



1111 19th Street NW > Suite 402 > Washington, DC 20036  
t 202.872.5955 f 202.872.9354 www.aham.org

March 26, 2012

Via E-Mail

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

Re: ENERGY STAR Draft 1 Test Method for  
Determining Residential Dishwasher Cleaning Performance

Dear Ms. Stevens:

On behalf of the Association of Home Appliance Manufacturers (AHAM), I would like to provide our comments on the ENERGY STAR Draft 1 Test Method for Determining Residential Dishwasher Cleaning Performance (Draft Procedure).

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 the Environmental Protection Agency (EPA) and Department of Energy (DOE) in their efforts to provide incentives to manufacturers, retailers, and consumers for continual energy efficiency improvement, as long as product performance can be maintained for the consumer. AHAM continues to urge DOE and EPA to ensure that any cleanability measure is linked to energy—in other words, the cleanability test procedure DOE develops for ENERGY STAR should be scored per the identical test load used to capture energy and water use under the DOE test procedure. In addition, it is critical in the current environment of increased third party testing and enforcement that the cleanability test procedure be repeatable and reproducible. Otherwise, there will be numerous cases of findings of false noncompliance and uncertainty for manufacturers and consumers.

## **I. Test Setup (Section 4)**

### **A. Test Setup and Instrumentation**

DOE proposes that the test setup and instrumentation shall be in accordance with those specified in 10 C.F.R. 430, Subpart B, Appendix C (Appendix C). AHAM agrees that the test setup and instrumentation should be identical to the DOE energy test.

### **B. Cleanability Rating Conditions**

DOE proposes that the evaluation room shall have diffused light with a color temperature of 3,500-4,500 Kelvin (K) and the luminance measured at the plane of evaluation shall be 1,000-1,500 lux for scoring each piece of dishware. The proposed cleanability rating conditions are as specified in IEC Standard 60436. DOE states that it does not expect the proposed setup to be a significant burden for stakeholders and requests comment on the test burden.

The DOE energy/water test is not necessarily conducted in the same room as performance testing at this time. Accordingly, many manufacturer and independent testing facilities will likely have to alter their laboratories, which will be a burden. But, because these alterations to the laboratories will allow the energy and performance testing, for soil-sensing dishwashers, to be done during the same test run, test runs per unit is not increased, which would have been a more significant burden.

AHAM urges DOE to simply cite the IEC Standard 60436 requirements rather than re-state them. That is the best way to maintain clarity and consistency for stakeholders.

### **C. Water Hardness**

DOE proposes to require supply water hardness to be between 0 and 85 parts per million (ppm). DOE notes that Appendix C does not specify a water hardness requirement and states that “[w]hile DOE does not expect the water hardness requirement to affect the energy and water consumption results, stakeholders are invited to comment and provide supporting data, if available, about whether specifying the water hardness requirement would impact these results.”

Because Appendix C does not specify a water hardness requirement, DOE should not add that requirement to the ENERGY STAR test procedure for dishwasher cleanability, especially without data as to whether water hardness impacts energy and water performance. An ENERGY STAR test procedure is not the appropriate place to change DOE test procedures. If DOE wishes to specify water hardness in the test procedure, it should amend the dishwasher test procedure through notice and comment rulemaking.

## II. Test Method

### A. Preconditioning Cycles

DOE proposes to require that two preconditioning cycles be performed on the unit under test. AHAM opposes this requirement. Appendix C *requires* only one preconditioning cycle.

The test procedure for measuring performance should be identical to Appendix C. Adding a required preconditioning cycle to the performance test requirements essentially adds it to the energy and water test requirements as well because the tests are to be run at the same time and the performance and energy results are linked. Manufacturers cannot rate or certify products based on a test procedure that differs from the test procedure set forth in Appendix C, even if DOE is the agency prescribing the change. An ENERGY STAR test procedure is not the proper place for DOE to amend its test procedures. Instead, the ENERGY STAR test procedure could *allow for* more than one preconditioning cycle, so long as the DOE test procedure does not preclude more than one preconditioning cycle.

Note that AHAM raised the need for clarification on the preconditioning cycle as an issue for discussion at the correlation summit we proposed (and is discussed in further detail below). This is further support that that summit should be held as soon as possible and prior to further work on the cleanability test procedure.

### B. Soil-Sensing Dishwashers

In the note on Section 1 of the Draft Procedure, EPA states that “the cleaning performance shall be evaluated with the same cycles utilized for the energy and water use test for soil-sensing dishwashers. For non-soil sensing dishwashers, cleaning performance shall be evaluated subsequent to the energy and water use test . . .” AHAM strongly agrees that measurement of performance should be tied to energy measurement and that, for soil sensing dishwashers, the identical test load should be used to capture energy and water use under the DOE test procedure as to measure performance. This approach will not only minimize burden on manufacturers, but, more importantly, it will best communicate performance to consumers because it will communicate the performance achieved at the energy level claimed.

It seems to be EPA and DOE’s intent that the energy and performance tests not only be run using the same loads, but be run at the same time (i.e., for a soil-sensing dishwasher, the energy test would also be the performance test). AHAM agrees with that approach and urges EPA and DOE to expressly state that in the test procedure in order to make it clear. This approach simplifies the test and is an anti-circumvention measure.

It is unclear, for both soil-sensing and non-soil sensing dishwashers, what the statistical requirements will/should be for the performance test. It is possible that the requirements will need to be different than the statistical requirements for energy and water use because cleanability variation is greater than energy/water use variation. AHAM would like to suggest statistical requirements, but cannot do so based on the limited data available. We would need more data regarding the repeatability and reproducibility of the test procedure. Round robin

testing would aid DOE and stakeholders in determining the appropriate level of confidence for performance testing.

Similarly, DOE and EPA do not state how many units must be tested to obtain a performance score. AHAM proposes that manufacturers be required to test the same number of units for performance as they test for energy and water use. That number will be two or more per DOE regulations, and will vary by manufacturer.

### C. Loading Pattern and Appendix A

DOE proposes, in Section 5.1(D), that dishware “shall be positioned according to manufacturer instructions as closely as possible. For standard dishwashers, the following loading pattern shall be used . . .” DOE then provides a description of a loading pattern, which is depicted in Appendix A. On the February 27, 2012, webinar, DOE indicated that the intent with the statement “the following loading pattern shall be used” was to mandate a loading pattern that alternates clean and soiled items. We understood from the webinar that the intent was not to mandate a specific loading pattern in terms of the overall placement of the dishware, but instead to mandate only that the soiled and clean items be alternated. In other words, the manufacturer’s instructions would control the overall loading.

AHAM agrees that the manufacturer’s instructions should control the overall loading pattern. AHAM also agrees that the illustrative examples of how to alternate clean and soiled items in Section 5.1(D) and Appendix A are helpful as a generic reference. We suggest, however, that DOE make it clear that the examples in Section 5.1(D) and Appendix A are just that, examples, and remove the “shall” from 5.1(D) or clarify that the mandate is only that the clean and soiled items be alternated.

AHAM notes that Appendix A appears to show eight place settings plus one platter. But the platter is not clearly identified, and the result is that the diagram can be misread to show nine place settings which is one more than the test procedure requires. The diagram should reflect only the required number of place settings. AHAM suggests that DOE clearly show a difference between the platter and the other plates in the diagram.

### **III. Scoring**

DOE proposes to use the cleanability evaluation criteria specified in Table 1 of Section 6.7.1 of IEC Standard 60436 because initial testing suggested that the IEC scoring method is consistent and repeatable.

AHAM continues to believe that it is problematic to mix and match soiling procedures and scoring techniques from different test procedures. Accordingly, DOE should use the AHAM DW-1 scoring procedure. Technicians in the United States have the most experience scoring using AHAM DW-1, and so it is the best procedure to use. The level of experience with the IEC procedure in the United States is not the same as with the AHAM DW-1 procedure. If DOE believes that repeatability of the AHAM DW-1 scoring is an issue, there are ways to address that, such as round robin testing and grader training. As described below, a video on proper

procedure and scoring would also be helpful and be particularly important for repeatability over time, reproducibility, and third party testing.

What grading scale does DOE intend to use? IEC 60436 is a 0-5 scale. But the Draft Procedure and the data sheets reference two different scales—both a scale of 0-5 and 0-4. We assume that the mention of 0-4 is a typo, but wish to confirm that the intent is to use the 0-5 scale should DOE continue with the IEC scoring procedure.

DOE also proposes that the flatware should not be graded. AHAM disagrees. Although the flatware is not soiled for the energy test, it is possible that soils can redeposit onto the flatware during the cycle. Removing grading of the flatware could be an avenue for circumvention. Accordingly, the flatware should be graded. Grading the flatware would require some additional time for the grading process, but this would be an acceptable trade-off for assessing redeposited soils.

#### **IV. Performance Metric**

DOE proposes that the cleaning metric per-cycle be calculated by assigning increasing weights to each score from four to zero.

As stated above, AHAM requests clarification of the grading scale to be used (0-5 or 0-4).

DOE proposes that the calculation of the performance metric, described in Equation 2, includes a weighted average of the per-cycle cleaning metrics.

AHAM proposes that there not be weighting of the performance metric. Instead, each soil level should have a minimum performance requirement, and that requirement should be the same for all soil levels. In other words, the heavy, medium, and light test cycles should each be required to perform at a specified level independently. And that level should be the same for each test cycle. Weighting is appropriate for the energy test procedure, but consumers will expect, and should receive, equal and acceptable cleaning performance for each soil level. Thus, weighting, even equal weighting, is not appropriate for the cleanability metric. Equal weighting should not be applied because it could allow good performance in the heavy soil level and poor performance at lower soil levels, which is where most consumers do the majority of their loads according to the data supporting the energy weighting. This poor performance could be “averaged” out and hidden by a single performance metric under the approach DOE proposed.

#### **V. Data Sheets**

DOE provided a Draft 1 test reporting template and scoring sheet for stakeholder comment. The template and scoring sheet are intended to be optional tools that test labs and certification bodies could use when collecting, assessing, and reporting test results related to qualification.

AHAM agrees that the proposed test reporting template and scoring sheet should be optional. DOE should also state that certification bodies cannot require the test reporting template and scoring sheet be used to submit test results to the certification body.

The section of the test reporting template for inputting the measured test conditions of the unit under test should make clear that the conditions are to remain the same throughout the test, and should not be measured only at the start of the test. Furthermore, DOE should consider stating what amount of detergent should be used (and may need to clarify that in Appendix C as well).

## **VI. Next Steps**

### **A. Data Request**

AHAM requested the raw data for the testing that formed the basis for DOE's proposals and thanks DOE for providing the raw cleanability performance testing results. DOE did not, however, provide the raw data on the energy and water usage testing that was done. Without that data it is difficult to understand the corresponding performance results. It is important to see the sensor decisions the units under test were making during the test—were the units making the same decisions each time? The performance results DOE provided show a significant degree of variation and, if the sensor decisions were not the same, that could be one explanation. Accordingly, AHAM again requests the energy and water use data that corresponds to the performance test results. If DOE does not provide data from the testing it has already conducted, AHAM requests that it provide such data in the future.

AHAM also asked several other questions about the data in an attempt to further understand why the cleanability results show significant variation:

1. Did the graders change with each run?
2. Did the person who applied the soils remain constant throughout the testing?
3. Is it possible to know, via generic descriptor, which grader did each individual run?
4. Is it possible to know, via generic descriptor, which soiler did each individual run?
5. What were the time and conditions between applying the soil and running the test? Did those remain constant for each test?

DOE responded that the grader comparison information showed no specific bias for any individual grader. We understand that DOE's conclusion was that there was no bias. But in order for stakeholders to properly comment on that, it will be necessary to see which grader did each run. In addition, knowing which grader and soiler did each run would be useful in order to assess or rule out reasons for the significant variation we see in the test results.

DOE also responded that the test room conditions met the applicable requirements of the DOE test procedure (including the preparation and application instructions which come from AHAM DW-1). We understand that the conditions from AHAM DW-1 were followed, or at least that was the intent. But the procedure does not have requirements regarding the length of time soils may sit before they are applied to the dishes. Potatoes will get stiffer the longer they sit and oatmeal will settle. AHAM has raised this as an issue requiring discussion at the correlation summit we have proposed to DOE, which is discussed below. AHAM suggests that the test procedure allow for storage of reconstituted milk for use over the course of a day, but require that prepared potatoes and oatmeal be used within 30 minutes of final preparation. Given that

this uncertainty exists, it is possible that the time between soiling and running the test could have varied in DOE's testing, and could, thus, have caused some variation in the results. Accordingly, we again ask for the time and conditions between applying the soil and running the test.

In the future, it would also be helpful to have data on a more granular level for the performance scores. In particular, it would be more useful to see the scores for each element (e.g., glasses, dishware, and flatware separately).

## B. Repeatability and Reproducibility

As AHAM previously commented, and DOE recognizes, the cleanability test procedure must be repeatable. It must also be reproducible. It is critical that, with increasing third party and enforcement testing, the test procedure be repeatable and reproducible. Too much variation could result in false findings of noncompliance.

To date, reproducibility of the proposed procedure has not been tested. And the raw cleaning performance test data DOE provided show significant variation. Furthermore, the IEC tolerance for reference machine cleaning performance is  $\pm 0.2$  (based on IEC scoring and IEC soils), but DOE's data show a 0.63 variation to the reference machine range of scores. Although 0.63 variation is based on the IEC test scoring (with AHAM soils), it is indicative of the need to understand the source(s) of variation and apply controls. There are several potential sources for variation. In order to assess what the source(s) of the variation could be, and to assess reproducibility in general, a round robin test is needed. AHAM strongly urges DOE to organize and oversee such testing. Prior to conducting a round robin, the training on soil application and grading described below should be conducted. In addition, DOE should host the correlation summit described below. The issues identified at that summit need to be resolved prior to conducting the round robin for the results of the round robin to clearly identify the unknown sources of variation.

As mentioned above, in order to address confusion from myriad and inconsistent test procedure interpretations and practices emanating from the multiple parties now conducting testing (including DOE, EPA, its consultants, and multiple third party and other laboratories), AHAM urged, and we appreciate that DOE agreed to host, a correlation workshop to minimize variation in the interpretation of test procedures, including DOE's residential dishwasher test procedure. We look forward to that workshop and believe it is critical given the current climate of increased enforcement and third party testing, particularly by multiple sources. (*See Attachment A for a list of the issues AHAM suggested for discussion at the summit with regard to the dishwasher test procedure*).

AHAM also strongly suggests that uniform training materials on soiling, grading, and reading use and care guides be developed. Without such materials, it will be difficult to control variation and apply cleanability criteria to the ENERGY STAR program, especially with third party verification elements. AHAM and its members would be glad to work with DOE to develop these materials, perhaps including a guidance video to capture critical test procedure elements, and to train technicians. To this end, AHAM proposes that DOE invite stakeholders to witness testing in order to identify any differences between laboratories and to give stakeholders the

opportunity to ask questions. Furthermore, AHAM proposes that DOE meet with stakeholders (we propose as early as April 2012), including AHAM and its members who have extensive experience with AHAM DW-1, to walk through the proposed procedure in detail and make sure everyone understands all of the details of how the procedure should be run. As the procedure enters its more final stages, a training video would be appropriate. And, as it is being developed, it may even be helpful to have DOE post a video of how it conducts the test on YouTube (or some similar forum) so that stakeholders can get a full understanding.

AHAM appreciates the opportunity to submit comments on the ENERGY STAR Residential Dishwasher Cleanability Test Procedure Webinar, and would be glad to further discuss these matters.

Best Regards,

A handwritten signature in cursive script that reads "Jennifer Cleary".

Jennifer Cleary  
Director, Regulatory Affairs

## **ATTACHMENT A**

Proposed Topics for Discussion During Dishwasher Testing Correlation Summit

**Topics Common to All Products**

#	Topic	AHAM Position
1	<p>Definition of a Basic Model.</p> <p>DOE defines Basic Model in its regulations at 10 C.F.R. 430.2 (as recently revised by the certification, compliance, and enforcement rule). EPA has been making an attempt to harmonize with those definitions as it revises its specifications.</p>	<p>EPA should promptly revise all specifications to be identical to the DOE definition of Basic Model as revised by the certification, compliance, and enforcement final rule. We suggest that EPA cite the definition by reference so that future specification revisions would not be required if the DOE definition changes.</p>
2	<p>New Basic Model.</p> <p>DOE recently addressed questions around what constitutes a new basic model and provided guidance on basic model certification and compliance obligations. (See 76 Fed. Reg. at 12429).</p> <p>EPA has indicated that ENERGY STAR partners must notify EPA of all product changes, regardless of whether those changes affect measured energy use.</p>	<p>EPA should adopt the DOE guidance and approach regarding the creation of a new basic model. Consistent with DOE requirements, no reporting should be required, unless the change results in performance that is less efficient than the rated value.</p>
3	<p>Manufacturers have identified a concern that a change of the model year, without any functional change to a model, could possibly trigger additional qualification testing requirements. AHAM would like to make it clear that this situation will not occur.</p>	<p>If model year designation in model number is a place holder, model year changes should not affect testing or listing.</p>
4	<p>DOE's test procedures often cite by reference industry test procedures, including several AHAM test procedures. But, as those industry test procedures evolve, DOE has not changed the test procedures to cite the most recent version of the test procedure. This results in</p>	<p>AHAM encourages DOE to adopt by reference the most current versions of relevant test procedures that are cited by reference in its regulations. We acknowledge that DOE has recently been doing so in open rulemakings. But, going forward, we encourage more periodic</p>

	conflicts between the most recent thinking and the test procedure, and is a lost opportunity for more accurate, repeatable, and reproducible test results.	review in order to ensure that the DOE test procedure cites the most recent edition of the test procedures it incorporates by reference. In evaluating whether to adopt a more recent test procedure by reference, DOE will need to address potential changes in measured energy during the rulemaking process.
5	DOE's guidance procedure does not always allow for stakeholder input. In addition, DOE does not consistently notify stakeholders that draft or final guidance has been posted. Finally, oftentimes DOE guidance may change the way a manufacturer or most manufacturers conduct the test procedure, and sometimes there is no compliance date given for the guidance.	All stakeholders should be involved in DOE's guidance process. Stakeholder involvement will help DOE give the best guidance possible. In order for stakeholders to give input and to comply with final guidance, it is critical that DOE inform stakeholders when draft and/or final guidance is posted on its guidance website. Furthermore, manufacturers need sufficient time to respond to what may be changes in procedure.
6	It is unclear how manufacturers should treat guidance that has been issued by DOE via posting on the guidance website, and then later removed.	DOE should be clear as to which guidance documents are in effect.

### Product Specific Topics

7	Recent DOE guidance in response to a question submitted by ASKO Appliances on December 1, 2010, regarding selection of cycle at which to run energy test, has caused confusion in this determination. The guidance states that a soil-sensing cycle is to be used, even if normal cycle is fixed. To some, this guidance changed interpretation of procedure. It would be better if, prior to finalizing this guidance, DOE had notified and sought input from stakeholders.	AHAM suggests that if manufacturers have a note to their use and care guide stating which cycle is used during energy testing, that cycle, if it complies with the DOE test procedure requirements, should be used by all laboratories testing the product, whether for purposes of rating, certification, or verification.
8	Interpretive confusion exists regarding the detergent volume calculation, as specified in Section 4.1 of ANSI/AHAM DW-1. We understand that DOE has issued guidance to CSA, regarding the determination of the required 0.5% concentration which has not been shared with all regulated parties. Detergent	AHAM requests that DOE's detergent volume guidance given to CSA be shared with all stakeholders, and that any future guidance given to laboratories doing testing for DOE also be made publicly available.  Detergent specified is no longer available,

	specified in DOE procedure is no longer produced, contains phosphates, and no shelf life is specified.	and so a new detergent should be specified and a shelf life defined. AHAM proposes Cascade “With the Grease Fighting Power of Dawn” (as referenced in AHAM DW-1 2009), or equivalent be referenced.
9	Testing experience has raised some questions regarding the use of a brush vs. spatula for soiling of dishes. Section 6.7 of AHAM DW-1-1992 make reference to utensils to be used for soiling, but does not provide specific details of soiling beyond the order of application of soils.	AHAM believes this detail should be discussed in detail among all stakeholders, to agree upon best practices to assure uniformity.  The stakeholder group should review the details of soiling methods closely and assure they are all appropriate.
10	For soils which are not available exactly as specified in DOE procedure (10 CFR 430, subpart B, Appendix C, ANSI/AHAM DW-1 incorporated by reference), e.g., margarine specified is not longer produced, what replacement is to be used? We understand that CSA was directed by EPA to use Fleischmann’s “Original” margarine and Cascade “with the grease fighting power of Dawn” for the detergent during an EPA directed series of audits in the summer of 2010.	AHAM’s DW-1 task force will evaluate substitute food soils and make a recommendation to DOE. AHAM requests that DOE define substitute soils for those no longer available based on AHAM’s recommendation. This change needs to be made through a quick and clear procedure, such as guidance or an industry-wide waiver.
11	Manufacturers have expressed concern that dishes specified in Section 2.7 of Appendix C are expensive and difficult to source. DOE references an old AHAM standard, which makes procuring dishes even more difficult.	AHAM is revising DW-1; AHAM will suggest substitute/alternative dishes as they become obsolete. AHAM suggests that DOE revise test procedure to cite by reference the most recent AHAM standard and revise continually in the future to assure dishes are readily available, and any other critical changes are taken into account.
12	Labs have been seen interpreting how and where water pressure is measured and controlled differently. DOE procedure states that it is static pressure of the inlet water which must be maintained (Appendix C, Section 2.4), but this has been interpreted as the pressure in the line before the water begins flowing, leading to drop in pressure, below the required pressure, as water flowed into the unit.	AHAM suggests that pressure be measured as water is flowing. Water pressure is expected to drop at the moment the valve opens, but the length of this drop should be limited, to assure that water flowing into the unit is at the proper pressure. AHAM suggests a two second limit for transient pressure drop.
13	Drain height is not currently specified in	Drain should be at a standard level.

	DOE procedure.	AHAM suggests a minimum drain height of 20 inches.
14	DOE procedure has no requirements regarding length of time soils may sit before they are applied to the dishes. Potatoes will get stiffer the longer they sit, oatmeal will settle. As AHAM and ENERGY STAR verification testing moves to a 4 sample test, lab efficiencies can be improved by having these items made in advance, necessitating the need to address these issues.	AHAM suggests that the procedure allow for storage of reconstituted milk for use over the course of a day, but require that prepared potatoes and oatmeal be used within 30 minutes of final preparation.
15	DOE procedure does not specify a maximum freezing time for prepared (one pound batches) beef.	AHAM suggests a 6 month time limit on freezer storage.
16	The definition of "preconditioning" is somewhat vague and may not be adequate for the way some products operate today.	Clarify that the "preconditioning cycle" allows use of complete cycles to precondition dishwashers. Complete cycles ensure that water lines and sump area of the pump(s) are primed, allow for measurement of water use (in pre-wash and main wash) to determine test detergent amounts, provide clean product for testing, and generally ensure energy test cycles represent consumer use. The cycles used for preconditioning should be the same cycle(s) used for the test.
17	DOE Guidance issued in January 2001 in response to a question from ASKO Appliances requires that soil-sensing cycle be used, how does a lab identify if a cycle is soil-sensing?	This is a complicated issue that may require extensive work by stakeholders to determine a solution that can be uniformly applied across designs. In the interim, AHAM suggests that manufacturers provide third party laboratories or DOE/EPA with a form that indicates the soil sensing cycle that was used for certification purposes (both for DOE standards and ENERGY STAR specifications). It is also a possible solution that the test procedure state that if the energy cycle is listed in the use and care guide, all testing should be done using that cycle. The merits of these interim solutions should be discussed.
18	AHAM members have identified questions of variability in the area of dish loading, as specified in section 6.2 of	AHAM recommends labs load unsoiled dishes first to settle the loading arrangement, then replace some of the

	<p>ANSI/AHAM DW-1 (Incorporated by reference in DOE Procedure)</p> <p>a. Standardization of loading patterns is difficult to achieve, as rack design vary widely</p> <p>b. Where do soiled dishes go in the load, i.e. all together or alternating with unsoiled?</p>	<p>unsoiled dishes with soiled ones. Do not place soiled dishes in the corners of the dish racks. Lastly, alternate soiled and unsoiled dishes.</p>
19	<p>Some labs have been observe to fill the rinse agent container with water before starting test cycle, to prevent an indicator light from turning on, but the test does not address this practice.</p>	<p>AHAM suggests that the rinse agent container is not filled with water at the start of a test run.</p>
20	<p>Section 1.14 of 10 CFR 430, Subpart B, Appendix C specifies that standby power is to be measured at the lowest power consumption mode. Labs often have trouble determining lowest power mode for measurement of standby power. It varies from model to model as to whether this requires the door to be opened or closed, etc.</p>	<p>AHAM recommends that standby power be measured with the unit in the “as-shipped” condition, which is consistent with paragraph 5.2 of IEC Standard 62301, Second Edition (“[t]he appliance shall be tested at factory or ‘default’ settings. Where there are no indications for such settings, the appliance shall be tested as supplied.”). This approach will yield repeatable, reproducible results.</p>
21	<p>The upper rack position often affects water pressure and consumption during a test, but the position is not identified in the test procedure.</p>	<p>This is another area that may require extensive work by a group of stakeholders to resolve. AHAM suggests that this information could also be submitted to DOE/EPA/third-party test lab from manufacturers via a form while DOE gathers information from stakeholders to revise the procedure.</p>
22	<p>Oneida “Accent” cutlery is now obsolete and no longer available through Oneida. Oneida “Accent” is specified in the DOE Energy test procedure. A process must be identified for introduction of alternates.</p>	<p>AHAM DW-1 Task Force is actively working to identify an alternate for Oneida "Accent", accounting for impact on energy (cutlery weight) and performance (surface finish and pattern). AHAM requests that DOE define substitute cutlery based on AHAM’s recommendation. This change needs to be made through a quick and clear procedure such as guidance or an industry-wide waiver.</p>