[6450-01-P]

DEPARTMENT OF ENERGY

10 CFR Part 430

EERE-2017-BT-STD-0014

RIN 1904-AD98

Energy Conservation Program: Energy Conservation Standards for Residential Clothes Washers

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Notification of data availability ("NODA").

SUMMARY: On September 1, 2021, the U.S. Department of Energy ("DOE") published a notice of proposed rulemaking regarding test procedures for residential clothes washers ("RCWs"), which will be used as the basis for evaluating, issuing, and determining compliance with updated energy conservation standards, should such standards be established. On September 29, 2021, DOE published a preliminary analysis of energy conservation standards for RCWs, which presented preliminary translations between the energy and water efficiency metrics as measured by the current test procedure and new energy and water efficiency metrics as measured by the proposed test procedure. In this NODA, DOE is publishing the results of additional testing conducted in furtherance of the development of the translations between the current test procedure and the proposed new test procedure. DOE requests comments, data, and information regarding the data.

DATES: DOE will accept comments, data, and information regarding this NODA no later than [**INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER***].

ADDRESSES: Interested persons are encouraged to submit comments using the Federal eRulemaking Portal at *www.regulations.gov,* under docket number EERE–2017–BT–STD–0014. Follow the instructions for submitting comments. Alternatively, comments may be submitted by email to: *ConsumerClothesWasher2017STD0014@ee.doe.gov*. Include docket number EERE–2017–BT–STD–0014 in the subject line of the message. Submit electronic comments in WordPerfect, Microsoft Word, PDF, or ASCII file format, and avoid the use of special characters or any form of encryption.

Although DOE has routinely accepted public comment submissions through a variety of mechanisms, including the Federal eRulemaking Portal, email, postal mail and hand delivery/courier, the Department has found it necessary to make temporary modifications to the comment submission process in light of the ongoing coronavirus 2019 ("COVID-19") pandemic. DOE is currently suspending receipt of public comments via postal mail and hand delivery/courier. If a commenter finds that this change poses an undue hardship, please contact Appliance Standards Program staff at (202) 586-1445 to discuss the need for alternative arrangements. Once the COVID-19 pandemic health emergency is resolved, DOE anticipates resuming all of its regular options for public comment submission, including postal mail and hand delivery/courier.

No telefacsimiles ("faxes") will be accepted. For detailed instructions on submitting comments and additional information on this process, see section III of this document.

Docket: The docket for this activity, which includes *Federal Register* notices, comments, and other supporting documents/materials, is available for review at *www.regulations.gov*. All documents in the docket are listed in the *www.regulations.gov* index. However, not all documents listed in the index may be publicly available, such as information that is exempt from public disclosure.

The docket web page can be found at *www.regulations.gov/docket/EERE-2017-BT-STD-0014*. The docket web page contains instructions on how to access all documents, including public comments, in the docket. See section III of this document for information on how to submit comments through *www.regulations.gov*.

FOR FURTHER INFORMATION CONTACT:

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For further information on how to submit a comment, review other public comments and the docket, or participate in the public meeting, contact the Appliance and Equipment Standards Program staff at (202) 287-1445 or by email: *ApplianceStandardsQuestions@ee.doe.gov*.

SUPPLEMENTARY INFORMATION:

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I. Background

The Energy Policy and Conservation Act, as amended ("EPCA"),[1] authorizes DOE to regulate the energy efficiency of a number of consumer products and certain industrial equipment. (42 U.S.C. 6291–6317) Title III, Part B[2] of EPCA established the Energy Conservation Program for Consumer Products Other Than Automobiles. These

[1] All references to EPCA in this document refer to the statute as amended through the Infrastructure Investment and Jobs Act, Pub. L. 117-58 (Nov. 15, 2021).
[2] For editorial reasons, upon codification in the U.S. Code, Part B was redesignated Part A.

products include consumer (residential) clothes washers,[3] the subject of this document. (42 U.S.C. 6292(a)(7))

The currently applicable energy conservation standards for RCWs are established in terms of a minimum allowable integrated modified energy factor ("IMEF"), measured in cubic feet per kilowatt-hour per cycle ("ft^3/kWh/cycle"), and maximum allowable integrated water factor ("IWF"), measured in gallons per cycle per cubic foot ("gal/cycle/ft^3"). Title 10 Code of Federal Regulations ("CFR") 430.32(g)(4). DOE currently defines four classes of RCWs: top-loading, compact (less than 1.6 cubic feet ("ft^3") capacity); top-loading, standard (1.6 ft^3 or greater capacity); front-loading, compact (less than 1.6 ft^3 capacity); and front-loading, standard (1.6 ft^3 or greater capacity). *Id*.

Representations of energy or water consumption of RCWs, including demonstrating compliance with the currently applicable energy conservation standards, must be based on results generated using the test procedure for RCWs at 10 CFR part 430, subpart B, appendix J2 ("appendix J2"). *See* Note to appendix J2.

On September 1, 2021, DOE published a test procedure notice of proposed rulemaking ("NOPR"; "September 2021 NOPR") proposing to establish a new test procedure at 10 CFR part 430, subpart B, appendix J ("appendix J"), which would establish new energy efficiency metrics: an energy efficiency ratio ("EER") and a water

[3] DOE uses the "residential" nomenclature and "RCW" abbreviation for consumer clothes washers in order to distinguish from the "CCW" abbreviation used for commercial clothes washers, which are also regulated equipment under EPCA.

efficiency ratio ("WER"). 86 FR 49140. As proposed, EER would be defined as the weighted-average load size in pounds ("lbs") divided by the sum of (1) the per-cycle machine energy, (2) the per-cycle water heating energy, (3) the per-cycle drying energy, and (4) the per-cycle standby and off mode energy consumption, in kWh. *Id*. at 86 FR 49172. As proposed, WER would be defined as the weighted-average load size in lbs divided by the total weighted per-cycle water consumption for all wash cycles, in gallons. *Id*. at 86 FR 49173. For both EER and WER, a higher value would indicate more efficient performance. *Id.*

On September 29, 2021, DOE published a preliminary analysis of energy conservation standards for RCWs ("September 2021 Preliminary Analysis"). 80 FR 53886. In the September 2021 Preliminary Analysis, DOE evaluated the per-cycle energy and water consumption values and resulting EER and WER metrics as determined using the version of appendix J proposed in the September 2021 NOPR. *Id*. at 80 FR 53889. DOE presented the evaluated potential efficiency levels using the efficiency metrics under both the currently applicable appendix J2 test procedure and the then-proposed appendix J test procedure in order to assist interested parties in understanding how the analysis based on the proposed appendix J metrics compares to performance as measured under the appendix J2 test procedure (*i.e.,* how the potential efficiency levels based on EER and WER metrics align with the existing IMEF and IWF metrics). *Id*.

In support of the September 2021 Preliminary Analysis, DOE tested a sample of RCWs under both appendix J2 and appendix J as proposed in the September 2021 NOPR. In chapter 5 of the preliminary technical support document ("TSD") accompanying the

September 2021 Preliminary Analysis, DOE first defined preliminary efficiency levels to be used as the basis for the analysis in terms of the existing modified energy factor ("MEF") and IWF metrics. DOE also published preliminary translation formulas for converting IMEF values into EER values, and for converting IWF values into WER values, for each product class.[4] As described in chapter 5 of the preliminary TSD, DOE supplemented its tested data set with "predicted" EER and WER values based on results from how a clothes washer performed under appendix J2 testing and on the clothes washer's physical and operational characteristics. DOE also published an explanation of how the predictive tool was developed, including a table listing the impacts to each underlying variable that were assumed as part of the predictive analysis. *See* section 5.3.3.2 of the preliminary TSD. DOE explained that it planned to continue testing additional units to appendix J to increase the number of tested, rather than predicted, EER and WER values in future stages of the rulemaking. *Id.*

II. Discussion

DOE has tested additional RCW models to both appendix J2 and proposed appendix J in order to provide additional data points for the translation equations and to eliminate the need to rely on "predicted" EER and WER values in the translation analysis. In a separate spreadsheet accompanying this NODA and available in the rulemaking docket, DOE publishes the test results for each RCW model and updated

[4] The TSD (corrected) is available at: *www.regulations.gov/document/EERE-2017-BT-STD-0014-0030*.

translation equations that include these additional data points as well as the data points from units tested for the September 2021 Preliminary Analysis.

DOE received comments in response to the September 2021 NOPR suggesting that DOE use a value of 2 percent rather than 4 percent as the final moisture content ("FMC") assumption in the calculation of drying energy. (Joint Efficiency Advocates, Docket No. EERE-2016-BT-TP-0011, No. 28 at pp. 5–6; CA IOUs, Docket No. EERE-2016-BT-TP-0011, No. 29 at pp. 8–9)[5] DOE is still reviewing and considering these comments and all other comments received in response to the September 2021 NOPR. Because this issue in particular would directly affect the translation equations between appendix J2 and proposed appendix J, in the spreadsheet accompanying this NODA, DOE has published two sets of translations corresponding to an FMC of 4 percent and 2 percent, respectively.[6]

DOE is also publishing a table of key characteristics associated with each tested model, including the following:

- Product class;[7]
- For top-loading clothes washers: agitator or wash plate;
- Portable models identified;

[5] See the docket for DOE's rulemaking to develop test procedures for RCWs and CCWs. (Docket No. EERE-2016-BT-TP-0011, which is maintained at *www.regulations.gov*). These references are arranged as follows: (commenter name, comment docket ID number, page of that document).

[6] These two sets of data are presented in separate tabs of the accompanying spreadsheet which can be found at *www.regulations.gov/document/EERE-2017-BT-STD-0014-0044*

[7] Product class corresponds to the product class as analyzed in the September 2021 Preliminary Analysis, as discussed further in this section.

- Combination washer-dryer models identified;
- Type of water fill control system ("WFCS");
- Cabinet width;
- Presence or absence of internal water heater;
- Clothes container capacity; and
- Test cloth lot used for each test.

These test data are available in the docket for this proposed rulemaking at *www.regulations.gov/document/EERE-2017-BT-STD-0014-0044*.

DOE notes that it is also still reviewing and considering comments received in response to the September 2021 Preliminary Analysis, particularly with regard to the definition of product classes. The data presented in the NODA correspond largely to the preliminary product classes identified in the September 2021 Preliminary Analysis, with additional considerations as discussed further in this NODA. DOE does not intend to convey any determinations regarding product class definitions through this NODA.

A. Characteristics Impacting the Translation Equations

Based on the analysis presented in the accompanying spreadsheet, DOE has tentatively determined that remaining moisture content ("RMC") and WFCS type have a significant impact on the translation equations. DOE performed an in-depth analysis of both of these topics, as detailed in the following sections.

1. Remaining Moisture Content

The RMC is a measure of the amount of water remaining in the clothing load after completion of the clothes washer cycle. The RMC value is used to calculate the total per-cycle energy consumption for removal of moisture from the clothes washer test load in a clothes dryer to an assumed final moisture content, *i.e.*, the "drying energy," which is one of the factors contained within both the IMEF and EER metrics. Lower values of RMC result in less drying energy and thus represent more-efficient performance.

Section 3.8.2 of appendix J2 requires that the RMC be calculated based on a test run with the maximum load size on the Cold Wash/Cold Rinse ("Cold/Cold") temperature selection. Section 3.8.4 of appendix J2 requires that for clothes washers that have multiple spin settings[8] available within the energy test cycle that result in different RMC values, the maximum and minimum extremes of the available spin settings must be tested with the maximum load size on the Cold/Cold temperature selection.[9] In this case, the final RMC is the weighted average of the maximum and minimum spin settings, with the maximum spin setting weighted at 75 percent and the minimum spin setting weighted at 25 percent.

Appendix J as proposed in the September 2021 NOPR would require measuring RMC on each of the energy test cycles (*i.e.*, each load size and each wash/rinse temperature combination included for testing) using the default spin settings, which may

[8] The term "spin settings" refers to spin times or spin speeds. The maximum spin setting results in a lower (better) RMC.

[9] On clothes washers that provide a Warm Rinse option, appendix J2 requires that RMC be measured on both Cold Rinse and Warm Rinse, with the final RMC calculated as a weighted average using temperature use factors ("TUFs") of 73 percent for Cold Rinse and 27 percent for Warm Rinse. DOE has observed very few RCW models on the market that offer Warm Rinse. For simplicity throughout this discussion, DOE references the testing requirements for clothes washers that offer Cold Rinse only.

not necessarily be the maximum spin setting. In section 4.3 of proposed appendix J, the final RMC is calculated by weighting the individual RMC measurements using the same temperature and load size weighting factors that apply to the water and energy measurements.

Multiple factors can affect the RMC of a particular cycle, including the spin speed and the duration of the spin portion of the wash cycle. The size of the load can also affect RMC—generally, larger load sizes result in lower (better) RMC values, whereas smaller load sizes result in higher (worse) RMC values. These factors result in different measured RMC values for appendix J as proposed and appendix J2, specifically because under proposed appendix J, RMC would be measured across a wider range of cycles (compared to only the Cold/Cold cycle in appendix J2) and because the appendix J load sizes as proposed would be smaller than the appendix J2 maximum load size (on which the appendix J2 RMC measurement is based).

In addition to these factors, differences in the test cloth "lot" used for testing can further affect the measured RMC value. DOE preliminarily concluded in the September 2021 NOPR that although the application of correction factors for each test cloth lot significantly reduces the lot-to-lot variation in RMC (from over 10 percentage points uncorrected), the current methodology may be limited to reducing lot-to-lot variation in corrected RMC to around 3 RMC percentage points. 86 FR 49140, 49190. DOE has identified the test cloth lot number associated with each test in the spreadsheet accompanying this NODA.

In the interest of improving the translation equations as presented in the September 2021 Preliminary Analysis, DOE has conducted an in-depth analysis of the differences in RMC between the appendix J2 and proposed appendix J test procedures. For each unit that DOE tested, DOE examined the cycle-by-cycle test results to determine the key driver behind the difference in RMC when testing to proposed appendix J as compared to appendix J2. Based on this analysis, DOE has identified three categories of spin implementations that result in differences between the proposed appendix J RMC value and the appendix J2 RMC value, described as follows.[10]

- The first type, referred to as "consistent spin" throughout the remainder of this NODA, is illustrative of units in which the characteristics of the spin cycle (*e.g.*, spin speed, spin time) are consistent across temperature selections. On these units, RMC values measured on Warm/Cold, Hot/Cold, and Extra Hot/Cold cycles are substantially similar to the RMC value measured on the Cold/Cold cycle.

- The second type, referred to as "Cold/Cold optimized spin" throughout the remainder of this NODA, is illustrative of units in which the spin cycle is optimized on the Cold/Cold setting with maximum load size, corresponding to the one cycle combination for which RMC is measured under appendix J2. On these units, the spin portion of the cycle is significantly faster or longer on the Cold/Cold setting with a maximum

[10] The accompanying spreadsheet specifies the spin implementation type identified by DOE for each unit in the test sample.

load size than for the other temperature settings or load sizes that are tested as part of the energy test cycle.

- The third type, referred to as "non-default maximum spin" throughout the remainder of this NODA, is illustrative of units in which the maximum spin speed setting (which is tested under appendix J2) is not the default spin speed setting on the Normal cycle. On these units, the default spin speed setting tested under proposed appendix J would provide a lower-speed spin or a shorter spin portion of the cycle.

For clothes washers with "consistent spin," the only source of difference between the measured RMC values under proposed appendix J and appendix J2 is the use of smaller load sizes for proposed appendix J. The observed difference in RMC between the two test procedures is relatively consistent among models from different manufacturers of RCWs with this characteristic, as discussed further in this section.

For clothes washers with "Cold/Cold optimized spin" the difference between the measured RMC values under proposed appendix J and appendix J2 is due to a combination of both the smaller load sizes for proposed appendix J and the different spin behavior on the temperature settings other than Cold/Cold. The observed difference in RMC between the two test procedures varies significantly among models from different manufacturers of RCWs with "Cold/Cold optimized spin," depending on the degree to which the Cold/Cold RMC differs from the RMC on all other tested cycles.

For clothes washers with "non-default maximum spin," the difference between the measured RMC values under proposed appendix J and appendix J2 is due to a combination of both the smaller load sizes for proposed appendix J and the different spin behavior on the maximum and default spin settings. Similar to units with "Cold/Cold optimized spin," the observed difference in RMC between the two test procedures varies significantly among models from different manufacturers of RCWs with "non-default maximum spin," depending on the degree to which the maximum spin setting differs from the default spin setting.

The RMC value is the most significant contributor to both the IMEF metric measured by appendix J2 and the EER metric measured by proposed appendix J. Because of the more significant variation in RMC between the two test procedures for "Cold/Cold optimized spin" and "non-default maximum spin" units, the correlation between IMEF and EER for these units is less strong (*i.e.*, lower "R-squared" values for the best-fit line) than for "consistent spin" units.

To investigate strategies for defining translation equations with a stronger correlation between IMEF and EER, DOE developed a second set of EER values based on an "adjusted" RMC value (substituted for the measured RMC value) that assumes a "consistent spin" characteristic for each unit in the test sample. Under this approach, only the change in load size would be assumed to impact the RMC values measured under proposed appendix J as compared to appendix J2. DOE's test data indicate that the smaller load sizes under proposed appendix J result in an increase in RMC of 4 percentage points compared to the RMC values measured under appendix J2 using the

maximum load size. Therefore, for this approach, DOE calculated an "adjusted RMC" for each unit as the tested RMC value under appendix J2 plus 4 percentage points. DOE substituted this adjusted RMC for the RMC value in the drying energy equation within the EER calculation. As demonstrated in the second set of "adjusted" translation plots, this approach produces translation equations with significantly higher R-squared values, indicating a stronger correlation between IMEF and EER.

Comments submitted by a manufacturer in response to the September 2021 NOPR suggest that, were DOE to amend standards based on appendix J as proposed, manufacturers that currently use "Cold/Cold optimized spin" or "non-default maximum spin"—which yield lower (*i.e.*, better) RMC values on the Cold/Cold temperature setting compared to RMC values obtained using the other temperature settings for RCWs with "Cold/Cold optimized spin," and on the maximum spin setting for RCWs with "non-default maximum spin"—would likely implement similar strategies to decrease the RMC across all cycles required for testing under appendix J as proposed. (EERE-2016-BT-TP-0011, Whirlpool, No. 26 at p. 8–9). Specifically, for "Cold/Cold optimized spin" units, manufacturers would likely increase the spin speeds or spin durations across all temperature settings to match the spin behavior of the Cold/Cold temperature setting. For "non-default maximum spin" units, manufacturers would likely make the maximum spin speed the default spin setting to provide the lowest possible (*i.e.*, best possible) RMC measurement under appendix J as proposed.

DOE requests comment on whether, if DOE were to establish amended RCW standards based on appendix J as proposed, manufacturers that currently use the

"Cold/Cold optimized spin" strategy for their RCWs would modify the spin behavior across all temperature settings to match the spin behavior of the Cold/Cold temperature setting; and whether manufacturers that currently use the "non-default maximum spin" strategy for their RCWs would design the maximum spin speed to be the default spin setting. DOE further requests comment on the impact of such changes to the energy and water use, other aspects of consumer-relevant performance, and life-cycle cost of RCWs.

If DOE were to use the "adjusted" EER values (based on "adjusted" RMC) as the basis for developing the IMEF-to-EER translation equations, DOE requests comment on how DOE should factor into its analysis the changes that manufacturers may implement in response to such an approach (*i.e.*, faster or longer spin speeds across all cycles for "Cold/Cold optimized spin" units, and setting the maximum speed as the default spin setting for "non-default maximum spin" units).

In the document available in the rulemaking docket, DOE presents revised translation equations using both approaches: tested RMC and EER values (shown as purple columns and graphs) and "adjusted" RMC and EER values (shown as red columns and graphs).

DOE requests comment on its analysis of RMC and on the translation equations resulting from the two different approaches described in this section.

2. Portable Units with Manual Water Fill Control Systems

DOE's test data indicate that RCWs marketed as "portable"[11] have a significantly different correlation between IMEF and EER than "stationary" clothes washers. An examination of the test sample indicates that all of the portable units in the test sample use manual WFCS, whereas all of the stationary units in DOE's test sample use either automatic WFCS or provide both manual and automatic WFCSs. Generally, the portable units have a higher (better) EER value than stationary units at the same IMEF rating.

The observed difference in correlation is due, at least in part, to how load size is calculated under proposed appendix J and appendix J2 for units with manual WFCS,[12] as compared to units with automatic WFCS.[13] For units with a manual WFCS, the weighted-average load size calculated under proposed appendix J is significantly different than that calculated under appendix J2. Under appendix J2, weighted-average load size for units with manual WFCS is calculated by applying weighting factors of 0.72 and 0.28 to the maximum and minimum load sizes, respectively. Under proposed appendix J, the weighted-average load size for units with manual WFCS is calculated as a simple average of the large and small load sizes (*i.e.*, weighting factors of 0.5 and 0.5 for the large and small load sizes, respectively). The proposed appendix J calculation results in a smaller weighted-average load size than that calculated under appendix J2 for units with a manual WFCS.

[11] Products marketed as "portable" are generally mounted on caster wheels, which allows the clothes washer to be moved more easily.
[12] Section 1 of appendix J2 defines a manual WFCS as a WFCS that requires the user to determine or select the water fill level.
[13] Section 1 of appendix J2 defines an automatic WFCS as a WFCS that does not allow or require the user to determine or select the water fill level.

In comparison, for units with automatic WFCS, the weighted-average load size is equivalent under appendix J as proposed and appendix J2. Under appendix J2, weighted-average load size is calculated by applying weighting factors of 0.12, 0.74, and 0.14 to the maximum, average, and minimum load sizes, respectively. As discussed in the September 2021 NOPR, DOE defined the load sizes in proposed appendix J such that the weighted-average load size using the small and large load sizes defined in appendix J matches the weighted-average load size using the minimum, average, and maximum load sizes defined in appendix J2. 86 FR 49140, 49157-49158.

DOE is aware of some top-loading stationary RCWs that offer both manual and automatic WFCSs. For these units, both appendix J2 and proposed appendix J require testing both WFCSs; calculating the average of the tested values (one from each water fill control system) for each measured variable (*i.e.*, machine electrical energy, hot water heating energy, drying energy, and water consumption); and using the average value for each variable in the final calculations of the respective efficiency metrics. For these units, the difference in correlation due to the use of a manual WFCS is reduced by half as a result of the averaging with the automatic WFCS results.

DOE reviewed the market and observes that top-loading portable units are the only RCWs on the market that use a manual WFCS exclusively. DOE further observes that all RCWs that are marketed as portable have a manual WFCS. DOE is not aware of any top-loading portable RCWs that use an automatic WFCS or any top-loading stationary RCWs that offer only a manual WFCS.

Recognizing this difference in correlation, DOE has presented an alternate set of translation equations that separate top-loading portable RCWs (which use a manual WFCS) from top-loading stationary RCWs (which provide either automatic WFCS or both manual and automatic WFCSs). Each of the separate translation equations has a stronger correlation (*i.e.*, higher R-squared value) than the single translation equation in which top-loading portable and top-loading stationary products are combined.

In future stages of the standards rulemaking, DOE would consider whether separate translation equations should be used for top-loading portable RCWs with a manual WFCS.

DOE requests comment on whether any top-loading stationary RCWs with only a manual WFCS, or any top-loading portable RCWs with an automatic WFCS, are available on the market.

DOE further requests comment on whether top-loading portable RCWs with a manual WFCS should be evaluated using a separate translation equation from top-loading stationary RCWs with an automatic WFCS.

B. Top-Loading Compact Clothes Washers

DOE's RCW product certification database[14] includes both automatic clothes washer models and semi-automatic[15] clothes washer models certified within the top-loading compact product class. While the certification database does not differentiate between automatic and semi-automatic configurations, DOE conducted an analysis of product literature for each certified model to identify the configuration of each model.

DOE's analysis of product literature for each top-loading compact model indicates that all of the automatic top-loading compact models included in the certification database are "companion" clothes washers, which are designed to serve as an auxiliary clothes washer for washing a small or delicate load while simultaneously washing a "normal" load in the accompanying standard-size RCW.[16] Semi-automatic clothes washers have a single water inlet generally intended to be intermittently connected to a kitchen or bathroom faucet and require user intervention to regulate the water temperature by adjusting the external water faucet valves. These two product types exhibit significantly different design and performance characteristics. In this NODA, DOE presents data only for automatic "companion" type top-loading compact RCWs. DOE is continuing to test and analyze semi-automatic top-loading RCWs in support of this rulemaking.

[14] DOE's product certification database is available at *www.regulations.doe.gov/certification-data/CCMS-4-Clothes_Washers.html#q=Product_Group_s%3A%22Clothes%20Washers%22*.

[15] Semi-automatic clothes washer is defined at 10 CFR 430.2 as a class of clothes washer that is the same as an automatic clothes washer except that user intervention is required to regulate the water temperature by adjusting the external water faucet valves. DOE has previously defined a design standard for top-loading, semi-automatic clothes washers, requiring such products to have an unheated rinse water option. 10 CFR 430.32(g)(1).

[16] Companion clothes washers are currently available in two different configurations: (1) integrated into (*i.e.*, built into) the cabinet above a standard-size front-loading RCW, and (2) built into a pedestal drawer for installation underneath a standard-size front-loading RCW.

Companion clothes washers are currently available from two manufacturers. DOE has included one unit from each manufacturer in its data set, as presented in the accompanying spreadsheet.

III. Public Participation

DOE will accept comments, data, and information regarding this document, but no later than the date provided in the **DATES** section at the beginning of this document. Interested parties may submit comments, data, and other information using any of the methods described in the **ADDRESSES** section at the beginning of this document.

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Include contact information each time you submit comments, data, documents, and other information to DOE. No telefacsimiles ("faxes") will be accepted.

Comments, data, and other information submitted to DOE electronically should be provided in PDF (preferred), Microsoft Word or Excel, WordPerfect, or text (ASCII) file format. Provide documents that are not secured, that are written in English, and that are free of any defects or viruses. Documents should not contain special characters or any form of encryption and, if possible, they should carry the electronic signature of the author.

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Confidential Business Information. Pursuant to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit via email to *ConsumerClothesWasher2017STD0014@ee.doe.gov* two well-marked copies: one copy of the document marked "confidential" including all the information believed to be confidential, and one copy of the document marked "non-confidential" with the information believed to be confidential deleted. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

It is DOE's policy that all comments may be included in the public docket, without change and as received, including any personal information provided in the comments (except information deemed to be exempt from public disclosure).

Signing Authority

This document of the Department of Energy was signed on April 8, 2022, by Kelly J. Speakes-Backman, Principal Deputy Assistant Secretary for Energy Efficiency and Renewable Energy, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the *Federal Register*.

Signed in Washington, DC, on April 8, 2022

X Kelly Speakes-Backman

Digitally signed by Kelly Speakes-Backman
Date: 2022.04.08 12:28:07 -04'00'

Kelly J. Speakes-Backman
Principal Deputy Assistant Secretary for
Energy Efficiency and Renewable Energy