory Faucets and Toilets, GMP Research Industry Report commissioned by PMI, July 2015, pg. 5.

yearly savings of only 21 cents to \$1.06 per household based on an average cost of \$0.004 per gallon of tap water³.

- The EPA is considering requiring both bath/shower trim and bath/shower diverters to be individually third-party certified in order for combination models to bear the WaterSense® label. PMI is greatly concerned about this requirement for the following reasons:
 - Manufacturers now will be required to third-party certify not only the diverter itself but also, separately, the associated trim that comes with the diverter. The current WaterSense® Specification for Showerheads already requires showerheads and the associated trim that comes with the showerhead, which may include a diverter, to be certified. This proposed requirement is overly burdensome to manufacturers, and would have a negative impact on the number of products that manufacturers choose to have WaterSense® certified. This is because manufacturers will be required to have the same tub/shower models listed in two WaterSense® files, thereby doubling certification costs. Furthermore, when annual audit samples are collected, both manufacturers and certification agencies will have to ensure that duplicate testing is not done which is costly and burdensome.
 - The proposed “0-0” diverter performance requirement would needlessly require delisting of many current WaterSense® combination models even though the diverters already meet the stringent CEC standards. More than half the diverter models (54%) in the MAEDBS database do not meet this slight efficiency increase, yet they already provide significant water savings. This “all or none” approach would have a negative impact on the number of products that manufacturers choose to have WaterSense® certified.

In summary, PMI continues to support the WaterSense® voluntary efficiency program. However, we do not support the draft specification for the reasons outlined above. PMI believes EPA and industry should concentrate on encouraging the installation of existing WaterSense® products rather than on developing a new specification that will result in minimal water savings, while possibly risking public safety.

Sincerely,

Matt Sigler
Technical Director
Plumbing Manufacturers International
Office 847-217-7212
msigler@safeplumbing.org

cc: PMI Board of Directors

³ “You Are Paying 300 Times More for Bottled Water than Tap Water”, Business Insider, July 12, 2013,
http://www.slate.com/blogs/business_insider/2013/07/12/cost_of_bottled_water_vs_tap_water_the_difference_will_shock_you.html

Commenter: Alan Work
Affiliation: Evolve Technologies LLC
Comment Date: March 24, 2017

Email Text:

From: Alan Work [<mailto:alan.work@thinkevolve.com>]
Sent: Wednesday, March 22, 2017 10:25 AM
To: Tessa Roscoe <Tessa.Roscoe@erg.com>
Cc: Sharma, Richa <Sharma.Richa@epa.gov>; Robert Pickering <Robert.Pickering@erg.com>
Subject: Re: WaterSense And Tub Spout Diverters

Tessa,

Thank you for the spreadsheet. I think one of the biggest challenges with addressing tub spouts is going to be convincing people that there is a problem. In my experience, diverter leaks are so ubiquitous that people don't even realize they are generating waste or that they don't have to leak.

If Evolve can assist in any way please let me know. We're obviously very interested in the work you're doing, and I very much appreciate you sharing this data with me. If there are other opportunities to speak or participate in future workshops, etc., please keep us in mind. My contact information is below.

Alan

enjoy more. use less.

Alan Work
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President, SW Chapter | [AESP](#)
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We've updated our company name, URL and email addresses to more accurately reflect who we are. Please update your records.