

ADDENDA

**ANSI/ASHRAE/IES Addendum bw to
ANSI/ASHRAE/IES Standard 90.1-2019**

Energy Standard for Buildings Except Low-Rise Residential Buildings

Approved by ASHRAE and the American National Standards Institute on April 29, 2022, and by the Illuminating Engineering Society on April 27, 2022.

This addendum was approved by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for change to any part of the standard. Instructions for how to submit a change can be found on the ASHRAE® website (<https://www.ashrae.org/continuous-maintenance>).

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FOREWORD

Addendum bw clarifies the mandatory provisions for fan energy index (FEI) for in-scope fans by adding “at its highest design airflow rate” in two places in Section 6.5.3.1.3, “Fan Efficiency.” Although this language is already largely understood and implied, including it explicitly is intended to prevent confusion with application of the FEI requirement for in-scope fans.

In addition, the exception for emergency operation of fans was expanded to clarify that normally operating fans that run at higher speeds during emergency conditions do not have to meet the FEI requirement at that higher speed.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~strike through~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes.

Addendum bw to Standard 90.1-2019

Modify Section 6.5.3.1.3 as shown (I-P and SI).

6.5.3.1.3 Fan Efficiency. Each fan and *fan array* shall have a *fan energy index (FEI)* of 1.00 or higher at its highest design airflow rate. Each fan and *fan array* used for a *variable-air-volume system* that meets the requirements of Section 6.5.3.2.1 shall have an *FEI* of 0.95 or higher at its highest design airflow rate. The *FEI* for *fan arrays* shall be calculated in accordance with AMCA 208, Annex C.

Exceptions to 6.5.3.1.3:

1. Fans that are not *embedded fans* with a motor *nameplate horsepower* of less than 1.0 hp or with a *fan nameplate electrical input power* of less than 0.89 kW.
2. *Embedded fans* and *fan arrays* with a combined motor *nameplate horsepower* of 5 hp or less or with a ~~fan system electrical input power~~ fan system electrical input power of 4.1 kW or less.
3. *Embedded fans* that are part of *equipment* listed under Section 6.4.1.1.
4. *Embedded fans* included in *equipment* bearing a third-party-certified seal for air performance or *energy* performance of the *equipment* package.
5. Ceiling fans.
6. Fans used for moving gases at temperatures above 482°F (250°C.)
7. Fans used for operation in explosive atmospheres.
8. Reversible fans used for tunnel ventilation.
9. Fans outside the scope of AMCA 208.
10. Fans ~~when that are intended to only operate~~ operating during emergency conditions.

POLICY STATEMENT DEFINING ASHRAE'S CONCERN FOR THE ENVIRONMENTAL IMPACT OF ITS ACTIVITIES

ASHRAE is concerned with the impact of its members' activities on both the indoor and outdoor environment. ASHRAE's members will strive to minimize any possible deleterious effect on the indoor and outdoor environment of the systems and components in their responsibility while maximizing the beneficial effects these systems provide, consistent with accepted Standards and the practical state of the art.

ASHRAE's short-range goal is to ensure that the systems and components within its scope do not impact the indoor and outdoor environment to a greater extent than specified by the Standards and Guidelines as established by itself and other responsible bodies.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive Technical Committee structure, continue to generate up-to-date Standards and Guidelines where appropriate and adopt, recommend, and promote those new and revised Standards developed by other responsible organizations.

Through its *Handbook*, appropriate chapters will contain up-to-date Standards and design considerations as the material is systematically revised.

ASHRAE will take the lead with respect to dissemination of environmental information of its primary interest and will seek out and disseminate information from other responsible organizations that is pertinent, as guides to updating Standards and Guidelines.

The effects of the design and selection of equipment and systems will be considered within the scope of the system's intended use and expected misuse. The disposal of hazardous materials, if any, will also be considered.

ASHRAE's primary concern for environmental impact will be at the site where equipment within ASHRAE's scope operates. However, energy source selection and the possible environmental impact due to the energy source and energy transportation will be considered where possible. Recommendations concerning energy source selection should be made by its members.

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