This document, concerning portable air conditioners is an action issued by the Department of Energy. Though it is not intended or expected, should any discrepancy occur between the document posted here and the document published in the Federal Register, the Federal Register publication controls. This document is being made available through the Internet solely as a means to facilitate the public's access to this document.

[6450-01-P]

DEPARTMENT OF ENERGY

10 CFR Part 430

[EERE-2020-BT-TP-0029]

RIN 1904-AF03

Energy Conservation Program: Test Proc

edures for Consumer Products; Early Assessment Review: Portable Air

Conditioners

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

ACTION: Request for information.

SUMMARY: The U.S. Department of Energy ("DOE") is undertaking an early

assessment review to determine whether to proceed with a rulemaking to amend the test

procedure for portable air conditioners ("AC"). Specifically, through this request for

information ("RFI"), DOE seeks data and information that could enable the agency to

determine whether DOE should propose not to amend the existing DOE test procedure

because an amended test procedure would not more accurately or fully comply with the

statutory requirement that the test procedure produces results that measure energy use

1

during a representative average use cycle or period of use for the product, and not be unduly burdensome to conduct. DOE also seeks comment on the availability of consensus-based test procedures for measuring the energy use of portable ACs that more accurately or fully comply with this statutory requirement.

DATES: Written comments and information are requested and will be accepted on or before [INSERT DATE 75 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

ADDRESSES: Interested persons are encouraged to submit comments using the Federal eRulemaking Portal at *http://www.regulations.gov*. Follow the instructions for submitting comments. Alternatively, interested persons may submit comments, identified by docket number EERE-2020-BT-TP-0029 and/or RIN 1904-AF03, by any of the following methods:

- 1. Federal eRulemaking Portal: http://www.regulations.gov. Follow the instructions for submitting comments.
- 2. *E-mail*: to *PortableAC2020TP0029@ee.doe.gov*. Include docket number EERE-2020-BT-TP-0029 and/or RIN 1904-AF03 in the subject line of the message.
- 3. *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. If possible, please submit all items

on a compact disc ("CD"), in which case it is not necessary to include printed copies.

4. Hand Delivery/Courier: Appliance and Equipment Standards Program, U.S. Department of Energy, Building Technologies Office, 950 L'Enfant Plaza, SW., Suite 600, Washington, DC, 20024. 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 telefacsimilies ("faxes") will be accepted. For detailed instructions on submitting comments and additional information on this process, see section III of this document (Submission of Comments).

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

The docket webpage can be found at:

http://www.regulations.gov/docket?D=EERE-2020-BT-TP-0029. The docket webpage contains instructions on how to access all documents, including public comments, in the

docket. See section III of this document for information on how to submit comments through *http://www.regulations.gov*.

FOR FURTHER INFORMATION CONTACT: Mr. Bryan Berringer, 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) 586-0371. E-mail: *ApplianceStandardsQuestions@ee.doe.gov*.

Mr. Matthew Ring, U.S. Department of Energy, Office of the General Counsel, GC-33, 1000 Independence Avenue, SW., Washington, DC, 20585-0121. Telephone: (202) 586-2555. E-mail: *Matthew.Ring@hq.doe.gov*.

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

SUPPLEMENTARY INFORMATION:

Table of Contents

- I. Introduction
 - A. Authority
 - B. Rulemaking History
- II. Request for Information
 - A. Energy Use Measurements
 - B. Representative Average Period of Use
 - C. Test Burden Reductions
 - D. Consensus-Based Test Procedures
- III. Submission of Comments

I. Introduction

DOE established an early assessment review process to conduct a more focused analysis of a specific set of facts or circumstances that would allow DOE to determine, based on statutory criteria, whether an amended test procedure is warranted. The purpose of this review is to limit the resources, from both DOE and stakeholders, committed to rulemakings that will not satisfy the requirements in the Energy Policy and Conservation Act, as amended ("EPCA"), that an amended test procedure more accurately or fully comply with the requirement that the test procedure produces results that measure energy use during a representative average use cycle or period of use for the product, and not be unduly burdensome to conduct. *See* 85 FR 8626, 8653–8654 (Feb. 14, 2020).

As part of the early assessment, DOE publishes an RFI in the *Federal Register*, announcing that DOE is initiating a rulemaking proceeding and soliciting comments, data, and information on whether an amended test procedure would more accurately measure energy use during a representative average use cycle or reduce testing burden.

Based on the information received in response to the RFI and DOE's own analysis, DOE will determine whether to proceed with a rulemaking for an amended test procedure.

_

¹ All references to EPCA in this document refer to the statute as amended through America's Water Infrastructure Act of 2018, Public Law 115–270 (Oct. 23, 2018).

If DOE makes an initial determination based upon available evidence that an amended test procedure would not meet the applicable statutory criteria, DOE would engage in notice and comment rulemaking before issuing a final determination that an amended test procedure is not warranted. If DOE reaches such a determination, the rulemaking would be concluded, which would satisfy the Department's 7-year-lookback test procedure review requirement under the statute (as discussed in section I.A of this document).

Conversely, if DOE makes an initial determination that an amended test procedure would satisfy the applicable statutory criteria, including that adoption of a consensus-based test procedure as the DOE test procedure, without modification, would more accurately or fully comply with statutory requirements, or DOE's analysis is inconclusive, DOE would undertake the preliminary stages of a rulemaking to issue an amended test procedure. Beginning such a rulemaking, however, would not preclude DOE from later making a determination that an amended test procedure would not satisfy the requirements in EPCA, based upon the full suite of DOE's analyses. 85 FR 8654.

A. Authority

EPCA, as amended, among other things, authorizes DOE to regulate the energy efficiency of a number of consumer products and certain industrial equipment. (42

U.S.C. 6291–6317) Title III, Part B² of EPCA established the Energy Conservation Program for Consumer Products Other Than Automobiles, which sets forth a variety of provisions designed to improve energy efficiency for certain types of consumer products. In addition to specifying a list of covered products, EPCA enables the Secretary of Energy to classify additional types of consumer products as covered products under EPCA. (42 U.S.C. 6292(a)(20)) In a final determination of coverage published in the *Federal Register* on April 18, 2016, DOE classified portable ACs as covered products under EPCA. 81 FR 22514.

Under EPCA, DOE's energy conservation program consists essentially of four parts: (1) testing, (2) labeling, (3) Federal energy conservation standards, and (4) certification and enforcement procedures. Relevant provisions of EPCA include definitions (42 U.S.C. 6291), test procedures (42 U.S.C. 6293), labeling provisions (42 U.S.C. 6294), energy conservation standards (42 U.S.C. 6295), and the authority to require information and reports from manufacturers (42 U.S.C. 6296).

Federal energy efficiency requirements for covered products established under EPCA generally supersede State laws and regulations concerning energy conservation testing, labeling, and standards. (42 U.S.C. 6297(a)–(c)) DOE may, however, grant waivers of Federal preemption in limited instances for particular State laws or

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

7

regulations, in accordance with the procedures and other provisions set forth under 42 U.S.C. 6297(d).

EPCA also requires that, at least once every 7 years, DOE evaluate test procedures for each type of covered product, including portable ACs, 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. 6293(b)(1)(A)) DOE is publishing this RFI to collect data and information to inform its decision to satisfy the 7-year-lookback review requirement.

B. Rulemaking History

DOE last amended the test procedure for portable ACs on June 1, 2016 ("June 2016 Final Rule"), to ensure it is representative of typical use and to improve accuracy and repeatability while minimizing burden. 81 FR 35241. The June 2016 Final Rule established provisions for measuring the energy consumption of single-duct and dualduct portable ACs in active, standby, and off modes. The June 2016 Final Rule also established provisions for certification, compliance, and enforcement for portable ACs in Title 10 of the Code of Federal Regulations ("CFR") part 429. DOE's test procedure for portable ACs is prescribed at 10 CFR part 430, subpart B, appendix CC ("appendix CC").

II. Request for Information

DOE is publishing this RFI to collect data and information during the early assessment review to inform its decision, consistent with its obligations under EPCA, as to whether the Department should proceed with an amended test procedure rulemaking. Accordingly, in the following sections, DOE has identified specific issues on which it seeks input to aid in its analysis of whether an amended test procedure for portable ACs would more accurately or fully comply with the requirement that the test procedure produces results that measure energy use during a representative average use cycle or period of use for the product, and not be unduly burdensome to conduct. In particular, DOE is interested in: (1) any information indicating that there has not been sufficient technological or other changes since DOE last conducted a test procedure rulemaking analysis for portable ACs to suggest an amended test procedure could satisfy these criteria; or (2) whether adopting a consensus-based test procedure, without modification, as the DOE test procedure would more accurately or fully comply with the statutory requirement. DOE also welcomes comments on other issues relevant to its early assessment that may not specifically be identified in this document.

A. Energy Use Measurements

The current DOE test procedure for portable ACs measures energy use by means of two performance metrics: seasonally adjusted cooling capacity ("SACC"), measured in British thermal units per hour ("Btu/h"); and combined energy efficiency ratio ("CEER"), measured in Btu per watt-hours ("Btu/Wh"). The test procedure provides a measure of

portable AC performance under various operating modes (cooling mode, off-cycle mode, standby mode, inactive mode, and off mode) and duct configurations (single-duct and dual duct). DOE seeks comment on whether existing test procedure requirements (*e.g.*, instrumentation, testing configurations/specifications, calculation methodologies) accurately measure energy use without adding undue burden to the test procedure.

B. Representative Average Period of Use

The current DOE test procedure for portable ACs measures energy use during a representative average period of use. The measured energy performance includes energy use during cooling mode, off-cycle mode, inactive mode, and off mode energy use.

In cooling mode, a portable AC activates the main cooling function determined by the thermostat or temperature sensor signal, including activating the refrigeration system, or activates the fan or blower without the use of the refrigeration system. Section 2.4 of appendix CC.

In off-cycle mode, a portable AC: (1) has cycled off its main cooling or heating function via thermostat or temperature sensor signal; (2) may or may not operate its blower or fan; and (3) will reactivate the main function according to the thermostat or temperature sensor signal. Section 2.7 of appendix CC.

Inactive mode is a standby mode that facilitates the activation of an active mode or off-cycle mode via remote switch (including remote control), internal sensor, or timer, or that provides continuous status display. Section 2.6 of appendix CC.

In off mode, the portable AC is connected to a mains power source and is not providing any active, off-cycle, or standby mode function, and where the mode may persist for an indefinite time. Section 2.8 of appendix CC. An indicator that only shows the user that the portable AC is in the off position is included within the classification of an off mode. *Id*.

To determine the energy use during a representative period of use, the test procedure assigns the following hours of operation for each mode: 750 hours for cooling mode, 880 hours for off-cycle mode, and 1,355 hours for inactive or off mode. Section 5.3 of appendix CC.

In addition to addressing different operating modes, the portable AC test procedure in appendix CC addresses two configurations of portable ACs: dual-duct and single-duct. Dual-duct portable ACs draw some or all of their condenser inlet air from outside the conditioned space through a duct attached to an adjustable window bracket (and may draw additional condenser inlet air from the conditioned space) and discharge the condenser outlet air outside the conditioned space by means of a separate duct attached to an adjustable window bracket. 10 CFR 430.2. Dual-duct units use two parallel airflow paths: With the first airflow path, air from the conditioned space (*i.e.*,

indoors) is drawn into the unit, passes over a cold heat exchanger (i.e., the evaporator), and is discharged back into the room. With the second airflow path, air from outdoors (possibly with additional air from indoors) is drawn into the unit, passes over a hot heat exchanger (i.e., the condenser), and is discharged back outdoors. In this type of system, the heat that is removed from the indoor airflow path is essentially transferred to the outdoor airflow path and discharged outdoors. The temperature of the air flowing across the condenser significantly affects a portable AC's cooling capacity. Because the air passing across the condenser is drawn from outdoors, and outdoor air temperatures vary during portable AC use, the cooling capacity of a dual-duct unit is significantly affected by changes in outdoor air temperatures. Therefore, to produce representative test results, appendix CC requires dual-duct units to be tested at two different "test conditions" in the test chamber that supplies the condenser inlet air, representing two different outdoor temperatures: 95 degrees Fahrenheit (°F) and 83 °F. Section 4.1 of appendix CC. Under both test conditions, the test chamber in which the unit is installed is maintained at a temperature of 80 °F, which is a representative indoor temperature, and the unit is operated at full load. *Id*.

Single-duct portable ACs draw all of their condenser inlet air from the conditioned space without the means of a duct, and discharge the condenser outlet air outside the conditioned space through a single duct attached to an adjustable window bracket. 10 CFR 430.2. Single-duct units also use two parallel airflow paths; however, in contrast to dual-duct units, the condenser airflow path draws air only from inside the conditioned space rather than from outside. This air is drawn into the unit through air

grates in the unit's chassis, passes over the condenser, and is discharged to the outdoors through the single duct. Because the inlet air is drawn from indoors (as opposed to outdoors, as with dual-duct units), and because the indoor air temperature remains steady during operation, a single test condition is sufficient to produce representative test results for single-duct portable ACs. Appendix CC specifies a temperature of 80 °F in the test chamber in which the unit is installed (corresponding to the specified indoor air temperature). Section 4.1 of appendix CC. As with the dual-duct unit tests, the single-duct unit is operated at full load throughout the duration of the test.

DOE seeks comment on what constitutes a representative average period of use for portable ACs.

C. Test Burden Reductions

In the June 2016 Final Rule, DOE concluded that the test procedure established would represent little to no additional burden beyond what was already being incurred by manufacturers to conduct industry testing. 81 FR 35241, 35259, 35261. As discussed in a notice of proposed rulemaking published on February 25, 2015, DOE's determination was based on the similarities between testing that would be conducted according to the newly established Federal test procedure and testing that was being conducted for portable ACs in accordance with an industry test procedure, American National Standards Institute ("ANSI")/ American Society of Heating, Refrigerating, and Air-Conditioning Engineers ("ASHRAE") Standard 128–2011 "Method of Rating Unitary Spot Air Conditioners." 80 FR 10211, 10238–10239. DOE seeks comment on whether

any modifications to the test procedure could reduce these costs while still allowing for accurate determinations of energy use during a representative average use cycle.

D. Consensus-Based Test Procedures

The current DOE test procedure for portable ACs incorporates by reference the following industry standards: ANSI/Association of Home Appliance Manufacturers ("AHAM") PAC-1-2015 "Portable Air Conditioners," ANSI/ ASHRAE Standard 37-2009 "Methods of Testing for Rating Electrically Driven Unitary Air-Conditioning and Heat Pump Equipment," and International Electrotechnical Commission ("IEC") Standard 62301 "Household electrical appliances—Measurement of standby power" (Edition 2.0 2011-01). 10 CFR 430.3(i)(5), 10 CFR 430.3(g)(3), and 10 CFR 430.3(p)(6). In addition to referencing the industry standards, appendix CC provides procedures to account for air infiltration and duct heat transfer effects in its measurement of portable AC performance. Section 3.1.1 of appendix CC. DOE seeks comment on the availability of consensus-based test procedures for measuring the energy use of portable ACs that could be adopted without modification and more accurately or fully comply with the requirement that the test procedure produces results that measure energy use during a representative average use cycle for the product, and not be unduly burdensome to conduct.

III. Submission of Comments

DOE invites all interested parties to submit in writing by [INSERT DATE 75]

DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER],

comments and information on matters addressed in this notice and on other matters relevant to DOE's early assessment of whether an amended test procedure for portable ACs more accurately or fully comply with the requirement that the test procedure produces results that measure energy use during a representative average use cycle for the product, and not be unduly burdensome to conduct.

Submitting comments via http://www.regulations.gov. The http://www.regulations.gov webpage requires 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 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. 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 http://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 http://www.regulations.gov cannot be claimed as CBI. Comments received through the website will waive any CBI claims for the information submitted. For information on submitting CBI, see the Confidential Business Information section.

DOE processes submissions made through http://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 http://www.regulations.gov provides after you have successfully uploaded your comment.

Submitting comments via e-mail, hand delivery/courier, or postal mail.

Comments and documents submitted via e-mail, hand delivery/courier, or postal mail also will be posted to http://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, e-mail 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 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 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 e-mail, postal mail, or hand delivery/courier 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. Submit these documents via e-mail to <code>PortableAC2020TP0029@ee.doe.gov</code> or on a CD, if feasible.

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).

DOE considers public participation to be a very important part of the process for developing test procedures and energy conservation standards. DOE actively encourages the participation and interaction of the public during the comment period in each stage of this process. Interactions with and between members of the public provide a balanced discussion of the issues and assist DOE in the process. Anyone who wishes to be added to the DOE mailing list to receive future notices and information about this process should contact Appliance and Equipment Standards Program staff at (202) 287-1445 or via e-mail at *ApplianceStandardsQuestions@ee.doe.gov*.

Signing Authority

This document of the Department of Energy was signed on October 22, 2020, by Alexander N. Fitzsimmons, Deputy Assistant Secretary for Energy Efficiency, 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, D.C., on October 22, 2020

10/22/2020



Signed by: ALEXANDER FITZSIMMONS
Alexander N. Fitzsimmons
Deputy Assistant Secretary for Energy Efficiency
Energy Efficiency and Renewable Energy