

WaterSense® Notice of Intent to Revise the Specification for Tank-Type Toilets

I. Introduction and Background

WaterSense is a voluntary partnership program sponsored by the U.S. Environmental Protection Agency (EPA). The program's foundation is the WaterSense label, which identifies products that have been independently certified to be at least 20 percent more water-efficient and perform as well as or better than standard models. EPA released the *WaterSense Specification for Tank-Type Toilets* in 2007. EPA has since completed two minor revisions to the specification, releasing the latest version (Version 1.2) in June 2014. To date, dozens of manufacturer partners have produced more than 5,200 WaterSense labeled tank-type toilet models.

In accordance with the *America's Water Infrastructure Act* of 2018, EPA published its [Notice of Specification Review](#) for tank-type toilets, lavatory faucets and faucet accessories, showerheads, flushing urinals, and weather-based irrigation controllers in December 2018. The specification review considered changes to the water efficiency and performance criteria for each product category. Following completion of the review, EPA announced that no changes would be made to the specifications at that time.

EPA intends to revisit the [WaterSense Specification for Tank-Type Toilets](#) as the agency recognizes opportunities to make improvements to the specification criteria. EPA is reevaluating the effective flush volume requirements, including potentially the criteria for dual-flush toilets, due to changes in the marketplace resulting from state and local requirements, opportunities to further transform the marketplace, and potential additional water savings that could be achieved. EPA is also soliciting input on other items from the *Notice of Specification Review* or otherwise related to the current specification for tank-type toilets. Because modifications to the specification would likely impact the certification status of currently labeled tank-type toilet models, EPA considers the intended revisions to constitute a major revision and is therefore initiating, through this NOI, a formal specification revision process to engage with stakeholders and the public.

To establish and better define the criteria to incorporate into a revised specification, EPA is seeking feedback on the existing *WaterSense Tank-Type Toilet Specification* and WaterSense's initial thoughts and potential approaches for revising the specification, including—but not limited to—the topics and discussions identified in the following sections. All interested parties are encouraged to submit written information and comments regarding any of the concepts or issues presented in this notice of intent (NOI) to watersense-products@erg.com. Comments and information on the issues presented in this NOI are welcome and will be taken into consideration as EPA develops a revised WaterSense specification for tank-type toilets.

II. Scope

The current *WaterSense Specification for Tank-Type Toilets* establishes the criteria for a high-efficiency tank-type toilet under the WaterSense program. It is applicable to:

- Single-flush, tank-type gravity toilets
- Dual-flush, tank-type gravity toilets
- Dual-flush, tank-type flushometer tank (pressure-assist) toilets
- Tank-type, flushometer tank (pressure-assist) toilets
- Tank-type electrohydraulic toilets
- Any other tank-type technologies that meet these performance specifications

The specification is designed to ensure both sustainable, efficient water use and a high level of user satisfaction with flushing performance.

Tanks or bowls intended for tank-type toilets are not independently eligible to earn the WaterSense label under the specification. **EPA intends to keep the scope of the specification the same.**

III. General Requirements

The current specification requires a toilet to conform to applicable water closet requirements in American Society of Mechanical Engineers (ASME) A112.19.2/Canadian Standards Association (CSA) B45.1 *Ceramic Plumbing Fixtures*, except as otherwise indicated in this specification. If the toilet has dual-flush capabilities, the current specification requires it to conform to requirements in ASME A112.19.14 *Six-Liter Water Closets Equipped with a Dual Flushing Device*.

There is an ongoing effort by the ASME/CSA Technical Committee for Plumbing Fixtures to incorporate the applicable requirements of ASME A112.19.14 into ASME A112.19.2/CSA B45.1. These changes are anticipated to be published in the 2024 edition of the ASME A112.19.2/CSA B45.1 standard. Therefore, within a revised specification, EPA no longer intends to explicitly reference ASME A112.19.14.

Aside from the removal of explicit reference to ASME A112.19.14, EPA intends to keep the General Requirements section of the specification the same.

IV. Water Efficiency Criteria

The current water efficiency criteria requirements in the *WaterSense Specification for Tank-Type Toilets* are as follows:

For single-flush toilets, the effective flush volume shall not exceed 1.28 gallons (4.8 liters) when evaluated in accordance with the sampling plan contained in 10 CFR 429.30. For single-flush toilets, the effective flush volume is the average flush volume when tested in accordance with ASME A112.19.2/CSA B45.1.

For dual-flush toilets, the effective flush volume shall not exceed 1.28 gallons (4.8 liters) when evaluated in accordance with the sampling plan contained in 10 CFR 429.30. For dual-flush toilets, the effective flush volume is the average flush volume of two reduced flushes and one full flush. Flush volumes shall be tested in accordance with ASME A112.19.2/CSA B45.1 and ASME A112.19.14.

EPA also establishes criteria to limit the adjustability of the flush volume. Samples with an average flush volume in excess of 0.1 gallon (0.4 liter) greater than their rated flush volume are deemed to fail testing requirements due to excessive flush volume. Samples with average flush volumes less than or equal to 0.1 gallon (0.4 liter) greater than their rated flush volume are adjusted, if possible, to their rated flush volume prior to performance testing. Samples with average flush volumes less than their rated flush volume are tested at measured volume, and this volume are recorded on the test report.

The number and percentage of WaterSense labeled tank-type toilets by effective flush volume in gallons per flush (gpf) are presented in Table 1 below.

Table 1. Number and Percentage of WaterSense Labeled Tank-Type Toilets¹

Effective Flush Volume	≤1.28 and >1.1 gpf	≤1.1 gpf and >1.0 gpf	≤1.0 gpf	Total	Percentage of Total
Single-Flush Models	2,752	49	455	3,256	62.4%
Dual-Flush Models	1,051	573	335	1,959	37.6%
Total	3,803	622	790	5,215	
Percentage of Total	72.9%	11.9%	15.2%		

Modification of Dual-Flush Toilet Flush Volume Requirements

Dual-flush toilets are designed with two flushing modes: a “reduced flush” mode that uses a smaller volume of water to remove liquid wastes; and a “full flush” mode for removing solid wastes. Many dual-flush tank-type toilets are operated by two-button systems, though some models use bidirectional handles or levers where the user pushes the handle in one direction (i.e., up or down, forward or back) for the reduced flush and in the opposite direction for the full flush. The specific flush volumes of the two flush modes vary by make and model and range from 0.5 to 1.1 gpf (1.9 to 4.2 liters per flush [lpf]) in the reduced flush mode and up to 1.6 gpf (6.1 lpf) for the full flush mode.²

Within the current specification, the effective flush volume of dual-flush toilets is established by averaging the flush volumes of two reduced flushes and one full flush. Therefore, dual-flush toilets may have full-flush volumes of up to 1.6 gpf (commensurate with a toilet meeting the federal standard established by the Energy Policy Act of 1992) and still meet the effective flush volume requirement of the specification.

¹ Data collected from the WaterSense Product Listing as of March 24, 2023.
www.epa.gov/watersense/product-search.

² *Ibid.*

The number and percentage of WaterSense labeled dual-flush tank-type toilets by full-flush volume in gpf are presented in Table 2 below.

Table 2. Number and Percentage of WaterSense Labeled Dual-Flush Tank-Type Toilets³

Full-Flush Volume	≤1.6 and >1.3 gpf	≤1.3 gpf and >1.1 gpf	≤1.1 gpf	Total
Dual-Flush Models	1,453	419	87	1,959
Percentage of Total	74.2%	21.4%	4.4%	

From the initial development of the *WaterSense Specification for Tank-Type Toilets* and more recently in comments received on the *Notice of Specification Review*, EPA has received feedback from some stakeholders indicating that dual-flush toilets with a full flush of 1.6 gpf may not realize the 20 percent water savings when employed in real-world applications due to user confusion, user preference, or other factors. In effect, users may be using the full-flush mode of a dual-flush toilet more regularly than once every three flushes. Therefore, states and municipalities establishing criteria to require WaterSense labeled toilets or utilities offering rebates on WaterSense labeled toilets may not be realizing the full 20 percent water savings.

In 2012, the U.S. Department of Energy (DOE) considered allowing manufacturers to calculate the average representative water use (i.e., the effective flush volume) using the composite average of two reduced flushes and one full flush. Ultimately, the DOE determined that there was not sufficient evidence to base a test procedure for the average representative water use for dual-flush water closets because the ratio required further evaluation to confirm its representativeness.⁴ Because DOE decided not to adopt such a test procedure, manufacturers, distributors, retailers, and private labelers are not permitted to make any representations of water use that reflects an average of the full- and reduced-flush modes for dual-flush water closets. Essentially, DOE is prohibiting the use of an effective flush volume to market dual-flush water closets.

In addition, several green building standards and other specifications have begun to abandon the 2:1 flush volume ratio used to calculate the effective flush volume. Beginning with its 2017 version, ASHRAE 189.1 *Standard for the Design of High-Performance Green Buildings*, for example, establishes a maximum flush volume of 1.28 gpf for the full flush of both tank-type and flushometer-valve dual-flush toilets. The International Green Construction Code (IgCC) adopted the same requirements as of the 2018 version. MaP PREMIUM, an independent, voluntary testing program that evaluates performance of toilets beyond the WaterSense criteria, sets a 1:1 ratio for the effective flush calculation and requires the volume of the full-flush mode to be 1.28 gpf or less. As of 2019, the City of Vancouver, British Columbia, requires all dual-flush toilets

³ *Ibid.*

⁴ U.S. Department of Energy. Energy Conservation Program for Consumer Products and Certain Commercial and Industrial Equipment: Test Procedures for Showerheads, Faucets, Water Closets, Urinals, and Commercial Prerinse Spray Valves. Docket No. EERE-2011-BT-TP-0061. *Federal Register*, Volume 78, No. 205. October 23, 2013. www.regulations.gov/document/EERE-2011-BT-TP-0061-0039

sold to achieve a maximum flush volume of 1.28 gpf, regardless of whether the toilet has dual-flush capabilities.

EPA compiled the following studies evaluating dual-flush tank-type toilets in Table 3. As shown, dual-flush toilets are rarely shown to achieve the 2:1 ratio that is assumed when calculating the effective flush volume.

Table 3. Existing Dual-Flush Tank-Type Toilet Studies

Report	Authors	Reduced : Full Ratio
Seattle Home Water Conservation Study (2000)	Peter Mayer et al. (Aquacraft, Inc.)	0.77:1
Canada Mortgage and Housing Corporation Dual-Flush Toilet Project (2002)	Veritec Consulting	1.6:1 (single-family) 1.1:1 (office male) 2.7:1 (office female) 1.7:1 (office overall) 1.3:1 (coffee shop)
Residential Ultra-Low-Flush Toilet Replacement Program (2003)	Paula Mohadjer, Jordan Valley Water Conservation District	1.48:1
Resident Indoor Water Conservation Study: Evaluation of High Efficiency Indoor Plumbing Fixture Retrofits in Single-Family Homes in the East Bay Municipal Utility District Service Area (2003)	Peter Mayer et al. (Aquacraft, Inc.)	0.48:1
Yarra Valley Water Residential End Use Measurement Study (2004)	Peter Roberts (Yarra Valley Water)	0.75:1
South East Queensland Residential End Use Study: Final Report (2011)	Cara Beal and Rodney A. Stewart (Urban Water Security Research Alliance)	1.16:1 (Gold Coast) 1.16:1 (Brisbane) 1.72:1 (Ipswich) 1.37:1 (Sunshine Coast)
Melbourne Residential Water Use Studies (2013)	Kein Gan and Michael Redhead	1.50:1 (Summer) 1.08:1 (Winter)

In the United Kingdom, where dual flush toilets are prevalent, several studies have attempted to assess whether users are confused about how to activate the reduced-flush mode compared to the full-flush mode, which is a commonly cited reason that dual-flush toilets may not achieve their intended water savings. Thames Water conducted a study that indicated more than 75 percent of people identified the incorrect flush mode.⁵ SES Water found that only 28 percent of the 1,200 customers surveyed said they knew which button on their own toilet produced a

⁵ Thames Water. "Big flush or little flush?" November 19, 2019. www.thameswater.co.uk/about-us/newsroom/latest-news/2019/nov/big-flush-or-little-flush

reduced flush.⁶ A study on dual-flush button designs conducted by the Water Regulations Approval Scheme (WRAS) found that out of 2,000 people surveyed and asked to identify the button for a reduced flush:

- No dual-flush button designs out of 18 dual-flush button designs tested achieved 100 percent recognition.
- The most recognized dual-flush button designs only achieved 92 percent recognition.
- One dual-flush button design only had 19.5 percent recognition.⁷

In summary, even well-intentioned individuals may not be using the correct flush mode when using a dual-flush toilet, thereby potentially negating water savings.

As a result of stakeholder feedback, an evaluation of user behavior pattern studies, and shifting efficiency requirements for dual-flush toilets, EPA has decided to reevaluate the effective flush volume calculation and maximum flush volume requirements for dual-flush toilets to earn the WaterSense label. EPA is considering establishing a singular maximum flush volume requirement (i.e., a maximum flush of 1.28 gpf, or a lower flush volume as determined during the specification revision process) for both single-flush toilets and the full-flush of dual-flush toilets, which would provide assurance of water savings irrespective of user behavior. This alleviates an arbitrary flush ratio that relies on user behavior to achieve water savings. It would also align tank-type dual-flush toilet requirements with those of the [WaterSense Specification for Flushometer-Valve Water Closets](#), which does not distinguish the maximum flush volume between single- and dual-flush models. **EPA is seeking feedback on its intention to eliminate the effective flush calculation and establish a maximum flush volume criteria for both single-flush toilets and the full-flush mode of dual-flush toilets.**

EPA is also aware of concerns with leaks from dual-flush toilets in the United Kingdom. Thames Water reported that water loss from leaks and continuously flowing toilets is exceeding the amount of water the dual-flush toilet design should be saving. The Bathroom Manufacturers Association, a United Kingdom-based trade group, acknowledged that drop valve systems, frequently used within dual-flush toilets, are more prone to leakage.⁸ **EPA requests feedback on whether there are design and/or leakage concerns specific to dual-flush toilets in the United States, similar to those reported in the United Kingdom.**

Within the *WaterSense Specification for Flushometer-Valve Water Closets*, EPA references the test protocol within ASME A112.19.2 for evaluating the flush volume for single-flush toilets, as well as the full- and reduced-flush modes of dual-flush toilets. Consistent with EPA's intended changes to remove the reference to ASME A112.19.14 discussed in Section III: General Requirements, EPA intends to similarly no longer reference ASME A112.19.14 for the test protocol to evaluate the reduced-flush mode flush volume. This change will not impact the testing procedures used for dual-flush toilets, since ASME A112.19.14 already references the ASME A112.19.2/CSA B45.1 procedure when evaluating the volume of the reduced-flush mode. Further, as discussed previously, the requirements of ASME A112.19.14 are in the process of

⁶ Waterwise. "Why plumbers should be key partners in raising awareness of dual flush buttons" www.waterwise.org.uk/2022/11/16/why-plumbers-should-be-key-partners-in-raising-awareness-of-dualbrflush-buttons/

⁷ *Ibid.*

⁸ *The Guardian*. Dual-flush toilets "wasting more water than they save." September 29, 2020. www.theguardian.com/environment/2020/sep/29/dual-flush-toilets-wasting-more-water-than-they-save

being incorporated into ASME A112.19.2/CSA B45.1. **EPA requests feedback on its intent to remove the reference to ASME A112.19.14 within the water efficiency section of its specification and otherwise align the requirements of the specification, to the extent practicable, with the *WaterSense Specification for Flushometer-Valve Water Closets*.**

Flush Volume for Labeled Toilets

There are currently many models of tank-type toilets that operate at an effective flush volume of less than 1.28 gpf. At least 12 states and Washington D.C. (representing approximately 43 percent of the U.S. population),⁹ as well as multiple other municipalities, have implemented regulations requiring tank-type toilets operate at an effective flush volume of 1.28 gpf or less, consistent with the WaterSense specification.¹⁰ Because 1.28 gpf toilets are required in multiple states, many utility conservation programs now only rebate toilets operating at a lower flush volume. For example, there are multiple utility conservation programs (e.g., Metropolitan Water District of Southern California, the Saving Water Partnership, Metropolitan North Georgia Water Planning District) that rebate or otherwise incentivize toilets operating at 1.1 gpf or less, which would represent a 14 percent water savings compared to the current 1.28 gpf threshold. Similarly, MaP PREMIUM, which multiple WaterSense utility partners depend on to guide their rebate programs, requires an effective flush volume of 1.1 gpf or less.¹¹ Further, at least one municipality (West Hollywood, California) mandates that new toilets have an effective flush volume of 1.1 gpf or less.

While many jurisdictions now require 1.28 gpf toilets, there are a limited number that mandate toilets to flush below 1.28 gpf. Therefore, the market has not shifted below the WaterSense water efficiency threshold, as EPA has observed with other plumbing products (e.g., lavatory faucets, showerheads). As shown in Table 1 and Table 2, approximately 15 percent of WaterSense labeled single-flush tank-type toilet models and approximately 4 percent of dual-flush tank-type toilet models have a maximum flush volume of 1.1 gpf or less.

EPA acknowledges the success of high-efficiency toilets operating at 1.28 gpf or less in the marketplace; however, there remains significant water savings potential from replacing existing models of toilets, particularly those flushing at greater than 1.6 gpf. A 2019 study by GMP Research on behalf of Plumbing Manufacturers International (PMI) found that only 16.8 percent of tank-type toilets installed throughout the United States were WaterSense labeled.¹² A subsequent study by GMP Research on behalf of PMI focused on California found only 23 percent operated at 1.28 gpf or less.¹³ Toilets have a relatively long useful life, sometimes exceeding 30 years, so full replacement of existing toilets can take time. Further, as a result of feedback obtained from stakeholders during EPA's WaterSense specification review, many raised concerns regarding whether higher-efficiency toilets, such as those operating a 1.0 gpf or

⁹ Based on 2020 Population and Housing State Data from the U.S. Census Bureau.

www.census.gov/library/visualizations/interactive/2020-population-and-housing-state-data.html

¹⁰ Appliance Standards Awareness Project. States. <https://appliance-standards.org/states>. Accessed May 25, 2023.

¹¹ MaP Testing. "MaP PREMIUM." <https://map-testing.com/map-premium/>. Accessed May 25, 2023

¹² GMP Research Inc, 2019. 2019 U.S. WaterSense Market Penetration.

www.safeplumbing.org/files/safeplumbing.org/documents/misc/7-1-19-WaterSense-2019-Report.pdf

¹³ Obtained from public comments submitted by PMI on the California Energy Commission's rulemaking for Appliance Efficiency Regulations for Water Closets, Docket Number 22-AAER-05.

<https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=22-AAER-05>

less, could offer the same level of performance and maintain the efficacy of the sewer drainline system in residential and commercial buildings.

EPA is again interested in feedback on whether it should consider reducing the maximum allowable effective flush volume criteria to improve water efficiency beyond the current WaterSense specification and potentially further transform the market. If so, what threshold should EPA consider? To the extent possible, EPA requests supporting data to inform that decision.

V. Performance and Product Testing

Table 4 summarizes the performance requirements included in the *WaterSense Specification for Tank-Type Toilets*, either directly or by reference to the applicable national standard, ASME A112.19.2/CSA B45.1. Table 4 also describes the purpose of each performance requirement.

Table 4. Specification Performance Requirements

Performance Requirement	Purpose
Granule and Ball	Assesses a toilet’s ability to flush media of different sizes and density (i.e., floating versus sinking media).
Surface Wash	Evaluates a toilet’s ability to clean the surface of the bowl.
Drainline Transport Characterization	Assesses a toilet’s ability to transport waste media through a drainline.
Overflow	Ensures toilet tank does not leak or permit water to otherwise escape.
Waste Extraction	Determines a toilet’s ability to clear soybean paste test media (meant to be representative of human waste) and toilet paper from the bowl.
Adjustability Tests	Limits the allowed adjustability of features in the toilet tank that might increase the flush volume.

The test that primarily addresses toilet performance that is included in the specification is the waste extraction test. The waste extraction test requires a toilet to fully flush 350 grams of miso paste, a test media having similar physical properties to human waste, along with four loosely crumpled balls of toilet paper. Toilets are required to clear the test media on at least four out of five attempts.

EPA does not intend to revise the specification’s performance criteria; however, it is seeking feedback on whether there are necessary or recommended modifications to the performance criteria and requirements that would result in improved performance of WaterSense labeled tank-type toilets.

VI. Marking and Product Documentation

Within the current WaterSense specification, toilet fixtures shall be marked in accordance with requirements in ASME A112.19.2/CSA B45.1 with the exception identified in the following statement: Toilet bowls intended to be used with tanks of varying consumption levels (e.g., 1.6

and 1.28 gpf) can be marked with a dual consumption marking or a consumption range, as indicated in ASME A112.19.2/CSA B45.1; however, toilet bowls shall not be marked with the words “or less” to indicate compatibility with tanks of varying consumption levels.

As of the 2018 publication of ASME A112.19.2/CSA B45.1, the use of “or less” is no longer permitted in toilet bowl markings. Therefore, EPA intends to remove the clarifying language from its specification.

Within the current WaterSense specification, toilet tanks shall not be packaged, marked, nor provided with instructions directing the user to an alternative water use setting that would override the rated flush volume, as established by this specification. Any instruction related to the maintenance of the product shall direct the user how to return the product to its rated flush volume.

Aside from the removal of the clarifying language prohibiting the use of “or less,” EPA intends to keep the Product Marking section of the specification the same.

VII. Appendix A: Requirements for WaterSense Labeling

Periodically, EPA issues [technical clarifications](#) to a product specification intended to clarify unclear or vague requirements based upon frequent questions or input received from manufacturers or licensed certifying bodies. As outlined in the *WaterSense Product Certification System*, manufacturers and licensed certifying bodies must adhere to these clarifications, as applicable, when certifying products to meet WaterSense specifications.

EPA intends to modify the *WaterSense Specification for Tank-Type Toilets* to incorporate three clarifications that EPA has made since the publication of Version 1.2 of the specification. EPA intends to incorporate the following clarifications into Appendix A, Section 3 of the *WaterSense Specification for Tank-Type Toilets*:

- *TT-1216-1: Certification of Tank-Type Toilets With Components Made by Different Manufacturers.* As part of this clarification, EPA is only requiring one of the component manufacturers (of the tank or the bowl) to submit a toilet combination for testing and certification and maintaining the affiliated certification listing. The manufacturer that maintains a certification listing will be authorized to use the WaterSense label in association with its component product as described in the *WaterSense Program Mark Guidelines* and further clarified in Appendix A, Section 3.3 of the *WaterSense Specification for Tank-Type Toilets*, and the combination in the WaterSense Product Search Tool will also only be searchable under the brand name of the manufacturer that maintains the certification listing.
- *TT-0617-1: Marking and Labeling Requirements for Tank-Type Toilets With Components Made by Different Manufacturers.* As part of this clarification, EPA only allows the manufacturer partner that maintains the toilet tank and bowl combination’s certification listing to use the WaterSense label on product packaging and product specification sheets. The manufacturer that maintains the listing must indicate on product specification sheets or other product documentation the specific brand names, model names, and model numbers, as applicable, of the counterpart products (i.e., the bowl or tank) that the product can be used with to form a WaterSense labeled tank-type toilet.

The manufacturer of the component that is included in the combination, but that does not maintain the certification listing, is not permitted to use the WaterSense label and does not need to meet the product packaging marking and labeling criteria specified in Appendix A, Section 3.3 of the *WaterSense Specification for Tank-Type Toilets*.

- *TT-0617-2: Bowl Packaging Requirements for Tank-Type Toilets Made by Different Manufacturers.* Toilet bowls can be matched with many different toilet tanks from various manufacturers to form a WaterSense labeled combination. EPA has clarified that bowl manufacturers that have chosen to certify a tank-type toilet combination with components from different manufacturers are not required to list all the specific brand names, model names, and model numbers that are compatible to form a WaterSense labeled toilet. Product specification sheets or other product documentation for the toilet bowl must still indicate all of the specific brand names, model names, and model numbers, as applicable, of the counterpart tank that the product can be used with to form a WaterSense labeled tank-type toilet.

EPA is seeking feedback on the intended inclusion of these clarifications into Appendix A of the specification.

VIII. Transition Timing

The current certification status of some toilet models may be affected by EPA's intended revision; therefore, decertification or recertification may be required. EPA intends to provide an appropriate transition time prior to the applicable effective date of any specification revision. Upon release of the draft specification, EPA will discuss with industry which products the transition process will apply to and the associated transition period such that, at the time the final specification is released, EPA has established clear requirements for WaterSense manufacturer partners and licensed certifying bodies regarding product certification and labeling during the transition period between specification versions. If the changes to specification criteria under Version 2 do not affect a certain subset of products (e.g., single-flush toilets), EPA does not intend to require retesting or recertification of those products.

As part of the transition period, EPA anticipates the following activities being required from licensed certifying bodies and WaterSense partners, including manufacturers, private labelers, retailers, and distributors. Based on the criteria of the Version 2 specification, licensed certifying bodies will need to review their certification listings to determine which products must be removed or retested. Prior to or upon the effective date of the Version 2 specification, licensed certifying bodies will need to submit updated Product Notification Templates communicating the resulting list of labeled models for upload into the WaterSense Product Search Tool. Manufacturer partners and private labelers will be responsible for updating product packaging, documentation (e.g., specification sheets), marketing material, web pages, and online materials to remove the WaterSense label from any models that are no longer certified.

EPA is considering establishing a transition period of six to 12 months before Version 2 of the specification will become effective. This timeline is in alignment with other EPA and U.S. Department of Energy product certification programs and would permit the sale of current inventories of labeled models. EPA does not intend to require manufacturers to destroy existing products, product packaging, or other printed materials that bear the WaterSense label and will

consider a pause on brand monitoring activities during and immediately following the transition period.

EPA requests feedback on an appropriate transition period before Version 2 of the specification takes effect. What factors should EPA consider in setting an appropriate transition time? What, if any, transition guidance should EPA develop for retailers and distributors?

IX. Summary of Information Requests

Water Efficiency

- EPA is seeking feedback on its intention to eliminate the 2:1 effective flush calculation and establish a maximum flush volume criteria for both single-flush toilets and the full-flush mode of dual-flush toilets.
- EPA is requesting feedback on whether leakage concerns such as those identified in the United Kingdom exist for dual flush toilets in the United States.
- EPA is requesting feedback on its intent to remove the reference to ASME A112.19.14 within the water efficiency section of its specification and otherwise align the requirements of the specification, to the extent practicable, with the *WaterSense Specification for Flushometer-Valve Water Closets*.
- EPA is seeking feedback on whether to reduce the maximum allowable effective flush volume criteria below 1.28 gpf to improve water efficiency beyond the current WaterSense specification criteria and further transform the market. If so, EPA is seeking feedback on what flush volume threshold it should consider.

Performance Criteria

- EPA is seeking feedback on whether there are necessary or recommended modifications to the performance criteria in the specification and requirements that would result in improved performance of WaterSense labeled tank-type toilets.

Appendix A: Requirements for WaterSense Labeling

- EPA is seeking feedback on the intended inclusion of three existing clarifications related to the certification, marking, labeling, and packaging of toilet components made by different manufacturers within Appendix A of the specification.

Transition Timing

- EPA requests feedback on an appropriate transition period before Version 2 of the specification takes effect. What factors should EPA consider in setting an appropriate transition time? What, if any, transition guidance should EPA develop for retailers and distributors?

X. Schedule and Next Steps

EPA is requesting input, supporting information, and data from all interested parties on topics discussed in this NOI and otherwise related to the *WaterSense Specification for Tank-Type Toilets*. Interested parties can provide input to WaterSense regarding any of the issues presented in this notice by submitting written comments to watersense-products@erg.com. The deadline to submit comments is August 14, 2023. Comments and information on the issues

presented in this NOI are welcome and will be taken into consideration as EPA revises the WaterSense tank-type toilet specification.

EPA will hold a public meeting to discuss the information presented in this NOI.