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November 21, 2016

Via E-Mail

Katharine Kaplan
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 2, Version 8.0

Dear Ms. Kaplan:

On behalf of the Association of Home Appliance Manufacturers (AHAM), I would like to provide our comments on the ENERGY STAR Product Specification for Clothes Washers, Eligibility Criteria, Draft 2, Version 8.0.

AHAM represents manufacturers of major, portable and floor care home appliances, and suppliers to the industry. AHAM's membership includes over 150 companies throughout the world. In the U.S., AHAM members employ tens of thousands of people and produce more than 95% of the household appliances shipped for sale. 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 energy efficiency improvement, as long as product performance can be maintained for the consumer. Although AHAM agrees that performance should be maintained at higher levels of energy efficiency, AHAM continues to oppose ENERGY STAR performance metrics and test procedures. Instead, as discussed below, AHAM proposes that EPA evaluate, during specification development, the potential impact its proposed criteria would have on performance.

Even if EPA continues to propose an optional cleaning performance reporting criterion, the proposed test procedure needs further development which will take a significant amount of time. Thus, EPA should not attempt to finalize cleaning performance reporting at the same time it

finalizes Version 8.0 of the clothes washer specification. The result will be a rushed test procedure with unknown repeatability/reproducibility that provides results with little to no meaning that cannot be compared.

I. Scope

A. Combination All-In-One Washer-Dryers

EPA indicated that it reviewed data that showed that at least 20 percent of the total water consumption of a combination all-in-one washer-dryer was from the dryer portion of the product. EPA believes that percentage is significant enough that the water consumption of the product should be tested and reported in order for combination all-in-one washer-dryers to be included in the ENERGY STAR program. If EPA sees that there is interest from several partners, it indicated that it could convene a working group to discuss development of a test procedure to measure water consumption of the clothes dryer. This would be part of a Version 8.1 revision effort.

AHAM does not have a comment regarding whether EPA should add combination all-in-one washer-dryers to the ENERGY STAR scope. But AHAM is concerned about EPA's proposal to measure the water consumption of the dryer portion of such products for several reasons:

1. Combination all-in-one washer-dryers are a niche product. AHAM cannot even report shipment data for these products because they are too low to separate out from the clothes washer category without revealing confidential information. But we believe that the total shipments in the United States (and even adding Canada) would be very low. Thus, there will be little to no environmental benefit to a water use criterion for the dryer portion of these products. On the other hand, there would be additional burden to DOE, EPA, and stakeholders to develop a test procedure to measure the water use of the dryer portion of the product and an ongoing burden on manufacturers to test the water use. EPA should not impose these burdens given that there is no corresponding environmental benefit.
2. Despite their water use, water cooled clothes dryers have benefits that air cooled clothes dryers do not. For example, they do not use conditioned air from the space around them and do not add heat to the room. Reporting water use could mislead consumers to thinking that they are a worse choice when in fact, that is not the case—there is a balancing of factors.
3. Requiring measurement and reporting of the water use for clothes dryers is inconsistent with DOE's approach to regulating combination all-in-one washer-dryers as evidenced by the lack of a test procedure to measure the dryer portion's water use. As we have commented several times, EPA should not stray from the approach its sister agency, DOE, takes with regard to energy conservation standards particularly given that the two agencies are supposed to work together to administer the ENERGY STAR program.

DOE, through its lengthy, thorough, and long-existing rulemaking process for appliance efficiency standards, has established test procedures for good reasons. And DOE's regulations implement Congressional intent. DOE's standards are, and should be, the

foundation for the ENERGY STAR program. EPA cannot use an approach that would vary from the approach DOE takes to regulating covered products. To do so ignores the extensive analysis DOE has done to formulate standards for those products which includes a careful balancing of energy savings, consumer choice, product functionality, and manufacturer burden per the National Appliance Energy Conservation Act of 1987 (NAECA).

It is DOE's province to determine the test procedure for clothes dryers and nothing in Appendix D2 requires the measurement of water use. This indicates that DOE has not found a justifiable reason for such a measurement. Thus, it is not appropriate for EPA to require clothes dryer water use measurement/reporting in the context of the ENERGY STAR program.

Should EPA nevertheless determine that it will proceed with a requirement to measure the water use of the clothes dryer portion of a combination all-in-one washer-dryer, AHAM would like to work with its members to lead the test procedure development. AHAM would be glad to include DOE and its contractor on a task force and would also be willing to work with efficiency advocates during the development of the procedure as we have done on other procedures in the past.

B. Commercial Clothes Washers

EPA proposed to extend the commercial clothes washer scope to allow products up to 8.0 cubic feet to be eligible for ENERGY STAR certification. EPA cited as its reasoning that DOE has issued a waiver to one manufacturer that would allow certain clothes washer models with volumes up to 8.0 cubic feet to be tested under Appendix J2. EPA noted that its definition for commercial clothes washers continues to differ from the DOE definition in that it excludes "other commercial applications," and, thus commercial clothes washers designed for applications other than multi-family housing and coin laundry would be excluded from the scope of the specification. EPA also noted that models wishing to qualify under this new extension would need a valid test procedure waiver from DOE in order to be eligible.

AHAM opposes EPA's proposal to extend the commercial clothes washer scope to allow products up to 8.0 cubic feet to be eligible for ENERGY STAR certification. Although it is true that DOE has granted test procedure waivers that allow certain *residential* clothes washer models with volumes up to 8.0 cubic feet to be tested under Appendix J2, no such waivers have been issued for *commercial* clothes washers. And in fact, such waivers *could not be issued* because a commercial clothes washer with a volume above 6.0 cubic feet is not a) a DOE covered product; b) subject to energy conservation standards; or c) required to be tested per Appendix J2. Commercial clothes washers larger than 6.0 cubic feet have not been tested using Appendix J2 and it is unknown whether the test would even be appropriate as many of those larger clothes washers are designed for the "other commercial applications" EPA excludes from its definition. Thus, EPA should not expand the scope of its specification for commercial clothes washers above 6.0 cubic feet.

AHAM notes that we continue to oppose EPA's use of a different definition than DOE's definition for commercial clothes washers. The energy conservation standards program is and should be the foundation for the ENERGY STAR program. DOE conducts lengthy and thorough rulemakings to set definitions and those definitions are subject to notice and comment rulemaking and are, thus, the product of a transparent process in which stakeholders have had the opportunity to provide feedback. EPA should, thus, rely on those definitions—there is no reason definitions should differ between the two agencies responsible for administering the ENERGY STAR program. Should EPA wish to deviate in terms of its scope of coverage, the appropriate place to consider doing so is in the scope of coverage, not the product definition. Different definitions between agencies for the same product result in confusion for partners. Moreover, as evidenced by EPA's misinterpretation of the test procedure waivers DOE granted, differing definitions also cause confusion for EPA in its administration of the ENERGY STAR program.

II. Qualification Criteria

A. Residential Clothes Washers

In our comments on EPA's Draft 1 version of the Version 8.0 specification, AHAM provided data regarding top-load and front-load shipments. We thank EPA for considering that data as it revised its proposal in Draft 2 of Version 8.0.

B. Commercial Clothes Washers

EPA indicated that it received a comment requesting that it sunset the top-load product category due to performance concerns.

AHAM does not have information regarding whether or not there are performance concerns for top-load commercial clothes washers at the proposed levels. And, consistent with our position on the proposed cleaning performance optional reporting for residential clothes washers, AHAM would oppose optional cleaning performance reporting for commercial clothes washers.

Importantly, regardless of whether there are cleaning performance concerns at EPA's proposed levels for top-load commercial clothes washers, it appears that EPA's proposed levels are not consistent with the ENERGY STAR Products Program Strategic Vision and Guiding Principles (Guiding Principles). The Guiding Principles state that in revising an ENERGY STAR product performance specification, EPA evaluates a set of six key principles including that qualifying products are broadly available and offered by more than one manufacturer. The Guiding Principles also state that "[e]xperience has shown that it is typically possible to achieve the necessary balance among principles by selecting efficiency levels reflective of the top 25% of models available on the market when the specification goes into effect." Yet AHAM is not aware of any top-loading commercial clothes washers that would meet the proposed Version 8.0 levels. In fact, it appears that only one commercial clothes washer on the market today meets the Version 7.0 qualification criteria. Accordingly, EPA should reevaluate its proposed qualification criteria for top-loading commercial clothes washers consistent with its Guiding Principles.

C. Optional Cleaning Performance Reporting

EPA again proposed a voluntary reporting requirement for residential clothes washer cleaning performance. EPA and DOE also released a proposed test procedure and indicated a plan to finalize the test procedure and the Version 8.0 specification at the same time.

AHAM continues to oppose the proposed voluntary reporting requirement (and would even more strongly oppose a mandatory reporting requirement) and the development of an ENERGY STAR cleaning performance test procedure for a number of reasons:

1. AHAM opposes the adoption of performance metrics in the ENERGY STAR program. As we have commented many times in the past, instead EPA should seek data and information on whether its proposed qualification criteria (either now or in future specification revisions) would have a negative impact on performance.

AHAM agrees with EPA that it is important for performance to be maintained as efficiency requirements become more stringent and that EPA should evaluate whether performance will be negatively impacted by any specification levels it proposes. But neither a new test procedure and/or a reporting requirement is needed to accomplish that goal. Instead, EPA should rely on 1) DOE analysis as part of the energy conservation standard rulemaking process in which DOE evaluates the impact its proposed standards would have on performance; and 2) manufacturer partners to provide EPA with data and information demonstrating the likely impact of its proposed qualification criteria on performance.

Manufacturers themselves have the most interest in ensuring that consumers receive superior performance, regardless of the energy and water efficiency of the product. It should not be the role of government—especially in a voluntary program operating outside the Administrative Procedure Act protections and authorized for the limited purpose of setting energy efficiency criteria—to set performance requirements.

2. EPA has not demonstrated that there is a performance concern at the levels it proposed for Version 8.0. AHAM is not commenting with regard to the proposed criteria's impact on cleaning and rinse performance—individual manufacturers may have views on that. But for EPA to justify the development of a test procedure and a reporting requirement, EPA must first demonstrate that the proposed levels would impact product performance.
3. The proposed test procedure is in its infancy and AHAM has little confidence that it can be completed during the time in which Version 8.0 will be in effect, let alone by the time EPA releases the final Version 8.0 specification. It is difficult to imagine how DOE and EPA believe they can release a final version of the Version 8.0 criteria by April 1, 2017 together with a final version of a cleaning performance test procedure.

As discussed below, DOE has done little (if any) work to validate the proposed test procedure. Even were the test procedure shown to be accurate, a round robin is necessary to assess repeatability and reproducibility. It will take time—certainly more than a few

months—to develop a test plan, organize laboratory schedules, conduct testing in several laboratories, and gather and analyze test data. Even assuming the round robin demonstrates that the test is repeatable and reproducible, it is unlikely it can be completed by April. And if the round robin identifies variation, further work will need to be done to identify sources of that variation, remedy them, and ensure the remedies were successful.

4. EPA indicated that its “interest is to advance a mechanism by which cleaning performance can be demonstrated in a **repeatable and reproducible manner**.” But **DOE has not demonstrated that the test procedure it proposes is accurate, repeatable, and reproducible**. In fact, it is unclear whether DOE has done much work at all on the proposed test procedure.

Although, during the November 3 webinar EPA held, DOE indicated that it had done some minimal testing, DOE declined to share the data with stakeholders. Not only is that contrary to the transparent process EPA claims to follow, but it also means that DOE has not presented any data to stakeholders to demonstrate its accuracy, repeatability, and/or reproducibility. DOE even admitted during the November 3 webinar that it had not conducted an in depth study of the test procedure it proposed.

Instead, DOE and EPA seem to be waiting for industry to do that work for them. But without any initial data to evaluate, industry cannot determine whether it is worth spending resources on determining the repeatability and reproducibility of the proposed test procedure. And, given that AHAM opposes the development of the test to begin with, companies are not inclined to proceed with evaluating a proposed test until it can at least be shown that the test is accurate.

Even if industry were inclined to evaluate the proposed test procedure at this juncture by conducting a round robin test, EPA has not given adequate time to do so—30 days is hardly enough time to understand the proposed test procedure, let alone gather data to assess it. Thus, DOE and EPA should not interpret a lack of data demonstrating that the test procedure is inaccurate or not repeatable/reproducible as validation—rather, a lack of such comments more likely means that companies and labs did not have time to assess the proposed test.

5. **In any event, a test procedure that measures only cleaning performance is inadequate to measure consumer-relevant product performance**. As discussed in Section III, achieving the proposed energy and water criteria can be done not only at the expense of cleaning performance, but also effective rinsing, clothes ware (gentleness), and cycle time length. Gentleness on clothes is a critical cost utility and cycle time length is a critical convenience utility for consumers.

III. Proposed Cleaning Performance Test Procedure

DOE proposed a test procedure to be used for determining cleaning performance of residential clothes washers that meet the ENERGY STAR Eligibility Criteria for Clothes Washers. Under the proposed test, only cleaning performance would be measured—rinsing, mechanical action

(i.e., clothes wear/gentleness), and cycle time length would be unaddressed. The proposed test procedure attempts to merge Appendix J2 set up with ANSI/AHAM HLW-1-2013 cleaning performance criteria. EPA and DOE sought comment on the proposed test procedure.

AHAM has a number of significant concerns with the proposed test procedure in addition to our objection to the development of such a test to begin with which we discuss above in Section II.

Overall, we do not believe that test procedure that measures only cleaning performance is consumer relevant. Energy efficiency and low water use can be achieved at the expense of not only cleaning performance, but also rinsing performance, gentleness on clothing, and cycle time length. These metrics are all linked and, by evaluating only cleaning performance, EPA risks/incentivizes degradation in the other areas in order to achieve the ENERGY STAR mark while maintaining cleaning performance alone. Measuring all four performance metrics, however, is incredibly burdensome and that burden is prohibitive to evaluating all four performance/utility related features. This is another reason why EPA should abandon its proposal for optional performance reporting and an eventual cleaning performance metric.

AHAM appreciates that DOE and EPA have considered the test burden the proposed cleaning test will impose on partners. The clothes washer energy test is already incredibly burdensome—it takes about two weeks to conduct (assuming 10-15 cycles tested and four units tested). Thus, adding a future performance metric of any kind will add unacceptable additional test burden. Specifically, the proposed test procedure will add the following burdens in terms of additional cost, test time, and resources:

- a. An approximate 20 percent increase in test time due to three repeats being required on two to four test units;
- b. Equipment costs—e.g., need for a spectrometer, soil/stain strips, detergent, etc.
- c. Increased labor costs;
- d. Training for laboratory technicians;
- e. Time to sew soil/stain removal test strips together and tag them;
- f. Decreased longevity of DOE test cloth because it will be used more often will result in more frequent purchase of test cloth;

Moreover, some companies have two different laboratories in which they conduct energy and cleaning performance testing. And different laboratory technicians conduct the tests. For those companies, there would be significant changes necessary to complete the testing as proposed by DOE and EPA.

This is another reason why AHAM's approach—evaluating cleaning and rinsing performance, mechanical action (gentleness), and cycle time length during the specification development process rather than requiring a cleaning performance metric—is more reasonable. AHAM's proposed approach does not require ongoing test burden. Moreover, because as explained above, a cleaning-only performance evaluation is not consumer relevant, additional burden would be necessary in order to have a viable test and that burden is too significant particularly given that EPA has not demonstrated a concern with performance at the proposed levels.

A. Repeatability and Reproducibility

As mentioned above, EPA stated that with the introduction of an optional cleaning performance reporting requirement, it intends to “advance a mechanism by which cleaning performance can be demonstrated in a **repeatable and reproducible manner**.” Yet, as discussed above, no work has been done by DOE or EPA to show that the proposed test procedure is repeatable and reproducible.

As part of an ongoing effort related to HRF-1-2013, AHAM has conducted some repeatability testing. That testing revealed that variation is too large for use in any kind of reporting or verification plan. The cleaning score results were:

- 3σ Combined top and front-load = 11.5
- 3σ top-load = 8.8
- 3σ top-load high efficiency = 10.5
- 3σ front-load = 17.9

Significantly, the soil/stain strips performed differently. Strips from Swisstatest consistently scored higher than strips from WFK as shown below in Figure 1.

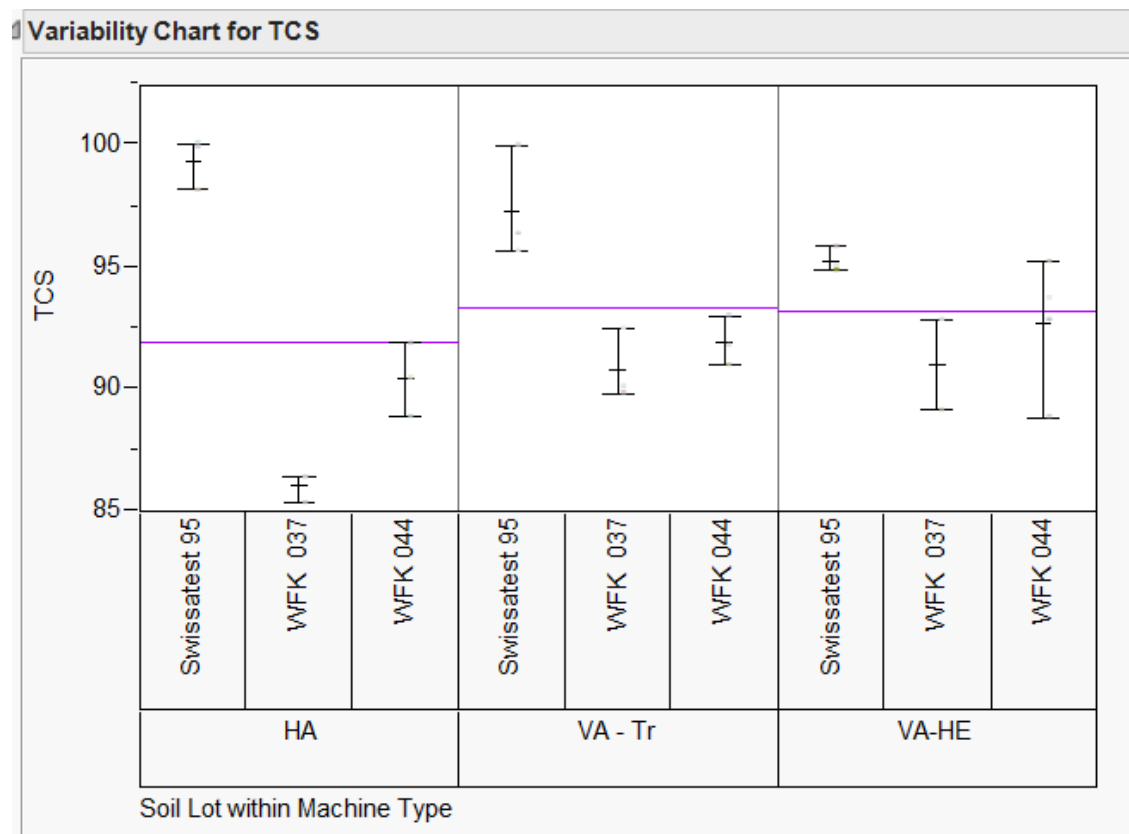


Figure 1: Soil Lot Within Machine Type

The detergent also showed similar results—the February 2015 detergent batch consistently resulted in higher scores and showed more variation overall than the March 2014 lot as shown in Figure 2.

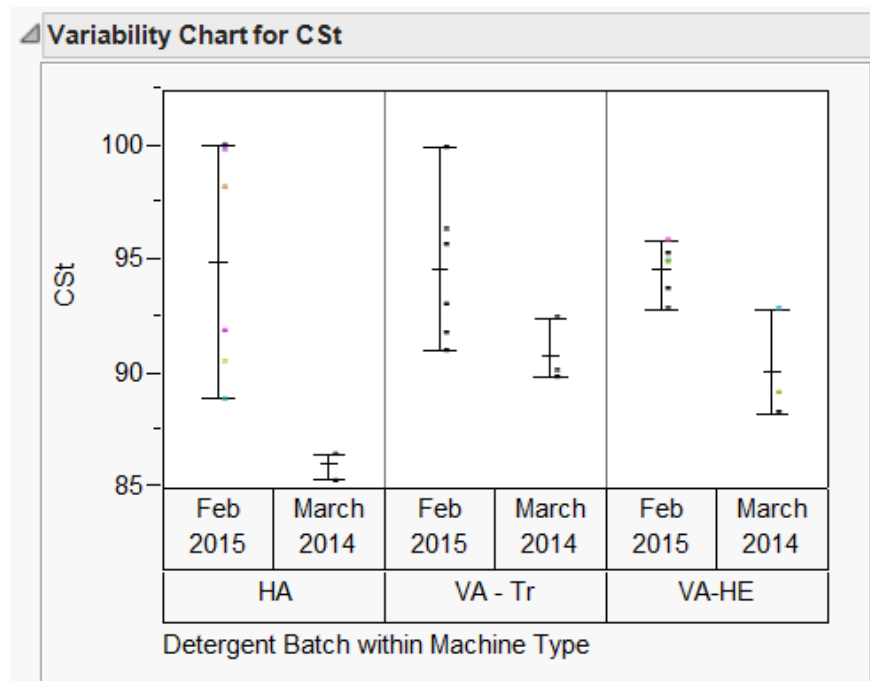


Figure 2: Detergent Batch Within Machine Type

AHAM believes that the detergent and soil strip lots are driving about 70 percent of the variation as shown in Figure 3.

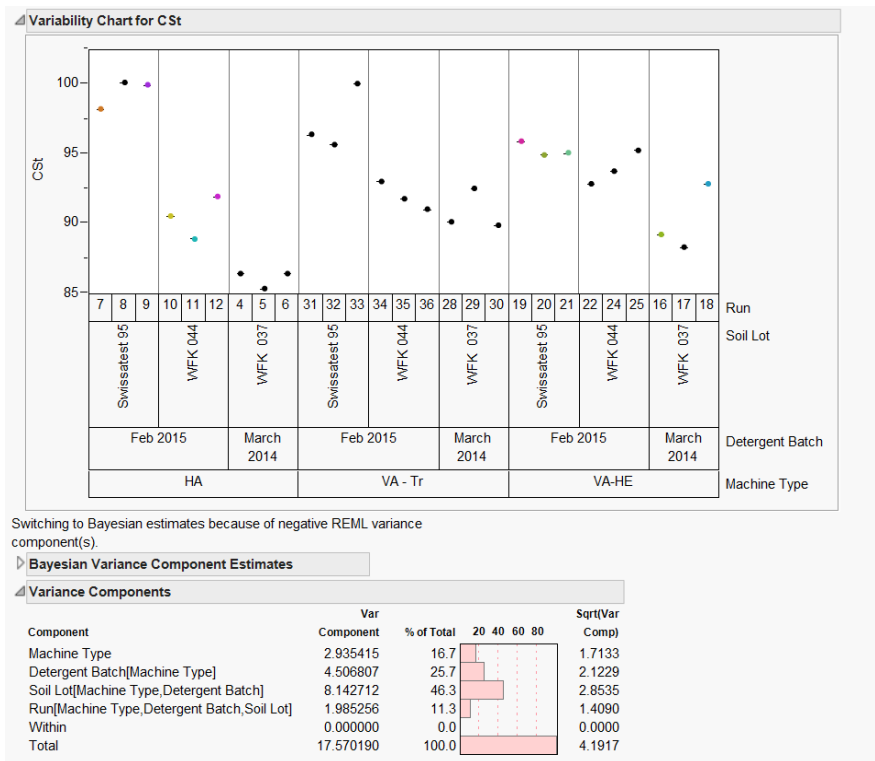


Figure 3: Variation

Because AHAM has identified that the most significant sources of variation appear to be the soil/stain removal test strips and the detergent, it is likely that the proposed ENERGY STAR cleaning performance test procedure would suffer from similar variation and would, thus, be unacceptable for reporting cleaning performance. With this level of variation, reported scores would have little or no meaning and would not be comparable.

We recognize that EPA is proposing only voluntary reporting. But repeatability and reproducibility are still critical for a number of reasons. First, EPA indicated that it plans to use this data to provide it with ongoing insight on the relationship between cleaning performance and energy and water use. EPA also plans to use the data for comparable data across brands and models in order to provide “the most equitable and comprehensive picture of how ENERGY STAR products are performing.” Without a repeatable/reproducible test procedure, EPA cannot meet any of these goals. If the test results are variable, there is no way to make a meaningful comparison across models or brands. Moreover, there is no way to evaluate the relationship between energy and water use and cleaning performance. Thus, without a test procedure that is demonstrated to be repeatable and reproducible, there is no use for the data the test generates.

Second, EPA currently requires a minimum level of cleaning performance for dishwashers to be qualified as Most Efficient. It is likely EPA would plan to extend the optional cleaning performance reporting to a mandatory reporting requirement and cleaning performance minimum for clothes washers to be qualified as Most Efficient in the future. A highly variable test should not serve as the basis for such a requirement.

We note that it is unknown whether DOE’s proposed test load—the DOE test cloth instead of the AHAM load used in HLW-1-2013—would impact repeatability and reproducibility results. Nevertheless, even if using the DOE test cloth were to improve variation, the improvement would not be significant enough to overcome the variation our testing has shown due to the detergent and soil/stain removal strip lots.

Accordingly, because the variation is significant, DOE and EPA should not continue with a cleaning performance optional reporting requirement. AHAM is working to further evaluate these issues, including an upcoming round robin to better understand the sources of variation. But we will not be able to remedy the issues on DOE and EPA’s proposed timeline to complete the test procedure.

B. Alternative Test Method

DOE asked for comment on an alternative structure for the proposed cleaning performance test method. In that method, energy and water consumption would be measured concurrently with cleaning performance on the first replication of the warm/cold max load energy test cycle. DOE recognized that the presence of detergent and the added weight of the test strips may impact the energy and water consumption results for that cycle, and subsequently the overall calculations of IMEF and IWF. But DOE stated that it “*believes* that any such impact on the results of the warm/cold max load cycle would be minor, and the subsequent impact on the overall IMEF and IWF calculations would be insignificant.” (emphasis added).

Although AHAM appreciates DOE's attempt to decrease test burden and agrees theoretically that it make sense to test energy and performance at the exact same time to ensure a proper and accurate correlation, this alternative test method suffers from a fatal flaw—it asks manufacturers to violate the Energy Policy and Conservation Act of 1975, as amended (EPCA). EPCA prohibits manufacturers from making any representation with respect to the energy use or efficiency or water use of a covered product to which a test procedure is applicable unless that product has been tested in accordance with the applicable test procedure and the representation fairly discloses the results of such testing. 42 U.S.C. § 6293(c)(1). Conducting a clothes washer test using detergent and attaching soil/stain removal strips changes the test and would mean that a manufacturer would not be conducting the test per Appendix J2 and would run afoul of EPCA's requirement to use the applicable test procedure to make energy efficiency and water use representations. Thus, DOE must not finalize a cleaning performance test that would use the proposed alternative method.

Even if it were not a violation of EPCA to conduct the test per the proposed alternative method, AHAM is concerned about the potential impact on measured energy efficiency and water use. DOE stated that it “believes” any such impact would be minor. But DOE has done no testing to assess the potential impact and demonstrate that there would be no impact. Even were DOE to show there is no impact on measured energy or water, the legal issues associated with this proposal are concerning enough that DOE should remove the alternative approach from its consideration.

C. Test Setup

i. *Water Hardness*

DOE proposed to require the supply water hardness specified in Section 4.5.3 of HLW-1-2013. For some companies, this may add cost as it could require changes to water conditioning equipment in energy test labs.

ii. *Detergent and Soil/Stain Removal Strips*

DOE proposed to reference the detergent and soil/stain removal strips in AHAM HLW-1-2013. AHAM does not oppose those references. But, as discussed above, our testing demonstrates that the detergent lots and soil/stain removal strip lots are driving significant variation in the cleaning performance test. Thus, AHAM does not believe any cleaning performance test will be repeatable and reproducible enough to use as the basis for cleaning performance reporting regardless of whether it is to be used for voluntary reporting or not.

iii. *Loading the Performance Test Load*

DOE proposed loading instructions for the performance test load and requested comment on the impacts of the loading sequence on accuracy, repeatability, and reproducibility of the cleaning test performance results.

AHAM does not have data on the impact given that the test load differs from the test load in AHAM HLW-1-2013. Despite referencing the loading instructions in AHAM HLW-1-2013 and Appendix J2 we believe that variation in loading (due to the difference in load composition) could contribute to overall test variation and could impact performance. If EPA continues with a cleaning performance test for clothes washers, DOE and EPA should conduct round robin testing to ensure that the proposed test is repeatable and reproducible. That will address DOE's uncertainty with regard to the impact of the loading instructions on accuracy, repeatability and reproducibility.

D. Test Method

i. *Temperature Selection*

DOE proposed testing the warm/cold temperature selection for cleaning performance because that temperature selection has the highest consumer usage factor according to Table 4.1.1 in Appendix J2. DOE invited comment on whether the cleaning test results obtained from that cycle would sufficiently distinguish performance among clothes washer models at different efficiency levels. DOE also sought comment on whether requiring testing of only the warm/cold temperature selection represents an appropriate tradeoff between minimizing test burden while maintaining test conditions representative of consumer usage.

AHAM does not oppose the logic behind using the warm/cold temperature selection because it has the highest consumer usage factor in Appendix J2. It makes sense to test the cycle that consumers use most. But we do not have data to show whether that will sufficiently distinguish between products and, importantly, neither do EPA and DOE. Without that data, EPA should not move forward. It could be that all clothes washers perform similarly on the warm/cold temperature selection and that other temperature options would show differences. Or the opposite could be true.

Moreover, as we discussed above, while AHAM appreciates that DOE has done its best to minimize test burden, adding a cleaning performance test on top of an already very burdensome energy test adds too much burden, especially for a voluntary program. And that test, as discussed above, is not consumer relevant. A consumer relevant test would add even more testing and, thus, it is not possible to implement a test procedure for optional or mandatory reporting on an ongoing basis that is both consumer relevant and acceptable from a test burden perspective.

ii. *Test Load Size*

DOE proposed testing cleaning performance using the maximum test load size despite the fact that, for clothes washers with automatic water fill control system, the average test load size has the highest consumer usage factor according to Table 4.1.3 in Appendix J2. DOE reasoned that for manual water fill clothes washers, the maximum load size has the highest consumer usage factor; the maximum load size represents the most challenging cleaning burden for a clothes washer; the maximum load size is based on the maximum capacity of the clothes container

which is used to calculate IMEF and IWF; and the maximum capacity of the clothes container is a key feature of a clothes washer that is advertised to consumers.

AHAM questions whether this is the proper approach. Clothes washers with automatic water fill control systems represent the majority of the market and, for those clothes washers, according to Appendix J2, consumers most often use the average load size. In determining the temperature selection, DOE referenced the temperature selection most often used by consumers according to Appendix J2—DOE should be consistent. In addition, using the maximum load size may be problematic going forward as manufacturers continue to seek test procedure waivers for larger capacities. DOE, EPA, and stakeholders would need to expend ongoing resources to address those larger capacities in the cleaning performance test procedure. (This is also true with regard to the proposed Table 1 which provides the number of test strips to use based on clothes washer capacity).

IV. Connected Criteria—Section 4G Demand Response

AHAM previously commented on Draft 1 on the override capability for the consumer on a connected clothes washer. In order to maintain the consumer's control of the appliance and to ensure the consumer has a positive experience with the demand response capabilities, the specification must include different options for the consumer. For example, a consumer may decide to wash several loads over several hours that could include several signals for delay load or temporary appliance load reduction. The consumer should have the capability to override the signal for an extended period without having to respond to a request prior to each load.

EPA proposed to include in the Draft 2 specification under G1b the following:

“Consumer override – The consumer shall be able to override the product's Delay Appliance Load response at any time after the requesting signal has been received. If the consumer elects to override, the product is not required to respond to subsequent DR signals requesting a response in the current operational cycle. However, responses in subsequent operational cycles shall not be automatically overridden.”

The changes in the specification limit the consumer capability to override to one cycle—the current cycle, not allowing for overriding subsequent cycles automatically. This language hinders the overall consumer experience with smart appliances and demand response and AHAM requests the language be changed to allow a four hour period after the initial override cycle to allow a consumer to wash subsequent loads without having to respond to additional override requests.

The satisfaction of the consumer with the function and capability of a smart appliance is essential to stimulate the market and promote this technology.

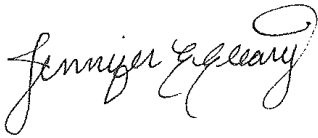
V. Effective Date

EPA proposed an effective date aligned with the January 1, 2018 effective date for amended Federal energy conservation standards for residential and commercial clothes washers. AHAM

fully supports effective dates that are aligned with Federal standards and thanks EPA for proposing to align with the standards.

AHAM appreciates the opportunity to submit comments on the ENERGY STAR Product Specification for Clothes Washers, Eligibility Criteria, Draft 2, Version 8.0 and would be glad to further discuss these matters should you so request.

Best Regards,

A handwritten signature in black ink, reading "Jennifer Cleary". The signature is written in a cursive, flowing style with a large, decorative flourish at the end of the last name.

Jennifer Cleary
Senior Director, Regulatory Affairs