



Comments on the May 2007
Draft WaterSense Certification Scheme

November 2007

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Commenter: David Zoldoske
Affiliation: Center for Irrigation Technology
Comment Date: June 8, 2007

**Comments on EPA “WaterSense Certification Scheme”
By Center for Irrigation Technology, California State University, Fresno
Dated June 8th, 2007**

Abstract

The certification scheme places undue emphasis on a good faith commitment by the manufacturers. This commitment assumes that the manufacturers will buy into and act on the fundamental objectives of the EPA program because it is “the right thing to do.” This encourages the manufacturers to deal in perceptions crafted to enhance their public image. Unfortunately perceptions don’t save water, only well designed and manufactured products can save water. In contrast, the IA SWAT product testing program has developed testing protocols that characterize the ability of products to provide effective and efficient irrigation water use. This effort parallels the procedures used by the ISO Committee on Irrigation and Drainage (ISO TC23/SC18). We believe that the major emphasis of the certification scheme should be on the development of performance testing protocols that characterize the product’s ability to apply and manage water.

1.0 INTRODUCTION

WaterSense is a public-private partnership program sponsored by the U.S. Environmental Protection Agency (EPA) created to protect the future of our nation’s water supply by promoting and enhancing the market for water-efficient products and programs. To achieve the mission of the WaterSense program, EPA establishes partnerships with interested stakeholders, such as product manufacturers, retailers, and water utilities. EPA provides and maintains the WaterSense brand and develops national specifications for water-efficient products and programs.

Suggest that programs for appropriate product grouping be administered by product certification bodies. The makeup of the body must be carefully balanced to reflect all segments of the general public. The balance is required because ultimately decisions on specific issues will be decided by voting.

EPA requires all products bearing the WaterSense label to be assessed for conformance to the relevant WaterSense product specification by an accredited third-party product certification body. Accredited product certification bodies will certify that products conform to applicable specifications and authorize the use of the WaterSense label in conjunction with the certified product.

We believe it is a mistake to use the word certification, which implies a go/no go judgment when describing the responsibility of the third party testing agency. These agencies test to established protocols and certify the results. The product certification body committee would frame the results to be effective in public programs.

The international criteria for the accreditation of product certification bodies operating product certification programs (tangible products, processes, and services) are detailed in ISO/IEC Guide 65, *General requirements for bodies operating product certification systems*.

Not sure that the ISO/IEC guidelines have much to say about the specifics of standards for turf and landscape equipment.

This WaterSense certification scheme specifies the minimum requirements that product certification bodies shall observe when operating third-party certifications of product conformance to WaterSense product specifications and authorizing the use of the WaterSense label. It provides guidance on ISO/IEC Guide 65 in order to satisfy the requirements implicit in the certification of products for WaterSense and provides the basis for consistent application of WaterSense certification by product certification bodies.

This document, in respect to the certification and labeling of products for WaterSense, shall be read in conjunction with ISO/IEC Guide 65.

The requirements of this WaterSense certification scheme are applicable to the product certification bodies and do not apply to the manufacturers that are obtaining product certification. The WaterSense requirements applicable to the manufacturers are outlined in the WaterSense manufacturer partnership agreement and the WaterSense program guidelines. Figure A-1 portrays the key elements of this product certification process and the relationships between EPA, the manufacturer, the product certification body, and the accreditation organization.

Certification by a product certification body is not a statement that the product certification body guarantees the efficiency and performance of a WaterSense labeled product. It is also not a guarantee that all of the aspects of a relevant WaterSense product specification are being met or will continue to be met, at all times. The certification and labeling of a product for WaterSense is a statement that the manufacturer's products have been produced in accordance with the relevant WaterSense product specification, and that the validation and verification of conformance to the WaterSense product specification has been evaluated and determined to meet the necessary requirements. It is also a statement of the manufacturer's commitment to:

- Manufacture water efficient products in accordance with relevant WaterSense product specifications; and
- Comply with requirements of the manufacturer partnership agreement and WaterSense program guidelines.

“Certification” should guarantee that the product does perform to the advertised results. Not sure what “produced in accordance with the relevant WaterSense product specifications” means. We suggest it may be better for the WaterSense program to deal exclusively with product performance and not engage in the manufacturing or design process.

2.0 TECHNICAL REQUIREMENTS

2.1 Scope

The WaterSense certification scheme applies to the certification of product conformance to the technical requirements of relevant WaterSense product specifications and includes all processes and services used to make a final product.

WaterSense product specifications, this WaterSense certification scheme, and the WaterSense program guidelines outline the purpose and the minimum requirements for certification by a product certification body. WaterSense product specifications are developed by EPA for various products or product categories and detail the required attributes of products that are allowed to bear the WaterSense label. Current WaterSense product specifications are available in Annex A to this WaterSense certification scheme. As additional WaterSense product specifications are developed, or modifications are made to existing WaterSense product specifications, Annex A will be modified to incorporate the new or updated WaterSense product specifications.

Paragraph #1. Why does WaterSense include “All processes and services used to make a final product”? Need to be concerned with performance and certain design features only including for example end connections, pressure rating, and possibly head loss as it relates to energy implications.

Paragraph #2. Not sure of the practicality of including the wording “the minimum requirements for certification.” This minimum definition could be a matrix of values established for a range of parameters that also affect the product decision.

Suggest that the “product certification body” be for example the Irrigation Association’s SWAT committee in the case of the SMART irrigation system controllers.

2.2 References

Review existing materials available from other organizations such as: ANSI, AWWA, and the “Uniform Plumbing Code.”

3.0 THE PRODUCT CERTIFICATION BODY

Product certification bodies must be accredited in accordance with ISO/IEC Guide 65 to operate the WaterSense certification scheme and certify products to the relevant WaterSense product specifications contained in Annex A. The accreditation shall be issued by an accreditation body

that:

- Operates in accordance with the requirements of ISO/IEC 17011, *General requirements for accreditation bodies accrediting conformity assessment bodies*;
- Offers accreditation services to ISO/IEC Guide 65; and
- Is an International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Agreement (MRA) Signatory or International Accreditation Forum (IAF) Multi-lateral

Recognition Agreement (MLA) Signatory. Product certification bodies can seek accreditation for any or all of the WaterSense product specifications in Annex A. The specific WaterSense product specifications relevant to the products the product certification body certifies must be listed in its Scope of Accreditation.

Not sure how you visualize establishing and funding the “Product Certification Body.” This type of formal operating organization will surely require a significant permanent staff. Ad hoc committees like the IA SWAT committee can be mobilized for relatively short term assignments on a volunteer basis. There must be some coordinating entity providing long term continuity. Organizations like the Irrigation Association may be prepared to take on this role, if sanctioned by the EPA.

4.0 PRODUCT CERTIFICATION SCHEME

4.1 Application

Manufacturers seeking WaterSense certification and the WaterSense label for their products must apply directly to a product certification body that is accredited for the relevant WaterSense product specification. The application shall be made on a form supplied by the product certification body and shall contain at a minimum:

- Manufacturer contact information;
- Product brand name, model name, and model number(s); and
- Manufacturer partner’s URL.

The application shall relate to the specific product or group of products for which certification is requested by the applicant. Once the application is accepted, the product certification body shall provide the applicant with an estimate of the time required to conduct the initial evaluation, and any further information necessary for the application process.

For manufacturers with products already listed by a product certification body, subsequent requests for listing of new models for listed products shall be made on separate forms.

This is essentially how the current program works with one exception. We discuss with the manufacturer the identification and mechanics of how the testing protocol is handled. We (the third party testing agency) explain our role in administering the test and the SWAT committee’s role in formatting the test results report and adding other related sales information. The procedure for making the results public is also discussed.

4.2 Initial Production Inspection and Product Testing

4.2.1 General

The product certification body shall comply with the requirements of ISO/IEC Guide 65.

Upon confirmation of the acceptance of the application, the product certification body shall make the necessary arrangements with the manufacturer for the initial evaluation in accordance with this WaterSense certification scheme.

The product certification body shall accept responsibility for all actions included in the WaterSense certification scheme, including product sampling and testing, assessment of the production process or quality system (if applicable), and the surveillance of certified products.

The SWAT committee has the responsibility for defending and modifying the testing protocol. The committee has the option of delegating some of these responsibilities to an approved third party laboratory. Product sampling and testing details are included in the testing protocol. There is still some confusion by the last sentence related to assessment of the production process or quality. What is the purpose and how is the assessment conducted? We suggest that the assessment be focused on the product.

4.2.2 Initial Production Inspection

The WaterSense program does not require an initial production inspection (audit of production process and quality management) for products currently certified for sale in the United States. If the product certification body has no prior certification relationship with the manufacturer in the specific product area, the product certification body may conduct an initial production inspection at its own discretion to audit the manufacturer's capability for production and quality management.

Still not sure what a production inspection has to do with manufacturing useable products. If a manufacturer "fails" the production inspection but the manufacturers product(s) perform satisfactorily, can they still get EPA certification?

4.2.3 Initial Product Testing

4.2.3.1 Selection of Samples

Samples for testing and examination shall be selected in accordance with the requirements specified in the relevant WaterSense product specification and this WaterSense certification scheme.

The product certification body shall select samples of products for testing that are representative of the model to be certified and made using components and subassemblies identical to those used in production. The samples selected shall be made from production

tools and assembled using methods established for the production run.

The current IA Protocol requires the vendor to bring 10 production units to the testing lab. One unit is selected at random for testing. The tested unit is retained for historic reference purposes. The test unit is identified by model and serial number. Testing documents contain reference to these numbers.

4.2.3.2 Conduct of Initial Testing

The initial testing shall be carried out in accordance with the relevant WaterSense product specification and with this WaterSense certification scheme. All test facilities used by the product certification body shall demonstrate compliance to ISO/IEC 17025, *General requirements for the competence of calibration and testing laboratories*.

The product certification body shall determine the means it will use to conduct the initial testing. Allowable options include:

- In-House Testing: The product certification body performs all product testing in its own facilities.
- Subcontract Testing: The product certification body subcontracts another party to conduct product testing and/or evaluation.
- On-Site Testing (Witness Testing): Qualified staff from the product certification body oversee testing conducted by the manufacturer at its own facility.

As yet we have not instituted compliance requirements with ISO/IEC 17025 standards. We thought a special requirement of this regulation was to have the testing done by an independent third party testing laboratory. We thought this laboratory was to be independent from the “product certification body.” Does this mean that both the product certification body and the independent third party testing laboratory must be in compliance with ISO/IEC 17025?

4.2.4 Product Evaluation

4.2.4.1 Preparation for Evaluation

Prior to initiating product testing or a production inspection (if applicable), the product certification body shall complete a comprehensive review of quality management documentation and product literature and schematics to ensure that there is substantiated evidence to show that the product is manufactured in accordance with the relevant WaterSense product specification, and that a proper production system and quality management system are established. The product certification body shall also verify that the manufacturer has in place a signed manufacturer partnership agreement with EPA.

Do you really mean that the WaterSense program intends to audit the manufacturer’s production facilities to presumably ensure that they are capable of manufacturing products to EPA standards? We question the workability of this concept. We suggest that it should be adequate to evaluate the product quality as evidence of the production facility quality. It seems

to us that quality standards for all aspects of the production process goes beyond the intent of ensuring quality products. What is the intent of the manufacturing partnership agreement with EPA? How does it deal with off shore manufacturing or the integration of multiple parts manufactured from various parts of the world?

4.2.4.2 Evaluation

The product certification body shall carry out the product evaluation by determining if the evaluation criteria are satisfactorily met and that the results of the initial product testing meet the requirements of this WaterSense certification scheme and the relevant WaterSense product specification. If an initial production inspection is conducted, the product certification body may also evaluate the product based on the results of that inspection.

Not sure what the “production inspection” standards are and who carries on the inspection. It would take a team of specialists to field the knowledge required to carry on the inspection.

4.2.4.3 Evaluation Report

The product certification body shall inform the applicant via a full report on the outcome of the initial evaluation (product testing and, if applicable, assessment of production process). If the product certification body is not satisfied that all of the requirements have been fulfilled, it shall inform the manufacturer of the aspects for which they do not comply. If the manufacturer shows that corrective action has been taken to meet the requirements within a time limit specified by the product certification body in the evaluation report, the product certification body shall repeat only the necessary aspects of the initial evaluation. It is up to the discretion of the product certification body to determine whether a repeat of the assessment is necessary for subsequent submittals of the same product.

Not sure how “absolute” standards of performance will be established. All products represent a compromise of cost and quality related to the value of water saved. Since the value of water saved varies by location, the optimum cost vs. quality judgment varies by location.

4.3 Licensing

4.3.1 Licensing Agreement Between Product Certification Body and EPA

The product certification body shall sign a Licensing Agreement with EPA prior to receiving accreditation to certify and label products for WaterSense. This licensing agreement provides the conditions for authorizing the use of the WaterSense label to manufacturers of certified products.

As part of the responsibilities for certifying products and authorizing the use of the WaterSense label, the product certification body shall also provide EPA with ongoing support including:

- Provide EPA data on certified products: Product certification bodies shall

maintain a listing of all WaterSense labeled products on their respective Web sites. In addition, EPA will require the product certification bodies to submit an updated list monthly so that EPA's WaterSense Web registry remains current. The data shall be provided to EPA in a format compatible with the WaterSense Web registry database. The data provided to EPA shall include:

- Manufacturer name and contact information;
 - Brand/model/model number;
 - Certification file number; and
 - Certification date.
- Provide EPA with an annual report: The report shall be made on a form provided by EPA and shall contain information regarding numbers of products tested, certified, failed, or reinstated. In addition, the annual report shall contain a summary of common label misuse or dispute actions. EPA may utilize this information to generally track the certifications of specific products and evaluate the effectiveness and continued applicability of its WaterSense specifications.
 - Notify EPA of any WaterSense label suspensions or withdrawals: EPA will rely on the product certification bodies to address product nonconformance, label misuse, and dispute resolution. Accordingly, product certification bodies shall provide EPA with notification of any WaterSense label suspensions or withdrawals, within 30 days of occurrence.
 - Allow EPA to accompany accreditation organization on routine assessments: EPA reserves the right, for EPA staff or agents acting on behalf of EPA, to accompany the accreditation organization on any routine or follow-up assessments of the product certification body's accreditation as it relates to the WaterSense Program.

The certified product listing must contain precise descriptions of the products tested and the test results. It should contain a statement to the effect that nothing can be assumed relative to the manufacturer's other products.

Need to develop a precise way of determining the basic manner in which a product can be deemed to have failed. How are standards for failure defined? How in the world did EPA decide that the "effective flush volume shall not exceed 1.28 gallons" (or 20% less than 1.6 gallons)? Was it a practical judgment on the state of the art after testing a range of available products?

4.3.2 Licensing Agreement Between Product Certification Body and Manufacturer

When the certification decision has been made, the product certification body shall provide a certification decision to the manufacturer and authorize the use of the WaterSense label in conjunction with that certified product, in accordance with the licensing agreement (between the product certification body and EPA) and this WaterSense certification scheme.

The product certification body shall adhere to the following conditions for issuing the certification and authorizing the use of the WaterSense label:

- Ensure that the manufacturer of a WaterSense labeled product abides by the policies outlined in the WaterSense label guidelines.

- Verify that the manufacturer has in place a signed manufacturer partnership agreement with EPA.

How does the “product certification body” verify that the manufacturer continues to market a product meeting the standard’s requirements? Several options are possible. Periodic re-submittal of products for retesting or random selection of samples for retesting.

4.4 Appeals to the Product Certification Body (No comment)

4.5 Confidentiality (No comment)

4.6 Use of the WaterSense Label (No comment)

4.7 Publicity About a WaterSense Labeled Product (No comment)

4.8 Misuse of the Certification or WaterSense Label (No comment)

4.9 Extending a Certification (No comment)

4.10 Surveillance

4.10.1 Periodic Production Inspection and Product Testing

The product certification body shall, at a minimum, on an annual basis, audit the production process and quality management of each manufacturer of a certified product(s). The purpose of this audit shall be to:

- Verify that the manufacturer continues to operate production and quality management in a manner that will maintain a product’s conformance with relevant WaterSense specifications; and
- Consider and take appropriate action where changes to the manufacturer’s operations are made that may impact a product’s conformance with relevant WaterSense specifications.

The product certification body shall also, at a minimum, every fifth year, retest each model of each product it has certified, if the manufacturer wishes to maintain certification. Retesting for conformance with the relevant WaterSense specification shall be conducted following the same procedures outlined in Section 4.2.3, Initial Product Testing.

If on the fifth year retest, the product continues to perform to the specifications, the results will be posted on the product certification body web site. If the product fails to meet the specifications, these results will also be posted on the web site and the manufacturer will be required to pay for the retest. The third party testing agency will contact the manufacturer, alert them to the negative results, and offer to demonstrate the lack of compliance.

The retest protocol may be expanded to cover any product enhancements made since the original test evaluation.

4.10.2 Surveillance of Products on the Market

The product certification body shall conduct an annual post-market product surveillance. The surveillance shall be conducted by an inspector appointed by the product certification body, and shall include randomly selecting and testing one unit of one model of each certified product per manufacturer (e.g., for a manufacturer of A, B, C faucets and X, Y, Z toilets, the product certification body would select one model A faucet and one model Z toilet for testing), either from the manufacturer's warehouse or at the project site or retail outlet where the product is being used/sold. Where purchase of the product is required, the manufacturer shall pay for the product.

Sampled products shall be tested for conformance with the relevant WaterSense specification following the same procedures outlined in Section 4.2.3, Initial Product Testing.

The results of the product testing will be posted on the product certification body web site. The manufacturer of a product that fails to meet the certification requirements will be notified before the results are posted on the web site.

4.11 Suspension of the Use of the WaterSense Label on Products

The product certification body shall determine when the use of the WaterSense label shall be suspended due to product nonconformance, improper use of the WaterSense label, or infringement of the WaterSense certification scheme. Label suspension can occur for a limited period of time as specified by the product certification body. During the period of suspension, the manufacturer is prohibited from using the WaterSense label in conjunction with any product associated with the suspended WaterSense label.

The product certification body shall provide the manufacturer of a suspended WaterSense label the conditions under which the suspension can be removed (e.g., corrective actions that shall be taken). At the end of the suspension period, the product certification body shall investigate whether the indicated conditions for reinstating the WaterSense label have been fulfilled. Upon receiving proof of fulfillment of these conditions, the product certification body shall notify the manufacturer that the suspension has been removed. The product certification body shall notify EPA within 30 days of both WaterSense label suspension and reinstatement.

These actions related to suspension of WaterSense labeling privileges shall be posted on the product certification body's web site.

4.12 Withdrawal of the WaterSense Label from Products

In more severe or repeated instances of product non-conformity, misuse of the WaterSense label, or failure to meet the requirements for reinstatement of a suspended WaterSense label, the product certification body shall withdraw products' certification and the use of the

WaterSense label. The product certification body shall inform the manufacturer that the certification and WaterSense label are being withdrawn via a withdrawal notification. If the WaterSense label is withdrawn from a product for any reason, the product certification body shall ensure that the manufacturer and its wholesalers, distributors, and retailers immediately cease to use the mark in conjunction with that product, and the label is to be eliminated from product packaging/promotional materials within six months from the date of withdrawal notification. The product certification body shall immediately notify EPA of any product withdrawals and EPA shall decide whether termination of the partnership agreement or other corrective action is warranted. The WaterSense label may not be used for any reason by, or in conjunction with a product of, a manufacturer with a terminated partnership agreement.

When issues related to product non-conformity or improper use of the WaterSense label come to the attention of EPA, EPA shall notify the product certification body that authorized the use of WaterSense label for the product in question. The product certification body shall then engage in investigation and resolution of the complaint in accordance with ISO Guide 65 and the product certification body's policies and procedures.

In the event that the misuse of a WaterSense label on a single product continues for more than six months after official notice, the certification and use of the WaterSense label on other of the manufacturer's products will be withdrawn.

4.13 Amendments to these Rules of Procedure (No comment)

Commenter: Shahin Moinian, P.E.

Affiliation: IAPMO R&T

Comment Date: July 13, 2007

Thank you for the opportunity to comment. We are in general agreement with the scheme except for the fact that in section 4.2.3.1, the scheme requires the product certification body to select the initial samples for testing. Although this was a requirement in the preceding document to ISO/IEC Guide 65 (ANSI Z34.1), ISO/IEC Guide 65 does not require it. The normal practice in our organization is that such samples are sent to us by applicants parallel to the initial audit activities. This has been the normal practice for years and we recommend that it remains. During the surveillance audits, the samples are selected by our auditors for testing. I therefore recommend a verbiage change in that section to document the acceptability of this practice.

I thank you.

Sincerely,
Shahin Moinian, P.E.
Sr. Director of R&T
909-472-4121

Commenter: Elizabeth Gardener

Affiliation: Denver Water

Comment Date: July 19, 2007

Denver Water's Conservation Section offers the following comments about the draft which we received as an attachment to a May 26, 2007 e-mail from WaterSense. There is no need for multiple testing if the first test such as MaP is authentic and done by a third party. Other tests would be a waste of resources. We assume the details of the testing protocol in the May 24 version of Appendix A would remain at least as detailed as the current draft and not be diluted. The May 24 draft does not mention lists of product-certifying bodies. Either these entities should be listed or there should be a website referenced where the list could be found easily and also updated in a timely manner by WaterSense staff. The monthly changes recommended are too frequent for a water provider to effectively manage rebate programs. Many of us do not communicate with our customers monthly, and having the WaterSense website announcing items ahead of the utility's announcement is far too confusing for our customers. Other than these few comments, we are fine with the draft and look forward to seeing the revised document. Thanks for all your hard work on this. For your future efforts of labeling irrigation products, it would be WONDERFUL if the really good professional irrigation products were also available at big box retail stores. Perhaps you could work with the irrigation manufacturers on this. We have difficulty getting quality irrigation products installed by DIY customers because they cannot find quality products on the shelves at their local stores.

Liz Gardener

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Commenter: Craig Selover

Affiliation: Masco Corporation Operational & Technological Services

Comment Date: July 20, 2007

I have reviewed the Draft Certification Scheme and have the following comments:

1. If we meet the Water Sense Specifications for toilets, showerheads and faucets, we will be providing products which easily fall within the requirements of EPACT '92, since the WaterSense specs are set at lower water usage levels. Yet we still have to process the paperwork and filings with both the Department of Energy and Federal Trade Commission to meet the legal requirements. Now, to participate in WaterSense, we have to duplicate much of that certification testing and administrative work, including the expense involved. We have noted that only a small number of responsible companies have ever filed the EPACT required paperwork, and most of those companies are US based. From an administrative expense standpoint, complying with EPACT puts many of the larger US plumbing companies at a competitive disadvantage. Deciding to participate in WaterSense, with these certification expense requirements adds additional cost, exacerbating the competitiveness issue. We believe that on the issue of WaterSense certification, that the EPA should work out an agreement with DOE and FTC that WaterSense Certification meets all of the requirements of EPACT 92, and more, and therefore the duplicative EPACT filings are waived, so long as the WaterSense Certification is maintained.

2. With respect to Section 4.2.3.2, the section doesn't permit the use of the certifier and manufacturer's Laboratory Category certification. Currently, these category certifications allow testing without witness. The addition of the witness will add considerable expense to the testing process, travel and per diem plus fees. Based upon the current Certifier and Manufacturers who qualify by agreement with Category Certification requirements should be allowed to use that procedure.

Craig Selover

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Commenter: Mary Ann Dickinson
Affiliation: Alliance for Water Efficiency
Comment Date: July 22, 2007

To Whom It May Concern:

The Alliance for Water Efficiency (Alliance) is a clearinghouse and advocate for water efficiency research, evaluation and education. The Alliance was created in a partnership with numerous nationwide, regional and state organizations, and locates its permanent headquarters in Chicago. The purpose of the Alliance is to represent the needs of the water efficiency community, develop initiatives for improved products, research new technologies for saving water, and assemble programs for water utility involvement across the United States.

The Alliance has been and continues to strongly support the WaterSense Program as key to bringing a new and vital focus on water efficiency in the U.S. As part of that support, the Alliance continues to be a proponent of independent third-party testing of water-efficient products as a requisite to WaterSense labeling. We are extremely pleased to see the depth of consideration given to the certification process and to the rigorous approach to assuring that products meet WaterSense specifications and perform as intended. Therefore, with one exception, the Certification Scheme as proposed, as well as the accompanying Program Guidelines, give all of us the assurance we need that the integrity of the WaterSense Program will be protected.

We have several comments on the Certification Scheme and Guidelines, all of which are confined to the single area of post-certification surveillance of products. (We are not addressing the post-certification surveillance of the application or use of the labels themselves, which we believe is adequately covered within the documents).

1) Section 4.10.2 of the Certification Scheme states that "The product certification body shall conduct an annual post-market product surveillance." (underlining added) It further gives the choice to the certification body as to where the products shall be secured, i.e., "...from the manufacturer's warehouse or at the project site or retail outlet where the product is being used/sold." We see no definition of "post-market". It is our view that the manufacturer's warehouse is not "post-market". We contend that, based upon past experience with current certification bodies, that selection will never be made at the retail level if this wording is retained. Rather, instead of post-market (retail), it will be made at the manufacturer's warehouse (which we would offer is actually "pre-market"). Without random sampling of post-market product to which the consumer has direct and immediate access, there is no assurance that the sample selected actually represents what is available to the consumer in the marketplace as a whole. Therefore, we believe very strongly that at least 50 percent of all such samples must be taken at retail and/or supply outlets in the geographic market areas served by the manufacturer and that ALL samples shall be taken "post-market".

2) Section 4.12, Second paragraph. This paragraph is significant in and of itself and should not be buried in a section on "Withdrawal of the WaterSense Label from Products" Actually, the actions described in the paragraph would PRECEDE any withdrawal action and should be separate and more clearly laid out. How will inquiries or allegations from Program Partners be handled? How will inquiries or allegations from outside water efficiency organizations and water

utilities be handled? How will inquiries and allegations from consumers be handled? What process will be followed? What evidence of "non-conformity" is required? In the event that the Certification Process fails to implement product surveillance as we recommend above, then the Alliance (and others) may implement its own "post-market" audit of products, purchasing them at retail or through other paths in the chain of commerce, having them tested to all or a portion of the applicable WaterSense specification, and submitting reports on non-conforming product to the EPA and the certifying body. We recommend that upon receipt of an inquiry or allegation of non-conformity by the Alliance or others, there be a clear process of resolution in place. This process and timetable to be followed by the certifying body and the EPA should be very clearly specified in the Certification Scheme documents.

3) Appendix A to the WaterSense Program Guidelines, Section II. B. iv. describes "ongoing surveillance" by the product certification body and clearly describes "proper label use in the marketplace" and "continued assessment of product conformance to the relevant WaterSense specification" in the same sentence. We legitimately assume that the two go together. That is, that product conformance relates to the marketplace, NOT to a manufacturer's warehouse. Proper label use implies that the certified product conforms to the specification. Therefore, the marketplace is to be the source for the products undergoing "assessment of product conformance." This issue is identical to that identified as item 1) above.

4) The concerns expressed in item 3) above are further dealt with in the "Public Meeting Summary" from June 20, 2007. On page 7 under "The WaterSense Label" the following statements are made: "The product certification bodies are also responsible for following up and responding to any label misuse claims that come to their attention." "The product certification body is responsible for policing, identifying and responding to any misleading, incorrect, or unauthorized use of the WaterSense label." Both of these sentences are somewhat vague in their application and both appear to only address the label itself, NOT the non-conforming product that is the subject of the label. This needs to be clarified to clearly state that the responsibility also encompasses the product's conformance to the actual specification as well. It may be implied, but an explicit statement would be much better, similar to the later statement under "Surveillance" on page 8: "The product certification body is responsible for the ongoing surveillance of products to ensure that they continue to meet the WaterSense specification."

5) As a follow on to item 4) above, while we understand that the EPA is neither desirous of nor equipped to police the performance of all the products that will eventually become certified, it is not clear that the EPA will be insisting that the certifying bodies adhere to strict reporting guidelines that would be designed to monitor the performance of any follow-up resulting from an allegation of non-conformity. We are concerned that the document infers a somewhat lax and undefined relationship between the EPA and the certifying body when non-conformance is being investigated. Again, more specificity is necessary.

6) In the same Summary, pages 9 and 10 again offer at least two statements that classify a visit to a manufacturer's warehouse to select a product sample as a "post-market" event. We very strongly disagree and contend that a visit to the manufacturer's warehouse for a product is "pre-market" and clearly introduces the potential for bias into the results of the test. Furthermore, when such testing is performed and a product is found to be non-conforming, what actions are

to be taken by the certifying body to disqualify that product from receiving a WaterSense label. Again, past experience indicates that, in such a situation, the sample is fixed to meet the specification and the manufacturer is instructed "not to do that again." This would be an unacceptable response by a certifying body to what we believe is a major non-conformance issue. The labeled non-conforming product already on the retail shelf is not withdrawn and remains in the chain of commerce, thus violating the intent of the entire certification process. In this case, will the manufacturer be instructed immediately to remove the WaterSense label from product on the retail shelf and at the supply houses that sell the product?

We consider the above issues relating to non-conformance to be so significant as to seriously threaten the very long-term integrity of the entire WaterSense Program if they are not addressed, something, of course, that none of us wants.

Thank you for this opportunity to comment and provide input to this important undertaking. If you have any questions, please feel free to contact me.

Regards,

Mary Ann Dickinson
Executive Director
Alliance for Water Efficiency (AWE)
PO Box 804127
Chicago, IL 60680-4127

Commenter: Phil Smith
Affiliation: A2LA
Comment Date: July 23, 2007

After attending the WaterSense Certification Scheme meeting A2LA is very pleased with how the scheme was prepared. We have no comments at this time.

Regards,
Phil Smith
Public Affairs Manager

A2LA
5301 Buckeystown Pike, Suite 350
Frederick, MD 21704
Tel: 301-644-3204

Commenter: Dave Johnson
Affiliation: Rain Bird Corporation
Comment Date: July 24, 2007

Rain Bird Corporation's Input to the EPA's Proposed WaterSense Certification Scheme

Rain Bird Corporation is very interested in the success of the WaterSense program. From the beginning, we have been supportive of the EPA's efforts and have provided input during the process in a variety of ways. While we recognize the importance of a certification process in the WaterSense program, Rain Bird has significant objections to the certification scheme as it is currently proposed.

In general, the third party certification process that is being proposed has three major disadvantages:

- 1.) Lack of precedence within the irrigation industry of third party certification will necessitate the building of a certifying body infrastructure that will ultimately lead to higher costs, slower product development and less innovation. Few or no certifying bodies exist in the irrigation industry that will be willing to become police of the industry they serve. This may result in a certifying body outside the industry taking on this role. However, the cost of developing this testing and certifying expertise could be high. The costs will be passed on to irrigation equipment manufacturers and ultimately the consumer. The proposed scheme allows for a certifying body to subcontract the testing work, but this multi-step approach could lead to even higher costs. UL was mentioned as a possible certifying body, but our experience with UL is less than satisfactory in cost and responsiveness. Slow response by the certifying bodies or their subcontractors will lead to delays in getting new products to the market. High cost will discourage manufacturers, especially small ones, from participating in the program at all. Even if new and innovative technology becomes available it may not be accepted as readily by consumers if the product does not bear the WaterSense label.
- 2.) The irrigation industry may be slow in adopting the WaterSense labeling program if the hurdles are too high. Given all of the concerns voiced to date from Rain Bird and other manufacturers, it is our fear that an industry that is not used to third party certifications will be slow in adopting the WaterSense labeling program
- 3.) The above issues, combined with other complications, will slow the acceptance of WaterSense amongst consumers. Of course, if products are slow to market and costs for WaterSense-labeled products are significantly higher than non-labeled products, consumers will be less accepting of the new program. Additionally, by complicating the label with the inclusion of the WaterSense logo AND the third party certifying body's name consumers may be confused and the WaterSense logo will have less equity in the marketplace. For example, will a WaterSense logo approved by UL carry more weight with the consumer than a WaterSense logo approved by Joe's Lab? Or, will consumers believe they mean two different things?

In the end, Rain Bird believes that the WaterSense program, the irrigation industry and the consumer will be better served with a less stringent certifying scheme. We propose a certification scheme of manufacturer's declaration followed up with surveillance from a certifying body and escalating penalties for manufacturers found to not be in compliance with their declarations. This reduces cost and does not slow new product introduction while ensuring the integrity of the WaterSense label.

Rain Bird appreciates the opportunity to weigh in on these important issues. Our views differ from the majority opinion held by other members of the WaterSense steering committee of which we are a part. As such, we felt it is important for us to make our views and objections known. If the EPA desires more information or clarification on any of the above points, feel free to contact either Dave Johnson or Ron Wolfarth at Rain Bird. Thank you.

Sincerely,

Dave Johnson
Director of Corporate Marketing
Rain Bird Corporation
djohnson@rainbird.com
520-806-5683

Ron Wolfarth
Director, Landscape Irrigation Division
Rain Bird Corporation
rwolfarth@rainbird.com
520-741-6539

Commenter: Shawn Martin
Affiliation: PMI
Comment Date: July 24, 2007

July 24, 2007

Re: Draft WaterSense Certification Scheme Comments

The Plumbing Manufacturers Institute (PMI) has reviewed the Draft WaterSense Certification Scheme dated May 24, 2007, and has developed the following four comments.

Please feel free to contact me if you require clarification or additional information.

Sincerely,

Shawn Martin
Technical Director
Plumbing Manufacturers Institute
847-481-5500
smartin@pmihome.org

Comment #1

Proposed Change

4.2.3.2 Conduct of Initial Testing

The initial testing shall be carried out in accordance with the relevant WaterSense product specification and with this WaterSense certification scheme. All test facilities used by the product certification body shall demonstrate compliance to ISO/IEC 17025, *General requirements for the competence of calibration and testing laboratories*.

The product certification body shall determine the means it will use to conduct the initial testing. Allowable options include:

- In-House Testing: The product certification body performs all product testing in its own facilities.
- Subcontract Testing: The product certification body subcontracts another party to conduct product testing and/or evaluation.
- On-Site Testing (Witness Testing): ~~Qualified staff from the product certification body oversee~~ Testing is conducted by the manufacturer at its own facility and witnessed by qualified staff from the product certification body or in accordance the process established by the product certification body.

Reason

Section 4.2.3.2 as currently drafted does not explicitly permit the use of the certifier and manufacturer's Laboratory Category certification. This long-established and successful practice

allows manufacturers with ISO/IEC 17025 compliant laboratory facilities to conduct in-house testing which is overseen by an approved accreditation organization. Audits are conducted a minimum of four times year to ensure that testing is conducted by qualified laboratory personnel, that all testing has been conducted in accordance with the approved testing protocol, and to conduct random actual retesting on certified models. Any certification scheme that does not allow manufacturers to employ category certification measures that they have earned with the certifying body will increase certification costs and introduce delays into the product development process. Certification agencies should continue to be provided the flexibility to develop product certification programs that provide robust compliance verification, while limiting expense and delay.

Comment #2

Proposed Change

4.10.1 Periodic Production Inspection and Product Testing

The product certification body shall, at a minimum, on an annual basis, audit the production process and quality management of each manufacturer of a certified product(s). The purpose of this audit shall be to:

- Verify that the manufacturer continues to operate production and quality management in a manner that will maintain a product's conformance with relevant WaterSense specifications; and
- Consider and take appropriate action where changes to the manufacturer's operations are made that may impact a product's conformance with relevant WaterSense specifications.

~~The product certification body shall also, at a minimum, every fifth year, retest each model of each product it has certified, if the manufacturer wishes to maintain certification. Retesting for conformance with the relevant WaterSense specification shall be conducted following the same procedures outlined in Section 4.2.3, Initial Product Testing.~~

Reason

We support periodic production inspection and surveillance testing, however periodic retesting of product previously certified using procedures outlined in Section 4.2.3 is an unnecessary measure, and will not increase product conformance. The periodic production inspection and surveillance of products on the market described in section 4.1 provide sufficient controls to ensure that product performance is maintained. Repetition of initial product testing will introduce additional costs with no benefit accrued to the program or the consumer.

Comment #3

Proposed Change

4.10.2 Surveillance of Products on the Market

The product certification body shall conduct an annual post-market product surveillance. The surveillance shall be conducted by an inspector appointed by the product certification body, and shall include randomly selecting and testing one unit of one model of each certified product per manufacturer (e.g., for a manufacturer of A, B, C faucets and X, Y, Z toilets, the product certification body would select one model A faucet and one model Z toilet for testing), either from the manufacturer's warehouse or at the project site or retail outlet where the product is being used/sold (only if product is not otherwise available). Where purchase of the product is required, the manufacturer shall pay for the product.

Sampled products shall be tested for conformance with the relevant WaterSense specification following the same procedures outlined in Section 4.2.3, Initial Product Testing.

Reason

While it is recognized that purchase of the product from retail outlets may be necessary on some occasions, PMI requests that this option be exercised only if the product is not available from the other sources listed. This will minimize program compliance costs, whenever possible.

Comment #4

General Comment

Fixture manufacturers are required to report data regarding product performance to the Department of Energy and the Federal Trade Commission to demonstrate compliance with the provisions of the Energy Policy Act of 1992, limiting the water consumption of various plumbing fixtures. The WaterSense program uses EPA's requirements as a baseline, and therefore any product complying with WaterSense requirements will also comply with EPA's. In order to avoid redundant reporting, PMI requests that EPA seek an agreement with the Department of Energy and the Federal Trade Commission to coordinate the reporting requirements. PMI requests that demonstration of compliance with WaterSense product certification provisions be sufficient to demonstrate compliance with the requirements of the Energy Policy Act of 1992.

Commenter: Sally Remedios
Affiliation: Delta Faucet Company
Comment Date: July 25, 2007

Kim,

We have reviewed and have the following comments on the EPA WaterSense Certification Scheme. Please let us know if you have any questions.

For small products such as aerators how will these be labeled? Does this program use a physical label or is it a marking on the product only, or can it be applied to packaging or other literature?

As you may know our industry suffers from marking issues which our customers do not like to have in visible locations, since it spoils the aesthetics.

In the introduction of the document it mentions that the certification scheme provides guidance on ISO/IEC Guide 65. Could you explain what this guidance is and where it can be found in the document?

Under 2.0 it mentions the scheme applies to the “technical requirements” of relevant product specifications, do these not also include performance requirements?

In Section 3.0 the third bullet point includes requirements for the AB to be an ILAC or IAF signatory. Is this appropriate for a Certification scheme? This is more related to a laboratory testing scheme. ISO 65 already requires CB's to use data from an ISO 17025 recognized laboratory.

In Section 4.0 should the term URL be expanded for those not familiar with this acronym?

Section 4.2

How does this initial evaluation work when a manufacturer buys an already WaterSense labeled product that then ensures his products compliance to WaterSense?

4.2.3.2

Presently there are other options allowed by CB's which include auditing of manufacturers testing facilities and ensuring compliance to ISO 17025 for these facilities. Can this be included in the WaterSense scheme? It is a successful program. Manufacturers are audited four times a year to ensure continuing compliance of their testing facility to ISO17025 together with proficiency testing to ensure results of tests on similar products are the same as those tested by the CB.

When the term “Qualified” is used in bullet point three, qualified to what and by whom does this mean?

4.3.1

Last bullet point:

Is this not the AB that allows this, rather than the CB?

4.3.2

Should the CB be required to issue a report to the manufacturer on the models which can use the WaterSense label?

4.6

Again, how big is the WaterSense label?

Can a manufacturer still maintain a WaterSense listing even if they do not use the WaterSense label?

4.7

Is it the intent to exclude a manufacturer who does have every product listed to WaterSense? This is the way it reads right now.

4.10.1

This type of retest program – all products every fifth year - is only usually required for products that present a health or safety issue, not a conservation issue. NSF 61 is such a program. Other plumbing products are usually retested using a statistical sampling program developed by the CB, which would seem to be more appropriate for the WaterSense certifications. Could this be revised accordingly?

4.10.2

Who will pay for this post-market program?

Does this mean 100% of the product is retested or should it say “each certified product group”? Why would purchase of the product be required? Who would require it? This is a cost burden.

4.13

Suggest that EPA be required to notify all current holders of WaterSense certifications of the changes made to Specifications, Policies, or Procedures, and provide partners with an effective date for compliance.

Figure A-1

Recommend the words “Controlling Documents be replaced by “Required Documentation”.

In row of Product Certification Labeling:

Suggest add “and” between Product Certification – Labeling.

Under Manuf. Partner include “test” between manufacture and “product”.

Add Certifies under “Certification Body”

Annex A

3.1

Is the term ‘average flush volume’ the same as that defined in the ASME standard? If so, could it say ‘as defined and tested in accordance with ASME A112.19.2?’

5.1

Is this statement intended to imply that the toilets must meet all the requirements of the two ASME standards or just the flush volume adjustability? If it is the latter, suggest the words “the flush volume adjustability requirements” be added before the words “ASME A112.19.2 ---.”

5.2.1 Suggest add the words “Toilet tank trim” in front of Must conform.

5.2.2

Not sure of the intent of the first sentence. If it is a pilot valve type does it not have to meet the protocol in Appendix B? If not, then should “pilot valve type” be defined?
Why would this requirement not be performance related as opposed to design based?

5.2.3.2

Why is the requirement for the full flush mode of a dual flush toilet not 1.68 gpf as it is for single flush fixtures? Would this not better reflect water conservation goals?

For after market closure seals how many are to be tested and which types?

7.0

Suggest add “Any changes to the specification shall be sent to all partners with an effective date for compliance.”

8.0

Must all electrohydraulic toilets use a motor, pump, and controller? Is this not design restrictive?

Is the **Rated flush volume** different to the previously used term “effective flush volume”?

Suggest the terminology be kept as consistent as possible throughout this specification and the ASME standards.

Appendix A

2.2.6 Why is this re-adjusted? If this is the level it normally returns to, that is how the fixture should be tested. If the water level returns to a level above that to which it was set, this should be a failure.

2.4.4

What is the definition of “bowl sump”? Does everyone have the same interpretation?

3.1

This soy bean paste nominal specification does not define the type of soy bean. Is it raw or cooked? Is the bean with or without its skin?

Similarly, what type of rice is used – white, brown, wild? Is it raw or cooked?

Is the salt course or fine? Sea or regular?

Without such definitions the test could be very unrepeatable from test lab to test lab depending on their interpretation.

3.3

Is the toilet paper of the plain or ripple design?

In general, suggest that where referenced the Section numbers in the ASME standards should not be used since these can change with minor revisions to the standard, or updates.

Appendix B

Sections 2.1 and 3.1 have the exact same purpose. Should these two tests be under the same heading?

2.3

If the water does not enter the overflow tube from the refill tube, then will this not affect the trap reseal? Suggest delete this statement.

Appendix D

2.0

“---, or otherwise approved for that purpose by EPA”. Suggest that as partners, manufacturers need to know who these bodies are and their credentials. It must be a level playing field for all participants.

As a general comment we would like to ask EPA if these certification schemes can eventually supersede the present EPAct (FTC and DOE) reporting requirements of water usage rates that manufacturers are required to submit every year, since we believe these reports should be discontinued under the Paper Reduction Act as presently defined.

Kim, thank you for the opportunity to comment on these documents and we appreciate your participation in the ASME/CSA harmonization efforts on water efficiency.

Sincerely,
Sally Remedios,
Ph: 317 587 1270
Fax: 317 848 0750

Commenter: Marsha Slaughter, P.E.

Affiliation: City of Oklahoma

Comment Date: July 27, 2007

No comments on the certification scheme. It looks thorough and appropriate.

Marsha Slaughter, PE
Director, Utilities Department
City of Oklahoma City
405.297.2822

Commenter: Ed Osann

Affiliation: Steering Committee for Water Efficient Products

Comment Date: August 1, 2007

Re: Request for Re-Opening of Comment Period on WaterSense Certification for 60 Additional Days

August 1, 2007

Following the recent close of the comment period on WaterSense certification, members of the Steering Committee for Water Efficient Products became aware of significantly divergent views among stakeholders regarding the proposed certification framework. We believe these issues are important enough to warrant a re-opening of the comment period for a period of sufficient length -- 60 days -- to allow for additional stakeholder discussion aimed at resolution of key issues and the submission of revised comments for EPA consideration.

Thank you for your attention to this request.

Edward R. Osann

Coordinator

Steering Committee for Water Efficient Products

301-535-4013

eosann@starpower.net

Commenter: Ed Osann

Affiliation: Steering Committee for Water Efficient Products

Comment Date: October 16, 2007

**Steering Committee for Water Efficient Products
1001 Connecticut Ave., NW Suite 801
Washington, DC 20036**

October 16, 2007
via electronic mail

These comments are submitted for the record in response to the Environmental Protection Agency's extended comment period on the proposed WaterSense Certification Scheme.

The Steering Committee for Water Efficient Products is a working group drawn from over one hundred organizations, companies, water utilities, and public agencies that support a national voluntary water-efficient product labeling program. We support third-party testing for all products and services carrying the WaterSense label, and look forward to the eventual adoption of a wider certification framework. Certification, coupled with careful development of performance specifications and test procedures for individual products, will be a key element in the effort to build and maintain consumer confidence in the WaterSense label.

For the reasons indicated below, we recommend that EPA not adopt the proposed certification scheme at this time.

The draft certification scheme envisioned in EPA's request for comments (the "final process," as contrasted with the currently operating "interim process") envisions one or more certification bodies stepping forward to become accredited to test and certify one or more WaterSense product categories, including irrigation products.

Currently, the irrigation industry has little commercial experience with certification bodies – organizations in the business of testing and certifying products and processes. No ornamental irrigation products are currently subject to certification regarding their intended function, durability, or materials. (Some products with electrical components receive safety certification from UL, and backflow prevention products receive certification from IAPMO and/or USC FCCC.)

Since no organization currently certifies irrigation product functionality, and since the specification and test procedure against which WaterSense irrigation products must be certified has not yet been proposed, let alone finalized, it appears virtually certain that there will be no certification body prepared to seek accreditation to certify WaterSense irrigation products when the specification for the first such product – weather- and sensor-based irrigation controllers – is finalized in early to mid-2008.

In order to avoid delay in bringing WaterSense-labeled irrigation products to market in 2008, EPA should defer adoption of the final certification process and begin work *immediately* on an interim certification scheme specifically for irrigation products. An interim process for irrigation products should be designed to be functional before the end of 2008.

Key elements that should be considered for the interim process for irrigation products should include –

- a) provision for third-party testing;
- b) manufacturers' declaration of conformity, based on publicly available test results;
- c) market surveillance by EPA or its agent, testing random samples of labeled products on the market;
- d) sanctions for shipping non-conforming products and other misuse of the WaterSense label.

We recommend that EPA be proactive in building a product testing and certification infrastructure for WaterSense irrigation products. This should include consideration of –

- a) issuing an RFP or RFQ for irrigation testing services;
- b) contracting directly with organizations willing to conduct testing to the WaterSense specification, as in the interim process for plumbing products;
- c) providing monetary incentives or awards (alone or on a matching basis with utility WaterSense partners) for an initial group of competent organizations willing to enter the new field of irrigation product testing and certification.

There are simply too many unknowns regarding the possible configuration of the certification environment for irrigation products for us to recommend that EPA now adopt the very specific final certification process proposed in May. One result would be the application to the plumbing industry of a certification scheme that the irrigation industry may ultimately find unworkable.

Full accreditation of certification bodies for all WaterSense products, together with third-party certification, remain important objectives for the WaterSense Program, to build and maintain consumer confidence over the long run. However, the implementation of the final certification process should be deferred for the time being – perhaps two to three years – at which time both plumbing and irrigation industries can transition to the same final process together.

Thank you for your attention to these views as you prepare to act on this important proposal.

Edward R. Osann
Coordinator
Steering Committee for Water Efficient Products
301-535-4013
<eosann@starpower.net>