

**Appliance Standards Awareness Project
Alliance for Water Efficiency
American Council for an Energy-Efficient Economy
Consumer Federation of America
National Consumer Law Center
Natural Resources Defense Council
Northwest Energy Efficiency Alliance**

October 14, 2020

Mr. John Cymbalsky
U.S. Department of Energy
Office of Energy Efficiency and Renewable Energy
Building Technologies Office, EE-2J
1000 Independence Ave. SW
Washington, DC 20585-0121

RE: Energy Conservation Program: Test Procedures for Showerheads - Notice of Proposed Rulemaking (EERE-2020-BT-TP-0002)

Dear Mr. Cymbalsky:

This letter provides input from the Appliance Standards Awareness Project, Alliance for Water Efficiency American Council for an Energy-Efficient Economy, Consumer Federation of America, National Consumer Law Center (on behalf of its low-income clients), Natural Resources Defense Council and Northwest Energy Efficiency Alliance with respect to DOE's proposed changes to the showerhead test procedure. We strongly oppose DOE's proposed rule, which would allow for unlimited water use by showerheads. The proposed rule, apparently developed in response to complaints by President Trump, fails to address or evaluate in any way the performance concerns that he has raised. If DOE had investigated the complaints, the agency would have discovered they could not be validated. Perhaps because the President's reasons for this action are unfounded, DOE instead argues that the proposed rule aligns DOE's test procedure with the showerhead standard published by the American Society of Mechanical Engineers (ASME). But DOE's proposal fails to adhere to the ASME standard in its entirety or its widespread interpretation. DOE's proposed interpretation of the ASME standard would harm consumers, resulting in undesired cold showers, the need for potentially costly changes to home plumbing and water heating systems, and higher utility bills. The proposal would increase energy and water demand putting new strains on utilities and increasing climate change and other harmful emissions. It would also violate the law. Finally, DOE's proposal for new definitions for "body spray" and "safety shower showerhead" would create new loopholes undercutting statutory showerhead standards.

We support DOE's current showerhead definition.

The Energy Policy Act of 1992 added plumbing products to the federal efficiency standards program, expanding the statute to address water conservation. Congress established a maximum flow rate of 2.5 gallons per minute (gpm) for showerheads manufactured on or after January 1, 1994. In 2013, DOE published a final rule elaborating the regulatory definition of showerhead. That definition reads as follows: "A component or set of components distributed in commerce for attachment to a single supply fitting, for spraying water onto a bather, typically from an overhead position, including hand-held showerheads, but excluding safety shower showerheads." (10 Code of Federal Regulations 430.2) This definition made clear that showerheads should be tested at the maximum flow of all outlets that can be simultaneously operated. This definition carries out the conservation purposes of the Energy Policy Act of 1992. The proposed revised definition in the current docket would treat each spray unit as a separate showerhead, allowing each to use 2.5 gallons per minute, even if they can be operated simultaneously. Since there is no limit on the number of spray units a single product might have, the proposal allows for unlimited flow. This interpretation undermines the very purpose of the statute.

DOE has not addressed President Trump's rationale for this proposal.

President Trump first raised his concerns with showerhead performance problems in fall 2019. At a White House roundtable held on December 6, 2019 touting the administration's deregulatory actions, he said: "We have a situation where we're looking very strongly at sinks and showers. ...You turn on the faucet; you don't get any water. They take a shower and water comes dripping out. It's dripping out — very quietly dripping out....So we're looking at, very seriously, at opening up the standard."¹ He raised his concerns with showerheads again during speeches on December 18, 2019 and January 14, 2020.² In spring 2020, DOE's Regulatory Agenda contained an entry related to showerhead definitions for the first time.³ On July 16th, the President complained about poorly performing showerheads in a White House speech.⁴ On August 6th, speaking in Clyde, Ohio, President Trump claimed, "You go into a new home, you

¹ "Remarks by President Trump and Vice President Pence in a Roundtable on Small Business and Red Tape Reduction Accomplishments." White House, December 6, 2019, available at <https://www.whitehouse.gov/briefings-statements/remarks-president-trump-vice-president-pence-roundtable-small-business-red-tape-reduction-accomplishments/>

² 12/18/19 Battle Creek, Michigan rally at 1:48:34 in [video](https://www.c-span.org/video/?467146-1/president-trump-speaks-rally-battle-creek-michigan) at <https://www.c-span.org/video/?467146-1/president-trump-speaks-rally-battle-creek-michigan>, he said, "you have a shower – drip – it's no good for me" and 1/14/20 in Milwaukee, he said, "You go into a shower, and I have this beautiful head of hair. I need a lot of water. You go into the shower, right? You turn on the water. Drip, drip, drip. I call the guy, something wrong with this? No, sir. It's just the restrictor. So you're in there five times longer than you're supposed to be. You use probably more water. And it's a very unpleasant experience. Right? So we're getting rid of the restrictors, you're going to have full shower flow. You'll see." Transcript at <https://www.cnn.com/2020/01/15/politics/donald-trump-toilet-sinks-dishwashers/index.html>

³ Spring 2020 Unified Agenda of Regulatory and Deregulatory Actions. Office of Information and Regulatory Affairs; Office of Management and Budget. See entry at <https://www.reginfo.gov/public/do/AgendaViewRule?pubId=202004&RIN=1904-AE85>

⁴ "Remarks by President Trump on Rolling Back Regulations to Help All Americans" The White House. July 16, 2020. available at <https://www.whitehouse.gov/briefings-statements/remarks-president-trump-rolling-back-regulations-help-americans/>

turn on the faucet; no water comes out. You turn on the shower — if you're like me, you can't wash your beautiful hair properly. You waste 20 minutes longer. 'Please come out.' The water — it drips, right? You know what I'm talking — they put restrictors on. I got rid of that. I signed it out."⁵ On August 13th, DOE published its proposed rule.

This chain of events demonstrates that DOE developed and proposed the test procedure changes in response to the President's complaints. But the proposal itself makes no mention of these claims or any effort to corroborate them. Information on the record and in the public domain demonstrates that the complaints are unfounded. In comments filed in this docket, Gary Klein, an independent expert, explains that showerhead performance issues that were common in the 1990s have been solved.⁶ In comments made earlier this year, the executive director of Plumbing Manufacturers International, the trade group representing showerhead manufacturers, said, "We're not hearing lots of complaints about showers and shower heads."⁷ Consumers Reports has tested showerheads and found that, "the best showerheads we tested provided a pleasing flow while meeting the federal flow-rate standard."⁸ The consumer product review website Wirecutter describes their top-rated showerhead as providing a "powerful, dense soak" yet it uses only 70% of the water allowed by current federal standards. Wirecutter identified many more top performing products that use significantly less water than allowed by federal standards, including a model from Moen with this description: "This efficient and versatile showerhead has six distinct settings and works as a handheld or rainshower, boasting every possible shower experience you could want."⁹ The fundamental rationale for this proposal, voiced by the President, is unfounded.

DOE's proposal is inconsistent with the ASME standard.

Rather than attempt to justify the proposed action based on the arguments advanced by the President, DOE's proposed rule relies on a legalistic argument about deference to test definitions published by ASME. But DOE has failed to follow ASME's definitions in their entirety. Moreover, DOE's interpretation is at odds with industry professionals' interpretation.

DOE proposes to adopt the showerhead definition contained in ASME A112.18.1-2018 (a "showerhead" is "an accessory to a supply fitting for spraying water onto a bather..."). But, as detailed in the comments filed by the California Investor Owned Utilities (CA IOUs) to this docket, DOE neglects to adopt ASME's definitions for the key terms "accessory" and "supply fitting" also contained in the ASME standard. The ASME standard defines "accessory" as "a component that can, at the discretion of the user, be readily added, removed, or replaced and that, when removed, will not prevent the fitting from fulfilling its primary function." For example, in Figure 1 of the proposed rule, DOE asserts that the shown products contain multiple individual showerheads.¹⁰ But removal of any one of these "showerheads"

⁵ "Remarks by President Trump at Whirlpool Corporation Manufacturing Plant." The White House. August 6, 2020. Available at <https://www.whitehouse.gov/briefings-statements/remarks-president-trump-whirlpool-corporation-manufacturing-plant/>

⁶ Gary Klein and Associates comments available at <https://beta.regulations.gov/comment/EERE-2020-BT-TP-0002-0063>

⁷ Frankel, Todd C. "Trump's drive to make toilets, dishwashers great again collides with companies, product testing" Washington Post. January 30, 2020. Available at

https://www.washingtonpost.com/business/economy/trumps-drive-to-make-toilets-dishwashers-great-again-collides-with-companies-product-testing/2020/01/29/958a9f54-3c73-11ea-b90d-5652806c3b3a_story.html

⁸ <https://www.consumerreports.org/cro/showerheads/buying-guide/index.htm>

⁹ <https://www.nytimes.com/wirecutter/reviews/the-best-shower-head/>

¹⁰ 85 Federal Register 49290

would likely prevent the fitting from providing a shower: water would cascade from the opening left by removing the “showerhead” eliminating any pressure in the remaining “showerheads” and the ability of the device to provide a shower.¹¹ DOE appears to have only followed ASME up to a point, and then diverged with its own interpretation (arrived at without defining “accessory”) to allow for more water consumptive products.

The CA IOUs go on to describe their investigation of testing professionals’ interpretation of the ASME standard, an investigation which DOE appears to have not bothered to conduct itself. The CA IOUs found that test labs interpret the ASME 2018 standard to require that a showering product, regardless of the number of spray heads, be tested for performance in each mode of operation. Finally, we note that a major manufacturer’s representative appeared to agree in comments made at the public webinar hearing. He said, in part, “I believe the [ASME] standard as written would, as stated in the Section 5.4, make you test at the maximum flow setting, which would be all showerheads at the same time...”¹² In sum, DOE’s interpretation of the ASME standard is at odds with how testing professionals and manufacturers interpret the ASME standard.

The proposed rule would result in undesired cold showers and increased costs for consumers.

DOE has failed to provide any analysis of the costs and benefits of the proposed rule for consumers. Gary Klein’s comments show how the proposal would harm consumers.¹³ He shows that more consumptive showers will cause households to deplete their hot water supplies quickly, resulting in cold showers. For example, Klein shows that a household with a 40 or 50 gallon storage water heater (the most common sizes) that installs a 3-spray product that would be permitted to use 7.5 gpm under the proposed test procedure would run out of hot water in 5.5 minutes and 6.9 minutes, respectively. The average shower is 8 minutes. A two-spray device would run out of water in 8.2 to 10 minutes for a 40- and 50-gallon tank, respectively. The second consecutive shower in a household with a two-spray device would be a cold one.

Klein goes on to show that operating a 5 gpm or higher device will require extensive physical changes to a home’s plumbing system including a larger anti-scald shower valve, larger piping, larger shower trap and drain line and a larger capacity water heater. These costs could total into the thousands of dollars.

Finally, he shows that consumers’ bills will go up. Each additional 2.5 gpm nozzle will increase average annual consumer costs for showering by \$191 for consumers using natural gas water heaters and \$291 for those using electric resistance water heaters.

DOE has failed to assess the impacts on utilities and ratepayers.

Klein shows in his comments that just a 5% adoption rate of showers using 7.5 gallons per minute would increase hot water use nationally by 120 billion gallons per year. Cold water use would also increase by

¹¹ The ASME definition of “accessory” may not be adequate for preventing gaming. If DOE considers adopting this definition, it should subject it to further scrutiny in an SNOPR. We continue to prefer the clarity of the 2013 DOE definition.

¹² comments of Mark Malatesta, a representative of Lixil, a major showerhead manufacturer of brands such as American Standard and Grohe, at page 37 of the public meeting transcript.
<https://beta.regulations.gov/document/EERE-2020-BT-TP-0002-0033>

¹³ Gary Klein and Associates comments, pp 3 – 12.

billions of gallons. Similarly, in another letter to this docket, the Alliance for Water Efficiency and more than 50 co-signers consisting primarily of water and wastewater utilities cite an estimate that the proposal could increase water use by 161 billion gallons per year. This increase would impose costs on water and wastewater utilities to meet this increased demand. Similarly, energy utilities would also have to increase capacity to meet this demand. Even a small share of consumers opting for the highly consumptive showering products would impose costs on all utility ratepayers since the costs of increased water, wastewater and energy capacity is generally shared across all ratepayers.

DOE has not performed an appropriate analysis of the proposed rule under the National Environmental Policy Act (NEPA).

Additional hot water waste will increase natural gas and electricity consumption resulting in higher emissions of climate change emissions and pollutants that contribute to acute public health problems such as PM 2.5, NO_x and SO₂. The rule's impacts on water use could exacerbate the environmental effects of drought. DOE has failed to provide any analysis of these significant environmental impacts. Instead, DOE cites 10 C.F.R. 1021, Subpart D, Appendix A, which contains DOE's list of activities that it considers categorically excluded from NEPA review. Specifically, DOE cites provision A5, Interpretive Rulemakings With No Change in Environmental Effect, which describes "[r]ulemakings interpreting or amending an existing rule or regulation that does not change the environmental effect of the rule or regulation being amended."

However, DOE's proposal would allow showerheads, as newly defined, to use double, triple, or quadruple the maximum amount of energy and water allowed under the current standard. Indeed, there would be no effective upper bound on energy and water consumption under DOE's proposed definition. It is simply inaccurate for DOE to claim that the proposal is necessary to allow increased offerings of showerheads with higher energy and water consumption AND that this action would have no impact on the environment. Consequently, DOE is obligated to withdraw this proposal and conduct a proper NEPA review.

The proposed rule would be illegal.

Comments to this docket filed by the California Energy Commission, Earthjustice, the CA IOUs and the Alliance for Water Efficiency describe legal flaws with the proposed rule. These include violation of the agency's recently revised Process Rule, failure to provide for a test procedure that is representative of an average use cycle, failure to comply with the National Environmental Policy Act (as described above) and violation of the appliance standards' law anti-backsliding provision. Their comments provide details on these legal flaws and others. These flaws render any final rule based on the proposal illegal.

DOE's proposed definitions for "body spray" and "safety shower showerhead" would create additional loopholes.

The proposed definitions for "body spray" and "safety shower showerhead" are written so broadly as to potentially include products routinely installed as regular showerheads. The proposed definitions for "body spray" ("Body spray means a shower device for spraying water onto a bather from other than the overhead position. A body spray is not a showerhead")¹⁴ could easily include products that could work in an overhead position as well as other positions. For example, a handheld showerhead that can be fit

¹⁴ 85 Federal Register 49296

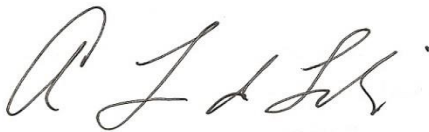
into an overhead bracket would appear to meet the definition of body spray. It would also meet the definition of showerhead, yet the two terms are mutually exclusive in the proposed rule. Some fixed products could also be installed in either an overhead position or lower. DOE's proposed "body spray" definition would exempt many products now considered showerheads from federal standards.

For example, the CA IOUs have shown in their comments that "body sprays" sold on the market today from major retailers comply with the 2.5 gpm limit and that the ASME 2018 standard treats them like other showerheads. Since products marketed as body sprays may just as easily be installed in an overhead position as in any other position, these products meet the statutory definition of showerhead (i.e., "showerheads" spray water "typically from an overhead position;" the use of "typically" leaves room for products that spray from another position or that can spray from multiple positions, depending on installation). Therefore, DOE should make clear that the products which DOE describes as "body sprays" are showerheads and must meet the showerhead standard.


Similarly, DOE's proposed "safety shower showerhead" definition ("Safety shower showerhead means a device specifically designed and intended to deliver a flushing fluid in sufficient volume to cause that fluid to cascade over the entire body")¹⁵ is much too broad. Many showerheads sold for bathing today could be viewed as meeting this definition. DOE's proposed definition is based on ANSI/International Safety Equipment Association (ISEA) Z358.1-2014. But, like DOE's use of the ASME showerhead standard, DOE stops short of adopting all the necessary elements of the ANSI/ISEA standard. As detailed in the CA IOU comments, the ANSI/ISEA standard requires that a safety shower showerhead be able to deliver 20 gpm and have a minimum spray pattern diameter of 20 inches, among other characteristics. While some aspects of the ANSI/ISEA standard are specific to the installation, others are characteristics of the manufactured showerhead device. DOE must adopt a definition of safety shower showerhead that is fully consistent with all aspects of the ANSI/ISEA standard, both for consistency and to avoid creating a loophole in the federal showerhead standard.

For the reasons detailed in this letter, we urge DOE to promptly withdraw the proposed rule.

Sincerely,



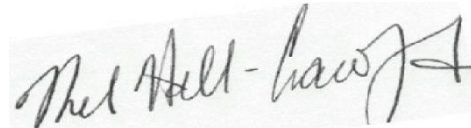
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¹⁵ Ibid.



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