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By E-Mail

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

Re: ENERGY STAR Program Requirements Product Specification for Clothes Washers,
Eligibility Criteria, Draft 1, Version 6.0, Combination (All-in-One) Washer-Dryers

Dear Ms. Stevens:

On behalf of the Association of Home Appliance Manufacturers (AHAM), I would like to provide our comments on the ENERGY STAR Program Requirements Product Specification for Clothes Washers, Eligibility Criteria, Draft 1, Version 6.0 proposing changes to address combination (all-in-one) washer-dryers.

AHAM represents manufacturers of major, portable and floor care home appliances, and suppliers to the industry. AHAM's more than 150 members employ tens of thousands of people in the U.S. and produce more than 95% of the household appliances shipped for sale within the U.S. The factory shipment value of these products is more than \$30 billion annually. The home appliance industry, through its products and innovation, is essential to U.S. consumer lifestyle, health, safety and convenience. Through its technology, employees and productivity, the industry contributes significantly to U.S. jobs and economic security. Home appliances also are a success story in terms of energy efficiency and environmental protection. New appliances often represent the most effective choice a consumer can make to reduce home energy use and costs.

AHAM supports EPA and the Department of Energy (DOE) in their efforts to provide incentives to manufacturers, retailers, and consumers for continual energy efficiency improvement. It is important that EPA consider changes in the relevant federal standards and test procedures when setting its eligibility criteria. In addition, EPA should provide sufficient information to stakeholders to indicate upon what basis it has proposed eligibility criteria. Without such information, stakeholders cannot effectively comment. EPA indicated on the October 21, 2011, webinar that its intended next step was to issue a draft final specification for comment unless comments on the first draft specification required a second draft. AHAM requests that EPA issue a second draft rather than a draft final. There are too many unanswered questions and stakeholder review of data yet to be provided is required before this specification is ready for a draft final version.

I. Definitions

A. Combination All-in-One Washer-Dryer

EPA proposed to define “combination all-in-one washer-dryer” as “[a] consumer product designed to clean and dry fabrics in a single drum, where drying is accomplished through use of electricity or gas as a heat source and forced air circulation” (emphasis added).

AHAM does not oppose the proposed definition, except for the inclusion of the underlined language (“or gas”). AHAM is not aware of any products meeting EPA’s proposed definition that use gas as a heat source. And during the webinar EPA held on October 21, 2011, EPA also indicated that it had not identified any such products during its research. Accordingly, such products should not be included in the definition. If such products later enter the market, they should then be studied and a determination made as to whether they should be eligible for ENERGY STAR. Until then, no determination can appropriately be made as there is no data upon which to base eligibility criteria.

B. Combined Energy Factor

EPA proposed to define “combined energy factor” (CEF) as “the energy efficiency measure for clothes dryers. It is calculated as the clothes dryer test load weight in pounds divided by the sum of ‘active mode’ per-cycle energy use and ‘inactive mode’ per-cycle energy use in kWh.” EPA stated that this definition was taken from DOE’s direct final rule published in the Federal Register on April 21, 2011. But the definition is not identical to DOE’s definition—EPA’s definition is instead taken from wording in the preamble to the final rule itself. Rather than copy and paste from DOE’s preamble (or even the actual definition) in the ENERGY STAR specification, EPA should simply cite the relevant section in the DOE test procedure, which is 10 C.F.R. 430, Subpart B, Appendix D1, section 4.8. This way, there is no question that the definitions are identical and the ENERGY STAR definition would maintain consistency should DOE’s regulations change. If EPA decides to place the text of the calculation into the specification, it should read identically to section 4.8, with minor clarifications indicating that the cited sections are to the DOE test procedure:

Combined Energy Factor in pounds per kilowatt-hour. Calculate the combined energy factor, CEF, expressed in pounds per kilowatt-hour and defined as: $CEF = W_{\text{bonedry}}/E_{CC}$

Where:

W_{bonedry} = the bone dry test load weight 10 C.F.R. 430, Subpart B, Appendix D1, section 3.4.1, and

E_{CC} = the energy recorded in 10 C.F.R. 430, Subpart B, Appendix D1, section 4.6

Note that, as discussed in detail below, AHAM opposes the use of CEF as the measure for ENERGY STAR eligibility prior to DOE mandating it as part of the federal standard. Instead, AHAM proposes that energy factor (EF) be used as the measure. If EPA adopts that proposal, it should cite the definition for EF found in the clothes dryer test procedure, which is found at 10 C.F.R. 430, Subpart B, Appendix D1, section 4.7.

AHAM also wishes to reiterate the importance of maintaining harmonization with DOE at all times. In other words, as DOE definitions change, ENERGY STAR definitions must also change to mirror them. It is critical that EPA's requirements are consistent with DOE regulations and test procedures. To achieve consistency, the relevant definitions must be *identical* to each other *at all times*. Without such consistency and uniformity there will be significant confusion for manufacturers and for consumers. EPA must have substantial reasons for varying from DOE regulations, and if EPA varies from any DOE requirement, AHAM requests that it provide its reasons for doing so and give stakeholders the opportunity to comment.

II. Qualification Criteria

A. MEF, WF, and CEF Requirements

EPA proposed eligibility criteria for Modified Energy Factor (MEF) and Water Factor (WF) at levels consistent with the current energy and water criteria for ENERGY STAR clothes washers. EPA proposed eligibility criteria for CEF, but did not indicate the basis upon which it selected that level. In addition, EPA proposed a single CEF performance requirement for all combination all-in-one washer-dryers irrespective of venting and sought comment on whether separate performance requirements are warranted for vented and ventless combination all-in-one washer dryers.

EPA did not present any data to show how it selected the proposed levels for MEF, WF, or CEF for combination all-in-one washer-dryers. Although the proposed levels for MEF and WF are consistent with the current criteria for clothes washers, EPA presented no data to show how it determined that the same levels are appropriate for combination all-in-one washer-dryers. In addition, has EPA considered whether any energy could potentially be double counted by testing one product with two test procedures? AHAM requests that EPA provide that data in the next specification draft so that stakeholders can review it and comment on it.

Similarly, EPA presented no data or even an explanation as to how it selected the criteria levels for CEF or determined that CEF is the appropriate measure for qualification criteria. AHAM requests that EPA provide a thorough explanation and data in its next specification draft so that stakeholders can review it and comment on it. In particular, AHAM asks whether EPA considered the fact that CEF includes standby power? If so, how was standby power accounted for in the proposed criteria level? Did EPA account for the fact that Appendix D1 will represent an increase in measured energy over the current test procedure? If so, how? Did EPA base its proposed CEF criteria level off of DOE's energy standard for ventless electric combination washer-dryers, which is scheduled to go into effect on January 1, 2015? If so, how does EPA justify that requirement prior to DOE's standard going into effect? If not, upon what data did EPA base its determination?

AHAM opposes the use of CEF as the metric for ENERGY STAR eligibility for the clothes dryer portion of combination all-in-one washer-dryers. As mentioned above, CEF includes a measure of standby mode power. The current standard for clothes dryers does not include such a

measure, but is instead based on a measure of active mode power only. DOE will not require measurement of standby power and calculation of CEF until January 1, 2015. That date allows manufacturers the appropriate lead time to develop products that meet the amended standards levels for clothes dryers while measuring standby mode. It also accounts for the fact that the new test procedure will result in an increase in measured energy. Because DOE will not require calculation of CEF until January 1, 2015, and Appendix D1 provides a method for measuring and calculating EF, which does not include standby mode power, AHAM proposes that EPA use EF as the metric for ENERGY STAR eligibility until DOE requires calculation of CEF for compliance with federal standards.

In addition, EPA should set separate criteria for vented and ventless combination all-in-one washer-dryers. DOE set its federal standards separately for vented and ventless products and EPA should follow the same approach.

B. Water Consumption Reporting Requirement

EPA proposed to require, for combination all-in-one washer-dryers only, a reporting requirement under which water consumption during the dryer test shall be measured and the average water consumption (in gallons per cycle) across units tested shall be reported. During the October 21 webinar, EPA indicated that the reported data would be used for internal purposes only and would not be made publicly available. In addition, per the ENERGY STAR FAQs for Third Party Certification, AHAM understands that the reported data would not be subject to third party verification.

Under the above circumstances—that the reported data will be used internally by EPA, not made publicly available, and not subject to third party verification requirements—AHAM does not oppose the water consumption reporting requirement. But AHAM does request that EPA more specifically state that water usage is to be measured during the measurement of CEF (or EF if EPA adopts AHAM’s proposal discussed above) under the DOE test procedure, 10 C.F.R. 430, Subpart B, Appendix D1. DOE’s test procedure specifies specific cycles and settings and will make it clear to stakeholders under which conditions water consumption is to be measured.

III. **Test Requirements**

A. MEF, WF, and CEF Requirements

EPA proposes for measurement of MEF and WF to require testing per 10 C.F.R. 430, Subpart B, Appendix J1, which is the current DOE test procedure for residential clothes washers. For measurement of CEF, EPA proposes to require testing per 10 C.F.R. 439, Subpart B, Appendix D1, which is the DOE test procedure for residential clothes dryers that will be required starting on January 1, 2015.

AHAM does not oppose the proposed test procedure requirements. Typically, AHAM would support use only of current DOE test procedures, not those to become effective at a later date. But the current clothes dryer test procedure does not provide a procedure for testing ventless clothes dryers, whereas Appendix D1 does provide such a procedure. That being said, as

discussed above, it is inappropriate for EPA to require qualification of combination all-in-one washer-dryers based on CEF because DOE will not require measurement of CEF until January 1, 2015, and has given manufacturers necessary lead time to design products that will comply with the new standards which are based on CEF. Accordingly, AHAM proposes that EPA require measurement of EF per 10 C.F.R. 439, Subpart B, Appendix D1. The test procedure provides that calculation and measurement, and so there is no reason why CEF should be adopted early by EPA.

Furthermore, EPA should provide detailed information on how it will address the transition to the new clothes dryer and clothes washer standards levels and test procedures in 2015. Both new test procedures will result in an increase in measured energy. EPA should ensure that there is no change in the stringency of its eligibility criteria when those changes are made. AHAM requests that, instead of doing a specification revision in a couple of years, EPA now provide the necessary “crosswalk” from the eligibility criteria that will be in place prior to 2015 and those that will be in place after the transition. DOE has done such a crosswalk for clothes dryers and the data can be found in the direct final rule. Similarly, we expect DOE will soon do a crosswalk for clothes washers. This may require EPA to wait until the final test procedure and standards rules are issued for clothes washers, which AHAM expects to be within the next few months based on the fact that a direct final rule for clothes washer standards is currently at the Office of Management and Budget for review.

B. Water Consumption Reporting Requirement

EPA proposed several additional test parameters for the water consumption reporting requirement. AHAM does not oppose these requirements as they are consistent with the applicable test procedures. AHAM notes, however, that DOE may change the specification for water supply pressure in Appendix J2 for clothes washers. If that change is made in the final test procedure, the additional criteria for the reporting requirement would also need to change at the same time Appendix J2 becomes effective so that manufacturers are not required to test under different conditions. If the change is made to Appendix J1, the same comment applies, the change would just need to be made sooner.

AHAM appreciates the opportunity to submit these comments on the ENERGY STAR Program Requirements Product Specification for Clothes Washers, Eligibility Criteria, Draft 1, Version 6.0 proposing changes to address combination (all-in-one) washer-dryers, and would be glad to further discuss these matters should you so request.

Respectfully submitted,



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