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AHRI-AMCA Comments in Response to CECâ€™s Proposed Regulatory Adoption of CIFB ECS and TP - Title 20

Additional submitted attachment is included below.

July 26, 2022

Mr. Alejandro Galdamez, PE
Commissioner
California Energy Commission
Docket Unit
Re: Docket No. 22-AAER-01
715 P Street, MS-1
Sacramento, CA 95814-5512

(submitted electronically to Docket 22-AAER-01)

Re: AHRI-AMCA Comments in Response to California Energy Commission's Proposed Regulatory Adoption of Efficiency Standards and Test Procedures for Commercial and Industrial Fans and Blowers (15-Day Language) *[Docket Number 22-AAER-01]*

Dear Mr. Galdamez:

The Air-Conditioning, Heating, and Refrigeration Institute (AHRI) and Air Movement and Control Association (AMCA) International, collectively referred to as the "Joint Commenters," respectfully submit the following comments to the California Energy Commission (CEC) Notice of Proposed Action, published on July 11, 2022, with proposed amendments to the commercial and industrial fans and blower (CIFB) regulations contained in California's Appliance Efficiency Standards in Title 20 of the California Code of Regulations, Sections 1601 through 1609.

AHRI represents 323 air-conditioning, heating, and refrigeration equipment manufacturers. In North America, the annual output of the heating, ventilating, air-conditioning, and refrigeration (HVACR) and water heating industry is worth more than $44 billion. In the United States, the industry supports 1.3 million jobs and $256 billion in economic activity annually. The majority of products we represent include fans.

AMCA International is a not-for-profit association of manufacturers of fans, dampers, louvers, air curtains, and other air-system components for commercial heating, ventilation, and air-conditioning (HVAC), industrial-process, and power-generation applications. With programs such as certified ratings, laboratory testing and accreditation, industry education, and international-standards development, AMCA lives by its mission to advance the knowledge of air systems and uphold industry integrity on behalf of its approximately 400 member companies worldwide.

After careful review of the 15-day language, we have concluded that CEC is on track to publish a workable commercial fan regulation. This monumental task has been shaped by more than 11 years of regulatory analysis and stakeholder engagement. CEC has been largely responsive to stakeholder feedback, and we appreciate many of the changes made to improve the draft

regulatory language since the 45-day language was published on February 25, 2022. We applaud CEC's careful consideration of CIFB regulations from the perspective of the end-purchasers and users of commercial and industrial fans specifically, the original equipment manufacturers (OEMs) represented by AHRI, and finally engineers and specifiers of fans. We are hopeful the U.S. Department of Energy will adopt this collaborative approach as well.

To make this regulation fully workable, and utterly clear, we recommend CEC make one minor change (or alternatively two changes) for replacement fans, which is consistent with CEC's analysis and the proposed regulatory construct. Adopting the Joint Commenters' recommendation (or recommendations) will clarify CEC's own recognition in Chapter 3 of the Staff Report that, when "manufactured for the purpose of being embedded into an appliance after market," "embedded fans are exempt."[1] It cannot be overstated that there would be significant safety issues if one tried to replace a fan in a product with seismic certification or gas or electric heat with a different fan. Safety listings confirm the product complies with all safety certification requirements at the time of manufacture. Any fan retrofits with unapproved fan assemblies would void all safety listings based on safety standards and the warranty. The request to modify the definition of CIFB was also made in joint AHRI-AMCA comments to the 45-Day Language NOPA, submitted on April 29, 2022.[2] AHRI and AMCA recommended that CEC clearly exempt fan blades, impellers, wheels, and other components used to repair/replace fans in existing HVACR and water heating equipment by modifying the proposed definition of "Commercial and industrial fan and blower" in Title 20, CCR Section 1602, Definitions, shown as underlined and highlighted, below:

… [skipping main body of "Commercial and industrial fan and blower"]

(1) Commercial and industrial fans and blowers do not include:

… [skipping proposed (A) through (F)]

(G)embedded fans as defined in ANSI/AMCA 214-21, including embedded fans sold for replacement purposes;

… [skipping proposed (H) through (J)]

By citing the exclusion of embedded fans by the definition in AMCA 214-21, without the proposed modification above, there remains ambiguity for replacement fans.[3]

[1] CEC Staff Report, Docket 22AAER-01, TN # 241951 (Feb. 24, 2022), Page 8.
[2] Joint AHRI and AMCA Comments on CEC CIFB NOPA, Docket 22AAER-01, TN # 242891 (Apr. 29, 2022), Page 2.
[3] AMCA 214-21 defines Embedded Fan (Section 3.25.4) as, "a fan that is part of a manufactured assembly where the assembly includes functions other than air movement." A fan to replace a nonfunctional embedded fan is functionally the same as the fan embedded during original manufacture; however, as it is not embedded at the time

If CEC is unable to make appropriate clarifications for embedded fans sold for replacement purposes in the definitional exclusions of CIFB, alternatively, changes could be made to Section 1606 Table X and labeling requirements to reflect CEC's acknowledgement that replacement embedded fans hold the same purpose, and therefore should have the same exclusions, as fans embedded at the time of the OEM product's manufacture.

If not clearly exempted, replacement embedded fans should have their own row in § 1606 Table X to clarify that information required for fans intended for regulation is not required for replacement embedded fans. To achieve this, the Joint Commenters recommend adding text, underlined and highlighted, below.

§ 1606. Filing by Manufacturers; Listing of Appliances in MAEDbS.

…[Skipping (a) through "Residential Furnace Fans" section D of Table X]

Appliance	Required Information	Permissible Answers
Commercial and Industrial Fans and Blowers, sold for replacement of an embedded fan, manufactured after August 10, 2023	Replacement SKU or part model number	

… [skipping proposed Commercial and Industrial Fans and Blowers, manufactured after August 10, 2023]

Secondarily, if the CIFB definitional change is not made, changes to Section 1607 would be required to relieve replacement embedded fans from marking requirements. To achieve this, AHRI recommends adding text, underlined and highlighted, below.

§ 1607. Marking of Appliances.

…[skipping (a) through (d)(15))]

(16) Commercial and Industrial Fans and Blowers. Each commercial and industrial fan and or blower, except replacement embedded fans, shall be marked, permanently and legibly on an accessible and conspicuous place on the unit, in characters no less than 1/4 inch in tabular form (as shown below):

of sale, it is unclear, as currently written, if these fans would be required to be listed in CEC's database and comply with the labeling requirements.

…. [skipping proposed (16)(A)]

While it would be easier for regulators, manufacturers, and consumers if the modification is made to the definition, modifications to Section 1606 Table X and the labeling requirements will achieve the same end. The Joint Commenters remind CEC that HVACR and water-heating equipment is built, tested, and certified as a completed design that is reliant on a specific set of components. Changing these components in turn changes the performance of the equipment. In many cases, such as supply-air fans with air flow through gas fired heat exchangers, hot-water coils, or electric resistance units, a variety of safety standards in addition to performance standards are affected. The testing of all legacy equipment because of a fan change will be cost- and resource-prohibitive. If a replacement fan is not compliant then, in most cases, an unsafe, engineered-to-fit substitution would be required. The costs, risks, and time required to retest the HVACR and water-heating equipment would be prohibitive. Testing would also be impractical if the HVACR and water heating equipment is out of production. Manufacturers would be forced to rebuild an out-of-production unit solely for the purpose of testing a new fan. There may be instances in which such part substitution makes sense, but that is not a reasonable basis for a broad, minimum standard.

Thank you for the review and consideration of our comments. If you have any questions regarding this submission, please do not hesitate to contact us.

Respectfully submitted,

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Air-Conditioning, Heating, and Refrigeration Institute

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