

## PUBLIC COMMENT SUBMISSION ON EPA WATERSENSE DRAFT SHOWERHEAD DOCUMENTS

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**Commenter Affiliation:** Alliance for Water Efficiency

**Date of Comment Submission:** November 9, 2009

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**Topic:** Support for the Specification

**General Comment:** The Alliance for Water Efficiency supports the adoption of the WaterSense specification for showerheads. We applaud EPA's efforts to address many of the more challenging issues previously identified, such as consumer satisfaction, user safety, and test apparatus design.

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**Topic:** 1.0 Scope and Objective

**Comment:** Co-labeling of showerheads by WaterSense and Energy Star should be encouraged.

**Rationale:** The Alliance is pleased to learn that the WaterSense and Energy Star programs are jointly undertaking development of a specification for pre-rinse spray valves with the intention of co-labeling. We believe that the WaterSense showerhead specification is also an excellent candidate for co-labeling with Energy Star. Each program has its own network of practitioners and stakeholders, and where a common specification can save both energy and water while maintaining customer satisfaction, the agency's investment in specification development should be made available to both programs. Furthermore, the WaterSense Product Certification System will support the achievement of both water and energy savings for these products.

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**Topic:** 2.3 Instructions for Overriding the Maximum Flow Rate

**Comment:** We support this provision and recommend that it be strengthened.

**Rationale:** Some manufacturers have developed highly visible instructions, often presented on the exterior of product packaging and intended to be read in-store, for removing flow restrictors for "cleaning" purposes or to prevent clogging. Such instructions may allow sale of products to defeat the intent of reducing flow rates within a specified allowable performance standard. Because of the capacity of marketers to reword and revise the content and visibility of such messages, WaterSense must clearly state that it retains the right to revoke the use of the label for any product carrying instructions that market the opportunity for operation of the product above the maximum rated flow and not within the performance requirements.

**Suggested Change (or Language):** At the end of the paragraph, add: WaterSense reserves the right to review the content and placement of all instructions and to revoke the use of the label for any

showerhead carrying instructions that appear to promote the opportunity or possibility of operating the product above the maximum rated flow.

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**Topic:** Design Specification for Future Consideration

**Comment:** In the next iteration of the WaterSense specification for showerheads, consideration should be given to the costs and benefits of including a trickle valve in a revised specification.

**Rationale:** Some showerheads now come equipped with a valve, commonly known as a “soap up” valve or a “trickle valve,” that allows the user to reduce the flow to a trickle while soaping up and to restore the flow to the preset level for rinsing off, all without requiring adjustment of the shower’s hot and cold water supply valve(s). The valve enables the consumer, at his/her own initiative, to take personal action to further reduce water consumption. The use of soap-up valves should be facilitated by WaterSense, since their operation for even 1 or 2 minutes offers significant water and energy savings. (Applying the Supporting Statement’s Appendix A savings assumptions for full product saturation, use of such valves by 10% of consumers for 90 seconds would yield water savings of more than 50 million gallons per day.) Such valves allow a trickle of water ( $\approx 0.25$  gpm) to flow, which assists in maintaining temperature balance and reminds the consumer that the shower still needs to be turned off at the control valve. Trickle valves are a proven water saver. However, they can create an inter-connection between the hot and cold water distribution system which can waste energy (hot water). Pressure differences when the showerhead is on trickle mode can result in some hot water flowing into the cold water distribution system. More evaluation of the significance of this hot water loss is needed. As experience is gained with the initial specification and the acceptance of WaterSense labeled showerheads in the marketplace, WaterSense should evaluate the costs and benefits of inclusion of this feature in a revised specification.

**Suggested Change (or Language):**

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**Topic:** Appendix B – Spray Coverage Procedure

**Comment:** In B2.3(g), additional clarity is needed to explain how water is to be collected for measurement from each annular ring.

**Rationale:** It is unclear how the measurement of water falling within each ring is to be accomplished. Is there to be a tap in each ring? Will each ring drain thoroughly enough during a reasonable period of time to provide sufficiently accurate and reproducible values for each ring? Alternatively, are the rings to contain interior markings to allow for measurement of water without the need for the apparatus to be drained?

**Suggested Change (or Language):**

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**Topic:** Appendix C — Informative Annex for WaterSense Labeling

**Comment:** The term “informative” connotes that the content of Appendix C is optional. We recommend that the provisions of this appendix be moved to the main body of the specification, or at the very minimum, that the word “informative” be dropped.

**Rationale:** These labeling provisions, including the marking of the minimum flow rate at 45 psi, are important and should carry the same force as the other provisions listed in the main body of the specification.

**Suggested Change (or Language):**

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**Topic:** Supporting Statement – Appendix A: Calculations and Key Assumptions

**Comment:** The cost-effectiveness discussion on pages 5 and 6 and the calculations presented in Appendix A depict an early retirement scenario. A cost-effectiveness evaluation for a new construction and normal replacement scenario would also be useful for conservation program managers, builders, and consumers, and should be added to the Supporting Statement when finalized.

**Rationale:** Assumptions for new construction and normal replacement would focus on the costs and benefits of a WaterSense compliant product compared to a minimally compliant product with comparable finish and features. Thus, the estimated incremental cost of a WaterSense showerhead would be compared with the cost of an otherwise comparable EPA-compliant showerhead, since in this scenario the purchaser is in the market for a new showerhead anyway. Likewise, the water and energy savings of the WaterSense product would be compared with the expected water and energy performance of a new EPA-compliant showerhead. In this case, the incremental cost will be significantly lower than the total product cost (\$15) used in Appendix A. The potential savings will also be lower, since the figure cited in Appendix A for the flow rate of the average showerhead was based on a large sample of showerheads in operation in 1999, which included a mixture of EPA-compliant and non-compliant showerheads. Because the number of units sold for new construction and normal replacement is typically larger than the number of units sold for early retirement, the cost-effectiveness calculations for showerheads, and indeed for all WaterSense products, should include estimates for both deployment scenarios.

**Suggested Change (or Language):**

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