



California Energy Commission

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**RE: CEC DOCKET NO. 14-AAER-1, APPLIANCE EFFICIENCY PRE-RULEMAKING**

Dear Commissioner McAllister, Mr. Singh and Mr. Ngo:

Plumbing Manufacturers International (PMI) appreciates this opportunity to provide comments to the California Energy Commission (CEC) in its current pre-rulemaking on water closets, urinals and faucets under Docket No. 14-AAER-1. PMI is an international, U.S.-based trade association representing 90% of U. S. 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<sup>1</sup>. PMI's members are 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.

In response to comments submitted by the California Investor-Owned Utilities (IOUs) that were docketed on August 12, 2014, PMI would like to respond accordingly to several statements that were made that appear to be without a true knowledge of how plumbing fixtures and systems perform.

- *"One would suspect that if manufacturers of pint urinals have received complaints about drainline clogging as a result of installing pint urinals in existing buildings, they would publish literature instructing against installing pint urinals if drainlines do not meet specific conditions."* (Urinals: CA IOUs Response to CEC's Request for Information on drainline clogging and 0.125 gpf urinals; page 1)  
**It's difficult if not impossible for manufacturers to generalize a drain, waste and vent (DWV) system to the point where a manufacturer could make a recommendation when a particular flush volume product is appropriate. The IOU proposal would apply to all urinals sold in the State of California,**

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<sup>1</sup>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.

regardless of where they are to be installed. Because of the great variety of DWV systems in existing buildings throughout the State of California, it is extremely important for building owners to have the choice of products with various flush volumes to accommodate their needs.

- *"Manufacturers have not extended recommendations on drainline design to pint urinals, presumably because drainline clogging has not been problematic when pint urinals are installed in existing buildings."* (Urinals: CA IOUs Response to CEC's Request for Information on drainline clogging and 0.125 gpf urinals; page 1)

**Manufacturers of plumbing fixtures and fittings are experts in the products they produce, and not necessarily the existing DWV system. As was stated by ASPE (representing the engineers that not only understand DWV systems, but design them as well) in comments that were docketed on June 6, 2014: "0.125 gallons per flush urinals are not proven to be effective in all installation situations and could pose risk in drain line carry."**

- *"In buildings that may be most prone to drainline clogging, we believe that building owners will opt to adopt an aggressive maintenance protocol to keep drainlines clean as opposed to re-plumbing. As opposed to considering the cost of re-plumbing a small number of buildings, it would be more appropriate to account for a small portion of buildings using an aggressive maintenance protocol that might include flushing urinals with hot water, and in extreme cases, using chemical cleaners to maintain drainlines."* (Urinals: CA IOUs Response to CEC's Request for Information on drainline clogging and 0.125 gpf urinals; page 2)

**Insufficient, non-conclusive evidence has been submitted to conclude that only a "small portion of buildings" would require an "aggressive maintenance protocol." The only pieces of evidence provided by the IOUs that are available for public review are an e-mail from James Derby of the California Department of General Services in regards to only 18 urinals at the Caltrans District 3 office building and a document titled: "An On-The-Ground Perspective: How High Efficiency Restroom Fixtures Really Perform" that states on page 4 the following: "due to its small sample size, this study should be considered as a collection of anecdotal case studies and not as a true survey; results are not statistically valid."**

**Additionally, the necessity to routinely pour hot water down a urinal creates a safety issue and should not be viewed as an acceptable maintenance practice. Likewise, the use of drainline cleaning chemicals also presents a safety and cost issue for maintenance personnel. The effectiveness of these approaches cannot be guaranteed.**

- *"The California Plumbing Code (Part 5 of Title 24, which is based on the International Association of Plumbing and Mechanical Officials' (IAPMO) Uniform Plumbing Code) does not include any unique requirement on the drainline system if pint urinals are installed, nor does it recommend or require that drainage systems be upgraded if pint urinals are installed."* (Urinals: CA IOUs Response to CEC's Request for Information on drainline clogging and 0.125 gpf urinals; page 1)

**Pint urinals are fairly new to the marketplace, and therefore there are not enough installations in place to know the effects of pint urinals on a DWV system. Specifically, we reference comments from IAPMO that were docketed on June 3, 2014 to support this fact: *"There has been inadequate experience with 0.125 gpf urinals to determine if that small volume of water is enough to resolve the above concerns. IAPMO recommends that consideration of mandating 0.125 gpf urinals be tabled until field experience and research can provide insight regarding the efficacy of that consumption level."***

- *"For example, American Standard's WASHBROOK FloWise 0.125 gpf urinal system has a self-cleaning piston that helps prevent clogging and reduces maintenance for the fixture itself. One consumer review on the manufacturer's website states that no maintenance calls have been received since installing the urinal system. The lack of definitive data linking drainline damage to high-efficiency urinals combined with positive consumer reviews implies that pint urinals are an effective water-conserving device."* (Urinals: CA IOUs Response to CEC's Request for Information on drainline clogging and 0.125 gpf urinals; page 2)

**Maintaining a water-conserving fixture in accordance with the manufacturer's instructions pertains only to the fixture itself, and not the DWV system beyond the fixture. Furthermore, American Standard's self-cleaning piston prevents clogging of the flushometer valve, and not the entire DWV system.**

- *"Two facility managers also expressed concern about slow draining or clogging due to the very small amount of water used per flush, one of whom reported regularly pouring water down urinals to prevent pipe clogging."* (An On-The-Ground Perspective: How High Efficiency Restroom Fixtures Really Perform; page 2)

**In addition to the above comment, on page 17 of the same document, Table 7 (Maintenance or Custodial Issues), only 4 out of 9 respondents had no maintenance issues with pint urinals. One respondent reported, *"slow draining urinals in heavy use areas, noting that the lack of water on pint flush has created urine crystals in the drain line."* These comments reinforce the need for further field research before the CEC should consider a pint urinal mandate.**

In closing, PMI respectfully requests that the Commission consider these comments along with those from ASPE and IAPMO referenced herein in the appropriate context. Unlike the IOU's, all of these stakeholders have direct and specific expertise in the design, installation, and maintenance of urinals and DWV systems. All of these stakeholders are stating that additional information is needed before the State embarks on a mandate to this lower flush volume in Title 20. PMI strongly encourages the Commission to pursue formal appliance efficiency regulations that are consistent with the CEC staff recommendation of urinals with a maximum flush volume of 0.5 gpf as outlined in their analysis, "Staff Analysis for Toilets, Urinals, and Faucets," which is based on EPA WaterSense Specifications that have been vetted through a consensus process to ensure that such fixtures function safely and effectively.

Sincerely,



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