

## DOCKETED

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<b>Project Title:</b>	Residential Lavatory Faucets and Showerheads
<b>TN #:</b>	205480
<b>Document Title:</b>	Kohler/Shabbir Rawalpindiwala re: Comments on Proposed Amendments of Appliance Efficiency Regulations
<b>Description:</b>	Efficiency
<b>Filer:</b>	Patty Paul
<b>Organization:</b>	Kohler Company
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*Comment Received From: Shabbir Rawalpindiwala*  
*Submitted On: 3/13/2015*  
*Docket Number: 15-AAER-01*

**Docket Number 15-AAER-1**

To Whom It May Concern:

Please find attached Kohler Company's comments on CEC's Proposed Amendments of Appliance Efficiency Regulations "Docket Number 15-AAER-1.

Should you have any questions, please contact myself of Shabbir Rawalpindiwala.

Thank you,

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*Additional submitted attachment is included below.*



March 13, 2015

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

Dear Commissioners,

Kohler Co. appreciates the opportunity to provide comments to the California Energy Commission regarding Docket 15-AAER-1, 2015 Appliance Efficiency Rulemaking For Toilets, Urinals, Faucets, HVAC Air Filters, Dimming Fluorescent Ballasts, and Heat Pump Water Chilling Packages.

Our comments are as follows:

**1. Topic:** Section 1602. Definitions

**Comment:** The current proposal for Section 1602, item (i) Plumbing Fixtures, includes a definition for “MaP” as “means maximum flushing performance.” Kohler Company feels that throughout the plumbing industry “MaP” is always in reference to “MaP Testing” which is a private sector organization that has created independent criteria for toilet flushing performance, and is not nationally consensus based.

**Suggested Change:** Kohler Company recommends that CEC remove the definition for “MaP” from this regulation.

**2. Topic:** Section 1604. Test Methods for Specific Appliances

**Comment:** Within item (i) Plumbing Fixtures, CEC has added the requirement that products comply with *MaP Testing Toilet Fixture Performance Testing Protocol Version 5-March 2013*. This implies that the product must be listed with MaP Testing in order to meet the requirements CEC has set forth. By MaP Testing’s own admission, they are a voluntary testing program<sup>1</sup>. It would be negligent of CEC to require that manufacturers incur the additional expense of having their products listed with MaP Testing, when the flush performance requirements within the MaP protocol are identical to those found within the vetted *ASME A112.19.2-2013/CSA B45.1-13 – Ceramic Plumbing Fixtures* product standard.

**Suggested Change:** As the flush performance protocol that are found within the MaP Testing protocol as identical to the requirements that are found within the ASME standards, Kohler Company would recommend that CEC change the language for this requirement to read: “(2) ASME A112.19.2-2013/CSA B45.1-13 – Ceramic Plumbing Fixtures, Clause 7.10 Waste extraction test.”

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<sup>1</sup> <http://www.map-testing.com/performance-toilets-testing/>

3. **Topic:** Section 1605.1. Federal and State Standards for Federally-Regulated Appliances, Item (h) Plumbing Fittings

**Comments:**

- (A) CEC has been inconsistent with their strikeouts throughout 1605.1 (h)(1).
- i. “Aerators” has been struck from the heading and the body of item (h)(1), however it was not struck from Table H-1.
  - ii. “Lavatory faucets” and “kitchen faucets” were struck from the body of (h)(1), as well as Table H-1, however they were not struck from the heading. Kohler Company feels that CEC is incorrect in having struck any of these items from this section, as they are federally-regulated appliances as per 10 CFR 430.
- (B) CEC has created new language for item (5) “*Lavatory faucets, kitchen faucets, and public lavatory faucets*”, which directs the reader to reference Section 1605.3 (h)(2). Kohler Company feels that CEC is incorrect to direct the reader to this section, as the items covered by this language are federally-regulated appliances, and therefore do not belong in *1605.3 State Standards for Non-Federally-Regulated Appliances*.
- (C) Kohler Company recommends that CEC update the standard referenced within this section for showerheads to be in alignment with the standard that is currently recognized by the US Department of Energy.

**Suggested Change:** Kohler Company proposes that CEC consider the following language for 1605.1(h)(1):

**“Showerheads, Faucets, Aerators, and Wash Fountains.** The flow rate of showerheads, lavatory faucets, kitchen faucets, public lavatory faucets, lavatory replacement aerators, kitchen replacement aerators, wash fountains, and metering faucets shall not be greater than the applicable values shown in Table H-1. Showerheads shall also meet the requirements of ASME/ANSI Standard A112.18.1M-1996, 7.4.4(a) ASME A112.18.1-2012/CSA B125.1-12, 4.11.1.”

Further, Kohler Company recommends that CEC adopt the following Table:

**Table H-1 Standards for Plumbing Fittings**

<u>Appliance</u>	<u>Maximum Flow Rate</u>	
	<u>Offered for sale prior to May 1, 2016</u>	<u>Offered for sale on or after May 1, 2016</u>
<u>Showerheads</u>	<u>2.5 gpm at 80 psi</u>	<u>2.5 gpm at 80 psi</u>
<u>Lavatory faucets</u>	<u>2.2 gpm at 60 psi <sup>1, 2</sup></u>	<u>1.5 gpm at 60 psi <sup>1, 2</sup> and no less than 0.8 gpm at 20 psi</u>
<u>Kitchen faucets</u>	<u>2.2 gpm at 60 psi</u>	<u>1.8 gpm with optional temporary flow of 2.2 gpm at 60 psi</u>
<u>Public lavatory faucets</u>	<u>2.2 gpm at 60 psi</u>	<u>0.5 gpm at 60 psi</u>
<u>Lavatory replacement aerators</u>	<u>2.2 gpm at 60 psi</u>	<u>1.5 psi at 60 psi</u>
<u>Kitchen replacement aerators</u>	<u>2.2 gpm at 60 psi</u>	<u>2.2 gpm at 60 psi</u>
<sup>1</sup> <b>Sprayheads with independently-controlled orifices and manual controls.</b> The maximum flow rate of each orifice that manually turns on or off shall not exceed the maximum flow rate for a lavatory faucet.		
<sup>2</sup> <b>Sprayheads with collectively controlled orifices and manual controls.</b> The maximum flow rate of a sprayhead that manually turns on or off shall be the product of (a) the maximum flow rate for a lavatory faucet and (b) the number of component lavatories (rim space of the lavatory in inches (millimeters) divided by 20 inches (508 millimeters)).		

4. **Topic:** Section 1605.1. Federal and State Standards for Federally-Regulated Appliances, Item (i) Plumbing Fixtures

**Comment:** CEC has created new language for item (i) *“Plumbing Fixtures”*, which directs the reader to reference Section 1605.3 (i). As Section 1605.3 (i) is in reference to State Standards for Non-Federally-Regulated Appliances, Kohler Company feels that CEC is incorrect to direct the reader to this section, as the items covered by this language are federally-regulated appliances as per 10 CFR 430.

**Suggested Change:** Kohler Company recommends that CEC strike the proposed language and consider the following language and table for 1605.1(i):

“(1) The water consumption of water closets, and urinals, other than those designed and marketed exclusively for use at prisons or mental health care facilities, shall be no greater than the values shown in Table I-1”

“(2) Water closets offered for sale on or after May 1, 2018 shall meets the requirements of ASME A112.19.2-2013/CSA B45.1-13 – Ceramic Plumbing Fixtures, Clause 7.10 Waste extraction test.”

Table I-1 Standards for Plumbing Fixtures

<u>Appliance</u>	<u>Maximum Gallons per Flush or Average Flush for Dual Flush</u>	
	<u>Offered for sale prior to May 1, 2016</u>	<u>Offered for sale on or after May 1, 2016</u>
<u>All water closets</u>	<u>1.28 gpf</u>	<u>1.28 gpf</u>
<u>Trough-type urinals</u>	<u>Trough length (inches)/16</u>	<u>Trough length (inches)/16</u>
<u>Wall mounted urinals</u>	<u>0.5 gpf</u>	<u>0.5 gpf</u>
<u>Floor mounted urinals</u>	<u>0.5 gpf</u>	<u>0.5 gpf</u>

5. **Topic:** Section 1605.3. State Standards for Non-Federally-Regulated Appliances, item (h) Plumbing Fittings

**Comment:**

(A) CEC has created new language for item (h)(2) *“Showerheads, Faucets, Aerators, and Wash Fountains.”* Kohler Company feels that CEC is incorrect in having placed this language in 1605.3, as these items are federally-regulated appliances as per 10 CFR 430.

(B) Within Table H-3, CEC has proposed new requirements for Maximum Flow Rate for products Manufactured on or after May 1, 2016. As it relates to the word *“manufactured,”* Kohler Company believes that because manufacturers do not all maintain the same numbering convention for date codes, and to remain consistent with previous legislation (e.g. California AB 715), this requirement should be relative to when the product is sold rather than manufactured.

**Suggested Change:** Kohler Company recommends that CEC strike the proposed language and table for section 1605.3(h) in favor of the new language and table that we have proposed for 1605.1(h).

6. **Topic:** Section 1605.3. State Standards for Non-Federally-Regulated Appliances, Item (i) Plumbing Fixtures

**Comment:**

(A) CEC has created new language for item (i)(1), however Kohler Company feels that CEC is incorrect in having placed this language in 1605.3, as these items are federally-regulated appliances as per 10 CFR 430.

- (B) Within Table I-2, CEC has proposed new requirements for Maximum Gallons per Flush for products Manufactured on or after May 1, 2016. As it relates to the word “*manufactured*,” Kohler Company believes that because manufacturers do not all maintain the same numbering convention for date codes, and to remain consistent with previous legislation (e.g. California AB 715), this requirement should be relative to when the product is sold rather than manufactured.
- (C) Within Table I-2, CEC has proposed changing the maximum flush volume of wall mounted urinals to 0.125 GPF. CEC has already taken great strides in saving water through their current urinal requirements of 0.5 GPF, which is 50% below the federally regulated maximum. Kohler Company feels that it is extremely important to consider the current benchmark when examining how this proposal may affect other Bills that have been written into California law – specifically AB 715 and SB 407. While CEC’s current urinal requirement of 0.5 GPF is aligned with AB 715, we feel the real concern is the impact this proposal will have on requirements of SB 407 – which requires all non-water conserving plumbing fixtures to be replaced with efficient products by 2019. The Bill defines a noncompliant urinal as a urinal manufactured to use more than one gallon of water per flush, and also defines a water-conserving plumbing fixture to mean any fixture that is in compliance with current building standards applicable to a newly constructed real property of the same type. It is important to draw attention to the fact that the performance of some plumbing systems was taken into consideration in SB 407. Clause 1101.7(b) states that the article shall not apply to a property for which a licensed plumber certified that due to the age or configuration of the property or its plumbing, installation of a water-conserving plumbing fixture is not technically feasible. Even in these cases the CEC proposal has limited the customer’s options only to those urinals that flush 0.125 GPF. Kohler Company is concerned that CEC’s proposed reduction has the potential to present public health and safety issues as the plumbing systems in buildings that previously used 1.0 GPF or greater urinals will have significantly less water to move waste. The IOU’s have indicated that they inquired with the Los Angeles Department of Water and Power as to the impact 0.125 GPF urinals have had on the sewage system, and that no negative effects have been reported<sup>2</sup>. While important, the question should not be posed to the City, rather to building owners and maintenance staff. These are the individuals who are required to have compliant products installed and would also be impacted by a failure of the plumbing system within their buildings. The fact is, little has been done to study the effects reduced volume may have on plumbing systems that are installed in older pre-EPA buildings. Before CEC institutes this requirement state-wide, we believe that further studies should be performed to ensure manufacturers, plumbers, and building officials that all plumbing systems are capable of maintaining their level of performance with these products.

Kohler Company is also concerned that the market does not currently offer enough products to meet the need that would be created by this requirement. Our research has indicated that the number of available products has been greatly overestimated in two ways:

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<sup>2</sup> [http://www.energy.ca.gov/appliances/2014-AAER-01/prerulemaking/comments/14-AAER-01\\_CA\\_IOUs\\_Comments\\_Regarding\\_Draft\\_Regulations\\_Faucets\\_Toilets\\_and\\_Urinals\\_2014-06-10\\_TN-73180.pdf](http://www.energy.ca.gov/appliances/2014-AAER-01/prerulemaking/comments/14-AAER-01_CA_IOUs_Comments_Regarding_Draft_Regulations_Faucets_Toilets_and_Urinals_2014-06-10_TN-73180.pdf)

- i. We believe the product availability data previously presented by the IOU's<sup>3</sup> included both fixtures and systems. It is inappropriate to include systems in this figure as this would count a single product multiple times.
- ii. Consideration has not been given to similarities between products such as spud location on fixtures and power source on electronic valves. A fixture manufacturer that offers a urinal with a top spud and the identical model with a rear spud, is not offering uniquely individual products, rather one product with two installation methods. The same thought process is true for a valve manufacturer who offered an electronic flush valve that is offered AC powered and DC powered – these are not unique products.

(D) CEC has created new language for item (i)(2) for the performance requirements of water closets. As was previously stated in these comments, we believe that it is inappropriate for CEC to require a “MaP” score of no less than 350 grams, as this implies that the product must be listed with MaP Testing in order to meet the requirements CEC has set forth. Given that the flush performance requirements within the MaP protocol are identical to those found within the vetted ASME A112.19.2-2013/CSA B45.1-13 – Ceramic Plumbing Product Standard, it would be more appropriate to reference the ASME standard.

**Suggested Change:** Kohler Company recommends that CEC strike the proposed language and table for section 1605.3(i) in favor of the new language and table that we have proposed for 1605.1(i).

Again thank you for the opportunity to comment. As a leading manufacturer of kitchen and bath plumbing products worldwide, Kohler Co. applauds the California Energy Commission's efforts and focus on water efficiency. We share this same commitment to environmental stewardship and look forward to continuing to work with California Energy Commission in the future.

Respectfully submitted,



Shabbir Rawalpindiwala  
Manager – Engineering, Codes & Standards  
Kohler Company

SR/tk

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<sup>3</sup> [http://www.energy.ca.gov/appliances/2014-AAER-01/prerulemaking/comments/14-AAER-01\\_CA\\_IOUs\\_Comments\\_Regarding\\_Draft\\_Regulations\\_Faucets\\_Toilets\\_and\\_Urinals\\_2014-06-10\\_TN-73180.pdf](http://www.energy.ca.gov/appliances/2014-AAER-01/prerulemaking/comments/14-AAER-01_CA_IOUs_Comments_Regarding_Draft_Regulations_Faucets_Toilets_and_Urinals_2014-06-10_TN-73180.pdf)