

February 4, 2010

Mr. Christopher Kent
ENERGY STAR® Program Manager
Environmental Protection Agency
Ariel Rios Building, SW, MS 6202J
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Mr. Kent:

The Consortium for Energy Efficiency (CEE) respectfully submits the following comments in response to the ENERGY STAR Commercial Dishwashers Version 2 Draft 1 Specification, released by the Environmental Protection Agency (EPA) on January 4, 2011. The following comments were developed by the CEE Commercial Kitchens Committee (the Committee).

CEE is the binational organization of energy efficiency program administrators and a staunch supporter of the ENERGY STAR Program. CEE members are responsible for ratepayer-funded efficiency programs in 45 U.S. states and 8 Canadian provinces. In 2010, CEE members directed over \$7.5 billion of energy efficiency program budgets in the two countries. In short, CEE represents the groups that are actively working to make ENERGY STAR the relevant platform for energy efficiency across North America.

CEE highly values the role ENERGY STAR plays in differentiating energy efficient products and services that the CEE membership supports locally throughout the U.S. and Canada. We appreciate the opportunity to provide these comments. The Committee's comments address the major areas in which EPA requested comments on the Draft 1 ENERGY STAR specification including: definitions, scope, qualification criteria, test requirements, and future revisions.

Definitions

The Committee supports EPA's efforts to improve the consistency and clarity of the definitions of machine types in the ENERGY STAR specification by aligning definitions with the latest version of

NSF/ANSI 170-2009: *Glossary of Food Equipment Terminology*. To further increase the clarity of the definitions, the Committee recommends: (1) defining single tank door type machines in a manner similar to the way EPA has defined undercounter machines (e.g., provide a definition beyond the identification of types of single tank door type machines); (2) defining the subcategories of single tank door type machines; and (3) defining the excluded machine type (flight type machines).

Scope

EPA requested feedback regarding a proposed change in scope of the specification to include machines that allow for a post sanitizing potable rinse. These machines are currently excluded in the Version 1.2 specification due to the fact that they previously did not qualify for NSF certification. According to EPA, there is a new test standard that will require that rinse water consumption test results account for the water consumed during the sanitation rinse and any post sanitation rinse cycle(s). EPA has proposed to include these machines so long as they meet current FDA and NSF requirements. The Committee is not familiar with these machines and requests that EPA provide additional information to better inform future comments on this topic. Specifically, are the machines in question included in the data set? Are the machines intended for commercial dishwashing applications or other applications, such as laboratories, surgical instruments, etc.? Committee members and EPA alike have encountered situations in which equipment that technically meets a specification qualifies for the ENERGY STAR label even though the specification was not intended for this equipment (e.g., commercial refrigeration for foodservice versus laboratories). Given that differences in the intended use of equipment may impact the inherent energy and water consumption of that equipment as well as usage patterns used by program administrators use to estimate energy and water savings, the Committee recommends making explicit the sanitation requirements (must meet current FDA and NSF requirements) of dishmachines intended for use in commercial foodservice applications to ensure the specification is appropriately applied.

EPA also expressed interest in including flight type machines in future drafts of the specification if standard inputs can be chosen that provide a level playing field and emulate how the machine will perform in the field. The Committee's program experience to date indicates that flight type machines can yield significant energy and water savings and therefore supports further exploration of the potential to include these machines in the ENERGY STAR program. The Committee does not have the technical expertise to suggest a single metric for consideration; therefore, the Committee recommends that EPA consider several metrics, approaches and flight type dishwasher dimensions. These include: energy and water consumption per 100 dishes, energy and water consumption per unit of conveyor belt surface area, energy and water consumption per rack equivalent, performance curves representing consumption at different conveyor speeds, peg

spacing, and conveyor speed. The Committee also requests more information on the availability and roles of industry accepted test methods and energy/water consumption calculators to support the different metrics and approaches considered.

In addition to considering the cited performance metrics and approaches to defining high efficiency, the Committee recommends EPA consider and provide additional information on sales of flight type machines and characteristics of those sales (e.g., how much customization is involved in each machine sale and whether that customization may impact energy and water consumption). It is the Committee's understanding, based on a report by the California Urban Water Council entitled *A Report on Best Management Practices - Commercial Dishwashers*, that only about 1% (465 units in 2003) of dishwasher sales are flight type machines and that the majority of flight type machines are custom built. The Committee requests ENERGY STAR consider all of these aspects and dimensions, test the Committee's assumptions with manufacturers, and then provide its basis for why a binary labeling approach would be an effective strategy for flight type machines.

Qualification Criteria

The Committee has several questions about the data set and methodology used in the analyses, and as such, withholds comment on the performance levels themselves at this time. These questions relate to the following topics: energy consumption and savings, product model availability, price differential, and pot, pan, and utensil machines.

Energy Consumption and Savings

The Committee requests EPA provide energy consumption and savings estimates for standard efficiency and Version 2 ENERGY STAR qualifying machines. The Committee further requests that EPA accompany these estimates with the underlying assumptions for defining standard efficiency machines as well as any other assumptions regarding usage that differ from the current ENERGY STAR savings calculator.

The Committee also requests clarification of the idle energy rate assumptions in the ENERGY STAR savings calculator. The idle energy rates in the calculator for both standard and Version 1 qualifying machines appear to be more stringent than the Version 1 or proposed Version 2 criteria. The Committee requests EPA clarify whether the assumptions in the calculator remain valid and, if so, why, given the difference between the assumptions in the calculator and the current Version 1 and proposed Version 2 idle energy rate performance criteria.

Finally, the Committee noted significant difference in the magnitude of efficiency gains in water consumption per rack and idle energy rate for each machine type between the Version 1 specification and the proposed Version 2 specification. To aid the Committee's understanding of

the rationale for these differences, the Committee requests EPA provide market penetration data for the Version 1 levels by machine type.

Product Model Availability

The Committee conducted an independent analysis of product availability based on the data provided, and was not able to replicate the product model availability results provided by EPA. As such, the Committee requests clarification as to: (1) how EPA classified interchangeable temperature machines; (2) whether or not models that are considered part of the same product family have been identified and only one representative model remains in the data set provided and corresponding analysis; and (3) how EPA handled models without idle energy rate data in the analysis.

Further, the Committee recommends that interchangeable temperature machines be considered as part of both the high temperature and low temperature data sets given that these machines can be used as either type. With regards to product families, the Committee requests that only one representative model for a product family be considered in the analysis as models that are part of a product family are typically not considered as distinct options by the end user (e.g., a model with a lower height is the same as one put on a base to raise it up higher). This methodology will help to ensure that the product model availability analysis accurately reflects what consumers will see in the market as distinct options. With regards to models without idle energy rate data, the Committee supports EPA efforts to improve the quality of the data set.

Price Differential

The Committee requests clarification of the methodology used to develop the price differential analysis shared by EPA that identifies the price differential between “standard” efficiency machines and ENERGY STAR Version 2 Draft 1 qualified machines. Specifically, how and why were the models provided in the analysis chosen?

Pot, Pan, and Utensil Machines

EPA stated that pot, pan, and utensil machines were removed from the data set and analysis to determine performance levels for single tank door type machines due to the inherently higher water consumption of these machine types. The Committee analysis also concludes using the available data that these machine types have inherently higher water consumption than “standard” single tank door type machines. At the same time EPA has chosen to include the pot, pan and utensil machine types within the scope of the single tank door type specification. This approach appears contradictory to the Committee (i.e., that performance levels for the whole category would be based on a data set that does not include all the machine types included in the definition of the category). The Committee requests EPA provide the reasoning for this

approach. Given the inherent water performance differences between "standard" single tank door type machines and pot, pan, and utensil machines and their different applications, the Committee recommends EPA consider creation of a separate category for pot, pan, and utensil machines.

Test Requirements

EPA states that the existing Version 1 water consumption levels for both single and multiple tank conveyor machines continue to be challenging to manufacturers and reducing them further could reduce cleaning performance. For this reason, the Version 2 Draft 1 revisions focus exclusively on reductions in idle energy rate for these machine types. The Committee requests that EPA provide the basis for the assumption that further reductions in water efficiency will result in diminished cleaning performance. The Committee is specifically interested in learning about the availability of a cleaning performance test method, metric, and data comparing water consumption and cleaning performance.

Future Revisions

The current specification only directly addresses idle energy consumption, whereas washing mode energy consumption is indirectly addressed through the water consumption criteria. EPA noted that it plans to consider revising this specification when test methods for addressing washing energy performance are complete. A complete picture of commercial dishwasher energy consumption, including both active and wash mode energy consumption, remains a priority for the Committee and key to the effectiveness of energy efficiency programs. Therefore, the Committee supports EPA plans to revisit this specification once the ASTM revision processes for test methods addressing washing energy performance are complete.

Once again, CEE would like to thank the EPA for the opportunity to comment on the ENERGY STAR specification for Commercial Dishwashers, Version 2, Draft 1. Please contact CEE Program Manager Kim Erickson at 617-532-0026 with any questions about these comments.

Sincerely,



Marc Hoffman
Executive Director