ASSOCIATION OF HOME APPLIANCE MANUFACTURERS

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May 9, 2011

Via E-Mail

Ashley Armstrong
U.S. Department of Energy
Building Technologies Program
1000 Independence Avenue, SW
Washington, DC 20585-0121

ESTARVerificationTesting@ee.doe.gov

Re: DOE ENERGY STAR Verification Testing Program

Dear Ms. Armstrong:

On behalf of the Association of Home Appliance Manufacturers (AHAM), I would like to provide our comments on the DOE Verification Testing Program, as outlined in the document dated April 22, 2011 (DOE Testing Document).

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. Since 2010, we have been working closely with DOE and EPA on our verification programs, and we recently expressed concerns regarding sampling specifications, as well as other enhanced testing program administration issues. Although we agree with many elements of how DOE will administer this program, we also have some suggestions for improvement. In addition, we continue to be concerned that this program is duplicative of the EPA enhanced testing and verification program. Having two redundant federal programs, while also encouraging other third party verification programs, such as AHAM's, is an unnecessary redundancy of verification programs that adds cost with little to no increased value

to consumers. DOE and EPA should leverage credible third party verification programs, such as AHAM's to meet its market surveillance goals.

I. Section 3: Roles and Responsibilities

DOE states that it manages the government-run ENERGY STAR verification testing program for DOE covered products. AHAM agrees that DOE is the regulatory body that, per the 2009 Memorandum of Understanding on Improving the Energy Efficiency of Products and Buildings, should manage test procedure issues, including verification. Nevertheless, we reiterate that this DOE verification in support of the ENERGY STAR program is redundant of the verification requirements already imposed by EPA under the ENERGY STAR program.

DOE also states that part of its program management duties are to monitor test laboratories to ensure adherence to prescribed test procedures and established quality assurance/quality control programs. If DOE gives labs guidance as part of this monitoring, it is critical that that guidance be made publicly available in a timely manner. Under the pilot DOE verification program, we believe that guidance was given to labs on several occasions and that guidance was not shared publicly. AHAM requested, two months ago, that this guidance, which was already released to some laboratories, be broadly released to all stakeholders. We again requested this guidance during our meeting with EPA and DOE on March 30 and were told it would be forthcoming. As of the date of this letter, the guidance has yet to be released publicly.

Not providing guidance to all stakeholders, who may have the most experience with the test procedures, may result in guidance that is not as accurate as it could be, create a lack of uniformity in testing (and thus in correlation between laboratories), and/or inappropriately create a competitive advantage or disadvantage to one or more companies over others. Any guidance from DOE (or EPA) or its contractors that is given on the appliance test procedures must be made publicly available in a timely manner so that all stakeholders can provide input or ask questions, are on notice of the interpretation, and can test accordingly. Such guidance should not simply be posted on DOE's guidance website, but rather DOE should notify stakeholders that the guidance is available through an email list serve or some other similar means. As we have previously stated, AHAM strongly urges DOE to seek input from stakeholders on guidance before making it final. We suggest that draft guidance be issued, especially for more complex issues, and that a comment period of at least 30 days be permitted before final guidance is reached. In addition, when DOE issues guidance that represents a significant departure from the existing interpretation or understanding, DOE should give manufacturers an appropriate period of time to adjust, if necessary, existing products or ratings to comply with the guidance.

II. Section 5: Product Selection for Verification Testing

DOE stated a list of criteria that may be used in identifying products for verification testing. One criterion is "[c]redible information on a specific product's performance." What will DOE consider to be "credible information?"—a test report from an independent laboratory or something less?

III. Section 6: Testing the Sample

A. Section 6.1: Test Lab Selection

In Section 6.1, DOE states that it will conduct verification testing at EPA-recognized, third-party labs, where practical. Otherwise, DOE will use an independent, third-party lab accredited to ISO 17025. AHAM strongly supports DOE's use of independent, third-party labs that are accredited to ISO 17025. This will help ensure that test results are reliable. It is also critical, however, that the laboratory be able to demonstrate sufficient experience running the test for the particular product being tested. This will help ensure stronger correlation between laboratories testing the same products, which is crucial for successful verification.

In order to further promote correlation among laboratories, AHAM has proposed, and DOE has agreed to host, a correlation summit which would bring together all stakeholders to discuss ambiguities in the test procedures for room air conditioners, dishwashers, and clothes washers. Exercises such as this are increasingly necessary as different laboratories are testing appliances. We would encourage DOE to assure that any laboratory it plans to use for verification testing of those products be present at the summit.

B. Section 6.4: Determining if a Product Meets the ENERGY STAR Specification

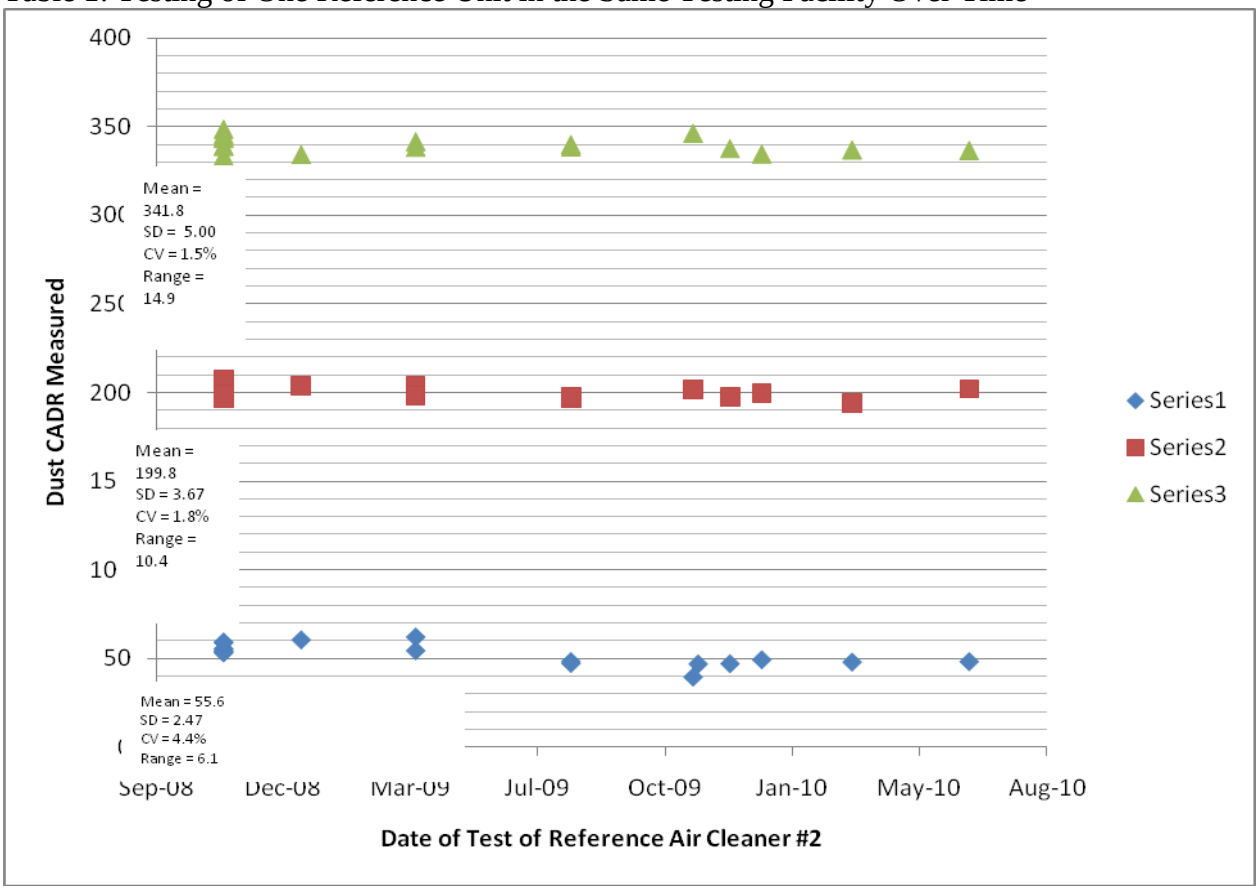
According to Section 6.4.2, for manufacturers that qualify product for ENERGY STAR based on multiple test samples, DOE will obtain one unit from retail for an initial spot check. If the result of the unit is within 5% of the ENERGY STAR specification, further testing will not be required. If the measured performance is not within that tolerance, the remaining three units will be tested, and average results from the four units will be used to determine if the model meets or exceeds the ENERGY STAR specification. DOE specifically outlined the calculations that will be applied to the sample of four units, which was helpful and clearly stated. AHAM strongly supports this approach as it is identical to DOE's sampling plan rules. It is critical that all energy representations and testing are based on the same rules.

For non-DOE covered products, which must be qualified based on one representative model, however, verification will be determined based on a sample size of one without an allowable tolerance. DOE states that because "the DOE ENERGY STAR verification testing program is only focusing on those products that are also part of DOE's regulatory program, this approach will not be used in the DOE program." AHAM agrees that that approach should not be used. If DOE does, however, decide to expand the focus of its verification program beyond DOE covered products, AHAM notes that there are several issues with the sample size of one, no tolerance approach.

We understand that EPA has proposed taking this approach for its enhanced testing and verification program because it wants to ensure that all customers receive a product that meets or exceeds the ENERGY STAR specification. AHAM agrees with that objective. But this approach is not necessarily consistent with that objective. It ignores the foundational laws of statistics and probability and does not work for all products, and thus, not every product can be treated the same way.

For example, as we discussed with EPA and DOE on April 29, 2011, this approach will not work for air cleaners. Accurate representation of Clean Air Delivery Rate (CADR) values allows consumers to select the air cleaner of the appropriate size to clean the desired space. Particles of dust are difficult to measure, and thus there is inherent variation in test results. As we have explained, even several tests of the same unit will have some variation in results simply due to the difficulty of measuring small particles of dust. This is shown below in Table 1 (the notes on the mean, standard deviation, etc. detail the seven tests done in November).

Table 1: Testing of One Reference Unit in the Same Testing Facility Over Time



Given this testing and statistical reality, many manufacturers currently rate air cleaners conservatively, often about two standard deviations away from the mean product performance. (The mean product performance would more closely represent the actual performance of an air cleaner in a room over long periods of time). Permitting only a single test and eliminating a tolerance from the CADR verification testing will force manufacturers to list models up to four standard deviations away from the mean product performance in order to account for the risk of failing the verification test. This broad scale underrating is likely to lead to consumers selecting larger units that consume more energy than required, in turn lessening the impact of the energy savings the ENERGY STAR program is trying to achieve.

During our April 29 meeting, we understood, and were pleased, that DOE and EPA were considering a sampling plan and threshold for non-DOE covered products that would be similar

to the approach outlined for DOE covered products that choose to qualify products based on multiple test samples (6.4.2 in the DOE Testing Document). AHAM strongly supports that option and requests that EPA and DOE allow a sampling plan similar to that allowed for DOE covered products, including a threshold of 10% for air cleaners. (AHAM can provide specific data beyond Table 1 that shows 10% is lower than the actual statistical variation in practice). As we discussed, that approach is very similar to the way AHAM's air cleaner verification program has historically been administered. The result will not be that a consumer potentially gets less than the ENERGY STAR specification—in fact, the opposite is true. Recognizing the limits of the test and the fact that several tests of the same unit will provide variations in dust results, this approach, based on sound laws of statistics, ensures that consumers can more accurately select the unit best suited for their room size, thus achieving the maximum energy savings.

C. Section 6.5: Verification Test Report

DOE states that it will be using standardized test report templates by product type for its ENERGY STAR verification programs. Will those be made publicly available? AHAM requests that DOE share them with the public, and perhaps seek input.

IV. Section 7.3: Enforcement Action under Energy Conservation Standards

DOE states that if "verification testing performed in support of the ENERGY STAR program provides evidence that the model's performance is not consistent with its certified rating, DOE will proceed in accordance with 10 C.F.R. Part 429, as appropriate."

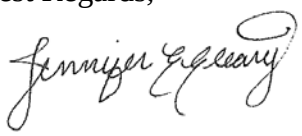
It would not be appropriate to proceed with an enforcement action in the case where a model performs better than its certified rating. DOE has recognized that manufacturers may choose to conservatively rate. *See* 76 Fed. Reg. 12422, 12429 (Mar. 7, 2011) ("manufacturers may rate models conservatively, meaning that the tested performance of the model(s) must be at least as good as the certified rating, after applying the appropriate sampling plan"). DOE should expressly state in the DOE Testing Guidance that manufacturers may conservatively rate, and that if a product performs more efficiently than its certified rating, that will not form the basis for an enforcement action.

V. Appendix A

AHAM notes that there appear to be some errors in Appendix A, which lists ENERGY STAR products that are covered by federal energy conservation standards as of April 2011. In the space cooling products, residential section, room air conditioners are missing from the list. In the appliances, residential section, kitchen ranges and ovens and microwave ovens are listed. Although those are DOE covered products, they are not ENERGY STAR products as of April 2011, and should be removed from the list.

AHAM appreciates the opportunity to submit these comments on the DOE Verification Testing Program, as outlined in the document dated April 22, 2011, and would be glad to further discuss these matters should you so request.

Best Regards,



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