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September 6, 2016

Via Email

Ann Bailey  
U.S. Environmental Protection Agency  
ENERGY STAR® Product Labeling  
[MostEfficient@energystar.gov](mailto:MostEfficient@energystar.gov)

**Re: ENERGY STAR Proposed Recognition Criteria for Most Efficient 2017**

Dear Ms. Bailey:

Thank you for the opportunity to comment on the Environmental Protection Agency's (EPA) proposed recognition criteria for ENERGY STAR Most Efficient 2017. We appreciate the collaboration that continues to be encouraged by the EPA and shared between its stakeholders. As you know, 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) on this draft recognition criteria. **Please be advised that we support and echo the positions taken by AHAM; particularly the positions that they have taken on the "most energy consuming" cycle requirement within the clothes dryer recognition criteria, as well as the positions on product classes and manufacturer burden. Our comments supplement and expand on those positions from an individual manufacturer's perspective.**

These comments do not address the significant concerns that we have documented in the past about the ENERGY STAR Most Efficient Program, since its inception in 2011. Given that these concerns have still largely not been addressed, we continue to not participate in the marketing of the program, but openly collaborate with EPA in the development of recognition criteria.

**Clothes Dryer Proposed Recognition Criteria**

**"Most Energy Consuming" Cycle**

We disagree with EPA's proposal to require additional testing of cycles beyond those that are required in the DOE test procedure. EPA has proposed to require testing and minimum combined energy factor (CEF) criteria for the "most energy consuming" cycle. The "most energy consuming" cycle criteria are equivalent to the ENERGY STAR clothes dryer recognition criteria for standard size electric and gas clothes dryers. The cover memo to the proposal gives justification that levels for both the normal and "most energy consuming" cycles were chosen "to guard against consumers experiencing lower than expected performance."

While we appreciate that EPA is interested in protecting consumer performance in Most Efficient models, much as we are, there is no evidence of a known problem with energy performance of the most energy consuming cycles for those models meeting the proposed criteria. If EPA is aware of data demonstrating that there is a problem with performance lower than consumers' expectations in cycles other than the normal cycle, then EPA should provide that for stakeholder review. Our experience has been that dryers meeting the Most Efficient criteria in the normal cycle also have superior energy performance in other cycles. We are not aware of consumer dissatisfaction with energy performance in any cycle, for those highly-efficient models. Without evidence or data contradicting our belief, EPA should not propose a solution to a likely nonexistent problem.

Further, we fundamentally disagree with this additional testing requirement because of the lack of clarity in the requirement itself and the burden it would impose on manufacturers. The footnote explaining the requirement says, "For purposes of this requirement, the manufacturer shall test the dryer according to the provisions in the DOE test procedure in 10 CFR 430, Subpart B, Appendix D2, but using from among all the cycle program, temperature, and dryness settings (including any such settings that can be downloaded after the initial purchase of the product) those that result in the greatest energy consumption."

It is not clear if this includes all specialty cycles and timed drying cycles. For example, Whirlpool and other manufacturers offer specialty cycles like allergen, jeans, enhanced touch up, quick refresh, comforter, towels, etc. Some of these cycles are used to dry speciality loads (towels, jeans, comforter, etc.), and some of these have specific temperature or time requirements (allergen, enhanced touch up, quick refresh, timed dry, etc.). Is it EPA's intent that all of these cycles be evaluated for which is the "most energy consuming"? If so, we disagree with that intent because these cycles are used very infrequently by the average consumer, and often only used for specific load types, not an average consumer load. The DOE test procedure has also never been evaluated for use with specialty cycles like these, and thus may not be appropriate to represent actual energy use of these cycles when used in consumer's homes.

There are also no instructions about whether EPA is only looking for the default temperature and dryness level settings for these cycles, or any temperature and dryness level setting offered. For example, would we test the most energy consuming temperature and dryness level setting offered for the cycle (e.g., high temperature and more dry), even though the cycle defaults are different (e.g., low temperature and normal dry)? This just points to the lack of clarity in the instructions provided in the footnote for the testing requirements. The lack of clear instructions opens the door for wide variation in manufacturer interpretation and potential verification testing issues down the road.

We do not think that EPA has fully evaluated and considered the burden imposed on manufacturers for this requirement, compared to the unknown and unquantified benefit. As we read the requirement for testing the "most energy consuming" cycle, we would have to test all dryers meeting the criteria both in market already and in development to determine the cycle,

temperature, and dryness level setting combinations producing the highest CEF to dry an 8.45 lb or 3.00 lb load (depending on dryer capacity). Given that the average dryer can have anywhere from 5-20 cycle options with 3-4 temperature options and 3-4 dryness level settings, the testing burden to identify the “most energy consuming” cycle can become prohibitively burdensome for a manufacturer. Given that we do not test all cycle, dryness, and temperature combinations under the Appendix D2 test procedure during product development, the only way to truly identify the “most energy consuming” cycle would be to test all possible combinations in the lab. This could mean anywhere from about 50 to over 200 unique combinations, with many combinations likely needing multiple runs due to run-to-run variation. This becomes prohibitively burdensome for a manufacturer choosing to qualify models to Most Efficient.

There is also uncertainty with how 2% remaining moisture content (RMC) is to be interpreted in the Appendix D2 test procedure. In the draft guidance issued by DOE on the interpretation of Appendix D2, published on March 24, 2016, DOE proposed a solution that is unworkable for manufacturers. There are market, verification, and consumer impacts that have not fully been considered and addressed. EPA should not require additional cycle testing requirements without first understanding the impacts of this guidance, once finalized.

As AHAM mentioned in their comments, EPA should not require testing of settings that can be downloaded after the initial purchase of the product. Not only does that create a never-ending certification requirement, it also prevents manufacturers from quickly launching remote cycle or software updates/downloads. We would have to fully evaluate the energy impact of every change to ensure that this does not produce a new “most energy consuming” setting. This would prohibit us from quickly launching updates/downloads demanded by our consumers.

Lastly, and most importantly, EPA should follow DOE’s test procedures, without deviation. DOE requires testing of the normal cycle because it is, by far, the most commonly used cycle on a dryer. EPA’s creation of this additional “most energy consuming” cycle and the rationale behind its creation, indicates that these cycles are used frequently enough by consumers to require evaluation of energy use. Given that these cycles will often be specialized cycles (towels, jeans, etc.), we do not think that it is an appropriate conclusion that these cycles would be used frequently enough by consumers to justify deviating from the DOE test procedure to set separate testing requirements and criteria.

Given the lack of evidence to a known problem, lack of clarity in the instructions, uncertainty from the 2% RMC guidance, and the manufacturer burden imposed by this “most energy consuming” testing requirement and criteria, we propose that EPA eliminate the requirement and criteria from the clothes dryer recognition criteria.

### **Product Classes**

EPA has given no rationale for combining the recognition criteria for all electric dryers in a single “Electric” dryer product class. Without strong rationale for doing this, we believe that EPA should remain consistent with the product classes used in the Version 1.0 dryer

specification, which recognize unique characteristics of dryers, such as energy source, venting, capacity, and voltage.

### **Gas Dryer Recognition Criteria**

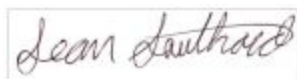
We do not generally agree with EPA setting aspirational levels for product classes in the Most Efficient program. We understood the goal of the program to recognize the top-performing ENERGY STAR models on the market today. The highest efficiency gas dryer on the market today is 3.49 CEF, far below the 3.80 CEF chosen by EPA. The level chosen by EPA appears more as one that recognizes a level that they hope is technologically-feasible, but is not found in any dryer in the U.S. market today.

For that reason, we do not think it is appropriate for EPA to set a Most Efficient level for gas dryers at this time, given the lack of differentiation in energy use among ENERGY STAR certified models. At the same time, we do not believe that EPA should encourage fuel switching from gas to electric, given the source environmental benefits of gas clothes dryers. We would recommend that EPA instead put forth additional messaging and resources explaining the benefits of gas clothes dryers, so as to prevent fuel switching.

Lastly, we ask that EPA submit another draft proposal for stakeholder review prior to finalization of the recognition criteria. There is not yet agreement on the approach taken in the initial proposal, and we would like another chance to review and provide feedback before final criteria is set, particularly on new proposed CEF levels.

Thank you again for your consideration and we look forward to continued collaboration. As always, please do not hesitate to ask us for any clarifications on these comments.

Sincerely,



Sean Southard  
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Whirlpool Corporation