

October 28, 2010

Re: BSH Home Appliance Dishwasher Division - Comments on Energy Star Stakeholder Meeting held Tuesday, October 26, 2010 concerning residential Dishwashers.

Submitted to: appliances@energystar.gov

General

BSH supports efforts to maintain the Energy Star brand image and supports efforts to reduce energy and water usage. As evident with dishwashers sold in Europe, performance and low energy can be achieved with proper procedures and regulations, from all involved.

Specific Points

- Energy and water consumption thresholds
 - BSH supports the 280 kWh and 4 GPC threshold and the implementation date of the Fall of 2011
- Washability test procedure
 - BSH feels that all stakeholders should work toward adopting the IEC washability test procedure evaluated with 12 place settings.
 - The IEC is the only available washability test procedure which is reproducible and repeatable from lab to lab, due to an established reference machine.
 - Any of the remaining possible test procedures listed will not give consistent results from lab to lab; therefore accurate scoring suggestions are not possible without intensive refinement to the test procedures themselves.
 - The IEC test procedure has been refined over many years and is continually adjusted for emerging technologies.
 - Good performance on the IEC test procedure is a very good indication of consumer satisfaction without unnecessary use of energy and water.
 - The AHAM test is an outdated filtration test used to point out the strengths of an old technology that used massive amounts of water.
 - The IEC food soils are heated onto the dishes in an oven, making it harder to remove than the loosely attached AHAM soils.
 - The AHAM Dishwasher Working Group has agreed to adopt the IEC test procedure, meetings are in process to determine details.

- To reduce cost and to ensure consumer satisfaction, only one washability test method should be established (this direction was established in the stakeholder meeting).
- Wash score threshold for acceptance
 - The answer depends on the test procedure that is selected. If a test procedure is selected that is not reproducible or repeatable, the threshold will need to be set lower to account for lab to lab variation.
 - The threshold should be established based on “round robin” testing on all available brands at all EPA approved washability labs.
 - Based on internal testing of the BSH recommended IEC washability procedure, BSH would recommend starting with a conservative threshold in order to allow manufacturers time to adjust cycle structures.
 - The major issue will be trying to adjust cycles for the best performance on all the required test procedures used in the USA.
 - DOE Energy Test
 - Leading test publications
 - AHAM
 - Consumer satisfaction
 - Test required by our major customers
 - **It would be best to establish a future 2013 target of requiring the IEC washability test, and allow time for testing and evaluation including EPA approved lab “round robin” testing.**
 - Without “round robin” testing and evaluation, BSH would recommend a minimum IEC score of “C”.

Considerations

The true challenge in dishwasher development is to find the proper balance of attributes combined with an optimized hydraulic system and current technology, resulting in an efficient design and a satisfied consumer. BSH feels that all performance attributes must be considered to properly evaluate a dishwasher:

- Energy
- Water
- Cleaning Performance
- Place Settings
- Time
- Noise

All attributes are related and changes in one area will influence other attributes and/or consumer use habits. BSH cautions that improper development of requirements can lead to customer dissatisfaction.

- Cleaning performance can be increased and energy usage can be reduced, with longer run times. But consumer’s relate run time to energy

usage, and will often choose to hand wash smaller loads when confronted with long run times.

Development of proper test procedures and regulations will take much effort, time and resources. Implementation without the proper research may indeed reduce customer usage of dishwashers, which will ultimately use more energy and water. While BSH agrees with the general direction of Energy Star, we do not support implementation without proper development and consideration for all aspects.

Ultimately, BSH feels the entire process of dishwasher evaluation needs to be examined and combined, so that all attributes are considered in the evaluation. Care should be exercised to ensure proper regulations are implemented to achieve increased consumer use and satisfaction, while reducing the impact on the environment. Much care should be given to introduce the correct test and to ensure that it is repeatable and reproducible from lab to lab. After a direction is set other agencies will follow, and the direction will be hard to change.