Summary and Response to Stakeholder Comments

ENERGY STAR Program for Water Coolers: Final Draft Test Method, July 2012

Comment	Topic	Comment	Response
1	Power Management	Why does the test method call for energy saving devices to be disabled and how should energy saving devices be handled that are software coded and cannot be disabled.	The Final Draft test method requires disabling energy saving devices during testing to establish baseline energy performance. This ensures that the water cooler will deliver expected energy savings, regardless of its mode of operation. The Draft Final test method states that units unable to disable energy saving features shall be tested in the as-shipped state and will not be modified prior to testing. The inability to disable energy savings features will be documented and included in the test report. EPA will require that energy saving features be disabled during testing for purposes of qualification, as described in the Final Draft test method. However, EPA is considering providing manufacturers with the choice of running an additional test with these features enabled, if and only if they are enabled when shipped, for purposes of reporting and making energy savings claims. EPA will consider whether there is an opportunity to provide a credit to designs that incorporate these energy saving features for purposes of ENERGY STAR qualification during the specification revision process.
2	Static Water Pressure	The proposed static water pressure of 35 psi is too low. U.S. average water pressure is 60 psi and therefore, it is recommended that EPA use 60 psi +/- 10 psi.	DOE performed cursory research of typical residential water pressure and found a range of 30 psi to 80 psi. Water cooler market research showed that all point of use units were able to perform at a static pressure of 35 psi. Although 35 psi is not the average water pressure expected in homes, it satisfies the requirements specified in manufacturer documentation, and is therefore a reasonable pressure for testing. Additionally, all units are tested at the same static water pressure, enabling consistent test results across labs. Therefore, the requirements for static water pressure will remain at 35psi in the Final Draft test method.

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3	On Mode Water Draw Test (Cost)	The on mode water draw test is not necessary for ENERGY STAR qualification, although it is useful in product development. At the end of the 24-hr on mode no water draw testing the energy use of the water cooler has been established. This is a complicated test and adds unnecessarily to the cost of testing.	DOE appreciates the feedback and is aware of the increased test burden. During the February 16 webinar, DOE discussed the additional burden due to the On Mode with Water Draw water test. Based on initial testing, DOE found that the additional test introduces minimal additional test burden. DOE states that only slight test modifications are necessary from the existing setup, and an additional 4.5 hours of testing are required for the On Mode with Water Draw test; 1.5 hours of which are technician time, while the remaining time is allocated to allow the unit to recover in between water draws. Following the publication of the Draft 2 Test Method, DOE requested additional information from the lab that performed the initial testing. The lab confirmed that there are no additional setup costs necessary for performing the On Mode with Water Draw test. They reiterated that the Draft 2 Test Method includes an additional 12 hours for stabilization and an additional 4 hours to complete for the On Mode with Water Draw test; in total, an additional 16 hours of test time when compared with the current testing requirements (for a total of approximately 40 hours). This additional time (which includes both stabilization and On Mode with Water Draw test) will approximately double the cost of the test. The On Mode portion represents only 25% of this additional test burden. Several other labs were polled and estimated that the additional test cost due to On Mode with Water Draw testing would increase by 2 to 10 times of the current test. Given the differences in DOE estimates and laboratory cost estimates, DOE and EPA request additional specific feedback on the potential cost increase attributed to water draw testing. These burden estimates will be considered during the specification development process, when a final approach for water draw will be determined.

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4	Third Party Testing	Third party testing and recertification following the new specification creates a cost burden to the smaller manufacturers. Believe that firms shipping 100,000 or more units/year can amortize and absorb the cost of third party testing. Smaller firms (e.g., shipping 5000 units or less) should be allowed to self certify with proper test methods and oversight.	EPA appreciates concerns about the increased costs to participate in the program, however third party certification requirements are intended to preserve the integrity of the ENERGY STAR label and provide end-users with confidence that products provide actual savings. The rules apply to all partners and products equally, regardless of company size or market share. If any partner feels that it is being targeted or otherwise treated unfairly by its certification body they should contact EPA immediately.
5	Calibration Requirements	Test instruments should be thoroughly calibrated prior to ENERGY STAR testing. Also suggest that EPA require that all test instrument serial numbers be included on all energy consumption test reports. A solution could be to add a requirement that all testing laboratories be ISO 17025 certified.	Under the ENERGY STAR Third Party Certification program, all EPA-recognized laboratories are required to maintain accreditation to ISO/IEC 17025.
6	On Mode Water Draw Test	The stakeholder encourages EPA/DOE to consider adopting the "no water draw" test method as proposed and studying further the "water draw" test method prior to adoption. Once further studies on the "water draw" test method are completed, perhaps it could be adopted first as a reporting metric only and then later on as a metric for program qualification after additional evaluation of the ensuing data has been completed.	Once this test method is finalized, EPA will work with stakeholders to revise the ENERGY STAR eligibility requirements, beginning with a data assembly effort that will inform Draft 1 of the Version 2.0 ENERGY STAR Water Cooler specification. EPA will provide stakeholders with the data fields that the Agency will be analyzing to propose Draft 1 levels. Assembled data will be taken into account during the specification revision when the decisions are made regarding how the water draw test will be incorporated into the ENERGY STAR Water Cooler program.

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7	On Mode Water Draw Test (Cost)	EPA is encouraged to have further discussions/data sharing with testing laboratories to determine impacts of the "water draw" testing prior to implementation. Additional testing means additional costs for the manufacturers. Profit margins are very thin for water coolers and additional costs due to extensive testing would most likely be passed along to the consumer. It makes the most sense at this time to not yet integrate the "water draw" test method into the ENERGY STAR water cooler qualification process until its potential benefits and drawbacks are more fully understood.	See response to comment #3.
8	On Mode Water Draw Test	For both cold water and hot water dispensing, EPA/DOE should consider basing any future required tests on variable water mass rather than variable time periods (e.g. 20 sec, 40 sec, etc.). Current language in the draft test methods already requires the pound of mass of each water draw to be recorded, and those mass amounts are ultimately factored into the energy consumption calculations. Basing the "water draw" test method on variable water mass rather than variable time periods will better reflect impacts on energy as a function of heating/cooling capacity, water reservoir volume, rate of discharging the reservoir, and rate of filling. This approach will yield more accurate overall energy consumption test results.	During initial test method development, DOE considered variable water mass and variable time period withdrawals. DOE determined that a time based withdrawal was easier to perform, more repeatable, and minimized technician error. Since both the energy consumed and energy delivered are captured by the water draw test, variations in the rate of discharge/filling among different units will not impact the validity of the test. Therefore, DOE believes that variable time water draws is a valid method, especially considering that this test is easier to perform and is more repeatable. The Final Draft test method includes the variable time period withdrawal approach.

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9	Effective Date and Qualification Requirements	Once the Version 2.0 specification is finalized, EPA should be explicit in communications regarding the new effective date and how it will be applied to existing and new ENERGY STAR qualified products.	To qualify for ENERGY STAR, water coolers must meet the requirement in effect at the time of manufacture. This includes models qualified under the previous Version 1.1 specification. For example, if the Version 2.0 specification becomes effective on January 1, 2013, then only those models that have been certified by an EPA-recognized Certification Body to the new specification can continue to bear the ENERGY STAR label at the time of manufacture. A 9-month transition period is typically given between finalization and effective date for new specifications to allow manufacturers time to update marketing materials.
10	Cost of Testing and Congressional Consideration	If at any time U.S. Congress enacts energy efficiency legislation that includes water cooler testing requirements based on ENERGY STAR certification standards, a now "voluntary" testing cost for water cooler manufacturers who choose to be ENERGY STAR compliant would become mandatory for all. This raises concern about taking away testing choice and having new products be able to support the cost of the new testing program with enough volume to offset bringing such products to the market. Both DOE and EPA should be cognizant of this potential scenario while considering implementation of new and more costly test methods that could ultimately be required of all water cooler manufacturers.	EPA recognizes the concern that congressional legislation may mandate water cooler manufacturers in the future. As such legislation is not currently being put forward and there is no definite date for which it would be, EPA advocates the new test method for the benefit of water cooler manufacturers who wish to earn the ENERGY STAR.