DOCKETED	
Docket Number:	22-AAER-04
Project Title:	2022 Amendments to the Appliance Efficiency Regulations
TN #:	253820
Document Title:	GREENHECK FAN CORPORATION Comments - Greenheck Group Comments on T20 Fan and Blower Regulation
Description:	N/A
Filer:	System
Organization:	GREENHECK FAN CORPORATION
Submitter Role:	Public
Submission Date:	1/8/2024 9:41:55 AM
Docketed Date:	1/8/2024

Comment Received From: GREENHECK FAN CORPORATION
Submitted On: 1/8/2024
Docket Number: 22-AAER-04

Greenheck Group Comments on T20 Fan and Blower Regulation

Additional submitted attachment is included below.

GreenheckGroup™
Inspired People Doing Extraordinary Things

January 8, 2024

Mr. Peter Strait
California Energy Commission
Docket Unit, MS-4
Re: Docket No. 22-AAER-04
1516 Ninth Street
Sacramento, CA 95814-5512

RE: *CEC T20 DOCKET: 22-AAER-04*, 2022 Amendments to the Appliance Efficiency Regulations

Dear Mr. Strait:
I am writing on behalf of the Greenheck Group to provide positive feedback regarding the California Energy Commission's (CEC) November 20, 2023, notice opening a public comment period on proposed amendments to the Commercial and Industrial Fans and Blowers regulations. Greenheck asks that you carefully consider our constructive perspectives so that the T20 fan regulation maximizes energy savings while allowing for feasible industry compliance.

1. Consideration of the Department of Energy Notice of Proposed Rulemaking
   With the recent pre-publication of the Department of Energy's proposed energy standard for fans and blowers (10 CFR Parts 429 and 431, EERE-2022-BT-STD-0002), Greenheck recommends that the California Energy Commission (CEC) pause implementation of its regulation on Commercial and Industrial Fans and Blowers to fully evaluate the implications and substantial differences between the Title 20 rulemaking and the proposed federal rulemaking.

   Differing state and federal regulations covering the same products can lead to industry confusion, unrealistic timing expectations, and unnecessary financial burden to consumers, supply chains and manufacturers. These are critical considerations that must be addressed upfront when evaluating regulatory impacts.

   To minimize confusion and burden for the market, Greenheck suggests the CEC focus on leveraging the existing energy savings requirements and fan system efficiencies already outlined in Title 24. Specifically, rely on the current requirement for fans to meet a fan energy index (FEI) value of 1.00 or greater. This allowance aligns with the energy saving goals of Title 20, while reducing additional burden on manufacturers and the CEC. It would also provide time to fully assess the proposed federal DOE regulations related to fan efficiency.

   The goal should be balancing energy savings with feasibility for the industry. Overly stringent or conflicting state-level requirements risk confusion, compliance challenges, and inadequate lead time for California consumers.

2. AEDM as "possible answer" - Table X, FEP_{act}

Greenheck recommends adding Alternative Efficiency Determination Methods (AEDMs) as a "possible answer" in Table X, Section 1606 for FEP_{act}. Allowing AEDM as a "possible answer" for FEP_{act} will streamline compliance for manufacturers by aligning with existing federal certification allowances. Specifically, the Department of Energy permits AEDM usage for regulatory ratings under 10 CFR sections 429.69 and 429.70. Additionally, Footnote 3 in Table D-3, Section 1604(d) of the CEC Title 20 regulations also provides for AEDM usage, stating:

Commercial and Industrial Fans and Blowers	10 C.F.R. section 431.174 (Appendix A to Subpart J of Part 431)[3]
[1] Very small-diameter ceiling fans are not required to be tested, unless those fans also meet the definition of "low-speed small-diameter ceiling fan" found in section 1602(d) of this Article. [2] Not including evaporative coolers whose fans or blowers are within the scope of the testing requirements for commercial and industrial fans and blowers.	
[3] Including but not limited to provisions on alternative efficiency determination method (AEDM) and additional testing requirements concerning selection of models to be tested if an AEDM is to be applied, in 10 C.F.R. sections 429.69 and 429.70	

Allowing AEDM as a "possible answer" in Table X provides clarity and prevents confusion for companies selecting this methodology allowed under both DOE and Title 20 provisions. AEDM inclusion benefits manufacturers and the CEC through straightforward code interpretation while still meeting efficiency verification objectives.

3. Support of AMCA and AHRI Comments

Greenheck urges review and incorporation of the practical, experience-based suggestions put forth by AMCA and AHRI around critical aspects of the proposed Commercial and Industrial Fans and Blowers regulations. As a leading manufacturer in the space, we fully support the associations' positions and believe addressing their counsel will lead to balanced rulemaking that spurs technology innovation while allowing companies to responsibly meet requirements.

AMCA International and AHRI possess tremendous industry expertise and have provided technical guidance utilized in establishing standards, building codes, and product rating procedures globally for decades. The input and feedback shared in their formal CEC commentary represent key stakeholder perspectives that warrant thoughtful analysis.

Concluding Remarks

Greenheck very much appreciates the opportunity to comment and contribute to the CEC T20 rule making for Commercial and Industrial Fans and Blowers. In summary:

1. Greenheck is supportive of the CEC effort to reduce fan energy consumption through the T20 CIFB regulatory process in harmony with the T24 Energy Code.
2. Greenheck is available to assist with addressing the following recommendations:
    a. Addition of AEDM for possible answer to $FEP_{act.}$
    b. Assessment of DOE rulemaking as it pertains to Title 20.
    c. Other issues as they arise.
3. Greenheck encourages CEC to act on recommendations submitted by both AMCA and AHRI.

Thank you.

Commenter Credentials:

With over 37 years of experience spanning engineering, sales, marketing, software development, and executive leadership roles at Greenheck Group, a leading global manufacturer of HVAC equipment, I have cultivated an in-depth understanding of how regulations shape business operations and market dynamics. My ongoing engagement with industry organizations, including serving as the current President of AMCA and involvement with ASHRAE, AHRI, HVI, UL, NFPA, ICC, and others, provides me with critical insights into the development of test standards and codes. I previously participated on the U.S. Department of Energy's Working Group responsible for recommendations on Commercial and Industrial Fan Energy Regulations. Additionally, my past membership on the U.S. Department of Energy's Appliance Standards and Rulemaking Federal Advisory Committee (ASRAC) enabled me to lend my expertise on the intersection of policy and industry. With decades of experience and deep familiarity with the regulatory landscape from an industry perspective, I am uniquely equipped to analyze and anticipate the impacts of policy changes on HVAC businesses and markets.

The Greenheck Group is comprised of several brands including Greenheck, Innovent, Valent, Precision Coils, Accurex, Airolite and Metal Industries. Headquartered in Schofield, WI, **Greenheck has offices and manufacturing facilities in California**, Wisconsin, Oklahoma, Minnesota, Kentucky, Tennessee, North Carolina, Florida, Mexico, and India. Greenheck employs over 4,500 people in the United States and over 5,000 people worldwide. With more than 75 years of family ownership, Greenheck is a worldwide leader in the manufacture of air-movement, conditioning and control equipment, systems, and services. Greenheck manufactures a comprehensive range of HVAC products including commercial and industrial fans and blowers, laboratory exhaust systems, dedicated outdoor air systems, energy recovery ventilators, air handlers, makeup air units, and commercial kitchen ventilation.

Greenheck's air distribution product line spans fundamental elements integrated across HVAC applications - from air control dampers, fire/smoke dampers, coils, terminal units to grilles, registers, diffusers, architectural louvers, mechanical louvers, and beyond. This comprehensive portfolio empowers customized HVAC system design.

Greenheck's air distribution offering encompasses essential products across HVAC systems - including air control dampers, fire and smoke dampers, coils, air terminal units, grilles, registers, diffusers, louvers (both architectural and mechanical), and more. Greenheck's extensive product portfolio serves diverse building sectors including commercial, institutional, industrial, and residential. Their equipment empowers ventilation solutions spanning air quality, comfort, and industrial process applications.

Greenheck Industry Engagement

Greenheck engineers actively participate in governmental and industry organizations that establish HVAC performance standards and best practices, including:

- American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE)
- Air Movement & Control Association (AMCA)

- Air-Conditioning, Heating, & Refrigeration Institute (AHRI)
- Heating Ventilating Institute (HVI)
- United States Department of Energy (DOE)
- International Standards Organization (ISO)
- International Code Council (ICC)
- California Energy Commission (CEC)
- Northwest Energy Efficiency Alliance (NEEA)
- And many others.

Greenheck's involvement centers on shaping standards, regulations, and programs to advance energy-efficient HVAC system design along with practical product selection and application. With decades deeply embedded within these organizations, Greenheck provides well-informed, meaningful contributions regarding regulations, codes, incentives, and standards to enable the HVAC industry's energy efficiency progress. Our cross-functional collaboration allows us to deliver integrated equipment solutions that both meet customer needs and comply with the latest regulations and consumer needs.

Greenheck appreciates the opportunity to support this regulatory effort and is prepared to provide additional details regarding historical data and the potential impact the regulation will have on the market.

Respectfully Submitted,

Mike

Michael L. Wolf, PE
Director, Regulatory Business Development
mike.wolf@greenheck.com
Direct: (715) 571-4588