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March 14, 2013

Via E-Mail

Verena Radulovic  
U.S. Environmental Protection Agency  
ENERGY STAR® Appliance Program  
appliances@energystar.gov

Re: ENERGY STAR Draft Final Test Method for Determining Residential Dishwasher Cleaning Performance

Dear Ms. Radulovic:

Thank you for the opportunity to comment on ENERGY STAR's Draft Final Test Method for Determining Residential Dishwasher Cleaning Performance (Draft Procedure) and the accompanying data collection plan. Our ongoing commitment to the growth, success and integrity of the ENERGY STAR promise is a strong source of pride for our company.

As a very active member of the Association of Home Appliance Manufacturers (AHAM), Whirlpool Corporation has worked closely with them in the development of the comments they submitted (under separate cover). Please be advised that we strongly support and echo the positions taken by AHAM. Our comments herein supplement those remarks. Specifically, we have provided test data in the subsequent pages that further illustrate the importance of exclusively using AHAM DW-1-2010, including grading, and the dire need for Round Robin testing.

Thank you again for your consideration and please let me know if ENERGY STAR would like to discuss this matter further.

Respectfully,

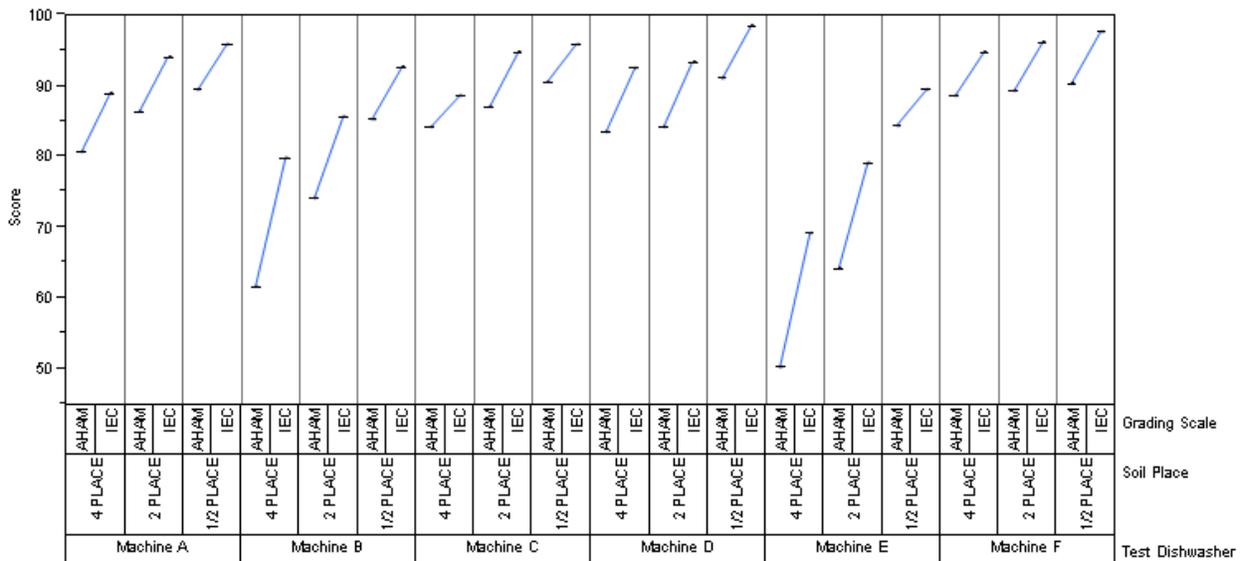
A handwritten signature in cursive script that reads "Nick Gillespie".

Nick Gillespie  
Government Relations Manager

**AHAM Supplemental Comments – Whirlpool Corporation**  
**ENERGY STAR Draft Final Test Method for Determining Residential Dishwasher Cleaning Performance**  
**March 14, 2012**

As ENERGY STAR looks to unprecedented energy and water qualification levels for future dishwasher specifications, the room for error in keeping the ENERGY STAR promise of striking an acceptable balance between efficiency and cleaning performance is small, making the RIGHT cleaning component vital to ensuring satisfactory cleaning results for consumers. Otherwise, any savings expected by the consumer will be negated through compensating behaviors such as pre-rinsing dishes and/or running more water and energy intensive cycles to compensate.

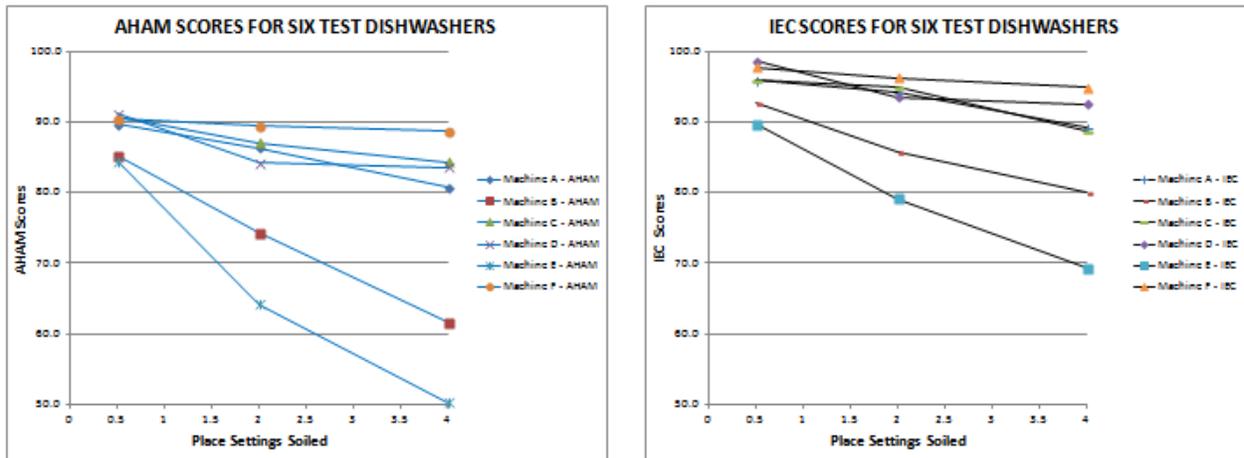
As we indicated in our previous comments, the AHAM DW-1 test is without question the most representative of American consumer behaviors in terms of relevant food soil types, soil amounts and cleaning practices. It also is the most rigorous and least forgiving for all manufacturers (including Whirlpool). For example, the attached chart illustrates the difference in grading scores between IEC and AHAM DW-1 for six different manufacturers' dishwasher's we recently tested (including a *Whirlpool* brand unit). The intent here is not to disparage competitors so we have concealed the identity of all units, including our own. It is worth noting that we selected some of the most popular ENERGY STAR models in the market place, some of which are on the very high end of energy and water efficiency and have MSRPs well above \$900.



Every manufacturer, including Whirlpool, benefits from the IEC grading methodology over the use of AHAM DW-1 by at least 8 percent, some by more than 30 percent! It may be surprising, at first, that we are so willing to give up such a significant advantage in the short term by advocating for the AHAM grading instead of IEC grading. But, when you consider this data and how the use of the IEC grading could unintentionally mislead consumers in the American market, we feel the ENERGY STAR promise of not sacrificing performance for efficiency will be better protected in the long term by implementing AHAM DW-1 grading. It will also help

prevent manufacturers from accelerating compensating consumer behavior that will negate efficiency benefits by proliferating dishwashers that do not clean dishes to American consumer expectations just so they can meet the ENERGY STAR specification.

The following set of graphs provides another view of this very same data set. Not only are scores significantly elevated when using IEC grading in comparison to AHAM grading, but scores are very tightly grouped together with IEC grading. IEC grading can hide true consumer observable performance issues that consumers would truly see. For instance, if you look at 4 place setting performance scoring, notice a 40 point difference spread with AHAM scoring, but only a 25 point difference with IEC scoring.



Satisfying consumer expectations cannot be accomplished unless we do our due diligence and go forward with full-scale round robin testing of AHAM DW-1, including grading, to validate repeatability and reproducibility along with determining an acceptable test score threshold. We recognize DOE stated during the webinar on October 16, 2012, and in the Draft Procedure, that recent testing at two different test laboratories indicated that the grading procedure in IEC Standard 60436 is more repeatable than the grading procedure in AHAM DW-1-2010. While we respectfully disagree with this assessment, even if it were the case, the fundamental source of the variation leading to the selection of IEC grading instead of AHAM's has still not been identified by DOE. As demonstrated above, is there truly less variation from IEC grading or does the AHAM grading provide better detection of differences which the customer will actually see? This is all the more reason why Round Robin data is essential towards understanding the source of differences and determining the best way to proceed.

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