

## DOCKETED

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<b>TN #:</b>	205476
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*Comment Received From: Matt Sigler*

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**PMI's Comments in regards to CEC Docket No. 15-AAER-1**

*Additional submitted attachment is included below.*



March 6, 2015

California Energy Commission  
Docket Number 15-AAER-1  
Docket Unit  
1516 Ninth Street, Mail Station 4  
Sacramento, CA 95814-5504

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**RE: CEC DOCKET NO. 15-AAER-1, PROPOSED AMENDMENTS TO APPLIANCE EFFICIENCY REGULATIONS  
CALIFORNIA CODE OF REGULATIONS, TITLE 20, SECTIONS 1601 THROUGH 1608**

Dear Commissioners:

Plumbing Manufacturers International (PMI) appreciates this opportunity to provide comments to the California Energy Commission (CEC) in its current rulemaking on water closets, urinals and faucets under Docket No. 15-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.

PMI appreciates and supports the new provisions in the proposed regulations that are consistent with the following CEC staff recommendations as outlined in their analysis, "Staff Analysis for Toilets, Urinals, and Faucets":

- All toilets, except those designed for prisons or mental health facilities, shall have a maximum consumption, or effective flush volume for dual-flush toilets, of 1.28 gpf, and shall have a 350 gram performance threshold.
- All residential lavatory faucets shall not exceed a flow rate of 1.5 gpm at 60 psi and shall have a minimum flow rate of 0.8 gpm at 20 psi.
- All kitchen faucets shall not exceed a flow rate of 1.8 gpm and may have the capability to increase to 2.2 gpm momentarily for filling pots and pans.
- All public lavatory faucets shall not exceed a flow rate of 0.5 gpm at 60 psi.

PMI concurs with the analysis set forth in the CEC staff recommendations which indicate that billions of gallons of water, millions of therms of natural gas, and thousands of gigawatt hours of electricity per year will be saved without jeopardizing public health and safety, or resulting in plumbing system performance issues.

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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.

On the other hand, PMI continues to be concerned with several specific provisions in the formal rulemaking package which go well beyond CEC staff recommendations. These provisions do not take into account the effects on the entire plumbing system and may well represent a danger to public health and safety. Our concerns are further enforced by the absence of supporting technical data indicating that a statewide adoption will not be met with unintended consequences. In addition, some of the provisions are not consistent with current consensus based standards and best practices adopted by the plumbing industry. Our concerns with these provisions are outlined below, together with our recommendations to ensure public health and safety:

#### **Wall-Hung Pint Urinals**

- A mandatory reduction of 87.5% in urinal flush volume over federal baseline is too excessive and could restrict fixture compatibility with existing plumbing systems.
- There is an insufficient number of plumbing products to meet market demand and provide consumer choice, especially considering a May 2016 implementation date (refer to comments in last bullet point).
- Pint urinals may not be effective in all installation situations, especially when it comes to existing construction, which may lead to issues such as clogged drain lines due to struvite build-up and odor problems.
- To reference the City of Los Angeles as a success story is premature as pint urinals were only enacted a few years ago. Furthermore, there has been little to no evidence submitted to demonstrate that those who maintain pint urinals and plumbing systems throughout the City of Los Angeles (ex: facility managers, building owners, etc.) have been solicited for their input; which is a critical step before proceeding with a statewide implementation.
- An effective date for pint urinals manufactured on or after May 1, 2016 is an insufficient amount of time for manufacturers to prepare for such a significant change. The proposed effective date is based on an assumption that there is an ample supply of pint urinals available in the marketplace. In fact, market availability has inadvertently been exaggerated by those in favor of a pint urinal mandate. Their assumed availability is based in large part on the *Maximum Performance (MaP) Database of High-efficiency Urinals (HEU)*, as of February 4, 2015.<sup>2</sup> Without a thorough understanding of underlying data, use of the database may result in the error of classifying pint urinals with different finish options and spud locations as unique models. In actuality, availability must be determined by the number of production molds available to manufacturers. The table below provides an actual number of pint urinal models based on current mold availability for PMI manufacturing members and compares this to the number assumed by the MaP Database:

<b>Company</b>	<b>Actual Pint Urinal Models</b>	<b>Pint Urinal Models per the MaP Database</b>
American Standard	2	6
Delta	5	16
Kohler	2	6
Sloan Valve	3	37
Toto	2	5
<b><u>Total</u></b>	<b><u>14</u></b>	<b><u>70</u></b>

<sup>2</sup>Source: Maximum Performance Testing. "Maximum Performance (MaP) Testing. "Database of High-efficiency Urinals (HEU)." Accessed February 4, 2015.

Based on this MaP Database study, the database cannot be regarded as an indication of true market availability. To do so invites the likelihood of serious product shortages and the inability of manufacturers to meet the goals of the CEC.

**PMI recommends** that the maximum flush volume for wall-hung urinals be 0.5 gpf which is in line with AB 715 (Chapter 499, Statutes of 2007) and CALGreen. Additionally, PMI recommends that before urinal flow rates are lowered below those required by CALGreen (0.5 gpf maximum), that an efficacy study be conducted by the CEC to ensure that no problems exist with pint urinals installed in the City of Los Angeles that could jeopardize public health and safety. Furthermore, the CEC should take into account the conflict that may occur with a pint urinal mandate in regards to other California laws and codes such as SB 407 (Chapter 587, Statutes 2009) which requires, on or before January 1, 2019, that all noncompliant plumbing fixtures in multifamily residential real property and commercial real property, as defined, be replaced with water-conserving plumbing fixtures.

#### **MaP Reference for Waste Extraction Testing**

- Referencing *MaP* in the state regulation is not appropriate as it is not a consensus standard but a voluntary testing program.<sup>3</sup> By specifically referencing *MaP* the regulation would be mandating that manufacturers comply with its testing protocol which is not the intent of the program, nor required anywhere else in the United States.
- ASME A112.19.2/CSA B45.1-2013 provides the requirements for waste extraction testing for water closets. Furthermore, the current standard already identifies the 350 gram requirement as proposed in Section 1605.3, and therefore a separate reference to *MaP* is not necessary.

**PMI recommends** that the following revisions be made:

- Section 1602. Definitions, (i) Plumbing Fixtures.

~~*“MaP” means maximum flushing performance.*~~

- Section 1604. Test Methods for Specific Appliances, (i) Plumbing Fixtures.

~~*(2) Waste Extraction Test (Section 7.10) of ASME A112.19.2/CSA B45.1-2013 MaP Testing Toilet Fixture Performance Testing Protocol Version 5-March 2013.*~~

- The following documents are incorporated by reference in Section 1604.

**AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)**

**CANADIAN STANDARDS ASSOCIATION (CSA)**

ASME A112.19.2/CSA B45.1-2013

Ceramic Plumbing Fixtures

~~*GAULEY ASSOCIATES, LTD. KOELLER & COMPANY*~~

~~*Maximum performance (map) testing: — MaP Testing Toilet Fixture Performance Testing Protocol*~~

~~*Version 5 (March 2013)*~~

~~*Copies available from: — Koeller and Company*~~

~~*5962 Sandra Drive,*~~

~~*Yorba Linda, CA., 92886-5337*~~

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<sup>3</sup> Source: MaP Maximum Performance: <http://www.map-testing.com/performance-toilets-testing/>

- Section 1605.3. State Standards for Non-Federally-Regulated Appliances, (i) Plumbing Fixtures.

*(2) Water closets shall comply with the Waste Extraction Test (Section 7.10) of ASME A112.19.2/CSA B45.1-2013 as pass or fail manufactured on or after May 1, 2016 shall achieve a MaP score of no less than 350 grams.*

- Table X – Data Submittal Requirements.

**Table X**  
**Data Submittal Requirements**

	<b>Appliance</b>	<b>Required Information</b>	<b>Permissible</b>
I	Plumbing Fixtures	*Type	Blowout water closet, gravity tank type water closet, dual-flush water closet, electromechanical hydraulic water closet, flushometer tank water closet, urinal, prison-type urinal, prison-type water closet, flushometer valve water closet, trough-type urinal, waterless urinal, vacuum type urinal, vacuum type water closet
		Water Consumption (dual-flush effective flush volume for dual-flush water closet)	
		<del>MaP Score (for water closet only)</del> <u>Water closets shall comply with the Waste Extraction Test (Section 7.10) of ASME A112.19.2/CSA B45.1-2013 as pass or fail</u>	

(portions of table not shown remain unchanged)

### Definitions

- There are several definitions pertaining to plumbing fixtures and fittings that are not consistent with the consensus product standards or legislation utilized by those in the plumbing industry (e.g. ASME A112.18.1/CSA B125.1, ASME A112.19.2/CSA B45.1, California AB 715, etc.). Not having consistency amongst definitions used within building codes and regulations can result in improper application and enforcement.

**PMI recommends** that the following definitions in Section 1602 be revised as follows:

- “Blowout type bowl” means a nonsiphonic type water closet bowl with that is designed for a blowout action, and that has an integral flushing rim, a trapway at the rear of the bowl, and a visible or concealed jet that operates with a blowout action. , a wall outlet, and, if wall mounted, a three-bolt hole configuration.*
- “Dual-flush effective flush volume” means the composite, average flush volume of two reduced flushes and one full flush.”*

- “Dual-flush water closet” is a water closet incorporating a feature that allows the user to flush the water closet with either a reduced or a full volume of water.
- “Electromechanical hydraulic water closet” means a water closet with a non-mechanical trap seal incorporating an electric motor and controller to facilitate flushing. ~~that uses electrically-operated devices, such as, but not limited to, air compressors, pumps, solenoids, motors, or macerators in place of or to aid gravity in evacuating waste from the toilet bowl.~~
- “Flushometer valve” means a flushing device valve that is attached to a pressurized water supply pipe and that, is designed so that when actuated, it opens the line pipe for direct flow into the fixture at a rate and in a predetermined quantity that enables to properly operation of operate the fixture. ~~and The valve then gradually closes in order to provide trap reseal in the fixture and to avoid water hammer. The pipe to which the device is connected is, in itself, of sufficient size that when open shall allow the device to deliver water at a sufficient rate of flow for flushing.~~
- “Plumbing fitting” means a fitting device that controls and guides the flow of water in a supply system. Examples include showerhead, lavatory faucet, kitchen faucet, metering faucet, lavatory replacement aerator, kitchen replacement aerator, wash fountain, commercial pre-rinse spray valves, or tub spout diverter.
- “Public lavatory faucet” means a fitting faucet intended to be installed in non-residential bathrooms that are exposed to walk-in traffic.
- “Plumbing fixture” means a device that receives water or waste matter, or both, and directs these substances into a drainage system ~~an exchangeable device, which connects to a plumbing system to deliver and drain away water and/or waste. A plumbing fixture includes a water closet or a urinal.~~
- “Urinal” means a ~~plumbing~~ fixture that receives only liquid body waste and, on demand, conveys the waste through a trap seal into a gravity drainage system.
- “Water closet” means a ~~plumbing~~ fixture with having a water-containing receptor that receives liquid and solid body waste and on actuation conveys the waste through an exposed integral trap into a gravity drainage system.

#### **References to Industry Standards**

- There are references made throughout the formal proposal to outdated product standards. Manufacturers certify their products to the most recent version of product standards, and therefore such product standard references should be updated accordingly. Additionally, the U.S. Department of Energy (DOE) revised the test procedures within their rules and regulations to reference the latest versions of ASME A112.18.1/CSA B125.1 and ASME A112.19.2/CSA B45.1 in order to align with industry practice.<sup>4</sup> Therefore, the CEC should make similar changes within their rules and regulations to be consistent with the actions of the federal government.

<sup>4</sup> Source: Federal Register / Vol. 78, No. 205 / Wednesday, October 23, 2013 / Rules and Regulations / Department of Energy / 10 CFR Parts 429, 430, and 431/ Energy Conservation Program for Consumer Products and Certain Commercial and Industrial Equipment: Test Procedures for Showerheads, Faucets, Water Closets, Urinals, and Commercial Pre-rinse Spray Valves / III. Discussion, D. Incorporation by Reference of Standards, 1. ASME Standards: <http://www.gpo.gov/fdsys/pkg/FR-2013-10-23/pdf/2013-24347.pdf>

**PMI recommends** that “ASME/ANSI Standard A112.18.1M-1996, 7.4.4(a)” be revised to “ASME/ANSI Standard A112.18.1/CSA B125.1-2012, 4.11.1” in Sections 1605.1(h) and 1605.3(h).

**Additional Comments**

- Throughout the formal proposal, the effective date is based on when products are “manufactured” and not “sold.” This is not consistent with the scope of Title 20 which pertains to the sale of products.

**PMI recommends** that the text “manufactured” be changed to “sold” in Section 1605.3(h), Table H-3, and Table I-2.

In closing, PMI respectfully requests that the Commission consider our comments which are based on industry standards and regulations for safeguarding public health and safety. Furthermore, PMI strongly encourages the Commission to adopt the CEC staff recommendation for 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. Finally, PMI 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-1 on appliance efficiency. 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 products.

Sincerely,



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