

regulation have been approved by OMB and have been assigned OMB control number 0575–0189. This proposed rule contains no new reporting and recordkeeping requirements that would require approval under the Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35).

#### *E-Government Act Compliance*

Rural Development is committed to the E-Government Act, which requires Government agencies in general to provide the public the option of submitting information or transacting business electronically to the maximum extent possible and to promote the use of the internet and other information technologies to provide increased opportunities for citizen access to Government information and services, and for other purposes.

#### *USDA Non-Discrimination Statement*

In accordance with Federal civil rights laws and USDA civil rights regulations and policies, the USDA, its Mission Areas, agencies, staff offices, employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Program information may be made available in languages other than English. Persons with disabilities who require alternative means of communication to obtain program information (*e.g.*, Braille, large print, audiotope, American Sign Language) should contact the responsible Mission Area, agency, or staff office; or the 711 Relay Service.

To file a program discrimination complaint, a complainant should complete a Form AD–3027, USDA Program Discrimination Complaint Form, which can be obtained online at [usda.gov/sites/default/files/documents/ad-3027.pdf](https://usda.gov/sites/default/files/documents/ad-3027.pdf) from any USDA office, by calling (866) 632–9992, or by writing a letter addressed to USDA. The letter must contain the complainant's name, address, telephone number, and a written description of the alleged discriminatory action in sufficient detail to inform the Assistant Secretary for Civil Rights (ASCR) about the nature

and date of an alleged civil rights violation. The completed AD–3027 form or letter must be submitted to USDA by:

- a. *Mail*: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue SW, Washington, DC 20250–9410; or
- b. *Fax*: (833) 256–1665 or (202) 690–7442; or
- c. *Email*: [program.intake@usda.gov](mailto:program.intake@usda.gov).

#### *Severability*

It is USDA's intention that the provisions of this rule shall operate independently of each other. If this rule or any portion of this rule is ultimately declared invalid or stayed as to a particular provision, it is USDA's intent that the rule nonetheless be severable and remain valid with respect to those provisions not affected by a declaration of invalidity or stayed. USDA concludes it would separately adopt all the provisions contained in this rule.

#### **List of Subjects in 7 CFR Part 3565**

Conflict of interest, Credit, Fair housing, Loan programs—housing and community development, Low and moderate-income housing, Manufactured homes, Mortgages, Rent subsidies, Reporting and recordkeeping requirements, Rural areas.

For the reasons discussed in the preamble, the Agency proposes to amend 7 CFR part 3565 as follows:

#### **PART 3565—GUARANTEED RURAL RENTAL HOUSING PROGRAM**

- 1. The authority citation for part 3565 continues to read as follows:

**Authority:** 5 U.S.C. 301; 7 U.S.C. 1989; 42 U.S.C. 1480.

#### **Subpart H—Project Management**

- 2. Amend § 3565.352 by revising paragraph (b) to read as follows:

#### **§ 3565.352 Preservation of affordable housing.**

\* \* \* \* \*

(b) Use restriction. For the original term of the guaranteed loan, the housing must remain available for occupancy by low- and moderate-income households, in accordance with subpart E of this part. This requirement must be included in a deed restriction in a form acceptable to the Agency. The deed restriction must be recorded separately, before and with priority over other documents related to the transaction. The restriction will apply unless the housing is acquired by foreclosure or an instrument in lieu of foreclosure, or the Agency waives the applicability of this requirement after determining that each

of the following three circumstances exist:

- (1) There is no longer a need for low- and moderate-income housing in the market area in which the housing is located;
- (2) Housing opportunities for low-income households and minorities will not be reduced as a result of the waiver; and
- (3) Additional federal assistance will not be necessary as a result of the waiver.

\* \* \* \* \*

#### **Joaquin Altoro,**

*Administrator, Rural Housing Service.*

[FR Doc. 2024–25713 Filed 11–4–24; 8:45 am]

**BILLING CODE 3410–XV–P**

## **DEPARTMENT OF ENERGY**

### **10 CFR Part 430**

**[EERE–2024–BT–TP–0009]**

**RIN 1904–AF68**

### **Energy Conservation Program: Test Procedures for Residential and Commercial Clothes Washers and Consumer Clothes Dryers**

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

**ACTION:** Notice of proposed rulemaking and request for comment.

**SUMMARY:** The U.S. Department of Energy (“DOE”) proposes to amend the test procedures for residential and commercial clothes washers and consumer clothes dryers to update the test cloth specifications. DOE also proposes to reorganize the test procedures for improved readability. DOE is conducting this rulemaking to address specific issues and to make minor corrections to the current test procedures. However, this rulemaking does not satisfy the statutory requirement that, at least once every 7 years, DOE review the test procedures for clothes washers and consumer clothes dryers. DOE is seeking comment from interested parties on the proposal.

#### **DATES:**

*Comments:* DOE will accept comments, data, and information regarding this proposal no later than December 5, 2024.

*Meeting:* DOE will hold a public meeting on this NOPR if one is requested by November 12, 2024. If a public meeting is requested, DOE will announce its date and participation information on the DOE website and via email.

**ADDRESSES:** Interested persons are encouraged to submit comments using the Federal eRulemaking Portal at [www.regulations.gov](http://www.regulations.gov) under docket number EERE-2024-BT-TP-0009. Follow the instructions for submitting comments. Alternatively, interested persons may submit comments, identified by docket number EERE-2024-BT-TP-0009, by any of the following methods:

(1) *Email:*

[WashersDryers2024TP0009@ee.doe.gov](mailto:WashersDryers2024TP0009@ee.doe.gov). Include the docket number EERE-2024-BT-TP-0009 in the subject line of the message.

(2) *Postal Mail:* Appliance and Equipment Standards Program, U.S. Department of Energy, Building Technologies Office, Mailstop EE-5B, 1000 Independence Avenue SW, Washington, DC 20585-0121. Telephone: (202) 287-1445. If possible, please submit all items on a compact disc (“CD”), in which case it is not necessary to include printed copies.

(3) *Hand Delivery/Courier:* Appliance and Equipment Standards Program, U.S. Department of Energy, Building Technologies Office, 1000 Independence Avenue SW, Washington, DC 20585-0121. Telephone: (202) 287-1445. If possible, please submit all items on a CD, in which case it is not necessary to include printed copies.

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

*Docket:* The docket for this activity, which includes **Federal Register** notices, public meeting attendee lists and transcripts (if a public meeting is held), comments, and other supporting documents/materials, is available for review at [www.regulations.gov](http://www.regulations.gov). All documents in the docket are listed in the [www.regulations.gov](http://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-2024-BT-TP-0009](http://www.regulations.gov/docket/EERE-2024-BT-TP-0009). The docket web page contains instructions on how to access all documents, including public comments, in the docket. *See* section V of this document for information on how to submit comments through [www.regulations.gov](http://www.regulations.gov).

**FOR FURTHER INFORMATION CONTACT:**

Dr. Carl Shapiro, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Office, EE-5B, 1000 Independence Avenue SW, Washington,

DC 20585-0121. Telephone: (202) 287-5649. Email: [ApplianceStandardsQuestions@ee.doe.gov](mailto:ApplianceStandardsQuestions@ee.doe.gov).

Mr. Uchechukwu “Emeka” Eze, U.S. Department of Energy, Office of the General Counsel, GC-33, 1000 Independence Avenue SW, Washington, DC 20585-0121. Telephone: (202) 586-4798. Email: [ucheckukwu.eze@hq.doe.gov](mailto:ucheckukwu.eze@hq.doe.gov).

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

**SUPPLEMENTARY INFORMATION:** DOE proposes to incorporate by reference the following industry standard into 10 CFR part 430:

AATCC LP1-2021, *Laboratory Procedure for Home Laundering: Machine Washing*, Revised 2023.

Copies of AATCC test methods can be obtained from the American Association of Textile Chemists and Colorists (“AATCC”), P.O. Box 12215, Research Triangle Park, NC 27709, (919) 549-3526, or [www.aatcc.org](http://www.aatcc.org).

*See* section IV.M of this document for a further discussion of this standard.

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**I. Authority and Background**

Consumer (residential) clothes washers (“RCWs”), commercial clothes washers (“CCWs”), and consumer clothes dryers are included in the list of “covered products/equipment” for which DOE is authorized to establish and amend energy conservation standards and test procedures. (42 U.S.C. 6292(a)(7)–(8); 42 U.S.C. 6311(1)(H)) DOE’s test procedures for RCWs are currently prescribed at 10 CFR part 430, subpart B, appendices J (“appendix J”) and J2 (“appendix J2”). The test procedures for CCWs must be the same as those established for RCWs. (42 U.S.C. 6314(a)(8)). DOE’s test procedures for consumer clothes dryers are currently prescribed at 10 CFR part 430, subpart B, appendices D1 (“appendix D1”) and D2 (“appendix D2”). DOE also prescribes specifications for the test cloth to be used for testing clothes washers at appendix J3 to subpart B (“appendix J3”). The following sections discuss DOE’s authority to establish and amend test procedures for RCWs, CCWs, and consumer clothes dryers and relevant background information regarding DOE’s consideration of test procedures for these products.

**A. Authority**

The Energy Policy and Conservation Act, Public Law 94–163, as amended (“EPCA”),<sup>1</sup> authorizes DOE to regulate the energy efficiency of a number of consumer products and certain industrial equipment. (42 U.S.C. 6291–6317, as codified) Title III, Part B of EPCA<sup>2</sup> established the Energy Conservation Program for Consumer Products Other Than Automobiles, which sets forth a variety of provisions

<sup>1</sup> All references to EPCA in this document refer to the statute as amended through the Energy Act of 2020, Public Law 116–260 (Dec. 27, 2020), which reflect the last statutory amendments that impact Parts A and A–1 of EPCA.

<sup>2</sup> For editorial reasons, upon codification in the U.S. Code, Part B was redesignated Part A.

designed to improve energy efficiency. These products include RCWs and consumer clothes dryers. (42 U.S.C. 6292(a)(7)–(8)) Title III, Part C of EPCA,<sup>3</sup> added by Public Law 95–619, Title IV, section 441(a), established the Energy Conservation Program for Certain Industrial Equipment which sets forth a variety of provisions designed to improve energy efficiency. This equipment includes CCWs. (42 U.S.C. 6311(1)(H)) RCWs, CCWs, and consumer clothes dryers are the subject of this document.

The energy conservation program under EPCA consists essentially of four parts: (1) testing, (2) labeling, (3) Federal energy conservation standards, and (4) certification and enforcement procedures. Relevant provisions of EPCA specifically include definitions (42 U.S.C. 6291; 42 U.S.C. 6311), test procedures (42 U.S.C. 6293; 42 U.S.C. 6314), labeling provisions (42 U.S.C. 6294; 42 U.S.C. 6315), energy conservation standards (42 U.S.C. 6295; 42 U.S.C. 6313), and the authority to require information and reports from manufacturers (42 U.S.C. 6296; 42 U.S.C. 6316).

The Federal testing requirements consist of test procedures that manufacturers of covered products/equipment must use as the basis for: (1) certifying to DOE that their products comply with the applicable energy conservation standards adopted pursuant to EPCA (42 U.S.C. 6295(s); 42 U.S.C. 6316(a)), and (2) making other representations about the efficiency of those consumer products/equipment (42 U.S.C. 6293(c); 42 U.S.C. 6314(d)). Similarly, DOE must use these test procedures to determine whether the products/equipment comply with relevant standards promulgated under EPCA. (42 U.S.C. 6295(s); 42 U.S.C. 6316(a))

Federal energy efficiency requirements for covered products and equipment established under EPCA generally supersede State laws and regulations concerning energy conservation testing, labeling, and standards. (42 U.S.C. 6297; 42 U.S.C. 6316(a) and (b)) DOE may, however, grant waivers of Federal preemption for particular State laws or regulations, in accordance with the procedures and other provisions of EPCA. (42 U.S.C. 6297(d); 42 U.S.C. 6316(a))

Under 42 U.S.C. 6293 and 42 U.S.C. 6314, EPCA sets forth the criteria and procedures DOE must follow when prescribing or amending test procedures for covered products/equipment. EPCA

requires that any test procedures prescribed or amended under this section be reasonably designed to produce test results which measure energy efficiency, energy use, or estimated annual operating cost of a covered product/equipment during a representative average use cycle or period of use and not be unduly burdensome to conduct. (42 U.S.C. 6293(b)(3); 42 U.S.C. 6314(a)(2))

EPCA also requires that, at least once every 7 years, DOE evaluate test procedures for each type of covered product and equipment, including RCWs, CCWs and consumer clothes dryers, to determine whether amended test procedures would more accurately or fully comply with the requirements for the test procedures to not be unduly burdensome to conduct and be reasonably designed to produce test results that reflect energy efficiency, energy use, and estimated operating costs during a representative average use cycle or period of use. (42 U.S.C. 6293(b)(1)(A); 6314(a)(1))

If the Secretary determines, on her own behalf or in response to a petition by any interested person, that a test procedure should be prescribed or amended, the Secretary shall promptly publish in the **Federal Register** proposed test procedures and afford interested persons an opportunity to present oral and written data, views, and arguments with respect to such procedures. The comment period on a proposed rule to amend a test procedure shall be at least 60 days and may not exceed 270 days. In prescribing or amending a test procedure, the Secretary shall take into account such information as the Secretary determines relevant to such procedure, including technological developments relating to energy use or energy efficiency of the type (or class) of covered products involved. (42 U.S.C. 6293(b)(2); 42 U.S.C. 6316(a)). If DOE determines that test procedure revisions are not appropriate, DOE must publish its determination not to amend the test procedures. (42 U.S.C. 6293(b)(1)(A)(ii); 42 U.S.C. 6316(a))

In addition, EPCA requires that DOE amend its test procedures for all covered products to integrate measures of standby mode and off mode energy consumption into the overall energy efficiency, energy consumption, or other energy descriptor, unless the current test procedure already incorporates the standby mode and off mode energy consumption, or if such integration is technically infeasible. (42 U.S.C.

6295(gg)(2)(A)(i)–(ii))<sup>4</sup> If an integrated test procedure is technically infeasible, DOE must prescribe separate standby mode and off mode energy use test procedures for the covered product, if a separate test is technically feasible. (42 U.S.C. 6295(gg)(2)(A)(ii)) Any such amendment must consider the most current versions of the International Electrotechnical Commission (IEC) Standard 62301<sup>5</sup> and IEC Standard 62087<sup>6</sup> as applicable. (42 U.S.C. 6295(gg)(2)(A))

EPCA requires the test procedures for CCWs to be the same as the test procedures established for RCWs. (42 U.S.C. 6314(a)(8)) As with the test procedures for RCWs, EPCA requires that DOE evaluate, at least once every 7 years, the test procedures for CCWs to determine whether amended test procedures would more accurately or fully comply with the requirements for the test procedures to not be unduly burdensome to conduct and be reasonably designed to produce test results that reflect energy efficiency, energy use, and estimated operating costs during a representative average use cycle. (42 U.S.C. 6314(a)(1))

DOE is publishing this notice of proposed rulemaking (“NOPR”) to address specific issues and to make minor corrections to the current test procedures that are required for certification of compliance with applicable energy conservation standards. However, this rulemaking does not satisfy the EPCA requirement that, at least once every 7 years, DOE review the test procedures for RCWs, CCWs, and consumer clothes dryers. (42 U.S.C. 6293(b)(1)(A); 6314(a)(1)(A))

## B. Background

As discussed, DOE’s existing test procedures for clothes washers are prescribed at appendix J and appendix J2,<sup>7</sup> and DOE’s existing test procedures for consumer clothes dryers are

<sup>4</sup> EPCA does not contain an analogous provision for commercial equipment.

<sup>5</sup> IEC 62301, *Household electrical appliances—Measurement of standby power* (Edition 2.0, 2011–01).

<sup>6</sup> IEC 62087, *Audio, video and related equipment—Methods of measurement for power consumption* (Edition 1.0, Parts 1–6: 2015, Part 7: 2018).

<sup>7</sup> Manufacturers must use the results of testing under appendix J2 to determine compliance with the current relevant standards for RCWs at 10 CFR 430.32(g)(1) and for CCWs at 10 CFR 431.156(b). Manufacturers must use the results of testing under appendix J to determine compliance with the relevant standards for RCWs manufactured on or after March 1, 2028, specified at 10 CFR 430.32(g)(2) and with any amended standards for CCWs provided in 10 CFR 431.156 that are published after January 1, 2022.

<sup>3</sup> For editorial reasons, upon codification in the U.S. Code, Part C was redesignated Part A–1.

prescribed at appendix D1 and appendix D2.<sup>8</sup>

Additionally, DOE’s existing test procedure at appendix J3 provides specifications for the test cloth to be used for testing clothes washers; procedures for pre-conditioning new test cloth; procedures for verifying that new lots<sup>9</sup> of test cloth meet the defined material specifications; and procedures for developing a set of correction coefficients that correlate the measured remaining moisture content (“RMC”) values of each new test cloth lot with a set of standard RMC values established as a historical reference point. These correction coefficients are applied to the RMC measurements performed during testing according to appendix J or appendix J2, ensuring consistency in the final corrected RMC measurement across different test cloth lots used for testing.

Although the test cloth specifications and qualification procedures in appendix J3 are nominally applicable to clothes washer testing, DOE understands that manufacturers and test laboratories use the same test cloth for testing clothes dryers as well. As discussed further in section III.B of this document, the test cloth specifications for clothes washer testing and clothes dryer testing have historically been aligned. Furthermore, as discussed further in section III.D.3 of this document, test cloth that satisfies the requirements of appendix J3 for clothes washer testing also satisfies the requirements codified in appendices D1 and D2 for clothes dryer testing.

The Association of Home Appliance Manufacturers (“AHAM”) has established a Test Cloth Task Force (“AHAM task force”) that, among other responsibilities, reviews and recommends new lots of test cloth for

industry use; identifies and secures suppliers for manufacturing test cloth; conducts research and investigations to recommend continuous improvements to the test cloth specifications and qualification procedures; and addresses any industry-wide concerns that may arise regarding the test cloth. DOE representatives participate in the AHAM task force.

On May 31, 2024, DOE received a letter from AHAM (“May 2024 AHAM Letter”) urging DOE to allow the use of alternate test cloth material for clothes washer and clothes dryer testing. (No. 1 at p. 4)<sup>10</sup> The May 2024 AHAM Letter also made further requests for DOE to amend certain test cloth specifications based on the results of recent investigations by the AHAM task force. (*Id.*) In this document, DOE proposes to implement changes to its test cloth specifications to address these concerns.

*C. Deviation From Process Rule*

In accordance with section 3(a) of 10 CFR part 430, subpart C, appendix A (“Process Rule”), DOE notes that it is deviating from certain provisions in the Process Rule as follows.

Section 8(a) of the Process Rule states that in determining whether to consider establishing or amending any test procedure, DOE will publish one or more preliminary documents in the **Federal Register** (e.g., a request for information or notice of data availability) intended to gather information on key issues. As discussed, DOE is conducting this rulemaking to address specific issues rather than conducting a full review of the clothes washer and clothes dryer test procedures that would satisfy the 7-year lookback requirement prescribed by EPCA. This proposal seeks to address known issues regarding test cloth that have been brought to DOE’s attention, as

discussed in the previous section of this document. For these reasons, DOE finds it appropriate to deviate from this provision in the Process Rule by forgoing publication of a preliminary document as part of a pre-NOPR stage for this rulemaking.

Section 8(b)(2) of the Process Rule states that there will be not less than 60 days for public comment on the NOPR, with at least one public hearing or workshop. As stated, DOE will hold a public meeting on this NOPR if one is requested; otherwise, DOE finds it appropriate to forgo a public hearing given the limited scope of issues addressed in this NOPR. DOE has also determined that 30 days is an appropriate period for providing comments.

**II. Synopsis of the Notice of Proposed Rulemaking**

In this NOPR, DOE proposes amendments to its test cloth specifications as follows:

- (1) Specify that fabric weight and thread count must be measured on finished goods prior to pre-conditioning,
- (2) Clarify that the test cloth be made with a “granite,” “momie,” or “crepe” weave,
- (3) Allow the use of an alternate test cloth,
- (4) Amend the statistical criteria for a new test cloth lot to be considered acceptable for use,
- (5) Restructure and renumber certain sections of appendix J3 for clarity, and
- (6) Harmonize the test cloth specifications for clothes washers and clothes dryers.

DOE’s proposed actions are summarized in Table II.1 compared to the current test procedures as well as the reason for the proposed change.

TABLE II.1—SUMMARY OF CHANGES IN PROPOSED TEST PROCEDURES RELATIVE TO CURRENT TEST PROCEDURES

Current DOE test procedures	Proposed test procedures	Attribution
Does not specify at which stage of the process the fabric weight and thread count of test cloth are applicable.	Specifies that fabric weight and thread count must be measured on finished goods prior to pre-conditioning.	Industry request; improve reproducibility of test results.
Specifies the use of “granite or momie” weave	Specifies the use of “granite, momie, or crepe” weave.	Industry request; clarification of existing requirement.
Specifies one type of allowable test cloth .....	Specifies two types of allowable test cloth .....	Industry request; reduce test burden while maintaining reproducibility and representativeness.

<sup>8</sup> The test procedures in appendix D1 or appendix D2 must be used to determine compliance with the current relevant standards for consumer clothes dryers at 10 CFR 430.32(h)(3). Manufacturers must use the test procedure in appendix D2 to determine compliance with the relevant standards for

consumer clothes dryers manufactured on or after March 1, 2028, specified at 10 CFR 430.32(h)(4).

<sup>9</sup> The term “lot” refers to a quantity of cloth that has been manufactured with the same batches of cotton and polyester during one continuous process. Section 2 of appendix J3.

<sup>10</sup> A parenthetical reference at the end of a quotation or paraphrase of an AHAM letter provides reference for information located in the docket of this rulemaking. (Docket No. EERE–2024–BT–TP–0009, which is maintained at [www.regulations.gov](http://www.regulations.gov)). The references are arranged as follows: (docket ID number at the page of that document).

TABLE II.1—SUMMARY OF CHANGES IN PROPOSED TEST PROCEDURES RELATIVE TO CURRENT TEST PROCEDURES—Continued

Current DOE test procedures	Proposed test procedures	Attribution
Specifies that the coefficient of variation across nine RMC values must be less than or equal to 1 percent.	Specifies that the coefficient of variation across nine RMC values must be less than or equal to 2.0 percent.	Reduce test burden while maintaining reproducibility and representativeness.
Specifies that the P-value of the RMC correction curve must be greater than or equal to 0.1.	Specifies that the root-mean-square error of the RMC correction curve must be less than or equal to 0.015.	Reduce test burden while maintaining reproducibility and representativeness.
Appendix J3 test cloth specifications currently apply only to clothes washers.	Harmonizes test cloth requirements across both clothes washers and clothes dryers and extends applicability of appendix J3 test cloth specifications to both clothes washers and clothes dryers.	Industry request; clarify existing requirements consistent with industry practice.

DOE has tentatively determined that the proposed amendments described in section III of this document would not alter the measured efficiency of RCWs, CCWs, or consumer clothes dryers, or require retesting or recertification solely as a result of DOE's adoption of the proposed amendments to the test procedures, if finalized. (42 U.S.C. 6293(e)) Discussion of DOE's proposed actions are addressed in detail in section III of this document.

### III. Discussion

In the following sections, DOE proposes certain amendments to its test procedures for RCWs, CCWs, and consumer clothes dryers. For each proposed amendment, DOE provides relevant background information, explains why the amendment merits consideration, discusses relevant public comments, and proposes a potential approach.

#### A. Scope of Applicability

This rulemaking applies to clothes washers (both RCWs and CCWs, which use the same test procedures)<sup>11</sup> and consumer clothes dryers.

DOE has defined a clothes washer as a consumer product designed to clean clothes, utilizing a water solution of soap and/or detergent and mechanical agitation or other movement, that must be one of the following classes: automatic clothes washers,<sup>12</sup> semi-

<sup>11</sup> The test procedures for CCWs must be the same as those established for RCWs. (42 U.S.C. 6314(a)(8)).

<sup>12</sup> An "automatic clothes washer" is a class of clothes washer that has a control system that is capable of scheduling a preselected combination of operations, such as regulation of water temperature, regulation of the water fill level, and performance of wash, rinse, drain, and spin functions without the need for user intervention subsequent to the initiation of machine operation. Some models may require user intervention to initiate these different segments of the cycle after the machine has begun operation, but they do not require the user to intervene to regulate the water temperature by adjusting the external water faucet valves. 10 CFR 430.2.

automatic clothes washers,<sup>13</sup> and other clothes washers.<sup>14</sup> 10 CFR 430.2.

DOE regulations also define "electric clothes dryer" and "gas clothes dryer" similarly as a cabinet-like appliance designed to dry fabrics in a tumble-type drum with forced air circulation, with blower(s) driven by an electric motor(s) and either electricity or gas, respectively, as the heat source. *See*, 10 CFR 430.2. DOE's clothes dryer test procedures are applicable to both electric and gas clothes dryers.

A commercial clothes washer is defined as a soft-mount front-loading or soft-mount top-loading clothes washer that—

- (A) Has a clothes container compartment that—
  - (i) For horizontal-axis clothes washers, is not more than 3.5 cubic feet; and
  - (ii) For vertical-axis clothes washers, is not more than 4.0 cubic feet; and
- (B) Is designed for use in—
  - (i) Applications in which the occupants of more than one household will be using the clothes washer, such as multi-family housing common areas and coin laundries; or
  - (ii) Other commercial applications.

(42 U.S.C. 6311(21); 10 CFR 431.452)

DOE is not proposing changes to the scope of the RCW, CCW, or consumer clothes dryer test procedures, or the relevant definitions, in this NOPR.

#### B. Relevant Historical Background

This section summarizes the historical background of test cloth specifications in DOE's clothes washer and clothes dryer test procedures that is relevant to topics discussed in this NOPR.

DOE first introduced the use of test cloth into the original clothes dryer test procedure established by the final rule published September 14, 1977

<sup>13</sup> A "semi-automatic clothes washer" is 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. *Id.*

<sup>14</sup> "Other clothes washer" means a class of clothes washer that is not an automatic or semi-automatic clothes washer. *Id.*

("September 1977 Clothes Dryer Final Rule"). 42 FR 46145. The test cloth specifications were a 50-percent cotton and 50-percent polyester blended material, representative of the range of fabrics comprising consumer wash loads. *Id.* at 42 FR 46146. The September 1977 Clothes Dryer Final Rule also established a maximum use of 25 clothes dryer test cycles for each piece of test cloth to reduce potential variability in the test results that may occur from any change in the composition of the test cloth due to continued drying of the same test cloth. *Id.*

DOE introduced the use of test cloth into the original clothes washer test procedure established by the final rule published September 28, 1977 ("September 1977 Clothes Washer Final Rule"). 42 FR 49802. As discussed in the September 1977 Clothes Washer Final Rule, the size and composition of the test load was chosen to be identical to the test load that had been specified for clothes dryers in the September 1977 Clothes Dryer Final Rule. *Id.* at 49 FR 49805. The number of test runs for each piece of test cloth was limited to no more than 25 clothes washer test cycles. *Id.* at 49 FR 49808.

Since introducing the use of test cloth into the originally established clothes dryer and clothes washer test procedures, DOE has periodically updated the test cloth specifications and requirements. The following paragraphs summarize some of these changes to test cloth specifications and requirements that are relevant to the amendments proposed in this document.

In a final rule published May 19, 1981 ("May 1981 Final Rule"), DOE amended the clothes dryer test procedure to, among other changes, establish test cloth pre-conditioning requirements to improve test repeatability by ensuring that the test cloth not contain any water-soluble sizing or finishing agents that could affect the moisture performance of

test cloth. 46 FR 27324. The May 1981 Final Rule also established a weight tolerance on the test cloth. *Id.*

In a final rule published August 27, 1997, DOE amended its test cloth requirements in the clothes washer test procedure by adding a new requirement to prewash (*i.e.*, pre-condition) new test cloth prior to first use for energy consumption testing. 62 FR 45484.

DOE published a final rule on January 12, 2001 (“January 2001 Final Rule”) that, among other changes to the clothes washer test procedure, introduced the modified energy factor descriptor, which incorporated an estimate of clothes drying energy into the clothes washer efficiency descriptor through consideration of the RMC of the clothes leaving the clothes washer. 66 FR 3314. As discussed in the January 2001 Final Rule, it had been discovered that the test cloth to be used for determining the RMC was giving inconsistent results. *Id.* at 66 FR 3317. DOE investigated possible causes for the inconsistent test results and summarized the results in a report published in May 2000 titled *Development of a Standardized Energy Test Cloth for Measuring Remaining Moisture Content in a Residential Clothes Washer* (“May 2000 Test Cloth Report”).<sup>15</sup>

In particular, relevant to topics discussed in this NOPR, the May 2000 Test Cloth Report documented the difficulty of relating specifiable test cloth characteristics—fiber content, weight, *etc.*—to RMC measurements. (See section 4 of May 2000 Test Cloth Report). On this basis, DOE concluded that tighter test cloth specifications alone would not necessarily lead to comparably consistent RMC measurements. To provide more consistent RMC measurements from lot to lot, the May 2000 Test Cloth Report proposed a new method for developing a “correction factor” for each new lot of test cloth. The correction factor would be applied to the RMC measurement to normalize the RMC results to match the RMC performance of a designated “standard lot.”

The May 2000 Test Cloth Report also concluded that a viable approach to minimize the effects of test cloth variation on RMC would be to consistently specify a single type of fabric that is produced frequently by one mill to a consistent set of specifications. The report recommended the use of a 50-percent cotton/50-percent polyester momie weave fabric from one particular mill as a suitable

choice, noting that this cloth (at the time) was produced in high volume, had been produced to a consistent specification for many years, and was likely to continue to be produced on this basis for the foreseeable future. (See section 6 of May 2000 Test Cloth Report)

The May 2000 Test Cloth Report recommended a set of test cloth specifications and an RMC correction factor approach that could be adopted into the DOE test procedure. The January 2001 Final Rule incorporated into the clothes washer test procedures many of the recommendations of the May 2000 Test Cloth Report, including the recommended updates to the test cloth specifications and the RMC correction factor procedure. The January 2001 Final Rule also increased the number of allowable test runs for each piece of test cloth to no more than 60 clothes washer test cycles (from 25 previously). 66 FR 3314, 3320.

DOE published a direct final rule on October 31, 2003 (“October 2003 Final Rule”) that, among other changes to the clothes washer test procedure, added as a testing requirement the use of a statistical analysis approach to qualify any interactive effect between different lots of test cloth and spin speeds to further improve consistency of the RMC measurement. 68 FR 62198.

On March 7, 2012, DOE published a final rule (“March 2012 Final Rule”) that, among other changes, updated certain test cloth specifications for clothes washer testing based on recommendations provided by AHAM. 77 FR 13888, 13920–13921. Specifically, the March 2012 Final Rule adopted definitions for cloth “lot” and “roll” and established test cloth weight tolerances. *Id.* at 77 FR 13921–13922. The March 2012 Final Rule also updated pre-conditioning wash requirements and incorporated American Association of Textile Chemists and Colorists (“AATCC”) test methods for verifying the absence of water-repellent finishes on the test cloth. *Id.* at 77 FR 13922.

In a final rule published on August 5, 2015 (“August 2015 Final Rule”), DOE moved the standard extractor RMC procedure for developing the correction factors for each new test cloth lot from appendix J2 to the newly created appendix J3. 80 FR 46730.

In a final rule published on June 1, 2022 (“June 2022 Final Rule”), among other changes, DOE further consolidated clothes washer test cloth-related provisions into appendix J3 (from appendix J2) to improve the overall logical flow of both test procedures. *Id.* at 87 FR 33367. DOE additionally

codified in appendix J3 a test cloth material verification procedure that had historically been used by the AHAM task force when evaluating new lots of test cloth. *Id.* at 87 FR 33368.

### C. Test Cloth Specifications and Requirements

In this NOPR, DOE is proposing to update its test cloth specifications and requirements to (1) further improve consistency in test results across different lots of test cloth, (2) clarify certain requirements consistent with textile industry nomenclature, (3) allow the use of an alternate type of test cloth that has been shown to exhibit consistent performance with the current test cloth, and (4) reevaluate appropriate thresholds for certain statistical requirements specified for new lots of test cloth.

Each of the proposed changes are in line with DOE’s historical practice of regularly updating its test cloth specifications to improve the consistency of test results and adapt to changes in material specifications and availability of commercially available textiles.

In this section, DOE addresses clothes washer specifications in appendix J3 specifically. In section III.D.3 of this document, DOE proposes harmonizing the clothes washer and clothes dryer test cloth specifications such that the edits proposed in this section would apply to both product types.

#### 1. Cut Orientation

Section 3.1 of appendix J3 specifies that the test cloth material should come from a roll of material with a width of approximately 63 inches, although other sizes may be used if the test cloth material meets the specifications listed in sections 3.2 through 3.6 of appendix J3. Section 3.7.1 of appendix J3 specifies the dimensions of the individual energy test cloths—nominally 24 inches by 36 inches prior to hemming.<sup>16</sup> Furthermore, section 5 of appendix J3 specifies that the maximum shrinkage requirements for the energy test cloth after pre-conditioning<sup>17</sup> must not be more than 5 percent of the length and width.

Appendix J3 does not specify the orientation of the rectangular

<sup>16</sup> Section 3.7.2 of appendix J3 specifies dimensions of smaller energy “stuffer” cloths, which are nominally 12 inches by 12 inches prior to hemming. Since the energy stuffer cloths are square, the consideration of cut orientation in this section of the document pertains only to the rectangular energy test cloths.

<sup>17</sup> The pre-conditioning process is specified in section 5 of appendix J3 and consists of five wash-rinse-spin cycles, with the load bone-dried between each of the five cycles.

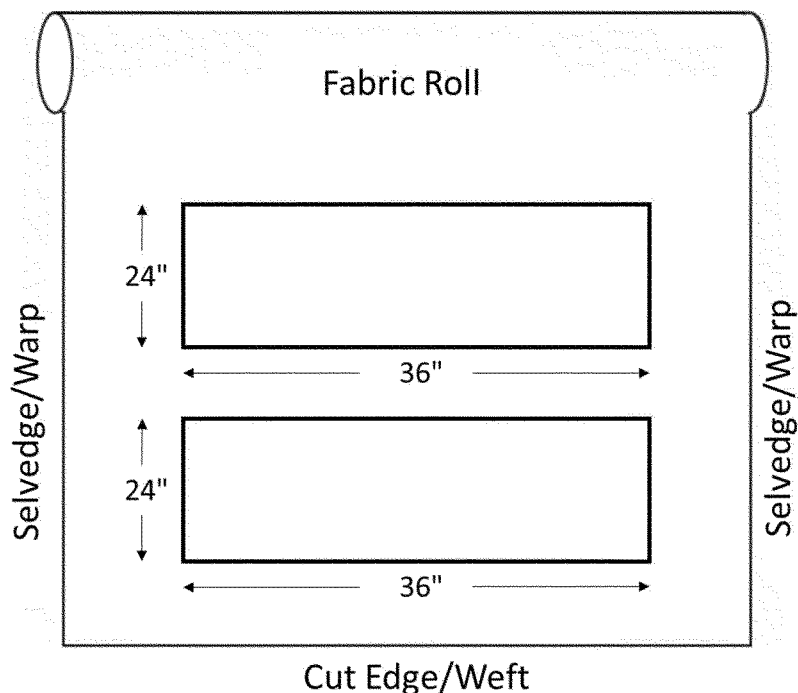
<sup>15</sup> The May 2000 Test Cloth Report is available at [www.regulations.gov/document/EERE-2006-STD-0064-0277](http://www.regulations.gov/document/EERE-2006-STD-0064-0277).

dimensions (*i.e.*, lengthwise versus widthwise) for cutting individual energy test cloths from the roll of fabric. As such, the cut orientation of the rectangular energy test cloths can be optimized to minimize wasted fabric (*e.g.*, a lengthwise cut of 36 inches

adjacent to a widthwise cut of 24 inches of material with minimal waste).

The May 2024 AHAM Letter recommended that appendix J3 specify that the energy test cloth be cut in a specific orientation relative to the fabric roll. (No. 1 at p. 4) Specifically, the May

2024 AHAM Letter suggested that the 24-inch dimension be cut from the lengthwise (*i.e.*, “warp”) direction of the roll and the 36-inch dimension be cut from the widthwise (*i.e.*, “weft”) direction of the roll, as depicted in Figure III.1. (*Id.* at p. 23)



**Figure III.1 Energy Test Cloth Cut Orientation Diagram Adapted from the May 2024 AHAM Letter**

DOE understands through discussions of the AHAM task force that differences in cut orientation can impact the relative shrinking of cloth in each direction after repeated wash and dry cycles, which could potentially affect its water absorption and retention properties—characteristics that are particularly relevant to the RMC measurement.<sup>18</sup> The May 2024 AHAM Letter did not, however, provide any data or quantitative evaluation of whether, or to what extent, the direction of cut orientation could affect the shrinkage of the energy test cloth, or the RMC measurement in the clothes washer test procedure. DOE notes that even if the cut orientation could impact the relative shrinkage of the length and width of the energy test cloth, section 5 of appendix J3 already specifies a

maximum allowable shrinkage of 5 percent in each direction. DOE has no information to suggest that any variation in shrinkage within this 5 percent tolerance would have a substantive impact on the resulting RMC measurement in the clothes washer test procedure.

Furthermore, DOE is concerned about potential unintended consequences of requiring a specific cut orientation for each energy test cloth. Depending on the width of the fabric roll, specifying a cut orientation as suggested by AHAM could prevent the optimization of cut patterns as described previously (*i.e.*, a 36-inch lengthwise cut adjacent to a 24-inch widthwise cut on a 63-inch width roll of material), resulting in increased fabric waste and a corresponding increase in material cost. For instance, a 63-inch-wide roll as specified by section 3.1 of appendix J3 would only be able to accommodate a single 36-inch wide cut as suggested by AHAM, resulting in nearly 40 percent of the roll material being wasted. And although

section 3.1 of appendix J3 permits the use of other size rolls, DOE understands that textiles are typically woven in standardized widths and is concerned that fabricating rolls with a custom width for DOE test cloth could increase the material cost.

In summary, DOE is uncertain as to whether, or to what extent, the energy test cloth cut orientation could impact the RMC measurement in the clothes washer test procedure, and whether specifying a particular cut orientation could result in fabric waste that would lead to an increase in material cost. As such, DOE requests comment to clarify these uncertainties, as provided at the end of this section. If DOE were to be provided with additional information that alleviates these uncertainties and concerns, DOE would consider establishing a cut orientation requirement in a final rule.

Irrespective of its determination regarding the specification of a cut orientation requirement, DOE has tentatively determined that section 3.1

<sup>18</sup> As discussed, RMC is a measure of the remaining water content of the clothes washer load at the end of the wash cycle and is used to incorporate an estimate of clothes drying energy into the clothes washer efficiency descriptor.

of appendix J3 is superfluous, given that the suggested parameters regarding the width and length dimensions of the roll (*i.e.*, a roll width of approximately 63 inches and approximately 500 yards per roll) are rendered moot by the accompanying provision allowing for rolls of other sizes to be used. As such, DOE proposes to remove section 3.1 of appendix J3 and renumber the subsequent sections accordingly.

DOE requests comment on the roll dimensions and cut orientations that are currently used to fabricate DOE test cloth.

DOE requests comment as to whether, or to what extent, the energy test cloth cut orientation could impact the RMC measurement in the clothes washer test procedure.

DOE requests comment on its concern that establishing a cut orientation requirement could lead to fabric waste, depending on the dimensions of the fabric roll.

DOE requests comment on its tentative determination not to specify a cut orientation requirement. DOE further seeks comment on whether it should adopt the cut orientation requirement specified by AHAM or any other cut orientation requirement.

DOE requests comment on its tentative determination that section 3.1 of appendix J3 is superfluous and its proposal to remove the requirements in section 3.1 of appendix J3.

## 2. Fabric Weight and Thread Count

Section 3.3 of appendix J3 specifies that the fabric weight of the test cloth must be  $5.60 \pm 0.25$  ounces per square yard, but it does not specify at what point in the fabrication process this specification applies. Similarly, section 3.4 of appendix J3 specifies that the thread count of the test cloth must be  $65 \times 57$  threads per inch  $\pm 2$  percent, but it does not specify at what point in the fabrication process this specification applies. The May 2024 AHAM Letter requested that DOE amend these specifications to clarify that fabric weight and thread count specifications apply to “finished goods” test cloth prior to pre-conditioning. (No. 1 at pp. 4, 22) Through its participation in the AHAM task force, DOE understands the term “finished goods” to mean after the cloth has been hemmed into energy test cloth and energy stuffer cloths, but prior to any pre-conditioning.

DOE further understands through its participation in the AHAM task force that specifying that these requirements apply to finished goods (as opposed to prior to the cloth having been processed, de-starched, and hemmed), but prior to any pre-conditioning, is the

most appropriate point in the cloth fabrication process because these dimensional properties can change during certain stages of the cloth fabrication process. Applying these specifications to finished goods therefore ensures the consistency of each test cloth lot at the state in which the test cloth is purchased by a manufacturer or test laboratory.

Consistent with AHAM’s recommendation, DOE proposes to specify within section 3 of appendix J3 that fabric weight and thread count specifications apply to finished goods prior to pre-conditioning.

DOE requests feedback on its proposal to specify in appendix J3 that fabric weight and thread count specifications apply to finished goods prior to pre-conditioning.

## 3. Granite Weave

Section 3.2 of appendix J3 states that the test cloth used for clothes washer testing must be a pure finished bleached cloth, made with a momie or granite weave. As discussed in the May 2024 AHAM Letter, recent lots 25A and 25B<sup>19</sup> were woven with a different type of granite weave—a “crepe” weave—than the “momie” type of granite weave that has historically been used for DOE test cloth. (No. 1 at p. 3)

To evaluate whether using a crepe weave would impact test results compared to the historical momie weave, DOE conducted comparative testing of RCWs and consumer clothes dryers using lot 25A (made with a crepe weave) and previous test cloth lot 23 (made with a momie weave). The results of DOE’s testing are presented in a Technical Appendix published in the docket for this rulemaking.<sup>20</sup> This testing shows no substantive variation in RMC, integrated modified energy factor (“IMEF”), or integrated water factor—the reported metrics for RCWs—or in combined energy factor—the reported metric for consumer clothes dryers—between the different granite weave types (*i.e.*, traditional momie versus crepe weave). Although DOE’s test sample did not include any CCWs, DOE expects that the trends in RMC values, energy use, and water use that it observed in RCWs would apply to CCWs, given that RCWs and CCWs are

designed and operate similarly and are tested using the same test procedure.

Through its participation in discussions with the AHAM task force, DOE understands that very few textile mills maintain the capability to fabricate cloth using the type of momie weave that has traditionally been used to produce DOE test cloth. Instead, the type of crepe weave used for lot 25A is expected to be more readily available going forward. In recognition of this, DOE is proposing to add the term “crepe” to the list of allowable weaves—specifically, to revise newly renumbered section 3.1.1.1 of appendix J3 to specify that the test cloth be made with a momie, granite, or crepe weave.

DOE requests feedback on its proposal to add the term “crepe” to the list of allowable weaves in appendix J3.

Appendix J3 currently does not define the terms momie or granite weave. In the May 2024 AHAM Letter, AHAM suggested that DOE establish definitions for these terms in appendix J3.<sup>21</sup> (No. 1 at pp. 21–22) Through its participation in the AHAM task force, DOE understands that momie, granite, and crepe weave types are generally understood terms of art within the textile industry, but there is not a definitive source for definitions of these terms. DOE is concerned that creating its own definitions for these terms could inadvertently conflict with the range of weave styles that are generally understood by the textile industry to be granite weaves. Therefore, DOE has tentatively determined not to establish a definition for these terms within the appendix J3 test procedure. DOE would consider establishing definitions for one or more of these terms—including the definitions suggested by AHAM—if interested parties were to demonstrate sufficient justification that would alleviate the concerns expressed herein.

DOE requests feedback on its tentative determination not to establish definitions for “crepe,” “granite,” or “momie” weave in appendix J3.

## 4. Alternate Test Cloth

DOE is required to ensure that the test procedure is reasonably designed to produce test results that measure energy efficiency, energy use, water use, or estimated annual operating cost of a covered product/equipment during a

<sup>19</sup> The AHAM task force designated the two most recent lots of test cloth “25A” and “25B” to reflect that these two lots were manufactured at the same time using the same continuous weaving process, although they were finished in separate batch processes.

<sup>20</sup> The docket web page can be found at [www.regulations.gov/docket/EERE-2024-BT-TP-0009](http://www.regulations.gov/docket/EERE-2024-BT-TP-0009).

<sup>21</sup> AHAM suggested defining “granite weave” as a broad classification of weave producing a small, irregular, pebbled surface similar to crepe fabrics; fabrics made with a granite weave are generally interlaced tightly, and warp and filling yarns appear on the face. AHAM suggested defining “momie/granite weave fabric” as test cloth made with granite weave fabric as specified in the suggested definition of granite weave.



representative average use cycle or period of use and is not unduly burdensome to conduct. (42 U.S.C. 6293(b)(3); 42 U.S.C. 6314(a)(2)) In establishing the current test cloth specifications, DOE considered the representativeness of the range of fabrics comprising consumer wash loads, the manufacturability of the fabric, the consistency in test cloth production, and the consistency in test results from the fabric. 66 FR 3314, 3318 (Jan. 12, 2001).

As discussed, the current test cloth specifications were recommended by the May 2000 Test Cloth Report, which noted that this cloth (at the time) was produced in high volume, had been produced to a consistent specification for many years, and was likely to continue to be produced on this basis for the foreseeable future. (See section 6 of May 2000 Test Cloth Report.) The May 2000 Test Cloth Report also highlighted the benefits of specifying a single type of fabric that is produced frequently by one mill to a consistent set of specifications.

However, while the test cloth specified in appendix J3 continues to be produced by a single supplier, DOE understands through its participation in the AHAM task force that this cloth is produced exclusively for use in

conducting the DOE test procedure (*i.e.*, this specific cloth is not used to any significant extent by any other industry bodies or for any other regulatory or research and development purposes). As such, it is no longer the case that this cloth is produced in high volume (beyond the volume needed for DOE testing purposes), leading to uncertainty as to whether this cloth is likely to remain readily available on a consistent basis for the foreseeable future.

During the COVID-19 pandemic, the laundry industry experienced shortages in DOE test cloth supply.<sup>22</sup> The specialized nature of the DOE test cloth (*i.e.*, the fact the cloth is unique to DOE testing needs and produced in relatively low volumes) inhibited the ability to identify alternate sources of supply for the test cloth. To mitigate this shortage, AHAM requested that DOE use its enforcement discretion to allow extended use of test cloth beyond the currently defined cycle limits.<sup>23</sup> On September 28, 2023, DOE issued a statement<sup>24</sup> stating that DOE would exercise its enforcement discretion and not impose civil penalties on a clothes washer, commercial clothes washer, or clothes dryer manufacturer for certifying compliance with DOE’s energy conservation standards based on testing

that exceeds the maximum test cloth run provision set forth in the DOE test procedures. Instead, DOE allowed for usage of test cloth for twice the number of runs allowed in the relevant test procedures.

In an effort to further alleviate any test cloth supply constraints that could limit energy testing activities for clothes washers and clothes dryers, the AHAM task force evaluated the potential merits of specifying an alternate test cloth that could be used for DOE testing, as discussed in the May 2024 AHAM Letter. (No. 1 at p. 3)

The AHAM task force identified a commercially available standardized fabric as a possible alternative to the current test cloth specification. This fabric is used as “ballast” for testing specific material attributes (such as colorfastness) of textiles and, according to the May 2024 AHAM Letter, has been used by the textile industry for over 80 years. (No. 1 at p. 3) Specifically, the fabric meets the specifications of Laundering Ballast Type 3 cloth specified by industry standard AATCC LP1-2021, *Laboratory Procedure for Home Laundering: Machine Washing*.<sup>25</sup> The specifications for Laundering Ballast Type 3 cloth are provided in Table III.1.

TABLE III.1—SPECIFICATIONS FOR LAUNDERING BALLAST TYPE 3 CLOTH FROM AATCC LP1-2021

Characteristic	Specification
Fiber Content .....	50% cotton/50% polyester ±3%.
Greige Fabric Yarns .....	16/1 or 30/2 ring spun.
Greige Fabric Construction .....	52 × 48 ± 5 yarns per inch, plain weave.
Finished Fabric Weight .....	155 ± 10 grams per square meter (4.57 ± 0.29 ounces per square yard).
Edges .....	All edges hemmed or over-edged.
Finished Piece Size .....	920 × 920 ± 30 millimeters (36.0 × 36.0 ± 1 inch).
Finished Piece Weight .....	130 ± 10 grams (4.59 ± 0.35 ounces).

As part of an AHAM task force investigation, DOE and AHAM members conducted comparative testing of Laundering Ballast Type 3 cloth<sup>26</sup> to evaluate whether this cloth could be used to conduct the DOE test procedures and whether doing so would produce test results comparable to the currently specified test cloth. The results of DOE’s testing are presented in the Technical Appendix published in the docket for this rulemaking.

Specifically, DOE tested six RCWs and eight consumer clothes dryers, representing eight manufacturers and all major product classes; AHAM members additionally conducted testing of eight RCWs and six consumer clothes dryers, representing all major product classes. These products were tested to their rated appendix (D1, D2, or J2) using both the current DOE test cloth and the Laundering Ballast Type 3 cloth.

DOE’s testing demonstrated no substantive difference in measured

efficiency compared with historical lots used for RCW and consumer clothes dryer testing. In particular for clothes washers, the Laundering Ballast Type 3 produced RMC results comparable to existing DOE test cloth using the currently specified correction factor approach. Although DOE’s test sample did not include any CCWs, DOE expects that the trends in RMC values, energy use, and water use that it observed in RCWs would apply to CCWs, given that RCWs and CCWs are designed and

<sup>22</sup> AHAM informed DOE on March 3, 2022 that there were significant issues with the quality and availability of the required test cloth material for the applicable energy tests for clothes washers and clothes dryers.

<sup>23</sup> On August 7, 2023, AHAM informed DOE that test cloth shortages were persisting and that this supply shortage could also eventually impact DOE’s

ability to conduct assessment, enforcement, or other testing.

<sup>24</sup> Available at [www.energy.gov/sites/default/files/2023-09/Test%20Cloth%20Policy%20for%20Clothes%20Washers%20and%20Clothes%20Dryers%20Enforcement%20Policy.pdf](http://www.energy.gov/sites/default/files/2023-09/Test%20Cloth%20Policy%20for%20Clothes%20Washers%20and%20Clothes%20Dryers%20Enforcement%20Policy.pdf).

<sup>25</sup> Table VII of AATCC LP1-2021 provides specifications for various types of cloth, one of which is designated as Laundering Ballast Type 3.

<sup>26</sup> The tested cloth used 16/1 fabric yarns and was sized to match the DOE energy test cloth and energy stuffer cloth dimensions and hemming instructions (as currently specified in section 3.7.1 and 3.7.2 of appendix J3, respectively) instead of the finished piece dimensions specified in Table VII of AATCC LP1-2021.

operate similarly and are tested using the same test procedure.

In addition, AHAM presented the results of its members' testing in appendix A to the May 2024 AHAM Letter. (No. 1 at pp. 6–9) This testing also demonstrated no substantive difference in measured efficiency compared with historical lots used for RCW and consumer clothes dryer testing.

Based on this data, DOE has tentatively determined that the AATCC Laundering Ballast Type 3 cloth provides results that are equally as representative as results obtained using the currently specified test cloth. On this basis, DOE is proposing, consistent with recommendations from the May 2024 AHAM Letter, to amend appendix J3 to allow for the use of AATCC Laundering Ballast Type 3 cloth, with a specific yarn size, and cut and hemmed to the DOE energy test cloth dimensions. (No. 1 at p. 22) As discussed in section III.D.3 of this document, the specifications in appendix J3 would apply to both clothes washers and clothes dryers.

Specifically, DOE is proposing to incorporate by reference AATCC LP1–2021 into appendix J3 and to allow the use of test cloth meeting the specifications of Laundering Ballast Type 3, as specified in Table VII of AATCC LP1–2021, with the following additional specifications and substitutions:

- *Greige Fabric Yarns*: Type 16/1 only<sup>27</sup>
  - *Edges*: All edges hemmed only<sup>28</sup>
  - *Finished Piece Size*: Dimensions in accordance with sections 3.7.1 and 3.7.2 of appendix J3 for energy test cloths and energy stuffer cloths, respectively.<sup>29</sup>
  - *Finished Piece Weight*: Disregard<sup>30</sup>

<sup>27</sup> As discussed previously, comparative testing was conducted only on fabric with 16/1 yarn type, which is a single-string yarn similar in thickness to the 15/1 yarn type currently specified in section 3.5 of appendix J3. No testing was conducted on fabric with 30/2 yarn type—the other fabric yarn option specified in Table VII of AATCC LP1–2021—which is a two-string version of yarn with each string roughly half the diameter of the single-string version.

<sup>28</sup> As discussed previously, comparative testing was conducted only on fabric matching the hemming instructions currently specified in sections 3.7.1 and 3.7.2 of appendix J3. No testing was conducted on over-edged pieces of test cloth (*i.e.*, the other edging option specified in Table VII of AATCC LP1–2021).

<sup>29</sup> As discussed previously, comparative testing was conducted only on fabric matching the dimensions currently specified in sections 3.7.1 and 3.7.2 of appendix J3. No testing was conducted on fabric pieces matching the dimensions as specified in Table VII of AATCC LP1–2021.

<sup>30</sup> The Finished Piece Weight specified in Table VII of AATCC LP1–2021 corresponds to the Finished Piece Size specified in the same table; as

DOE requests comment on its proposal to allow the use of Laundering Ballast Type 3 cloth specified in AATCC LP1–2021 (with certain additional specifications) as an alternate test cloth for conducting clothes washer and clothes dryer testing.

Consistent with the discussion in section III.C.3 of this document, DOE considered whether to propose a definition for “plain weave” as specified in Table VII of AATCC LP1–2021. DOE understands the term “plain weave” to be a well-understood term of art and therefore tentatively determines that adding a definition of “plain weave” to appendix J3 would not be warranted.

DOE requests feedback on its tentative determination not to establish a definition for “plain weave” in appendix J3.

#### 5. Uniformity Criteria

In the June 2022 Final Rule, DOE codified a prequalification procedure to be performed on each new lot of test cloth to verify the uniformity of the test cloth throughout the beginning, middle, and end of the lot. 87 FR 33316. As discussed in the June 2022 Final Rule, DOE had received a request from members of the AHAM task force to add to appendix J3 additional steps to the qualification procedure that have historically been performed on each new lot of test cloth to ensure uniformity of RMC test results on test cloths from the beginning, middle, and end of each new lot. *Id.* at 87 FR 33368. Industry practice has been to perform this “uniformity check” before conducting the procedure to develop the RMC correction factors currently specified in appendix J3. *Id.* Specifically, the uniformity check involves performing an RMC measurement on nine bundles of sample test cloth representing the beginning, middle, and end locations of the first, middle, and last rolls of test cloth in a new lot. *Id.* In the historical procedure provided by the AHAM task force, the coefficient of variation (“CV”) across the nine RMC values must be less than or equal to 1 percent for the test cloth lot to be considered acceptable for use. *Id.* The amendments codified by the June 2022 Final Rule included the suggested requirement for the CV of the “uniformity check” procedure to be less than or equal to 1 percent. *Id.* at 87 FR 33369.

Shortly after the publication of the June 2022 Final Rule establishing the

such, this specification does not apply to fabric pieces matching the proposed finished piece dimensions.

requirement for the CV to be less than or equal to 1 percent—but prior to its effective date—lot 24D was produced by the test cloth supplier and was measured to have a CV of 1.6 percent. AHAM developed correction factors for this lot of test cloth despite its CV over 1 percent, on the basis that the new CV requirement had not yet become effective, and that the industry was facing a test cloth shortage.

Since the effective date of the CV requirement, the AHAM task force has developed correction factors for test cloth lots 25A and 25B<sup>31</sup>—both with CV values of 1.1 percent. AHAM stated in letters to DOE that it based its recommendations to proceed with these test cloth lots on the ongoing test cloth shortages, DOE’s historical acceptance of lots with CVs exceeding 1 percent, and the extensive testing that DOE performed of lot 25A, as described in section III.C.3 of this document.

DOE notes that the 1-percent threshold was originally recommended by AHAM during a previous test procedure rulemaking. 87 FR 33316, 33368 (Jun. 1, 2022). DOE further notes that prior to the codification of the prequalification procedure, the AHAM task force used its discretion to evaluate the uniformity of each new test cloth lot. DOE understands the repeatable performance of test cloth lots with a CV slightly higher than 1 percent—as shown by the testing of lot 25A described in section III.C.3 of this document—to be an indication that the 1-percent threshold may be unnecessarily stringent (*i.e.*, too low). In this NOPR, DOE proposes to amend appendix J3 by increasing the allowable CV threshold to 2 percent.

DOE requests comment on its proposal to amend the CV threshold requirement in appendix J3 from 1 percent to 2 percent. Specifically, DOE requests comment on whether another threshold would be more appropriate.

#### 6. Variance P-Value Threshold and Root-Mean-Square Error

In the October 2003 Final Rule, DOE adopted a statistical procedure, called “analysis of variance” (or “ANOVA”), as the lot-to-lot interactive-effect statistical test for screening out lots of test cloth whose RMC behavior is inconsistent with the baseline lot. 68 FR 62198, 62201. The ANOVA statistical test measures the extent of the deviation of the shape of the RMC compared to the g-curve for a given lot of the test cloth from the shape of the RMC compared to the g-curve for the baseline

<sup>31</sup> See letters received by DOE on December 13, 2023 and May 24, 2024.

lot. *Id.* In the October 2003 Final Rule, DOE explained that it believed that the test would catch any unanticipated deviation in RMC in future lots. *Id.*

Section 8.8 of appendix J3 specifies performing the analysis of variance with replication test using two factors, spin speed and lot, to determine whether the interaction of speed and lot is significant. If the interaction is not significant (as calculated by the “P-value” of the F-statistic being greater than 0.1), then the lot is considered acceptable. If the P-value is less than 0.1, the test cloth is deemed unacceptable. The P-value provides an indication of any interactive effect between lots and spin speeds. The lower the P-value, the stronger the evidence of such an interaction.

On March 29, 2010, AHAM sent DOE a letter (“March 2010 AHAM Letter”) noting that the lot 17 was measured to have a P-value that was less than 0.1. (No. 2 at p. 1) AHAM requested that DOE approve lot 17 for use on the basis that the root-mean-square error (“RMSE”) was less than 2 percent, the P-value of the test cloth excluding the 100g test condition was greater than 0.1, and test cloth supply shortage issues. (*Id.* at pp. 1–4)

The more recent lot of AATCC test cloth evaluated by DOE and AHAM, as described in section III.C.4 of this document, had a P-value of 0.072, which would not meet the requirements of section 8.8 of appendix J3. However, the testing conducted by DOE and AHAM<sup>32</sup> suggests that, despite the low P-value, the application of the test cloth correction factors produces corrected RMC values that are comparable (*i.e.*, less than 1 RMC percentage point difference on average) to the standard RMC values for each tested extractor condition. For this reason, DOE has tentatively determined that a low P-value is not necessarily indicative of a test cloth lot not being acceptable for use in the clothes washer test procedures. DOE has further tentatively determined that a different statistical measure can provide a better measure of the acceptability of a new test cloth lot.

Specifically, DOE has evaluated the usefulness of the RMSE between the corrected RMC values and the standard RMC values for the same test conditions as a potentially more relevant statistical measure to evaluate a new test cloth lot. Conceptually, this RMSE value represents the closeness of fit of the corrected RMC values to the standard RMC values. A smaller RMSE value

indicates a better closeness of fit. Recognizing that the *corrected* RMC value is used to calculate IMEF, DOE tentatively determines that RMSE—which evaluates corrected RMC values—would provide a better measure of acceptability than P-value, which evaluates uncorrected RMC values.

As shown in Table III.2, the RMSE values of the historical test cloth lots posted to DOE’s website<sup>33</sup> fall within a range of 0.004 to 0.014. Additionally, the AATCC lot of test cloth evaluated by DOE and AHAM, as described in section III.C.4 of this document, has an RMSE of 0.0091.

TABLE III.2—HISTORICAL TEST CLOTH LOT RMSE VALUES

Lot	RMSE
5	0.004
6	0.014
7	0.007
8	0.005
9	0.006
10	0.007
11	0.008
12	0.009
13	0.009
14	0.007
15	0.005
16	0.009
17	0.011
18	0.009
19	0.010
20	0.008
21	0.010
22	0.010
23	0.009
24A	0.010
24B	0.008
24D	0.011
25A	0.008
25B	0.009

Based on the historical record and its testing, in this NOPR, DOE tentatively determines that an RMSE-based threshold for new test cloth lots would provide a better measure of the acceptability of a new test cloth lot. Therefore, DOE is proposing to replace the P-value evaluation in section 8.8 of appendix J3 with a calculation of RMSE and a requirement that the RMSE be below 0.015, which represents a threshold slightly higher than the maximum RMSE value of 0.014 observed among historical test cloth lots.

DOE requests feedback on its proposal to replace the P-value test in appendix J3 with a root-mean-square error test.

<sup>33</sup> DOE maintains a historical record of the standard extractor test data and final correction curve coefficients for each approved lot of energy test cloth at [www.energy.gov/eere/buildings/articles/clothes-washer-test-cloth-correction-factor-information](http://www.energy.gov/eere/buildings/articles/clothes-washer-test-cloth-correction-factor-information).

DOE requests feedback on specifying 0.015 as an acceptability threshold for the RMSE value.

*D. Other Clarifying and Restructuring Edits*

1. Introductory Paragraph

Appendix J3 includes test cloth specifications, procedures for pre-conditioning test cloth, procedures for verifying that new lots of test cloth meet the defined material specifications, and procedures for developing RMC correction factors. Appendix J3 contains an introductory section titled “Objective” that summarizes the key objectives of the procedure. This paragraph currently does not reference the pre-conditioning of test cloth as one of the key objectives.

In this NOPR, DOE is proposing to update the heading to appendix J3 and its objective paragraph to explicitly include pre-conditioning of test cloth as one of its objectives.

DOE requests feedback on its proposal to update appendix J3 to explicitly mention pre-conditioning of test cloth.

2. Pre-Conditioning Instructions

Section 5 of appendix J3 provides the test cloth pre-conditioning instructions. Currently, this section is organized as a single paragraph detailing the entire procedure, whereas other sections of appendix J3 are organized with sections that provide a clearer step-by-step sequence of instructions. DOE proposes to restructure section 5 of appendix J3 to read as a sequence of instructions rather than a single paragraph, for greater clarity and ease of use.

3. Harmonizing Clothes Washer and Clothes Dryer Test Procedures

As previously discussed, in the August 2015 Final Rule, DOE moved the test cloth qualification procedures from appendix J2 to a newly created appendix J3. Appendix J3 is currently only referenced by the clothes washer test procedure. Section 2.7 of appendices J and J2 reference appendix J3 generally for test cloth specifications and section 5 of appendix J3 for test cloth pre-conditioning instructions. Whereas, for clothes dryers, section 2.6 of appendices D1 and D2 list each of the test cloth specifications and detail the test cloth pre-conditioning requirements.

Historically, manufacturers and test laboratories have used the same test cloth for both clothes washers and clothes dryers. The May 2024 AHAM Letter requested that DOE harmonize specifically the pre-conditioning procedure for clothes washers and

<sup>32</sup> See the Technical Appendix available at [www.regulations.gov/docket/EERE-2024-BT-TP-0009](http://www.regulations.gov/docket/EERE-2024-BT-TP-0009).

clothes dryers. (No. 1 at p. 4) In line with this recommendation, DOE has tentatively determined that all aspects of the test cloth specifications can be harmonized between clothes washers and clothes dryers (*i.e.*, not just the pre-conditioning requirements).

DOE proposes to harmonize test cloth specifications between appendices J, J2, D1, and D2 by replacing existing test cloth specifications in appendices D1 and D2 with references to the analogous specifications in appendix J3.

Specifically, DOE is proposing to replace the entirety of section 2.6 in both appendices D1 and D2 with a paragraph specifically referencing sections 3 (Test Cloth Specifications) and 7 (Test Cloth Material Verification Procedure) of appendix J3. DOE is also proposing to update section 2.7 of appendices J and J2 to specifically reference sections 3 (Test Cloth Specifications), 7 (Test Cloth Material Verification Procedure), and 8 (RMC Correction Curve Procedure) of appendix J3.

DOE is further proposing to remove section 3.8 of appendix J3, which currently specifies that the test cloth must be clean, may not be used for more than 60 clothes washer runs, must be permanently marked, and may not be used in mixed lots. These specifications—which are specific to clothes washers and do not apply to clothes dryers—would instead be included in section 2.7 of appendices J and J2. Appendices D1 and D2 would retain the existing requirement that for clothes dryers the test cloth must not be used for more than 25 runs, although this requirement would be relocated to section 2.6 (from 2.6.1(c) currently).

Finally, DOE is proposing to update the objective statement and section 5 of appendix J3 to explicitly reference clothes dryers alongside clothes washers.

DOE requests feedback on its proposal to harmonize test cloth specifications for clothes washers and clothes dryers.

#### 4. Restructuring Appendix J3

Section 3.2 of appendix J3 specifies the “nominal fabric type” for the test cloth as pure finished bleached cloth made with a momie or granite weave, which is nominally 50 percent cotton and 50 percent polyester. Section 3.5 of appendix J3 contains a duplicative (although more specific) requirement specifying a fiber content of 50 percent  $\pm$  4 percent cotton, with the balance being polyester. DOE proposes to remove the less specific nominal fiber content specification from section 3.2 of appendix J3. Accordingly, DOE is further proposing to update the name of

section 3.2 of appendix J3 from “nominal fabric type” to “fabric type.”

Within section 3 of appendix J3, which lists the specifications for the test cloth, sections 3.2 through 3.5 are currently organized as follows: section 3.2 specifies the nominal fabric type, section 3.3 specifies the fabric weight, section 3.4 specifies the thread count, and section 3.5 specifies the fiber content of the yarn. This order does not match the order in which these material properties are considered throughout the test cloth fabrication process. Specifically, the weaving process starts with spinning yarn of a specific fiber content, then a specific number of yarn strands (corresponding to thread count) are woven into a roll of fabric, resulting in a specific material density (*i.e.*, fabric weight). To better match the order in which these material properties are considered throughout the test cloth fabrication process, DOE proposes to reorder these sections to provide the fiber content specification first, followed by thread count specification, followed by the fabric weight specification.

Section 3.7 of appendix J3 currently includes dimensions for the energy test cloth and energy stuffer cloth<sup>34</sup> and specifies that the dimensions apply “before washing.” DOE is aware that this terminology may lead to confusion, as it is inconsistent with other parts of the test procedure that use the term “pre-conditioning” rather than “washing” to refer to the process by which test cloth is washed before its first use. Consistent with the recommendations in the May 2024 AHAM Letter, DOE is proposing to clarify this wording and to specify that the dimensions listed in section 3.7 apply before pre-conditioning of the test cloth. (No. 1 at p. 24)

Appendices D1, D2, J, J2, and J3 currently use inconsistent hyphenation of the word pre-conditioning, using “pre-conditioning” in some cases and “preconditioning” in others. The May 2024 AHAM Letter requested that DOE standardize the hyphenation of “pre-conditioning” throughout the appendix. (No. 1 at p. 4) In this NOPR, DOE is proposing to standardize the hyphenation of “pre-conditioning” across all five appendices.

The June 2022 Final Rule renumbered certain sections of appendix J3 and implemented in section 8.5 of appendix J3 references to “sections 8.3.3 and 8.3.4 of this appendix.” 87 FR

<sup>34</sup> An energy stuffer cloth is made from the same material as an energy test cloth but is cut to a smaller size. Test loads must consist of energy test cloths and no more than five energy stuffer cloths per load to achieve the specified weight.

33316, 33405. These cross-references should instead reference sections 8.3 and 8.4 of appendix J3. DOE is therefore proposing to correct this typographical error by updating section 8.5 of appendix J3 to correctly reference sections 8.3 and 8.4, in place of sections 8.3.3 and 8.3.4.

Finally, DOE is proposing to add a section 0 to appendix J3 to specify the industry standards incorporated by reference in this test procedure. Specifically, these include AATCC Test Method 118–2007, AATCC Test Method 79–2010, AATCC Test Method 135–2010, and, newly, AATCC LP1–2021. DOE also proposes conforming edits at each instance where these test methods are referenced within appendix J3.

DOE requests feedback on its proposals to clarify and restructure appendix J3, including the addition of a new section to specify the industry standards incorporated by reference.

#### E. Test Procedure Costs and Impact

EPCA requires that test procedures proposed by DOE not be unduly burdensome to conduct. (42 U.S.C. 6293(b)(3); 6314(a)(2)) DOE does not anticipate that the amendments proposed in this NOPR would impact testing costs or the burden of conducting the test procedure.

DOE’s market research indicates that the alternate test cloth proposed for use in this document has approximately the same cost per pound as the current test cloth—approximately \$40–50 per pound of unconditioned test cloth.<sup>35</sup> Therefore, using the alternate proposed test cloth would not impact clothes washer or clothes dryer testing costs.

Based on an analysis of the test results presented in the Technical Appendix, DOE has tentatively determined that manufacturers would be able to rely on data generated under the current test procedures should any of these additional proposed amendments be finalized.

DOE requests comments on its tentative determination that that the amendments proposed in this NOPR would not impact testing costs or the burden of conducting the test procedure.

#### F. Compliance Date

As discussed, on September 28, 2023, DOE issued a statement stating that DOE would exercise its enforcement discretion and not impose civil penalties on a clothes washer, commercial clothes washer, or clothes

<sup>35</sup> These cost estimates are based on DOE’s most recent purchases of test cloth in relatively small quantities.

dryer manufacturer for certifying compliance with DOE's energy conservation standards based on testing that exceeds the maximum test cloth run provision set forth in the DOE test procedures. Instead, DOE allowed for usage of test cloth for twice the number of runs allowed in the relevant test procedures.

In the May 2024 AHAM Letter, AHAM requested that DOE maintain its enforcement discretion policy to allow twice the number of test runs than is currently specified for test cloth meeting the current specifications, but not for any of the alternate test cloth proposed for use in this NOPR, noting that it does not have any test data to support an extended number of cycles on the new test cloth at this time. (No. 1 at p. 4)

EPCA prescribes that, if DOE amends a test procedure, all representations of energy efficiency and energy use, including those made on marketing materials and product labels, must be made in accordance with that amended test procedure, beginning 180 days after publication of such a test procedure final rule in the **Federal Register**. (42 U.S.C. 6293(c)(2))

If DOE were to publish an amended test procedure EPCA provides an allowance for individual manufacturers to petition DOE for an extension of the 180-day period if the manufacturer may experience undue hardship in meeting the deadline. (42 U.S.C. 6293(c)(3)) To receive such an extension, petitions must be filed with DOE no later than 60 days before the end of the 180-day period and must detail how the manufacturer will experience undue hardship. (*Id.*)

DOE has tentatively determined that the updated test cloth provisions as proposed in this NOPR would alleviate any test cloth shortages that were the impetus for the enforcement discretion policy, and that at the time of compliance of any amended test procedure, should DOE decide to issue such an amendment, no need for such a policy would remain. Therefore, DOE has tentatively determined that upon the compliance date of test procedure provisions of an amended test procedure (*i.e.*, 180 days after publication of a test procedure final rule), should DOE issue such an amendment, the enforcement discretion policy would be withdrawn.

DOE requests comments on its tentative determination that the enforcement discretion policy allowing twice the number of test cloth runs would be withdrawn 180 days after publication of a test procedure final rule.

In the May 2024 AHAM Letter, AHAM further requested that DOE consider allowing immediate use of the alternate test cloth as a relief to manufacturers facing test cloth shortages, rather than waiting for the completion of the rulemaking. (No. 1 at p. 5)

DOE recognizes the concern of test cloth availability. As noted, DOE would maintain the current enforcement policy allowing for the extended lifetime of the current test cloth until 180 days after publication of a test procedure final rule. The proposed amendments, if adopted, could be used as early as their effective date (*i.e.*, 30 days after publication of any final rule DOE may publish regarding these amendments).

#### IV. Procedural Issues and Regulatory Review

##### A. Review Under Executive Orders 12866, 13563, and 14094

Executive Order (“E.O.”) 12866, “Regulatory Planning and Review,” as supplemented and reaffirmed by E.O. 13563, “Improving Regulation and Regulatory Review,” 76 FR 3821 (Jan. 21, 2011) and E.O. 14094, “Modernizing Regulatory Review,” 88 FR 21879 (April 11, 2023), requires agencies, to the extent permitted by law, to (1) propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs (recognizing that some benefits and costs are difficult to quantify); (2) tailor regulations to impose the least burden on society, consistent with obtaining regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations; (3) select, in choosing among alternative regulatory approaches, those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity); (4) to the extent feasible, specify performance objectives, rather than specifying the behavior or manner of compliance that regulated entities must adopt; and (5) identify and assess available alternatives to direct regulation, including providing economic incentives to encourage the desired behavior, such as user fees or marketable permits, or providing information upon which choices can be made by the public. DOE emphasizes as well that E.O. 13563 requires agencies to use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible. In its guidance, the Office of Information and Regulatory Affairs

(“OIRA”) in the Office of Management and Budget (“OMB”) has emphasized that such techniques may include identifying changing future compliance costs that might result from technological innovation or anticipated behavioral changes. For the reasons stated in the preamble, this proposed regulatory action is consistent with these principles.

Section 6(a) of E.O. 12866 also requires agencies to submit “significant regulatory actions” to OIRA for review. OIRA has determined that this proposed regulatory action does not constitute a “significant regulatory action” under section 3(f) of E.O. 12866. Accordingly, this action was not submitted to OIRA for review under E.O. 12866.

##### B. Review Under the Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires preparation of an initial regulatory flexibility analysis (“IRFA”) for any rule that by law must be proposed for public comment, unless the agency certifies that the rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. As required by Executive Order 13272, “Proper Consideration of Small Entities in Agency Rulemaking,” 67 FR 53461 (August 16, 2002), DOE published procedures and policies on February 19, 2003, to ensure that the potential impacts of its rules on small entities are properly considered during the DOE rulemaking process. 68 FR 7990. DOE has made its procedures and policies available on the Office of the General Counsel’s website: [www.energy.gov/gc/office-general-counsel](http://www.energy.gov/gc/office-general-counsel). DOE reviewed this proposed rule under the provisions of the Regulatory Flexibility Act and the procedures and policies published on February 19, 2003.

DOE has recently conducted a focused inquiry into small business manufacturers of the RCWs, CCWs, and consumer clothes dryers covered by this proposed rulemaking. DOE used available public information to identify potential small manufacturers. DOE accessed the Compliance Certification Database<sup>36</sup> to create a list of companies that import or otherwise manufacture the RCWs, CCWs, and consumer clothes dryers covered by this proposal.

As detailed in section III.C.4 of this document, DOE is proposing that an additional type of test cloth be permitted for testing. This alternate test

<sup>36</sup> U.S. Department of Energy Compliance Certification Database, available at: [www.regulations.doe.gov/certification-data/products.html](http://www.regulations.doe.gov/certification-data/products.html).

cloth is approximately the same cost as the existing test cloth. As a result, DOE does not expect any increased cost or burdens to manufacturers from this proposal.

Therefore, DOE initially concludes that the impacts of the proposed test procedure amendments proposed in this NOPR would not have a “significant economic impact on a substantial number of small entities,” and that the preparation of an IRFA is not warranted. DOE will transmit the certification and supporting statement of factual basis to the Chief Counsel for Advocacy of the Small Business Administration for review under 5 U.S.C. 605(b).

#### *C. Review Under the Paperwork Reduction Act of 1995*

Manufacturers of RCWs, CCWs, and consumer clothes dryers must certify to DOE that their products comply with any applicable energy conservation standards. To certify compliance, manufacturers must first obtain test data for their products according to the DOE test procedures, including any amendments adopted for those test procedures. DOE has established regulations for the certification and recordkeeping requirements for all covered consumer products and commercial equipment, including RCWs, CCWs, and consumer clothes dryers. (*See generally* 10 CFR part 429.) The collection-of-information requirement for the certification and recordkeeping is subject to review and approval by OMB under the Paperwork Reduction Act (“PRA”). This requirement has been approved by OMB under OMB control number 1910–1400. Public reporting burden for the certification is estimated to average 35 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

DOE is not proposing to amend the certification or reporting requirements for RCWs, CCWs, and consumer clothes dryers in this NOPR.

Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the PRA, unless that collection of information displays a currently valid OMB Control Number.

#### *D. Review Under the National Environmental Policy Act of 1969*

In this NOPR, DOE proposes amendments to test procedures that are used to demonstrate compliance with

energy conservation standards for RCWs, CCWs, and consumer clothes dryers. DOE has determined that this rulemaking falls into a class of actions that are categorically excluded from review under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*) and DOE’s implementing regulations at 10 CFR part 1021. Specifically, DOE has determined that adopting test procedures for measuring energy efficiency of consumer products and industrial equipment is consistent with activities identified in 10 CFR part 1021, appendix A to subpart D, A5 and A6. Accordingly, neither an environmental assessment nor an environmental impact statement is required.

#### *E. Review Under Executive Order 13132*

Executive Order 13132, “Federalism,” 64 FR 43255 (Aug. 4, 1999) imposes certain requirements on agencies formulating and implementing policies or regulations that preempt State law or that have federalism implications. The Executive order requires agencies to examine the constitutional and statutory authority supporting any action that would limit the policymaking discretion of the States and to carefully assess the necessity for such actions. The Executive order also requires agencies to have an accountable process to ensure meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications. On March 14, 2000, DOE published a statement of policy describing the intergovernmental consultation process it will follow in the development of such regulations. 65 FR 13735. DOE has examined this proposed rule and has determined that it would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. EPCA governs and prescribes Federal preemption of State regulations as to energy conservation for the products that are the subject of this proposed rule. States can petition DOE for exemption from such preemption to the extent, and based on criteria, set forth in EPCA. (42 U.S.C. 6297(d)) No further action is required by Executive Order 13132.

#### *F. Review Under Executive Order 12988*

Regarding the review of existing regulations and the promulgation of new regulations, section 3(a) of Executive Order 12988, “Civil Justice Reform,” 61 FR 4729 (Feb. 7, 1996), imposes on Federal agencies the general duty to adhere to the following

requirements: (1) eliminate drafting errors and ambiguity, (2) write regulations to minimize litigation, (3) provide a clear legal standard for affected conduct rather than a general standard, and (4) promote simplification and burden reduction. Section 3(b) of Executive Order 12988 specifically requires that Executive agencies make every reasonable effort to ensure that the regulation (1) clearly specifies the preemptive effect, if any, (2) clearly specifies any effect on existing Federal law or regulation, (3) provides a clear legal standard for affected conduct while promoting simplification and burden reduction, (4) specifies the retroactive effect, if any, (5) adequately defines key terms, and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. Section 3(c) of Executive Order 12988 requires Executive agencies to review regulations in light of applicable standards in sections 3(a) and 3(b) to determine whether they are met or it is unreasonable to meet one or more of them. DOE has completed the required review and determined that, to the extent permitted by law, the proposed rule meets the relevant standards of Executive Order 12988.

#### *G. Review Under the Unfunded Mandates Reform Act of 1995*

Title II of the Unfunded Mandates Reform Act of 1995 (“UMRA”) requires each Federal agency to assess the effects of Federal regulatory actions on State, local, and Tribal governments and the private sector. Public Law 104–4, sec. 201 (codified at 2 U.S.C. 1531). For a proposed regulatory action likely to result in a rule that may cause the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector of \$100 million or more in any one year (adjusted annually for inflation), section 202 of UMRA requires a Federal agency to publish a written statement that estimates the resulting costs, benefits, and other effects on the national economy. (2 U.S.C. 1532(a), (b)) The UMRA also requires a Federal agency to develop an effective process to permit timely input by elected officers of State, local, and Tribal governments on a proposed “significant intergovernmental mandate,” and requires an agency plan for giving notice and opportunity for timely input to potentially affected small governments before establishing any requirements that might significantly or uniquely affect small governments. On March 18, 1997, DOE published a statement of policy on its process for intergovernmental consultation under

UMRA. 62 FR 12820; also available at [www.energy.gov/gc/office-general-counsel](http://www.energy.gov/gc/office-general-counsel). DOE examined this proposed rule according to UMRA and its statement of policy and determined that the rulemaking contains neither an intergovernmental mandate, nor a mandate that may result in the expenditure of \$100 million or more in any year, so these requirements do not apply.

#### *H. Review Under the Treasury and General Government Appropriations Act, 1999*

Section 654 of the Treasury and General Government Appropriations Act, 1999 (Pub. L. 105–277) requires Federal agencies to issue a Family Policymaking Assessment for any proposed rule or policy that may affect family well-being. When developing a Family Policymaking Assessment, agencies must assess whether: (1) the action strengthens or erodes the stability or safety of the family and, particularly, the marital commitment; (2) the action strengthens or erodes the authority and rights of parents in the education, nurture, and supervision of their children; (3) the action helps the family perform its functions, or substitutes governmental activity for the function; (4) the action increases or decreases disposable income or poverty of families and children; (5) the proposed benefits of the action justify the financial impact on the family; (6) the action may be carried out by State or local government or by the family; and whether (7) the action establishes an implicit or explicit policy concerning the relationship between the behavior and personal responsibility of youth, and the norms of society. In evaluating the above factors, DOE has concluded that it is not necessary to prepare a Family Policymaking Assessment as none of the above factors are implicated. Further, this proposed determination would not have any financial impact on families nor any impact on the autonomy or integrity of the family as an institution.

#### *I. Review Under Executive Order 12630*

DOE has determined, under Executive Order 12630, “Governmental Actions and Interference with Constitutionally Protected Property Rights,” 53 FR 8859 (March 18, 1988), that this proposed regulation would not result in any takings that might require compensation under the Fifth Amendment to the U.S. Constitution.

#### *J. Review Under Treasury and General Government Appropriations Act, 2001*

Section 515 of the Treasury and General Government Appropriations

Act, 2001 (44 U.S.C. 3516 note) provides for agencies to review most disseminations of information to the public under guidelines established by each agency pursuant to general guidelines issued by OMB. OMB’s guidelines were published at 67 FR 8452 (Feb. 22, 2002), and DOE’s guidelines were published at 67 FR 62446 (Oct. 7, 2002). Pursuant to OMB Memorandum M–19–15, Improving Implementation of the Information Quality Act (April 24, 2019), DOE published updated guidelines which are available at [www.energy.gov/sites/prod/files/2019/12/f70/DOE%20Final%20Updated%20IQA%20Guidelines%20Dec%202019.pdf](http://www.energy.gov/sites/prod/files/2019/12/f70/DOE%20Final%20Updated%20IQA%20Guidelines%20Dec%202019.pdf). DOE has reviewed this proposed rule under the OMB and DOE guidelines and has concluded that it is consistent with applicable policies in those guidelines.

#### *K. Review Under Executive Order 13211*

Executive Order 13211, “Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use,” 66 FR 28355 (May 22, 2001), requires Federal agencies to prepare and submit to OMB, a Statement of Energy Effects for any proposed significant energy action. A “significant energy action” is defined as any action by an agency that promulgates or is expected to lead to promulgation of a final rule, and that: (1) is a significant regulatory action under Executive Order 12866, or any successor order, and is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (2) is designated by the Administrator of OIRA as a significant energy action. For any proposed significant energy action, the agency must give a detailed statement of any adverse effects on energy supply, distribution, or use should the proposal be implemented, and of reasonable alternatives to the action and their expected benefits on energy supply, distribution, and use.

The proposed regulatory action to amend the test procedures for measuring the energy efficiency of RCWs, CCWs, and consumer clothes dryers is not a significant regulatory action under Executive Order 12866. Moreover, it would not have a significant adverse effect on the supply, distribution, or use of energy, nor has it been designated as a significant energy action by the Administrator of OIRA. Therefore, it is not a significant energy action, and, accordingly, DOE has not prepared a Statement of Energy Effects.

#### *L. Review Under Section 32 of the Federal Energy Administration Act of 1974*

Under section 301 of the Department of Energy Organization Act (Pub. L. 95–91; 42 U.S.C. 7101), DOE must comply with section 32 of the Federal Energy Administration Act of 1974, as amended by the Federal Energy Administration Authorization Act of 1977. (15 U.S.C. 788; “FEAA”) Section 32 essentially provides in relevant part that, where a proposed rule authorizes or requires use of commercial standards, the notice of proposed rulemaking must inform the public of the use and background of such standards. In addition, section 32(c) requires DOE to consult with the Attorney General and the Chairman of the Federal Trade Commission (“FTC”) concerning the impact of the commercial or industry standards on competition.

The proposed modifications to the test procedures for RCWs, CCWs, and consumer clothes dryers would incorporate fabric specifications from the following commercial standard: AATCC LP1–2021. DOE has evaluated this standard and is unable to conclude whether it fully complies with the requirements of section 32(b) of the FEAA (*i.e.*, whether it was developed in a manner that fully provides for public participation, comment, and review). DOE will consult with both the Attorney General and the Chairman of the FTC concerning the impact of these test procedures on competition, prior to prescribing a final rule.

#### *M. Description of Materials Incorporated by Reference*

The test procedure proposed in this NOPR references AATCC LP1–2021, “Laboratory Procedure for Home Laundering: Machine Washing.” AATCC LP1–2021 is an industry-developed test standard that specifies standard home laundering conditions. Specifically, the test procedure proposed in this NOPR references AATCC LP1–2021 for specifying standardized fabric materials. AATCC LP1–2021 is reasonably available from AATCC (*See, members.aatcc.org/store/lp001/2212/*).

## **V. Public Participation**

### *A. Submission of Comments*

DOE will accept comments, data, and information regarding this proposed rule no later than the date provided in the **DATES** section at the beginning of this proposed rule.<sup>37</sup> Interested parties

<sup>37</sup> DOE has historically provided a 75-day comment period for test procedure NOPRs pursuant

may submit comments, data, and other information using any of the methods described in the **ADDRESSES** section at the beginning of this document.

*Submitting comments via www.regulations.gov.* The *www.regulations.gov* web page will require you to provide your name and contact information. Your contact information will be viewable to DOE Building Technologies staff only. Your contact information will not be publicly viewable except for your first and last names, organization name (if any), and submitter representative name (if any). If your comment is not processed properly because of technical difficulties, DOE will use this information to contact you. If DOE cannot read your comment due to technical difficulties and cannot contact you for clarification, DOE may not be able to consider your comment.

However, your contact information will be publicly viewable if you include it in the comment itself or in any documents attached to your comment. Any information that you do not want to be publicly viewable should not be included in your comment, nor in any document attached to your comment. Otherwise, persons viewing comments will see only first and last names, organization names, correspondence containing comments, and any documents submitted with the comments.

Do not submit to *www.regulations.gov* information for which disclosure is restricted by statute, such as trade secrets and commercial or financial information (hereinafter referred to as Confidential Business Information (“CBI”). Comments submitted through *www.regulations.gov* cannot be claimed as CBI. Comments received through the website will waive any CBI claims for the information submitted. For

to the North American Free Trade Agreement, U.S.-Canada-Mexico (“NAFTA”), Dec. 17, 1992, 32 I.L.M. 289 (1993); the North American Free Trade Agreement Implementation Act, Public Law 103–182, 107 Stat. 2057 (1993) (codified as amended at 10 U.S.C.A. § 2576) (1993) (“NAFTA Implementation Act”); and Executive Order 12889, “Implementation of the North American Free Trade Agreement,” 58 FR 69681 (Dec. 30, 1993). However, on July 1, 2020, the Agreement between the United States of America, the United Mexican States, and the United Canadian States (“USMCA”), Nov. 30, 2018, 134 Stat. 11 (*i.e.*, the successor to NAFTA), went into effect, and Congress’s action in replacing NAFTA through the USMCA Implementation Act, 19 U.S.C. 4501 *et seq.* (2020), implies the repeal of E.O. 12889 and its 75-day comment period requirement for technical regulations. Thus, the controlling laws are EPCA and the USMCA Implementation Act. Consistent with EPCA’s public comment period requirements for consumer products, the USMCA only requires a minimum comment period of 60 days. Consequently, DOE now provides a 60-day public comment period for test procedure NOPRs.

information on submitting CBI, see the Confidential Business Information section.

DOE processes submissions made through *www.regulations.gov* before posting. Normally, comments will be posted within a few days of being submitted. However, if large volumes of comments are being processed simultaneously, your comment may not be viewable for up to several weeks. Please keep the comment tracking number that *www.regulations.gov* provides after you have successfully uploaded your comment.

*Submitting comments via email, hand delivery/courier, or postal mail.*

Comments and documents submitted via email, hand delivery/courier, or postal mail also will be posted to *www.regulations.gov*. If you do not want your personal contact information to be publicly viewable, do not include it in your comment or any accompanying documents. Instead, provide your contact information in a cover letter. Include your first and last names, email address, telephone number, and optional mailing address. The cover letter will not be publicly viewable as long as it does not include any comments.

Include contact information each time you submit comments, data, documents, and other information to DOE. If you submit via postal mail or hand delivery/courier, please provide all items on a CD, if feasible, in which case it is not necessary to submit printed copies. 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, 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.

*Campaign form letters.* Please submit campaign form letters by the originating organization in batches of between 50 to 500 form letters per PDF or as one form letter with a list of supporters’ names compiled into one or more PDFs. This reduces comment processing and posting time.

*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 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).

#### *B. Issues on Which DOE Seeks Comment*

Although DOE welcomes comments on any aspect of this proposal, DOE is particularly interested in receiving comments and views of interested parties concerning the following issues:

(1) DOE requests comment on the roll dimensions and cut orientations that are currently used to fabricate DOE test cloth.

(2) DOE requests comment as to whether, or to what extent, the energy test cloth cut orientation could impact the RMC measurement in the clothes washer test procedure.

(3) DOE requests comment on its concern that establishing a cut orientation requirement could lead to fabric waste, depending on the dimensions of the fabric roll.

(4) DOE requests comment on its tentative determination not to specify a cut orientation requirement. DOE further seeks comment on whether it should adopt the cut orientation requirement specified by AHAM or any other cut orientation requirement.

(5) DOE requests comment on its tentative determination that section 3.1 of appendix J3 is superfluous and its proposal to remove the requirements in section 3.1 of appendix J3.

(6) DOE requests feedback on its proposal to specify in appendix J3 that fabric weight and thread count specifications apply to finished goods prior to pre-conditioning.

(7) DOE requests feedback on its proposal to add the term “crepe” to the list of allowable weaves in appendix J3.

(8) DOE requests feedback on its tentative determination not to establish definitions for “crepe,” “granite,” or “momie” weave in appendix J3.

(9) DOE requests comment on its proposal to allow the use of Laundering Ballast Type 3 cloth specified in AATCC LP1–2021 (with certain additional specifications) as an alternate test cloth for conducting clothes washer and clothes dryer testing.

(10) DOE requests feedback on its tentative determination not to establish



a definition for “plain weave” in appendix J3.

(11) DOE requests comment on its proposal to amend the CV threshold requirement in appendix J3 from 1 percent to 2 percent. Specifically, DOE requests comment on whether another threshold would be more appropriate.

(12) DOE requests feedback on its proposal to replace the P-value test in appendix J3 with a root-mean-square error test.

(13) DOE requests feedback on specifying 0.015 as an acceptability threshold for the RMSE value.

(14) DOE requests feedback on its proposal to update appendix J3 to explicitly mention pre-conditioning of test cloth.

(15) DOE requests feedback on its proposal to harmonize test cloth specifications for clothes washers and clothes dryers.

(16) DOE requests feedback on its proposals to clarify and restructure appendix J3, including the addition of a new section to specify the industry standards incorporated by reference.

(17) DOE requests comments on its tentative determination that the amendments proposed in this NPR would not impact testing costs or the burden of conducting the test procedure.

(18) DOE requests comments on its tentative determination that the enforcement discretion policy allowing twice the number of test cloth runs would be withdrawn 180 days after publication of a test procedure final rule.

Additionally, DOE welcomes comments on other issues relevant to the conduct of this rulemaking that may not specifically be identified in this document.

**VI. Approval of the Office of the Secretary**

The Secretary of Energy has approved publication of this notice of proposed rulemaking and request for comment.

**List of Subjects in 10 CFR Part 430**

Administrative practice and procedure, Confidential business information, Energy conservation, Household appliances, Imports, Incorporation by reference, Intergovernmental relations, Small businesses.

**Signing Authority**

This document of the Department of Energy was signed on October 25, 2024, by Jeffrey Marootian, 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 October 29, 2024.

**Treana V. Garrett,**

*Federal Register Liaison Officer, U.S. Department of Energy;*

For the reasons stated in the preamble, DOE is proposing to amend part 430 of chapter II of title 10, Code of Federal Regulations as set forth below:

**PART 430—ENERGY CONSERVATION PROGRAM FOR CONSUMER PRODUCTS**

■ 1. The authority citation for part 430 continues to read as follows:

**Authority:** 42 U.S.C. 6291–6309; 28 U.S.C. 2461 note.

■ 2. Amend § 430.3 by:

■ a. Redesignating paragraphs (d)(1) through (3) as paragraphs (d)(2) through (4); and

■ b. Adding new paragraph (d)(1).

The addition reads as follows:

**§ 430.3 Materials incorporated by reference.**

\* \* \* \* \*

(d) \* \* \*

(1) AATCC LP1–2021, *Laboratory Procedure for Home Laundering: Machine Washing*, Revised 2023, IBR approved for Appendix J3 to Subpart B.

\* \* \* \* \*

■ 3. Amend appendix D1 to subpart B by:

■ a. Revising sections 2.6, 2.6.1, 2.6.2, and 2.6.3;

■ b. Adding sections 2.6.4 and 2.6.5; and

■ c. Revising the heading to section 2.8.

The revisions and additions read as follows:

**Appendix D1 to Subpart B of Part 430—Uniform Test Method for Measuring the Energy Consumption of Clothes Dryers**

\* \* \* \* \*

2. \* \* \*

2.6 *Test cloths.*

2.6.1 *Material Specifications.* The energy test cloth and energy stuffer cloth material and dimensions must conform to the

specifications in section 3 of appendix J3 to this subpart.

2.6.2 *Material Verification.* The test cloth lot used to fabricate each piece of test cloth must conform with the material verification procedures specified in section 7 of appendix J3 to this subpart.

2.6.3 *Lot Identification.* Each piece of test cloth must be clean and permanently marked identifying the lot number of the material. Mixed lots of material must not be used for testing a clothes dryer.

2.6.4 *Pre-Conditioning.* The test cloth must be pre-conditioned prior to first use as specified in section 5 of appendix J3 to this subpart.

2.6.5 *Lifetime.* Each piece of test cloth must not be used for more than 25 test runs (after pre-conditioning).

\* \* \* \* \*

2.8 *Clothes dryer pre-conditioning.*

\* \* \* \* \*

■ 4. Amend appendix D2 to subpart B by:

■ a. Revising sections 2.6, 2.6.1, 2.6.2, and 2.6.3;

■ b. Adding sections 2.6.4 and 2.6.5; and

■ c. Revising the heading for section 2.8.

The revisions and additions read as follows:

**Appendix D2 to Subpart B of Part 430—Uniform Test Method for Measuring the Energy Consumption of Clothes Dryers**

\* \* \* \* \*

2. \* \* \*

2.6 *Test cloths.*

2.6.1 *Material Specifications.* The energy test cloth and energy stuffer cloth material and dimensions must conform to the specifications in section 3 of appendix J3 to this subpart.

2.6.2 *Material Verification.* The test cloth lot used to fabricate each piece of test cloth must conform with the material verification procedures specified in section 7 of appendix J3 to this subpart.

2.6.3 *Lot Identification.* Each piece of test cloth must be clean and permanently marked identifying the lot number of the material. Mixed lots of material must not be used for testing a clothes dryer.

2.6.4 *Pre-Conditioning.* The test cloth must be pre-conditioned prior to first use as specified in section 5 of appendix J3 to this subpart.

2.6.5 *Lifetime.* Each piece of test cloth must not be used for more than 25 test runs (after pre-conditioning).

\* \* \* \* \*

2.8 *Clothes dryer pre-conditioning.*

\* \* \* \* \*

■ 5. Amend appendix J to subpart B by revising section 2.7 to read as follows:

**Appendix J to Subpart B of Part 430—Uniform Test Method for Measuring the Energy Consumption of Automatic and Semi-Automatic Clothes Washers**

\* \* \* \* \*

2. \* \* \*

2.7 *Test cloths.*

2.7.1 *Material Specifications.* The energy test cloth and energy stuffer cloth material and dimensions must conform to the specifications in section 3 of appendix J3 to this subpart.

2.7.2 *Material Verification.* The test cloth lot used to fabricate each piece of test cloth must conform with the material verification procedures specified in section 7 of appendix J3 to this subpart.

2.7.3 *RMC Correction Curve.* The test cloth lot used for testing must have a remaining moisture content (RMC) correction curve determined, according to section 8 of appendix J3 to this subpart.

2.7.4 *Lot Identification.* Each piece of test cloth must be clean and permanently marked identifying the lot number of the material. Mixed lots of material must not be used for testing a clothes washer.

2.7.5 *Pre-Conditioning.* The test cloth must be pre-conditioned prior to first use as specified in section 5 of appendix J3 to this subpart.

2.7.6 *Lifetime.* Each piece of test cloth must not be used for more than 60 test runs (after pre-conditioning).

\* \* \* \* \*

■ 6. Amend appendix J2 to subpart B by revising section 2.7 to read as follows:

**Appendix J2 to Subpart B of Part 430—Uniform Test Method for Measuring the Energy Consumption of Automatic and Semi-Automatic Clothes Washers**

\* \* \* \* \*

2. \* \* \*

2.7 *Test cloths.*

2.7.1 *Material Specifications.* The energy test cloth and energy stuffer cloth material and dimensions must conform to the specifications in section 3 of appendix J3 to this subpart.

2.7.2 *Material Verification.* The test cloth lot used to fabricate each piece of test cloth must conform with the material verification procedures specified in section 7 of appendix J3 to this subpart.

2.7.3 *RMC Correction Curve.* The test cloth lot used for testing must have a remaining moisture content (RMC) correction curve determined, according to section 8 of appendix J3 to this subpart.

2.7.4 *Lot Identification.* Each piece of test cloth must be clean and permanently marked identifying the lot number of the material. Mixed lots of material must not be used for testing a clothes washer.

2.7.5 *Pre-Conditioning.* The test cloth must be pre-conditioned prior to first use as specified in section 5 of appendix J3 to this subpart.

2.7.6 *Lifetime.* Each piece of test cloth must not be used for more than 60 test runs (after pre-conditioning).

\* \* \* \* \*

■ 7. Amend appendix J3 to subpart B by:

- a. Revising the heading for appendix J3;
- b. Adding section 0;
- c. Revising section 1;
- d. Revising the heading to section 3;
- e. Revising sections 3.1, 3.2, and 3.3;
- f. Removing sections 3.4 through 3.8;

- g. Revising section 5;
- h. Revising sections 7.1.1, 7.1.2, 7.1.3, and 7.2.5;
- i. Revising sections 8.5 through 8.8; and
- j. Adding section 8.9.

The revisions and additions read as follows:

**Appendix J3 to Subpart B of Part 430—Test Cloth Specifications and Procedures for Pre-Conditioning and Determining Correction Coefficients of New Test Cloth Lots**

\* \* \* \* \*

0. *Incorporation by Reference.*

In § 430.3, DOE incorporated by reference the entire standard for AATCC Test Method 118–2007, AATCC Test Method 79–2010, AATCC Test Method 135–2010, and AATCC LP1–2021; however, only enumerated provisions of AATCC LP1–2021 are applicable as follows:

0.1 *AATCC LP1–2021*

(a) Table VII as referenced in section 3.1.2 of this appendix.

0.2 [Reserved]

1. *Objective*

This appendix includes the following:

1.1 Specifications for the test cloth to be used for testing clothes washers and clothes dryers;

1.2 Procedures for pre-conditioning the test cloth for use in testing clothes washers and clothes dryers;

1.3 Procedures for verifying that new lots of test cloth meet the defined material specifications; and

1.4 Procedures for developing a set of correction coefficients that correlate the measured remaining moisture content (RMC) values of each new test cloth lot with a set of standard RMC values established as an historical reference point. These correction coefficients are applied to the RMC measurements performed during testing according to appendix J or J2 to this subpart, ensuring that the final corrected RMC measurement for a clothes washer remains independent of the test cloth lot used for testing.

\* \* \* \* \*

3. Test Cloth Specifications

\* \* \* \* \*

3.1 The test cloth material must be one of the following two types:

3.1.1 Test cloth meeting all of the specifications in sections 3.1.1.1 through 3.1.1.4 of this appendix.

3.1.1.1 *Fabric type.* Pure finished bleached cloth made with a momie, granite, or crepe weave.

3.1.1.2 *Fiber content of warp and filling yarn.* 50 percent ±4 percent cotton, with the balance being polyester, open end spun, 15/1 ±5 percent cotton count blended yarn.

3.1.1.3 *Thread count.* Thread count is measured on the finished good, prior to pre-conditioning. 65 × 57 per inch (warp × fill), ±2 percent.

3.1.1.4 *Fabric weight.* Fabric weight is measured on the finished good, prior to pre-conditioning. 5.60 ± 0.25 ounces per square yard (190.0 ± 8.4 g/m<sup>2</sup>).

3.1.2 Test cloth meeting the specifications of Laundering Ballast Type 3, as specified in Table VII of AATCC LP1–2021, with the following additional specifications and substitutions:

3.1.2.1 *Greige fabric yarns.* Type 16/1 only.

3.1.2.2 *Edges.* All edges hemmed only.

3.1.2.3 *Finished piece size.* Dimensions in accordance with sections 3.7.1 and 3.7.2 of this appendix for energy test cloths and energy stuffer cloths, respectively.

3.1.2.4 *Finished piece weight.* Disregard.

3.2 Water repellent finishes, such as fluoropolymer stain resistant finishes, must not be applied to the test cloth.

3.3. *Test cloth dimensions.*

3.3.1 *Energy test cloth.* The energy test cloth must be made from test cloth material that is cut to 24 ± ½ inches by 36 ± ½ inches (61.0 ± 1.3 cm by 91.4 ± 1.3 cm), and hemmed to 22 ± ½ inches by 34 ± ½ inches (55.9 ± 1.3 cm by 86.4 ± 1.3 cm) before pre-conditioning.

3.3.2 *Energy stuffer cloth.* The energy stuffer cloth must be made from the same test cloth material as the energy test cloth, cut to 12 ± ¼ inches by 12 ± ¼ inches (30.5 ± 0.6 cm by 30.5 ± 0.6 cm), and hemmed to 10 ± ¼ inches by 10 ± ¼ inches (25.4 ± 0.6 cm by 25.4 ± 0.6 cm) before pre-conditioning.

\* \* \* \* \*

5. *Test Cloth Pre-Conditioning Instructions*

Use the following instructions for performing pre-conditioning of new energy test cloths and energy stuffer cloths as specified throughout section 7 and section 8 of this appendix, before any clothes washer testing using appendix J or appendix J2 to this subpart, and before any clothes dryer testing using appendix D1 or D2 to this subpart.

5.1 Perform five complete wash-rinse-spin cycles, the first two with current AHAM Standard detergent Formula 3 and the last three without detergent. Place the test cloth in a clothes washer set at the maximum water level. Wash the load for ten minutes in soft water (17 ppm hardness or less) using 27.0 grams + 4.0 grams per pound of cloth load of AHAM Standard detergent Formula 3. The wash temperature is to be controlled to 135 °F ± 5 °F (57.2 °C ± 2.8 °C) and the rinse temperature is to be controlled to 60 °F ± 5 °F (15.6 °C ± 2.8 °C).

5.2 Dry the load to bone-dry between each of the five wash-rinse-spin cycles.

5.3 The maximum shrinkage after pre-conditioning must not be more than 5 percent of the length and width. Measure per AATCC Test Method 135–2010.

\* \* \* \* \*

7. \* \* \*

7.1 \* \* \*

7.1.1 *Dimensions.* Each hemmed energy test cloth must meet the size specifications in section 3.3.1 of this appendix. Each hemmed energy stuffer cloth must meet the size specifications in section 3.3.2 of this appendix.

7.1.2 *Oil repellency.* Perform AATCC Test Method 118–2007, to confirm the absence of Scotchguard™ or other water-repellent finish. An Oil Repellency Grade of 0 (Fails Kaydol) is required.

7.1.3 *Absorbency.* Perform AATCC Test Method 79–2010, to confirm the absence of Scotchguard™ or other water-repellent finish. The time to absorb one drop must be on the order of 1 second.

7.2 \* \* \*

7.2.5 Calculate the coefficient of variation (CV) of the nine average RMC values from each sample load. The CV must be less than or equal to 2.0% for the test cloth lot to be considered acceptable and to perform the standard extractor RMC testing.

8. \* \* \*

8.5 Repeat sections 8.3 and 8.4 of this appendix an additional two times, so that three replications at each extractor condition are performed. When this procedure is performed in its entirety, a total of 60 extractor RMC test runs are required.

8.6 Calculate RMC<sub>cloth-avg</sub> for each extractor test condition by averaging the values of the 3 replications performed specified in sections 8.3 and 8.4 of this appendix.

8.7 Perform a linear least-squares fit to determine coefficients A and B such that the standard RMC values shown in table 8.7 of this appendix (RMC<sub>standard</sub>) are linearly related to the RMC<sub>cloth-avg</sub> values calculated in section 8.6 of this appendix:

$$RMC_{standard} \sim A \times RMC_{cloth-avg} + B$$

where A and B are coefficients of the linear least-squares fit.

TABLE 8.7—STANDARD RMC VALUES

“g Force”	RMC percentage			
	Warm soak		Cold soak	
	15 min. spin (percent)	4 min. spin (percent)	15 min. spin (percent)	4 min. spin (percent)
100 .....	45.9	49.9	49.7	52.8
200 .....	35.7	40.4	37.9	43.1
350 .....	29.6	33.1	30.7	35.8
500 .....	24.2	28.7	25.5	30.0
650 .....	23.0	26.4	24.1	28.0

8.8 Calculate the corrected RMC value for each extractor test condition, RMC<sub>cloth-corr</sub> as follows:

$$RMC_{cloth-corr} = A \times RMC_{cloth-avg} + B$$

Where:

RMC<sub>cloth-avg</sub> = the average RMC value, as calculated in section 8.6 of this appendix for each extractor test condition, expressed as a decimal, and

A and B are the coefficients of the linear least squares fit as determined in section 8.7 of this appendix.

8.9 Calculate the root mean square error of the linear fit, RMSE. The RMSE must be less than or equal to 0.015 for the test cloth lot to be considered acceptable. The RMSE is calculated as follows:

$$RMSE = \sqrt{\sum_{i=1}^{20} \frac{(RMC_{standard_i} - RMC_{cloth-corr_i})^2}{20}}$$

Where:

RMC<sub>standard\_i</sub> = the RMC<sub>standard</sub> value in table 8.7 of this appendix for the *i*th extractor test condition, expressed as a decimal,

RMC<sub>cloth-corr\_i</sub> = the corrected RMC value, as calculated in section 8.8 of this appendix for the *i*th extractor test condition, expressed as a decimal, and

*i* = the 20 extractor test conditions listed in table 8.7 of this appendix.

\* \* \* \* \*

[FR Doc. 2024–25480 Filed 11–4–24; 8:45 am]

BILLING CODE 6450–01–P

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

[Docket No. FAA–2024–2419; Project Identifier MCAI–2023–00366–R]

RIN 2120–AA64

**Airworthiness Directives; Airbus Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for all Airbus Helicopters (Airbus) Model AS350B, AS350B1, AS350B2, AS350B3, AS350BA, AS350D, AS355E, AS355F, AS355F1, AS355F2, AS355N, AS355NP, EC130B4, and EC130T2 helicopters. This proposed AD was prompted by a manufacturer assessment that determined additional actions are

necessary to improve particle detection for main gearboxes (MGBs) with certain planet gear bearings installed. This proposed AD would require repetitively inspecting the MGB bevel wheel for the presence of particles, repetitively inspecting the MGB magnetic plug for particles, and prohibit installing an affected MGB unless certain requirements are met. These actions are specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporation by reference. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this NPRM by December 20, 2024.

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- *Federal eRulemaking Portal:* Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.
- *Fax:* (202) 493–2251.