

DOCKETED

Docket Number:	15-AAER-05
Project Title:	Residential Lavatory Faucets and Showerheads
TN #:	205617
Document Title:	PMI's Comment Letter to on Appliance Efficiency Rulemaking
Description:	N/A
Filer:	System
Organization:	PMI/Matt Sigler
Submitter Role:	Public
Submission Date:	7/31/2015 3:36:20 PM
Docketed Date:	7/31/2015

Comment Received From: Matt Sigler

Submitted On: 7/31/2015

Docket Number: 15-AAER-05

PMI's Comment Letter to Docket No. 15-AAER-05

Please refer to PMI's attached comment letter.

Additional submitted attachment is included below.



July 31, 2015

Docket Unit
California Energy Commission
Docket No. 15-AAER-01
1516 9th Street, MS-4
Sacramento, CA 95814

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RE: DOCKET #15-AAER-05 Appliance Efficiency Rulemaking for Residential Lavatory Faucets and Showerheads

Dear Commissioners:

PMI appreciates this opportunity to submit comments under Docket #15-AAER-05 Appliance Efficiency Rulemaking for Residential Lavatory Faucets and Showerheads.

PMI urges the California Energy Commission to revise the emergency regulation adopted on April 8th as follows:

- For all residential lavatory faucets manufactured on or after September 1, 2015, the maximum flow rate shall be 1.5 gpm.
- For all residential lavatory faucets and showerheads manufactured on or after July 1, 2016:
 - The maximum flow rate of residential lavatory faucets shall be 1.2 gpm.
 - The maximum flow rate of showerheads shall be 2.0 gpm.
- The authorization to sell-through all noncompliant plumbing products regulated by Title 20 including the removal of the following footnote from Tables H-3 & I-2 of the CEC's 2015 Appliance Efficiency Regulations: *"For the items identified in Table xxx, noncompliant products may not be sold or offered for sale on or after the designated date, regardless of manufacture date."*

If the California Energy Commission adopts regulations that include these provisions set forth above, PMI will support the Title 20 Appliance Efficiency Regulations as they pertain to lavatory faucets, showerheads, toilets and urinals.

Plumbing Manufacturers International (PMI) is an international, U.S.-based trade association representing 90% of plumbing products sold in the United States. It has made the promotion of water efficiency and safety a top priority and has included it in its mission statement.¹ PMI's members are

¹PMI'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.

industry leaders in producing safe, reliable and innovative water efficient plumbing technologies and have supported water efficiency legislation and codes in California, as well as the voluntary US EPA WaterSense® program.

Rationale for PMI's Provisions

Faucets

- Implementing 1.5 gpm residential lavatory faucets today will provide immediate water savings.
- The CEC should only consider 1.2 gpm max. residential lavatory faucets based on the following:
 - **Public Health and Safety.** Comments were issued by Dr. Marc Edwards and Dr. Paul Sturman during the Title 20 process expressing their concerns in regards to public health and safety if 1.0 gpm maximum residential lavatory faucets were mandated.

Furthermore, in a research study conducted by the Water Research Foundation in 2014, the following excerpt is one of many that echoes the concerns of both Dr. Edwards and Dr. Sturman, and reinforces the fact that further study is needed:

“The low flow through water-reducing faucets is linked to low pressure and an increased stagnant volume of water in the pipes leading to the tap. This could provide ideal growth temperatures (35°C) for Legionella spp. and Pseudomonas aeruginosa (Halabi et al, 2001). The reduced flow and pressure could be incapable of providing enough water volume or turbulence to properly flush and “clean” the faucet (Chaberny and Gastmeier, 2004; Yapicioglu et al, 2011), which has implications for biofilm attachment and release rates that are not well understood.” (Green Building Design: Water Quality Considerations, Section 3.6.2.3)

- **Issues with Minimum Flow.** If a 1.0 gpm maximum flow rate was adopted for residential lavatory faucets, it would be extremely difficult to achieve the minimum flow rate of 0.8 gpm that is required by CALGreen, the California Plumbing Code and WaterSense. Third-party certifier IAPMO echoed this point during the Title 20 rulemaking process.
- Faucet/aerator manufacturers, retailers/distributors and third-party certifiers have all expressed the need for the 1.2 gpm residential lavatory faucet deadline to be extended beyond January 1, 2016. This extension is necessary in order for manufacturers to develop product and retailers/distributors to create an uninterrupted supply chain of plumbing products in order to satisfy the market demand in California.
- Manufacturers, retailers and distributors currently do not have channels in place to handle the large quantities of products that will need to be returned to the manufacturer. When retailers/distributors return products to a manufacturer, those products are required to be inspected, tested and repackaged before being offered for resale. Based on the current timeline of January 1, 2016 for 1.2 gpm residential lavatory faucets, and in addition to the hastened new product development activities, there is not sufficient time to establish the necessary channels in order to minimize both product disruptions in the marketplace and unnecessary costs to the manufacturer.

- A July 1, 2016 effective date becomes achievable (although it will be a considerable burdensome task) due to the allowable sell-through of remaining inventory, which is already permitted for all other products regulated by Title 20.

Showerheads

- The CEC should only consider 2.0 gpm max. showerheads at this time based on the following:
 - **Public Health and Safety.** There are very few automatic compensating valves that are available for sale that are certified to ASSE 1016-2011/ASME A112.1016-2011/CSA B125.16-11 for use with showerheads with a maximum flowrate below 2.0 gpm. It should be pointed out that automatic compensating valves are certified to ASSE 1016-2011/ASME A112.1016-2011/CSA B125.16-11 at the minimum flowrate of a showerhead at 45 psi, not maximum flowrate. Therefore, a 2.0 gpm maximum flowrate showerhead at 80 psi must be matched with an automatic compensating valve that is rated for the minimum flowrate of the showerhead at 45 psi. This is critical as automatic compensating valves compensate for hot or cold water inlet temperature or pressure changes in order to protect the bather from thermal shock and scalding hazards.
 - **Water Savings and Consumer Satisfaction.** Showerheads with a maximum flow rate of 2.0 gpm meet the EPA WaterSense® Specification for Showerheads by achieving 20% water savings over federal standards, while meeting strict performance requirements. Water conservation requires an amount of voluntary user participation in order to achieve the anticipated savings. WaterSense showerheads ensure a satisfactory showering experience for users whom are then more likely to continue compliance and thus save water. This requirement is consistent with CALGreen and the California Plumbing Code.

CEC Staff Recommendation

Regarding CEC Staff's proposal issued on July 24th, PMI would like to make the following comments:

Staff Analysis of Lavatory Faucet Appliance Standards

- On page 4, it states WaterSense permits a faucet to be certified as WaterSense-compliant if the aerator has been certified to WaterSense. While this is true, manufacturers are also required to list their faucets with DOE which requires the entire faucet to be tested.

Staff Analysis of Water Efficiency Standards for Showerheads

- On page 15, it states a typical showerhead uses an aerator to control the flow rate. This is not true as showerheads use flow restrictor devices to control flow rate.
- On page 16, it states codes do not require mixing valves to be rated for low-flow showerheads. That is not true. The California Plumbing Code (based on the Uniform Plumbing Code) requires showers and tub-shower combinations to be provided with mixing valves that comply with ASSE 1016 (the new harmonized standard is ASSE 1016/ASME A112.1016/CSA B125.16) or ASME A112.18.1/CSA B125.1 for the rated flow rate of the installed showerhead.
- On page 21, under Section 1604, the minimum flow rate test in ASME A112.18.1/CSA B125.1-2012 is located in Section 5.12.2 and not Section 5.13.

CEC Workshop

During the July 28th CEC Workshop, there were several comments and proposals made that PMI responds to as follows:

Availability of Aerators

- It is true that 1.0 gpm residential lavatory faucet aerators are currently available in stores for purchase. However, 1.0 gpm aerators are not available in all of the shapes and sizes needed by faucet manufacturers. A similar development process to the work currently underway for 1.2 gpm aerators will be required to create 1.0 gpm aerators in all necessary shapes and sizes. Additionally, PMI has been informed that 1.2 gpm aerators will be available in stores at the end of the year. However, what is not true, nor permissible per California Law, is for a manufacturer to offer for sale a faucet with a new aerator without marking the product and labeling the packaging in accordance with industry standards, and having the product tested and certified by an accredited third-party certifier. This process takes time as indicated by PMI in the various timelines submitted to the CEC. Furthermore, the U.S. Federal Trade Commission requires regulated plumbing products to provide water usage information on the product and packaging, plus on literature, website(s), or anywhere else the product is advertised with the associated product price.
- Most new residential lavatory faucets have flow restrictor devices built into the product which requires redesigning, testing and certifying.

Labeling of Mixing Valves

- There is no need for additional marking or labeling requirements of shower mixing valves since such requirements are already addressed in the product standard (Section 5.3 of ASSE 1016/ASME A112.1016/CSA B125.16).
- Manufacturers are required by building codes to use product standards to design and produce products. Within these product standards are requirements for the marking or labeling of products which are referenced in plumbing codes that are enforced by local building inspectors. The National Resources Defense Council failed to provide any technical data or evidence to demonstrate that the current requirements in ASSE 1016/ASME A112.1016/CSA B125.16 or codes are not sufficient for safeguarding public health and safety.
- Additional markings or labels on shower trim pieces (i.e. escutcheons) are not possible in all applications as these parts can be used in combination with a multitude of different mixing valves.

California Rebate Program

- Home Depot mentioned during their presentation that previous rebate programs administered by the CEC for clothes washers and dishwashers were not only easy to comply with by the retailer, but effective in getting the general public to participate. PMI continues to support the efforts being conducted by the State of California to adopt a similar rebate program for plumbing fixtures and fittings, administered by a single agency, in order for significant water and energy savings to be achieved.

In closing, PMI respectfully requests that the Commission consider our proposed revisions to the appliance efficiency regulations adopted on April 8th as these provisions will not only achieve high-levels of water savings, while ensuring public health and safety, but will ensure that product is available on the shelves without unnecessary market disruption or costs. Furthermore, we would like to thank the California Energy Commission for the opportunity to provide comments for the rulemaking being promulgated for Title 20 through Docket No. 15-AAER-05 for residential lavatory faucets and showerheads. Our partnership with the regulatory and stakeholder communities in the State of California will continue to promote water efficiency that will produce safe, sanitary, efficient and reliable plumbing products.

Sincerely,



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