



**BSR/ASHRAE/IES Addendum i
to ANSI/ASHRAE/IES Standard 90.1-2025**

Public Review Draft

Proposed Addendum i to Standard 90.1-2025, Energy Standard for Sites and Buildings Except Low- Rise Residential Buildings

**First Public Review (June 2026)
(Draft Shows Proposed Changes to Current Standard)**

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FOREWORD

This addendum clarifies the provisions in Section 6.4.1.4 and requires that manufactures of products where a certification program exists, but do not participate in the program, provide independent test data that is not more than five years old. In addition, it would exempt all embedded fans from FEI requirements. Research of a plan and spec database shows that in all the cases sampled, engineers specify that air handler supply fans be certified to AMCA 210 or AHRI 1230, so the committee believes there is no longer a need for an FEI requirement.

Cost justification: Most certification programs require testing of a basic model group every five years. This change would impose the same costs on manufacturers that do not participate in certification programs. Exempting all embedded fans with FEI requirements does not change the cost of the equipment.

As part of this addendum, three exemptions from the FEI requirements in Section 6.5.1.3 have been consolidated into one. The committee believes that the carve outs that left only large custom central station air handlers required to meet the FEI requirements while most other central station air handlers and packaged units exempt are unnecessary. A review of many engineers' specifications for central station air handlers showed that those specifications already require certification to either ANSI/AMCA 210 Laboratory Methods of Testing Fans for Certified Aerodynamic Performance Rating or AHRI 430 Performance Rating of Central Station Air-handling Unit Supply Fans. This will not change the cost of construction.

Cost justification: See the justification in each paragraph.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Addendum i to 90.1-2025

Modify Section 6.4.1.4 as follows (I-P and SI):

6.4.1.4 Verification of Equipment Efficiencies. *Equipment efficiency* information supplied by *manufacturers* for equipment listed in Table 6.4.1.4, shall be verified by one of the following:

- a. *Equipment* covered under EPCA shall comply with U.S. Department of Energy certification requirements.
- b. ~~If~~ Where a certification program exists for ~~a covered product~~ the equipment, and it includes provisions for verification and challenge of *equipment efficiency* ratings, then the product shall be listed in the certification program.

- c. ~~If~~ Where a certification program exists for a ~~covered product~~ the equipment, and it includes provisions for verification and challenge of *equipment efficiency* ratings, but the product is not listed in an existing certification program, the ratings shall be verified by an independent laboratory, including all data required by the referenced test procedure for that equipment and the resulting rating, a test report dated within the past five years, and data shall be furnished by the manufacturer.
- d. ~~If~~ Where no certification program exists for a ~~covered product~~ the equipment, the *equipment efficiency* ratings shall be ~~supported by data~~ furnished by the *manufacturer*.
- e. Where components such as indoor or outdoor coils from different *manufacturers* are used, the *system designer* shall specify component efficiencies whose combined *efficiency* meets the minimum *equipment efficiency* requirements in Section 6.4.1.

Table 6.4.1.4 Equipment that Must Meet the Efficiency Verification Requirements of Section 6.4.1.4

<u>Equipment shown in Tables 6.8.1-1 through 6.8.1-22</u>
<u>Equipment required to be rated in accordance with Section 6.4.7</u>
<u>Fans and fan arrays that are required to meet a minimum FEI in Section 6.5.3.1.3</u>
<u>Low power fans required to meet a minimum efficacy in Section 6.5.3.7</u>
<u>Exhaust air energy recovery equipment described in Section 6.5.6</u>

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 or where air power at the design airflow results in greater than 150 hp.
 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 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.~~
- ...

Re-number the rest of the list as needed.