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[6450-01-P]

**DEPARTMENT OF ENERGY**

**10 CFR Part 431**

**EERE-2011-BT-DET-0045**

**Energy Conservation Program: Coverage Determination for Commercial and Industrial Fans**

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

**ACTION:** Request for information.

**SUMMARY:** The U.S. Department of Energy (“DOE”) requests comment on a potential definition of “commercial and industrial fan” for consideration in determining whether such equipment should be classified as covered equipment under Part C of Title III of the Energy Policy and Conservation Act, as amended. DOE welcomes written comments from the public on any subject within the scope of this document (including topics not raised in this RFI), as well as the submission of data and other relevant information.

**DATES:** Written comments and information are requested and will be accepted on or before [INSERT DATE **15 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–2011–BT–DET-0045, by any of the following methods:

1. *Federal eRulemaking Portal:* <http://www.regulations.gov>. Follow the instructions for submitting comments.
2. *E-mail:* to [commercialindustrialfansDET0045@ee.doe.gov](mailto:commercialindustrialfansDET0045@ee.doe.gov). Include docket number EERE–2011–BT–DET-0045 in the subject line of the message.

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

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

*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 web page can be found at <http://www.regulations.gov/docket/EERE-2011-BT-DET-0045>. The docket web page contains instructions on how to access all documents, including public comments, in the docket. See section III for information on how to submit comments through <http://www.regulations.gov>.

**FOR FURTHER INFORMATION CONTACT:** Mr. Jeremy Dommu, 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) 586-9870. E-mail: [ApplianceStandardsQuestions@ee.doe.gov](mailto:ApplianceStandardsQuestions@ee.doe.gov).

Mr. Pete Cochran, U.S. Department of Energy, Office of the General Counsel, GC-33, 1000 Independence Avenue, SW., Washington, DC, 20585-0121. Telephone: (202) 586-9496. E-mail: [peter.cochran@hq.doe.gov](mailto:peter.cochran@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](mailto:ApplianceStandardsQuestions@ee.doe.gov).

**SUPPLEMENTARY INFORMATION:**

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### **I. Introduction**

The following section briefly discusses the statutory authority underlying this request for information, as well as some of the historical background relevant to the potential inclusion of commercial and industrial fans as covered equipment under the Energy Policy and Conservation Act, as amended (“EPCA”).<sup>1</sup>

#### *A. Authority*

EPCA 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 C<sup>2</sup> of EPCA established the Energy Conservation Program for Certain Industrial Equipment, which sets forth a variety of provisions designed to improve energy efficiency of certain commercial and industrial equipment (hereafter referred to as “covered equipment”).

EPCA specifies a list of equipment that constitutes covered equipment. (42 U.S.C. 6311(1)) EPCA also provides that “covered equipment” includes any other type

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<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).

<sup>2</sup> For editorial reasons, upon codification in the U.S. Code, Part C was redesignated Part A-1.

of industrial equipment for which the Secretary of Energy (“Secretary”) determines inclusion is necessary to carry out the purpose of this part. (42 U.S.C. 6311(1)(L); 42 U.S.C. 6312(b)) EPCA specifies the types of industrial equipment that can be classified as covered equipment. This industrial equipment includes fans and blowers. (42 U.S.C. 6311(2)(B)(ii) and (iii)) Additionally, in order to be classified as covered equipment, the industrial equipment must be of a type that: (1) consumes, or is designed to consume, energy in operation; (2) is distributed in commerce for industrial or commercial use; and (3) is not a covered product as defined in 42 U.S.C. 6291(a)(2). (42 U.S.C. 6311(2)(A))

### *B. Background*

On June 28, 2011, DOE published a notice of proposed determination of coverage that fans, blowers, and fume hoods qualify as covered equipment. 76 FR 37678 (“June 2011 NOPD”). DOE also proposed definitions for the terms “fan,” “blower,” and “fume hood.”

In the June 2011 NOPD, DOE preliminarily determined that coverage of fans, blowers, and fume hoods is necessary to carry out the purposes of Part A-1 because coverage will promote the conservation of energy supplies. 76 FR 37678, 37680. DOE estimated that technologies exist which can reduce the electricity consumption of fans and blowers by as much as 20 percent and that there are technologies and design strategies for fume hoods that could reduce energy by 50 percent. *Id.* DOE requested comment on the proposed definitions and its preliminary determination that coverage of fans, blower, and fume hoods is necessary to carry out the purposes of Part A-1. 76 FR 37678, 37682.

In parallel with the proposed determination rulemaking process, DOE published notice of a framework document that detailed an analytical approach for developing potential energy conservation standards for commercial and industrial fans and blowers should the Secretary classify such industrial equipment as covered equipment.<sup>3</sup> 78 FR 7306 (February 1, 2013). The January 2013 Framework Document included revised definitions for “fan” and “blower.”

DOE also established a negotiated rulemaking working group under the Appliance Standards and Rulemaking Federal Advisory Committee to negotiate proposed definitions, test procedures and energy conservation standards for commercial and industrial fans and blowers. The Working Group held 16 meetings and three webinars and concluded its negotiations on September 3, 2015, with the approval of a term sheet containing recommendations for DOE.<sup>4</sup>

On January 10, 2020, DOE received a petition from the Air Movement and Control Association (AMCA), International, Air Conditioning Contractors of America, and Sheet Metal & Air Conditioning Contractors of America requesting that DOE establish a Federal test procedure for certain categories of fans based on an upcoming industry test method, AMCA 214, Test Procedure for Calculating Fan Energy Index (FEI) for Commercial and Industrial Fans and Blowers. DOE published a notice of

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<sup>3</sup> The framework document is available at <https://www.regulations.gov/document?D=EERE-2013-BT-STD-0006-0001> (“January 2013 Framework Document”)

<sup>4</sup> All Working Group documents, including the term sheet, are available at: <https://www.regulations.gov/docket/EERE-2013-BT-STD-0006>.

petition and request for public comment. 85 FR 22677 (April 23, 2020) (“April 2020 Notice of Petition”).

To date DOE has not classified commercial and industrial fans as covered equipment and has not proposed test procedures or energy conservation standards for this equipment.

## **II. Request for Information**

Although EPCA lists fans and blowers as types of industrial equipment, these terms are not defined. As noted, DOE proposed definitions for “fan” and “blower” in the June 2011 NOPD. Specifically, DOE proposed the following definitions:

*A fan* is an electrically powered device used in commercial or industrial systems to provide a continuous flow of a gas, typically air, for ventilation, circulation, or other industrial process requirements. Fans are classified as axial or centrifugal. Axial fans move an airstream along the axis of the fan. Centrifugal fans generate airflow by accelerating the airstream radially. A fan may include some or all of the following components: motor and motor controls, rotor or fan blades, and transmission and housing.

*A blower* is a type of centrifugal fan.



June 2011 NOPD, 76 FR 37678, 37679. Taking into consideration the comments received to the June 2011 NOPD, DOE considered the following definitions for “fan” and “blower” in the January 2013 Framework Document:

*Commercial/Industrial Fan:* A device used in commercial or industrial systems to provide a continuous flow of a gas, typically air, by an impeller fit to a shaft and bearing(s). A fan may be manufactured with or without a housing component.

*Blower:* An axial or centrifugal fan with a specific ratio between 1.11 and 1.20.

(January 2013 Framework Document at pp. 7 and 9) DOE also acknowledged that the terms “fan” and “blower” are used interchangeably by the industry. *Id.* at p. 7.

The industry test procedure referenced in AMCA’s petition for a federal test procedure has since been finalized as ANSI/AMCA Standard 214-21, Test Procedure for Calculating Fan Energy Index (FEI) for Commercial and Industrial Fans and Blowers (“ANSI/AMCA Standard 214-21”).<sup>5</sup> The newly finalized industry test procedure contains the following definition for a fan: “a rotary-bladed machine used to convert electrical or mechanical power to air power, with an energy output limited to 25 kJ/kg of air. It consists of an impeller, shaft and bearings and/or driver to support the impeller as

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<sup>5</sup> ANSI/AMCA Standard 214-21 is available at:  
<https://www.amca.org/assets/resources/public/pdf/Publications/AMCA-214-21.pdf>.

well as a structure or housing. A fan may include a transmission, driver and/or motor controller.”<sup>6</sup>

DOE is considering establishing a definition of “commercial and industrial fan” that is identical to the definition of “fan” in ANSI/AMCA Standard 214-21. As discussed, DOE has initially determined that the terms “fan” and “blower” are used interchangeably. DOE is considering including the descriptor “commercial and industrial” with the term to clarify that the subject fans are industrial equipment and that the term excludes ceiling fans and furnace fans, both covered products defined at 10 CFR 430.2.

DOE notes that the maximum energy limit of 25 kJ/kg of air is equivalent to a pressure ratio of 1.3.<sup>7</sup> The current definition of a compressor at 10 CFR 431.342 states that, among other things, a compressor has a pressure ratio at full-load operating pressure greater than 1.3. As a result, DOE initially concludes that the maximum fan energy limit of 25 kJ/kg is appropriate to distinguish commercial and industrial fans from compressors.

With regard to the criterion that a commercial and industrial fan must convert “electrical and mechanical power into air power,” fans that are powered by an engine or

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<sup>6</sup> ANSI/AMCA Standard 214-21 at p. 3.

<sup>7</sup> For an air density of 1.2 kg/m<sup>3</sup>, the fan pressure is 1.2 kg/m<sup>3</sup> × 25 kJ/kg, i.e. 30 kPa, and the pressure ratio is calculated as (100+30)/100 = 1.30 (where atmospheric pressure = 100 kPa)

any other driver would meet this criterion as the engine or other driver would be providing mechanical power that is converted into air power.

DOE requests comment on the definition of commercial and industrial fans as considered in this RFI. The definition being considered is identical to the definition of “fan” in ANSI/AMCA Standard 214-21. Specifically, DOE is requesting comment on whether this definition would accurately describe equipment generally understood as commercial and industrial fans.

### **III. Submission of Comments**

DOE invites all interested parties to submit in writing by the date specified under the **DATES** heading, comments and information on matters addressed in this RFI for commercial and industrial fans. These comments and information will aid in the development of a final determination for commercial and industrial fans if DOE determines that a final determination is appropriate for this equipment.

*Submitting comments via <http://www.regulations.gov>. The <http://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 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. Following this instruction, 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 email.* Comments and documents submitted via email 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 on 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. Faxes will not 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.* According 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).

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 April 23, 2021, by Kelly Speakes-Backman, Principal Deputy Assistant Secretary and Acting 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, D.C., on April 25, 2021

X Kelly Speakes-Backman  
Digitally signed by Kelly Speakes-Backman  
Date: 2021.04.25 12:01:18 -04'00'

Kelly Speakes-Backman  
Principal Deputy Assistant Secretary and  
Acting Assistant Secretary  
Energy Efficiency and Renewable Energy