ADDENDA

ANSI/ASHRAE/IES Addendum v 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 July 30, 2021, and by the Illuminating Engineering Society on June 9, 2021.

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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ASHRAE obtains consensus through participation of its national and international members, associated societies, and public review.

Larry Kouma

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FOREWORD

Addendum v clarifies documentation that must be submitted to the rating authority or jurisdiction by projects following Section 11 and Appendix G, and clarifies that code authorities may request the simulation files for the baseline/budget and proposed design models, which is already allowed in Section 4.2.2.2.

This change is consistent with the current requirements for the exceptional calculation methods in Sections G2.5(b) and 11.4.5(b), which call for copies of all spreadsheets used to perform the calculations. This allows jurisdictions and rating authorities to open the model files, if desired, in the simulation tool that was used to create the models, to facilitate a detailed review.

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

Addendum v to Standard 90.1-2019

Modify Section 11.7.2 as shown (I-P and SI units).

11.7.2 Permit Application Documentation. Compliance shall be documented and submitted to the *building official*. The information submitted shall include the following:

[...]

d. A list of the *energy*-related features that are included in the design and on which compliance with the provisions of Section 11 is based. This list shall document all *energy* features that differ between the models used in the *energy cost* ...

 $[\ldots]$

- j. The input and output rReports from the simulation program showing
 - 1. ; including a breakdown of energy usage by at least the following components: lights, internal equipment loads, service water-heating equipment, space-heating equipment, space cooling and heat rejection equipment, fans, and other HVAC equipment (such as pumps)—:
 - 2. The output reports shall also show the amount of time any loads are not met by the *HVAC system* for both the *proposed design* and *budget building design*—; and
 - 3. a description of energy-related features of the *budget building design* and the *proposed design* to support requirements of Section 11.7.2(d).

 $[\ldots]$

p. Simulation input files for the *budget building design* and the *proposed design* shall be made available if requested by the *building official*.

[...]

Modify Section G1.3.2 as shown (I-P and SI units).

G1.3.2 Application Documentation. Simulated performance shall be documented, and documentation shall be submitted to the *rating authority*. The information shall be submitted in a report and shall include the following:

 $[\ldots]$

c. A list of the *energy*-related features that are included in the design and on which the performance rating is based. This list shall document all *energy* features that differ between the models used in the *baseline building performance* and *proposed building performance* calculations.

[...]

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- 1. Input and output rReports from the simulation program or compliance software, including the following showing
 - 1. a breakdown of *energy* use by at least the following components: lights, internal *equipment* loads, *service water-heating equipment*, *space*-heating *equipment*, *space*-cooling and heat rejection *equipment*, fans, and other HVAC *equipment* (such as pumps)—:
 - 2. The output reports shall also show the amount of *unmet load hours* for both the *proposed design* and *baseline building design*—; and
 - 3. a description of energy-related features of the *baseline building design* and the *proposed design* to support requirements of Section G1.3.2(c).

[...]

<u>r.</u> Simulation input files for the *budget building design* and the *proposed design* shall be made available if requested by the *rating authority*.

[...]

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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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As an industry leader in research, standards writing, publishing, certification, and continuing education, ASHRAE and its members are dedicated to promoting a healthy and sustainable built environment for all, through strategic partnerships with organizations in the HVAC&R community and across related industries.

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