



July 14, 2005

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ENERGY STAR Program Manager  
Environmental Protection Agency  
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Dear Rachael:

On behalf of the undersigned supporting organizations (listed on page 4), CEE's Kitchens Committee (the Committee) appreciates the opportunity to provide comments on the Final Draft Version 1.0 specification for ENERGY STAR qualified pre-rinse spray valves (PRSVs). The Committee includes energy-efficiency program representatives (CEE members) as well as representatives from six sponsoring water agencies. Many of those on the Committee promote efficient PRSVs through direct-install programs, rebates, education, and other strategies. The Committee offers the following comments on the Final Draft PRSV specification in addition to the comments provided to EPA on March 13, 2005.

### **1. Energy and Water Efficiency Programs Support an ENERGY STAR PRSV Label**

The Committee supports ENERGY STAR as it moves forward with a PRSV program. Efficient PRSVs offer an excellent opportunity to save water and energy without sacrificing cleaning performance. The combination of water and energy savings makes efficient pre-rinse spray valves a very attractive product from both a consumer and program perspective. The Committee welcomes ENERGY STAR support as a proven, national platform to promote resource efficient products and to help consumers choose efficient products. The Committee also welcomes ENERGY STAR's support in working with the retailers, distributors and installers of spray valves who will likely use the ENERGY STAR label to differentiate their efficient products. The Committee believes these market channels will play an increasingly important role in helping consumers to identify spray valves that save water and energy and meet their performance expectations under a variety of operating conditions (e.g., varying water pressure).

### **2. Proposed ENERGY STAR Criteria**

Overall, the Committee is comfortable with the proposed ENERGY STAR criteria for PRSVs as described in the final draft (dated June 13, 2005). The proposed qualifying criteria are very similar to those being used by a number of programs around the country. That said, the Committee notes several issues that should guide how ENERGY STAR represents this national-level performance specification to consumers and the industry (e.g., spray valve manufacturers, specifiers, vendors, retailers and installers).

- **Cleanability** – While the Committee agrees with ENERGY STAR that a cleanability requirement is needed to help ensure product performance is not compromised for efficiency, the Committee identified several issues that might temper how the criterion is treated by ENERGY STAR and efficiency programs in the future, and how they are perceived in the market.

*Potential for Market Confusion.* The Committee considered whether instances of multiple cleanability specifications might cause confusion in the market. For instance, the California market could soon have three different spray valve cleaning performance specifications being promoted simultaneously: the California Urban Water Conservation Council's Rinse&Save program at 21 seconds per plate; a new statewide standard at 30 seconds per plate; and ENERGY STAR at 26 seconds per plate. The Committee concluded that this issue should not impact the overall success of an ENERGY STAR spray valve, since ENERGY STAR is national in scope and relatively few regions of the country have multiple specifications. ENERGY STAR will likely help alleviate confusion among consumers and retailers by providing a recognized label to indicate superior performance.

*Interpreting the Cleaning Performance Test Results.* The Committee examined the reliability of the ASTM cleaning performance test and considered how meaningful the results are in the marketplace. For instance, in response to ENERGY STAR's initial draft criteria, one spray valve manufacturer expressed concern that the cleaning performance test described in ASTM F2324-03 does not allow for enough variability in field conditions, testing media or cleaning environments. This manufacturer referenced similar findings from the Plumbing Manufacturer's Institute (the spray valve industry association). Upon investigating this issue, the California Energy Commission found the ASTM cleanability test to be less precise than the flow rate test. Finally, some programs do not use a cleanability criterion at all, relying instead on a custom approach to ensure customer satisfaction with spray valve performance.

To better understand this issue the Committee contacted Don Fisher of PG&E's Food Service Technology Center. Mr. Fisher confirmed that ENERGY STAR's proposed 26 seconds or less per plate is a threshold that would "screen-out" products that are low-flow (1.6 gpm or less), but do not offer comparable cleaning performance. Mr. Fisher commented that all the products qualified under California's Rinse&Save program have cleaning times of 26 seconds or less (1.6 gpm at 60 psi). It is possible to make a product "low-flow" by inserting a flow restrictor in a standard device, but cleaning time per plate will increase significantly without improved product design. For instance, a standard spray valve with a flow restrictor could achieve 1.6 gpm, but the cleaning time could easily be twice as long. The dual criteria of flowrate and cleanability will prevent these spray valves from being labeled under the ENERGY STAR program.

The Committee concluded that a cleaning performance measure is critical to the success of a national labeling program and that the ASTM test procedure provides adequate assurance to customers that cleaning time per plate is not being penalized with the reduced flowrate. Enhancements to the test procedure and improved product design may allow for greater product differentiation by cleanability in the future. As a result of these findings, the Committee supports the 26 seconds per plate criterion as a threshold to prevent low-flow products with longer cleaning times to be labeled as ENERGY STAR.

- **Water Pressure Assumptions** –The Committee appreciates EPA's response to its concerns about pre-rinse spray valve performance problems caused by either high or low water pressure within a facility.

*High Water Pressure.* To address instances of high-pressure, EPA stated that it will educate users to turn down their valve or tap as needed to reduce excessive splashing or spraying. The Committee believes that throttling back a shut-off valve to a partially open position can result in excessive turbulence in the valve and cause unnecessary wear on the valve seat. The potential consequence of such wear is that when the user attempts to completely close the valve, it will leak, contributing to greater repair and maintenance costs for consumers in the future. The Committee discourages EPA from making this recommendation to consumers. As an alternative, the Committee recommends that ENERGY STAR urge consumers to address instances of high pressure directly by calling their local water agency or plumber to inquire about installing a pressure regulation device. The Committee noted that excessively high pressure is likely to be a system-level issue. Educating consumers about opportunities to address high pressure could help save water, energy and maintenance costs throughout the facility.

*Low Water Pressure.* Among the programs represented on the Committee, the largest cause of dissatisfaction has been due to installation of efficient PRSVs in facilities with low water pressure, often significantly lower than the pressure used in the ASTM test procedure (60 psi). The Committee appreciates EPA's conducting additional tests of standard and low flow spray valves at low pressure (40 psi) through PG&E's Food Service Technology Center. The Committee urges EPA to share the test results with consumers. Specifically, EPA should make consumers aware that under low water pressure conditions, flow rates will moderately decrease, cleanability times will moderately increase, and that the impact on cleaning time may be moderately greater for low-flow units, in particular. In order to achieve energy and water savings under low water pressure conditions and ensure customer

satisfaction, some efficiency programs are prepared to offer spray valves with slightly higher flowrates than ENERGY STAR's 1.6 gpm criterion. The Committee agrees that the ENERGY STAR specification is acceptable under normal water pressure conditions (i.e., 60 psi) and that programs should work with ENERGY STAR to educate consumers and the market on best practices for installing appropriate spray valves under low water pressure conditions.

Once again, the Committee would like to thank the Environmental Protection Agency for the opportunity to comment on the draft ENERGY STAR PRSV specification. Review of the ENERGY STAR draft specification has been useful to the Committee in reaching consensus on a spray valve recommendation for water and energy-efficiency programs. The programs represented on the Committee look forward to working closely with EPA in promoting the water and energy saving benefits of ENERGY STAR spray valves.

In addition to spray valves, the Committee is also pursuing the development of performance specifications for other commercial kitchen equipment, including ice makers and fryers. These specifications and recommended program approaches will constitute a Commercial Kitchens Initiative that water and energy efficiency programs can promote as a package to their commercial customers. The Committee plans to forward the Commercial Kitchens Initiative to CEE's Board for approval in December after seeking industry review in the Fall. The Committee looks forward to working closely with ENERGY STAR to advance the market for commercial kitchen equipment through this new CEE Initiative.

Please note that these comments are endorsed by the Supporting Organizations below. Feel free to contact CEE Program Manager, Ted Jones, at 617-589-3949, ext. 230 with any questions about these comments.

Sincerely,



Marc Hoffman  
Executive Director

**Supporting Organizations:**

*Pacific Gas and Electric Company*  
*City of Toronto, Water Efficiency Office*  
*New York State Energy Research and Development Authority (NYSERDA)*  
*Vermont Gas Systems, Inc.*  
*Eugene Water and Electric Board*  
*KeySpan Energy Delivery*  
*Wisconsin Division of Energy*  
*Puget Sound Energy*  
*San Diego County Water Authority*  
*Southern Nevada Water Authority*  
*Austin Energy*  
*MidAmerican Energy*  
*Austin Water Utility, Water Conservation Division*