



***Comments on WaterSense® Specification Development  
Update: Point-of-Use Reverse Osmosis (RO) Systems***

**April 2024**

## Table of Contents

Dave Fowler, Liquos .....	1
Tedd Schneidewend, Culligan.....	3
Hemang Patel, 3M (Solventum) .....	5
Baruch Ziser, Tipa Tech.....	6
Tom Palkon, International Association of Plumbing and Mechanical Officials (IAPMO).....	9
Ada Poon, Delta Faucet Company.....	10
Andrew Morris and Ron Burke, Alliance for Water Efficiency (AWE) .....	13
Tim Beall, Topper Manufacturing Corporation.....	15
Eric Yeggy, Water Quality Association (WQA) .....	16
Shannon Murphy, Aquamor .....	23

**Commenter:** Dave Fowler  
**Affiliation:** Liquos  
**Comment Date:** February 22, 2024

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Hello,

I have been involved with the water treatment industry since the late 1980's. I designed and introduced high efficiency RO systems in the 90's to the OCS industry in Silicon Valley.

My feedback is to create more consistency with labeling as a start. In addition, an online database with published (and downloadable) data from each manufacturer should be made available to the public. There is so much confusion, lack of transparency, and obfuscation in an industry that prides itself on clarity.

The formatting of information (like a food label) should be very specific in terms of placement, font etc. I am recommending the guidelines require consistency from one manufacturer to the next so that published information, either thru Print / Online is in fact easy to find and understand. Right now it's an inconsistent, UX nightmare for consumers which gives the industry a black eye.

Also, I think you should publish Recovery Rating. It is a valuable technical rating (if you can get the data) to determine an RO systems baseline projected operational parameters. For our new IoT monitoring platform, we are actually needing the published recovery rating as a baseline to determine real time performance. We are tracking RO systems in real time, if a membrane is performing to specification based on field data, our customers will know (as will the public). System efficiency is extremely easy to skew. You're fooling yourself if you think manufacturers won't fudge their efficiency rating by simply changing their recovery ratio setup. The laws of physical chemistry will catch up with users and will, depending upon the feed water psi, delta p, water chemistry and water temperature prematurely foul membranes.

If I was a large manufacturer I would bump my efficiency score to comply, garner the highest rating and make sure consumers had an extra membrane standing by, because they will need it in about 6 months.

I've replaced a lot of inefficient RO systems. Also, go to Costco or Lowes and ask consumers about RO water waste. They have no idea how much water is being "wasted". I now live in Arizona and in speaking with City Managers in the greater Phoenix area, will be able to get published data from Liquos IO and our [WaterReportCard.com](https://www.waterreportcard.com) as part of a sustainability and water usage report of RO systems installed in their district and exactly how insanely inefficient they are.

My suggestion is to create an efficiency standard — but, include the cost of ownership and consumer satisfaction as well for each brand and publish it on the side of the box.

Also, in my dealings with NSF they have made it very difficult to find out how RO systems have been tested, protocols etc, and frankly have been uncooperative. The WQA is not particularly transparent either. Happy to forward my queries and their responses.

I actually should thank the industry for being so slow to adopt efficiency standards, as it has fueled our design of innovative RO systems and our next generation of AI software to track and maintain water filter systems.

Regards,

Dave

Dave Fowler, CEO  
650-280-9003 m  
650.964.4200 o



**Commenter:** Tedd Schneidewend

**Affiliation:** Culligan

**Comment Date:** March 11, 2024

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Hi Emma,

It was great meeting you and Robert at the WQA show. Hope you had a good rest of your trip. As promised, here are some of my notes on the proposal for RO EPA water sense.

- **% Efficiency**

- I believe that the NSF 58 should be updated soon pending agreement by the members on proposed changes
- Your concept of removing tankless would be effective if an agreement is not reached
- 30% is manageable, but it would be recommend to start at 20 or 25%
  - There will be systems that can pass 30%
  - Nitrate and Nitrite will likely have the biggest challenge but still possible
  - Going down to 20/25 would get more industry acceptance and still see a big improvement on current
  - Without industry acceptance I think there will be a slow adoption as I don't expect a lot of immediate direct customer demand
    - Most ROs are either installed by a professional or bought online
    - Retail purchase of an RO does happen, but are less common
    - Retail purchase of an RO typically does not have other comparable options like other water sense devices (Retailer will only carry 1 RO)

- **1086 testing**

- Still not validated and should not be a requirement
  - No device is currently tested to this and it is challenging to run due to other equipment scaling before the membrane
  - Purpose of test is not validated with field results
  - Not a complete life test since it really only focuses on scaling
    - The water used in this test is extreme due to an attempt at accelerate the test, but does not really give a real-world comparison
    - It is difficult to design a 1 size fits all RO scale test because it is based on the customer water chemistry
    - Scale works differently than particulate and other life tests
      - If the conditions exist to create scale, it will happen
      - Once it starts it accelerates and can only be chemically cleaned
      - So to have a water that nearly is already scaling does not really represent a real life test
  - Would need to be updated, validated, and approved by a broad audience before I would be comfortable

- I was on the first version, but had concerns about scaling drain flow control that was never really addressed
- The market should decide life
  - If a manufacturer sells a subpar product into the market, it will get poor customer perception and ultimately self-correct
  - Do other watersense products go through a water scaling life test that this compares to?
- The water filtration regulatory requirements are already extremely high
  - Testing, launching, and maintaining regulatory on new drinking water product is already expensive/time-consuming
  - More expensive and time-consuming testing adds barriers to the market which reduces innovation
  - Would prefer that everything stays consolidated under NSF 58
- I will note, we have products in the field today at 40-50% efficiency that have received no complaints and are not tested to this standard
- **Labeling**
  - Agree on your concerns on confusing labeling and verification for end consumers
  - As an industry, this should be address with the NSF Joint Committee on 58 vs other standards if possible, to avoid confusion
  - As Culligan is mostly dealer or online, I will defer to other feedback that you are hearing on this one

Any questions or if a call would help to go over things let me know. I am mostly concerned with the requirements of 1086. There a lot of reason why this should not be added.

Thanks,

**Tedd Schneidewend**  
Engineering Manager  
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**Commenter:** Hemang Patel  
**Affiliation:** 3M (Solventum)  
**Comment Date:** March 13, 2024

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I am in favor of establishing a higher efficiency for RO to help achieve Watersense mark.

However, the whole purpose of WaterSense program is to help consumers identify RO products that met a stringent criteria for water efficiency, thereby projecting RO systems as water-efficient systems. But, I feel that having added language requirements to state “it will send Y.Y gallons water down the drain” dampens the Watersense message and may project the opposite sentiment discouraging the consumers to buy even a Watersense certified product.

Products without Watersense mark may even project poor efficiency in good light since they are not bound by such added statements.

So, please consider removing that added language requirement.

Thank you,

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**3M.com/HealthCare**



*3M Health Care is in the process of becoming Solventum. The new name and brand will go into effect when the spin-off of the independent healthcare company occurs which is expected in the first half of 2024, subject to final approval by 3M's Board of Directors and other required conditions.*

**Commenter:** Baruch Ziser  
**Affiliation:** Tipa Tech  
**Comment Date:** March 14, 2024

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***Email Text:***

Hello everyone

I met you guys a few days ago at the WQA exhibition in Orlando, it's nice to see people who cooperate with me in the scientific field, And especially keeping the public health is a common task for all of us.

From the experience we have gained in the last 50 years in the field of drinking water We can say with full confidence that you should not drink osmosis water below 100 TDS Even if the water contains substances prohibited for drinking, it is better to drink 100 TDS And above, The osmosis water range up to 100 TDS is very dangerous to drink from a health Point of view especially because of the lack of minerals in the water

Today we know how to say that there is damage to the human body Because of "excess cleanliness" and the simplest example is the instruction to prepare food For babies from one-third osmosis water and two-thirds milk because of the presence of calcium in milk

We have all known for some time the danger of serious diseases to the human body following regular Consumption of osmosis water, We are all familiar with the issue of banning reverse osmosis systems in India and the Netherlands, and in fact it is already being spread throughout Europe and the United States. The Indian Ministry of Health defines the issue perfectly, since it is not against reverse osmosis, but in favor Of water above 100 TDS. The disadvantage is in connecting the reverse osmosis system to the sewage pipe and thus getting an Increase in the level of bacteria, and even dangerous exposure to violent bacteria, The following is an Excellent example of the lack of awareness regarding the medical damage from Osmosis water. We proactively called several emergency departments in hospitals around the world and asked if they We're looking for the connection between patients arriving at the emergency rooms and point water Contamination in their drinking faucets. There was not a single hospital, including toxicology departments, that looked for or found Connection Between arriving at a hospital and the water faucet in the kitchen

Another serious thing is that we encountered pouring faucets of reverse osmosis systems that are not Made of stainless steel but made of metal such as copper coated with nickel chrome, and now the question Arises when the system was purchased or rather how much water passed through the faucet and then we will Know how much chrome nickel the drinkers drank into their bodies.

Below is a quick summary of reverse osmosis water  
Corrosive water below 100 TDS are connected directly to the sewer water pipe  
The nickel chrome plated pouring faucet is harmful



The previous article led us to develop a healthy water filtration system that Would not involve reverse osmosis, so the data would be like this

Water that starts from 100 DTS and above (usually up to 500)

No connection to a storage tank or sewer

Pouring faucet made entirely of stainless steel

Of course we have grown to do and in places where you get desalinated water, there is a possibility

Adjust the magnesium level from 0% to a level of 100%, i.e. 60 milligrams per liter

We call the method of this system "NOSMOSIS" because it may be similar, but not at all reverse osmosis

We are attaching a table of the segmentation of the filtering methods and in it you can see the great advantages of the system

We will be happy to cooperate.

Thank you very much



**TipaTech**

**LOTUS - The most advanced home water purifier**

**Baruch Ziser**

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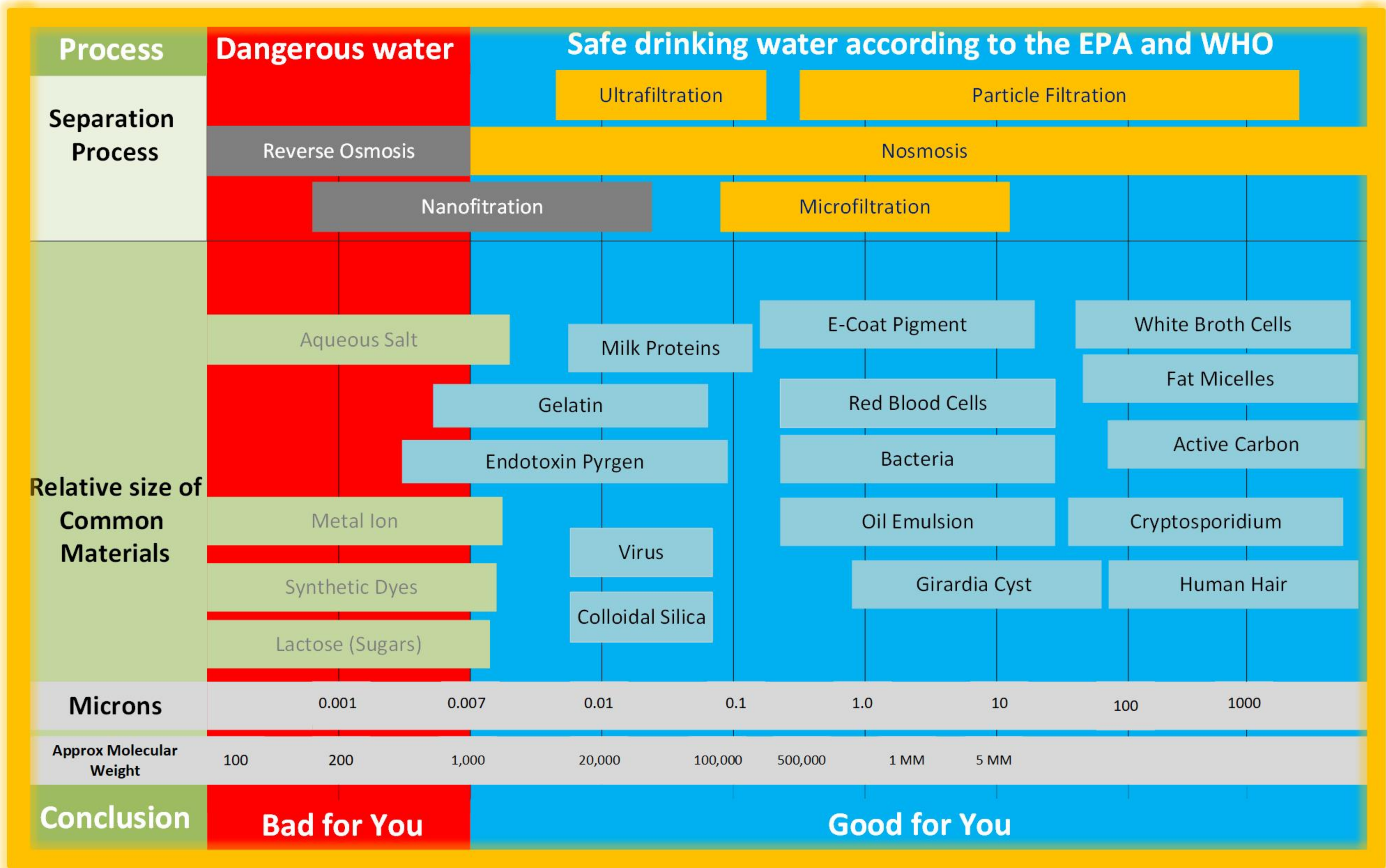
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**Email Attachment:**

See page 8.



**Commenter:** Tom Palkon

**Affiliation:** International Association of Plumbing and Mechanical Officials (IAPMO)

**Comment Date:** March 20, 2024

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Thank you for sharing the proposed path forward for a WaterSense listing program covering point of use RO systems. Overall IAPMO is in agreement with the proposal but we have one recommendation. Instead of dropping tankless RO systems from the initial release of the specification you can include them by requiring the efficiency claim to include the water wasted during any flushing the system may conduct. You mention that you intend to include a requirement in the specification that ROs must include any flushing that goes to drain as part of the efficiency claim. With this additional we don't see a need to exclude tankless systems.

Sincerely,

Tom Palkon

IAPMO Group - Executive Vice President and Chief Technical Services Officer

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**Commenter:** Ada Poon  
**Affiliation:** Delta Faucet Company  
**Comment Date:** March 21, 2024

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***Email Text:***

Dear The WaterSense Team,

Delta Faucet Company appreciates the opportunity to provide comments regarding the recently released WaterSense Specification Development Update for the Point-of-Use Reverse Osmosis (RO) Systems. You will find our comments in the attached word document for your consideration. We value our continued partnership with EPA WaterSense and welcome further discussions. If you have any questions regarding our comments, please do not hesitate to contact me.

Thanks,  
Ada Poon  
Delta Faucet Company  
Tel: 317-818-0430  
[ada.poon@deltafaucet.com](mailto:ada.poon@deltafaucet.com)

***Email Attachment:***  
See pages 11 and 12.

Comments on the WaterSense Specification Development Update: Point-of-Use Reverse Osmosis (RO) Systems (released on February 22, 2024)

1. Regarding exclusion of tankless systems from the initial launch of the EPA WaterSense Specification for Point-of-Use Reverse Osmosis Systems:

*Since the launch of the EPA WaterSense Program in 2006, the EPA WaterSense Program has had outstanding success as illustrated on the accomplishments page of the EPA WaterSense site including the cumulative 7.5 trillion gallons of water saved. Over the course of the nearly two decades and promotion of the program by the EPA and EPA's partners along with a variety of other stakeholders, WaterSense labeled products are increasingly desirable for consumers and easily recognized through the WaterSense label on the product literature and websites. Based on this and our comments provided below, we strongly encourage the EPA WaterSense Program to include tankless systems in scope of the initial specification. Alternatively, if the EPA WaterSense Program proceeds with excluding tankless systems from the initial specification, the accompanying WaterSense mark should be explicitly clear that it is only inclusive of certain systems such that consumers can more easily recognize the limited scope of the specification.*

*Tankless systems waste less water than conventional tank systems. For reference, the current EPA WaterSense proposal has a minimum requirement of roughly 1 gallon of filtered water for every 2 gallon of waste water [30% efficiency], and this was increased from 1 to 4 filtered/waste [20%] to align with conventional tanked system capability improvements, whereas tankless systems are typically greater than 2 gallons of filtered water for 1 gallon of waste water from an efficiency perspective. This indicates that tankless RO systems are typically 2x as efficient as tanked RO systems.*

*Excluding tankless RO systems from the EPA WaterSense program will likely create confusion in the market and effectively could be contrary to the goals of the EPA WaterSense program and its partners. A specification fully inclusive of all point-of-use RO systems would prevent this scenario even though it may take additional time to ensure the NSF/ANSI 58 standard committee updates the standard accordingly. We support any efforts to accelerate the standard update or independently develop criteria for the inclusion of tankless RO systems.*

2. Regarding exclusion of tankless systems and label verbiage:

*To provide flexibility regarding the timing of the updating NSF/ANSI 58 by the standard committee, verbiage in the WaterSense specification should be included to allow for "efficiency" to be used in place of "recovery" for tankless units until the NSF/ANSI 58 standard committee has revised the NSF/ANSI 58 standard to discontinue use of the term "recovery". This provides consistency and clarity to consumers in the interim, while the technical calculation makes very little difference when comparing tankless systems against tanked systems.*



3. WaterSense packaging and documentation requirements – Label of summary table:

*We would still propose that this information also be required for online point of sale documentation. For example, online only items are required to include this in their online product information page, not just on a physical box.*

4. Daily Production Rate in the label:

*The WaterSense Specification should offer or allow the Daily Production to be reported in Gallons Per Minute for Tankless in parenthesis, after the gallons per day: e.g. 600GPD (0.42GPM). This adds further clarity between tanked and tankless RO systems and how they are likely to be specified/differentiated to consumers.*

5. Verified Contaminant Reduction in the label:

*A [blank] in the "Verified contaminant reduction" may be too ambiguous. A [blank] leaves it open for interpretation since the table includes the contaminant in all cases AND the preceding statement is "This system has been tested according to NSF/ANSI 58 for efficiency, and reduction of substances below", even with the footnote it is unclear as the language is inconsistent. Within the table, it should be specifically "not certified", or some other means to indicate that it does not meet the requirement for reduction of that contaminant.*

6. We recommend clarifying if products meeting the WaterSense specification are expressly prohibited from advertising reduction claims that do not meet the requirements from NSF/ANSI 58 reduction testing [or NSF 42, 53, 401, etc]. For example, if the minimum requirement for certification is 80% reduction of a contaminant, and when tested against the standard, a product can reduce that contaminant by 75%. It needs to be clear if a reduction claim can still be made without certification for that contaminant.

**Commenter:** Andrew Morris, Ron Burke  
**Affiliation:** Alliance for Water Efficiency (AWE)  
**Comment Date:** March 21, 2024

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***Email Text:***

Dear WaterSense and ERG,

Please find attached the Alliance for Water Efficiency's comments regarding WaterSense Specification Development Update: Point-of-Use Reverse Osmosis Systems.

Thank you,

**Andrew D. Morris** | Senior Manager of Policy and Programs  
Alliance for Water Efficiency  
e: [andrew@a4we.org](mailto:andrew@a4we.org)  
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w: [www.allianceforwaterefficiency.org](http://www.allianceforwaterefficiency.org)

***Email Attachment:***

See page 14.

Submitted via email to [watersense-products@erg.com](mailto:watersense-products@erg.com)

March 21, 2024



WaterSense  
U.S. Environmental Protection Agency  
Office of Wastewater Management (4204M)  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460

## Re - WaterSense Specification Development Update: Point-of-Use Reverse Osmosis Systems

Dear WaterSense Staff:

The Alliance for Water Efficiency (“AWE”) is a stakeholder-based 501(c)(3) organization with more than 500 member organizations dedicated to the efficient and sustainable use of water. AWE provides a forum for collaboration around policy, information sharing, education, and stakeholder engagement. AWE is providing these comments on the WaterSense® Specification Development Update: Point-of-Use Reverse Osmosis Systems (“RO Update”).

Regarding Table 2. Revised Summary Table, AWE supports the inclusion of efficiency and water use information. However, the efficiency and water use section should be moved back to the top consistent with how it was formatted previously, which is shown in Table 1. Furthermore, AWE recommends that the NSF/ANSI 58 language be revised so that it is understandable to the typical consumer. The language may be too technical and hard to understand in its current form, and it should be rearranged to be above contaminant reduction section to make the connection to contaminants clearer.

AWE recommends changing the heading of the table to just “Performance at a Glance” and then this leaves the remaining efficiency and water use label right next to the text explaining water efficiency. Consistent with our prior comments, AWE recommends adding language to make it clear that using these systems will increase water use. Language like the following text in blue could be added: “This system has a XX% efficiency rating in the production of treated water. This means that it will send Y.Y gallons of water down the drain for every gallon of treated water it produces. *Using this product will increase household water use compared to drinking tap water or using other types of common filtration technologies.*”

Thank you for providing the RO Update and the opportunity to provide additional feedback.

Sincerely,

A handwritten signature in blue ink that reads "Ron Burke".

Ron Burke  
President and CEO  
Alliance for Water Efficiency



**Commenter:** Tim Beall  
**Affiliation:** Topper Manufacturing Corporation  
**Comment Date:** February 23, 2024

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Dear water sense team

Topper MFG corp. Home of the Water on Water TM technology from 1974 has always been the most efficient way to operate a reverse osmosis membrane with a Tank. Even the inventor (Don Bray) of the Hydropneumatic systems knew there was a more efficient way to operate a POU RO piece of equipment. He was satisfied with what he had at the time, and so we still have groups that are hanging on to this 1969 technology with a 10-18 % certified average efficiency. The trillions of gallons that could have been saved for the last 50 years is a damn shame. There is no reason to change from the new desired number of 30% efficiency by the Water Sense team.

Currently 3M, Kinetico K5, Coway Circle, Aquaphor and the Topper's (WOWRO) can exceed this number. Companies of past that have had Water on Water. (WOW) TM. type systems like Water Factory/Cuno, Hydrotech (Bruce Borrows) Teladyne water PIK, Enting water conditioning, Continental water, Olin Chemical, Shana water, Safe T Serv corp and Next-RO Inc. All had Water on Water type systems. However, it was the NSF standard at the time that wrongly tested this technology as being less efficient when in fact it was in some cases saving up to 5 times the water needlessly being wasted until a new testing protocol 25 years ago was developed to determine the truth of efficiency vs recovery of a WOW type system. A task force had been assembled for this clarification of efficiency vs recovery. It was at this point that the WOW type systems were determined to be far greater in efficiency than the Hydropneumatics. The term recovery is still being miss reported by producers as the efficiency figure. That hopefully will be corrected soon.

With 35 states being in drought conditions and the WOW technology available for 50 years this industry has been lazy with its duty to be more water wise from an environment standpoint. I for one welcome any conversation about this.

Some of past WOW type systems had been fairly complex however current systems have been proven to be reliable for water quality even over tankless type systems with greater efficiency once taking into account clearing TDS creep to get to the desired TDS rejection.

Once again I see no need to reduce this 30% figure. Water Sense group Carry on

Tim Beall  
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wowwater.com

**Commenter:** Eric Yeggy  
**Affiliation:** Water Quality Association (WQA)  
**Comment Date:** March 22, 2024

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***Email Text:***

Dear WaterSense Team,

Please find attached comments that I am submitting on behalf of WQA and the industry regarding the proposed RO Specification Update. The attached spreadsheet is intended as additional supporting documentation for these comments.

Sincerely,

[Eric Yeggy | Director of Technical Affairs | Water Quality Association](#)  
+ 2375 Cabot Drive | Lisle, Illinois 60532 | ( 630-929-2539 or 630-505-0160, ext. 539



***Email Attachment:***  
See pages 17 through 22.

# Template for Public Comment Submission on WaterSense® Draft Specification for Point-of-Use Reverse Osmosis (RO) Systems

**Commenter Name: Eric Yeggy**

**Commenter Affiliation: Water Quality Association (WQA)**

**Date of Comment Submission: March 21, 2024**

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I would like to thank the EPA for the WaterSense® Draft Specification for Point-of-Use Reverse Osmosis (RO) Systems (the “Specification”) and for sending ERG staff to the WQA Convention where they could speak directly with the industry about the Specification.

WQA first submitted comments on the Specification on February 11, 2022, and then again on February 2, 2023. We have also provided the EPA with two data analysis reports, with the first being submitted on July 27, 2022, and the second on August 22, 2022. We hope to see this initiative succeed in promoting water conservation, while at the same time avoiding any negative trade-offs which could potentially diminish the value of WaterSense labeled water treatment products compared with non-WaterSense labeled alternatives. Our comments have been, and continue to be, formulated with these objectives in mind.

This spring I gathered feedback on the revised EPA Specification from RO manufacturers and other industry representatives. The comments I am submitting below on behalf of the Water Quality Association reflect the collective feedback I received from the industry and highlight continued technical and policy concerns not adequately addressed in the revised Specification.

**Topic:**

Efficiency criteria

**Comment:**

WQA and an overwhelming majority of RO manufacturers remain opposed to the 30% target for efficiency. The target is too aggressive because it would result in significant trade-offs for consumers in terms of membrane-life and the effectiveness of their POU RO devices to remove health-related contaminants, especially nitrate.

WQA highlighted this issue in previous comment periods. And in the February 2024 “WaterSense® Specification Development Update”, the EPA acknowledged that this was one of the common concerns brought up by commenters. We do not believe that the EPA has adequately addressed this concern.

States and regions which suffer from water shortages could make this program mandatory, which could adversely affect and material harm small systems and private well owners that rely on POU RO treatment to remove health related contaminants.

The goal of the WaterSense program is that WaterSense labeled products should use 20% less water overall than the typical non-WaterSense labeled alternative. Per my estimation the typical POU RO system currently sold in the U.S. market has an efficiency rating of around 15%, and the consensus of industry feedback supported my estimate. If the EPA

were to target an efficiency rating of 20% for WaterSense labeled RO systems, this would result in an overall water savings of 25% for every 1000 gallons of treated water produced when compared to non-WaterSense labeled RO systems.

In the supporting statement for the draft specification, EPA states “*A typical POU RO system sends five gallons of water or more down the drain for every gallon of treated water that it produces.*” Using the EPA estimation this would equate to an efficiency rating of 17%. And then extrapolating from the EPA’s 17% efficiency estimate, a target efficiency rating of 22% for WaterSense labeled RO systems would result in more than a 20% overall water savings when compared to non-WaterSense labeled RO systems.

I have attached a spreadsheet demonstrating that an efficiency target between 20% and 22% would meet the WaterSense goals for water savings. Please don’t hesitate to reach out if you would like to discuss these calculations.

An efficiency target between 20% and 22% would be more appropriate for a POU RO specification that meets the stated goals of the WaterSense program, and which the industry can achieve without significant trade-offs in membrane life-span or without causing unintended consequences for small systems and private well owners that rely on POU RO systems to remove health-related contaminants from drinking water.

**Rationale:**

Based on our knowledge of RO systems, and feedback from the industry, the currently proposed efficiency target of 30% would result in significant trade-offs for the removal of some health-related contaminants such as nitrate, and significant trade-offs in membrane life-span.

**Suggested Change (or Language):**

I urge the EPA to adopt a realistic efficiency target (e.g., 20% to 22%) which will still meet the objectives of the WaterSense program, but which most of the industry would currently be capable of meeting without causing significant trade-offs for the consumer and protection of public health.

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**Topic:**

Membrane-Life Test

**Comment:**

WQA and an overwhelming majority of RO manufacturers are opposed to the inclusion of this test in the specification. In previous comments I explained that this test was never validated through testing by multiple accredited independent laboratories. WQA and others on the ASSE 1086 working group expressed concern about this lack of validation prior to ASSE’s publication of the standard, but ASSE did not pursue multi-laboratory validation to address those concerns.

WQA also feels that this membrane life test would be unnecessary if the EPA would adjust the efficiency target to be more in line with the overall goal of the WaterSense program, specifically to promote products that use 20% less water than their typical non-WaterSense

labeled alternative. WQA has demonstrated that an efficiency target for POU RO systems of between 20% and 22% would meet this goal.

For these reasons, WQA and an overwhelming majority of RO manufacturers do not support including this test as a mandatory requirement.

**Rationale:**

This test needs to be vetted by testing on multiple different POU RO systems through multiple independent laboratories before inclusion in a specification of this importance.

POU RO technology has been in use for many decades and membrane life span is not currently an issue. During the 2018 WQA Convention and Exposition, there was a presentation from three different manufacturers on the topic of “Innovations in Residential RO Recovery”. The consensus of the presenters at that time was that membranes are typically replaced every 5-10 years.

This membrane-life test is unnecessary if the EPA sets a more realistic efficiency rating target of 20 to 22% which the industry can achieve using existing technology and without negative trade-offs related to membrane-life span.

**Suggested Change (or Language):**

The EPA should drop the membrane life test from the initial specification requirements and instead seek validation of the test method across multiple independent laboratories using POU RO systems that have qualified for the WaterSense label under the initial specification. Once this information is available, the data can be reviewed to determine if the test method provides repeatable results and whether the added cost which would have to be passed on to the end users provides any significant benefit. If so, I would support reconsidering the inclusion of this test in future specification revisions.

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**Topic:**

Labeling of non-certified claims

**Comment:**

WQA supports the concept of helping consumers understand the differences and trade-offs between various POU RO models. However, WQA and an overwhelming majority of RO manufacturers are opposed to the requirement for manufacturers to label non-certified claims. It is likely that many consumers will see the non-certified claims on the product labeling and assume the product removes those contaminants without fully reading and understanding the intent.

An overwhelming majority of the manufacturers I spoke with do not support the requirement to label non-certified claims. Consumer confusion and misunderstanding could flow directly from this labeling approach and might conceivably lead to consumer claims and assertions of deception or misrepresentation in such labeling targeting manufacturers who sell WaterSense labeled POU RO models.

Beyond the potential liability concerns, a non-participating manufacturer could exploit this requirement and use it to confuse consumers. For example, in most of the U.S. marketplace there is nothing which requires manufacturers to have their claims certified by an independent accredited third-party organization. Therefore, a non-participating manufacturer could make an arsenic claim even if its system does not remove arsenic adequately to meet the requirements in NSF/ANSI 58. The labeling proposal in the draft WaterSense Specification could therefore be used to further compel consumers to believe that the non-certified system is superior. Example: "Our X-brand RO system removes Arsenic, while the EPA has determined that the leading competitive model (Y-brand carrying the WaterSense label) does not!"

**Rationale:**

The requirement to label non-certified claims is likely to confuse consumers. If it does, this could lead to consumer claims and assertions of deception or misrepresentation in such labeling directed at manufacturers who sell WaterSense labeled POU RO models.

Moreover, with a bit of imagination one can envision multiple ways that this requirement could be exploited by non-participating companies to gain an unwarranted competitive advantage.

The existing labeling requirements in NSF/ANSI 58 were developed by a broad committee of stakeholders representing diverse interests beyond the water treatment industry. They have been thoroughly vetted through decades of use and are regularly reviewed and updated to help consumers and end-users.

**Suggested Change (or Language):**

I would urge EPA to drop the requirement to label non-certified claims and instead to rely on the labeling requirements in NSF/ANSI 58 to protect against consumer confusion.

Average current POU RO	1000.00	Gallons of product water needed per year (Std 1086 estimates this as 1000 g)
	15%	WQA estimate of the Rated efficiency for a typical POU RO
	6666.67	Total water used to produce 1000 if rated efficiency is 15%
	5666.67	Reject water generated to produce 1000 gallons of treated water if rated efficiency is 15%
WaterSense Labeled POU RO	1000.00	Gallons of product water needed per year (Std 1086 estimates this as 1000 g)
	20%	Suggested rated efficiency target for WaterSense labeled POU RO
	5000.00	Total water used to produce 1000 if rated efficiency is 20%
	4000.00	Reject water generated to produce 1000 gallons of treated water if rated efficiency is 20%
	1666.67	Water saved per 1000 gallons of treated water produced
	1666.67	Reduction in reject water per 1000 gallons of treated water produced
	25%	<b>Reduction in overall water used to produce 1000 gallons of treated water</b>
	29%	<b>Reduction in the amount of reject water generated to produce 1000 gallons of treated water</b>

Average current POU RO	1000.00	Gallons of product water needed per year (Std 1086 estimates this as 1000 g)
	17%	EPA estimate of the Rated efficiency for a typical POU RO
	5882.35	Total water used to produce 1000 if rated efficiency is 17%
	4882.35	Reject water generated to produce 1000 gallons of treated water if rated efficiency is 17%
WaterSense Labeled POU RO	1000.00	Gallons of product water needed per year (Std 1086 estimates this as 1000 g)
	22%	Suggested rated efficiency target for WaterSense labeled POU RO
	4545.45	Total water used to produce 1000 if rated efficiency is 22%
	3545.45	Reject water generated to produce 1000 gallons of treated water if rated efficiency is 22%
	1336.90	Water saved per 1000 gallons of treated water produced
	1336.90	Reduction in reject water per 1000 gallons of treated water produced
	<b>23%</b>	<b>Reduction in overall water used to produce 1000 gallons of treated water</b>
	<b>27%</b>	<b>Reduction in the amount of reject water generated to produce 1000 gallons of treated water</b>



**Commenter:** Shannon Murphy  
**Affiliation:** Aquamor  
**Comment Date:** March 22, 2024

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Thank you for the opportunity to comment on this developing EPA water sense standard.

As discussed at the Water Quality Association show in Orlando, my main concern pertaining to this initiative is regarding the literature requirements.

There are a couple of industry activities currently in play which I want to make sure the team at EPA is aware of first.

Presently there is a class action lawsuit against Brita in the state of California regarding literature and confusing literature claims on what a filter will do and what a filter will not do. At the heart of the legal matter is literature and claims even when it is clearly defined on the packaging how the product performs and what they are certified to, thus a packaging and claims issue.

Secondarily there are two initiatives, underway within the NSF standards committee to help clean up literature requirements. The first one is part of the standard 58 RO update the second initiative which is being proposed during the upcoming NSF joint committee in May of this year is an annex to the standards to be added in to provide guidance on not only literature, but also operation and maintenance. The goal of this initiative is to standardize literature requirements across all standards similar to what you would anticipate a food nutrition label would function as on food packaging. Of note is that the NSF Standards are governed by a Joint Committee made up of 1/3 manufacturers, 1/3 users and 1/3 regulators, of which EPA has a seat at the table for voting and comment.

My concern with what the EPA water sense program is currently proposing is that it will only add confusion to the end user on what a product is certified for and what a product is not certified for. Historically when you see a claim on a label for a water filtration device, the assumption by the end user is that the product is certified to remove that claim. At end to this the literature requirements need to be revised so that only claims that the product is certified for are allowed to be listed out on the label. To have a general list of claims which the product may or may not be certified for will only lead additional confusion to the marketplace on what the product actually does.

In summary, I think it is critical, that we avoid confusion in the marketplace by a requirement that the EPA is putting on the industry which may cause future litigations for the industry on behalf of an EPA requirement due to confusion in the marketplace. I firmly believe that it is critical to avoid this confusion, and only have the contaminants that a product is certified to remove or reduce from the water be listed on the labeling only. From there, lets work together to improve literature requirements within the nationally recognized group of Standards.

Sincerely,



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