

ADDENDA

**ANSI/ASHRAE/IES Addendum a to
ANSI/ASHRAE/IES Standard 90.2-2018**

Energy Efficient Design of Low-Rise Residential Buildings

Approved by ASHRAE and the American National Standards Institute on January 29, 2021, and by the Illuminating Engineering Society on January 22, 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>).

The latest edition of an ASHRAE Standard may be purchased on the ASHRAE website (www.ashrae.org) or from ASHRAE Customer Service, 180 Technology Parkway NW, Peachtree Corners, GA 30092. E-mail: orders@ashrae.org. Fax: 678-539-2129. Telephone: 404-636-8400 (worldwide), or toll free 1-800-527-4723 (for orders in US and Canada). For reprint permission, go to www.ashrae.org/permissions.

© 2021 ASHRAE

ISSN 1041-2336



ASHRAE Standard Project Committee 90.2
Cognizant TC: 7.6 Systems Energy Utilization
SPLS Liaison: Charles Barnaby
ASHRAE Staff Liaisons: Emily Toto
IES Liaison: Mark Lien

David Goldstein*, <i>Chair</i>	Philip Fairey*	Alice Rosenberg*
Loren Ross*, <i>Vice-Chair</i>	Charles Foster	Steven Rosenstock*
Philip Agee*	Michael Jouaneh*	Amy Schmidt*
Shelley Beaulieu	Christopher Mathis*	Kathrina Simonen*
Scott Campbell*	Vrushali Mendon*	Wayne Stoppelmoor*
Wesley Davis*	Simon Pallin*	Bruce Swiecicki*
Nic Dunfee*	Jerry Phelan*	Richard Watson*

* Denotes members of voting status when the document was approved for publication

ASHRAE STANDARDS COMMITTEE 2020–2021

Drury B. Crawley, <i>Chair</i>	Srinivas Katipamula	David Robin
Rick M. Heiden, <i>Vice Chair</i>	Gerald J. Kettler	Lawrence J. Schoen
Els Baert	Essam E. Khalil	Steven C. Sill
Charles S. Barnaby	Malcolm D. Knight	Richard T. Swierczyna
Robert B. Burkhead	Jay A. Kohler	Christian R. Taber
Thomas E. Cappellin	Larry Kouma	Russell C. Tharp
Douglas D. Fick	Cesar L. Lim	Theresa A. Weston
Walter T. Grondzik	James D. Lutz	Craig P. Wray
Susanna S. Hanson	Karl L. Peterman	Jaap Hogeling, <i>BOD ExO</i>
Jonathan Humble	Erick A. Phelps	William F. McQuade, <i>CO</i>

Connor Barbaree, *Senior Manager of Standards*

SPECIAL NOTE

This American National Standard (ANS) is a national voluntary consensus Standard developed under the auspices of ASHRAE. *Consensus* is defined by the American National Standards Institute (ANSI), of which ASHRAE is a member and which has approved this Standard as an ANS, as "substantial agreement reached by directly and materially affected interest categories. This signifies the concurrence of more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that an effort be made toward their resolution." Compliance with this Standard is voluntary until and unless a legal jurisdiction makes compliance mandatory through legislation.

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

ASHRAE Standards are prepared by a Project Committee appointed specifically for the purpose of writing the Standard. The Project Committee Chair and Vice-Chair must be members of ASHRAE; while other committee members may or may not be ASHRAE members, all must be technically qualified in the subject area of the Standard. Every effort is made to balance the concerned interests on all Project Committees.

The Senior Manager of Standards of ASHRAE should be contacted for

- interpretation of the contents of this Standard,
- participation in the next review of the Standard,
- offering constructive criticism for improving the Standard, or
- permission to reprint portions of the Standard.

DISCLAIMER

ASHRAE uses its best efforts to promulgate Standards and Guidelines for the benefit of the public in light of available information and accepted industry practices. However, ASHRAE does not guarantee, certify, or assure the safety or performance of any products, components, or systems tested, installed, or operated in accordance with ASHRAE's Standards or Guidelines or that any tests conducted under its Standards or Guidelines will be nonhazardous or free from risk.

ASHRAE INDUSTRIAL ADVERTISING POLICY ON STANDARDS

ASHRAE Standards and Guidelines are established to assist industry and the public by offering a uniform method of testing for rating purposes, by suggesting safe practices in designing and installing equipment, by providing proper definitions of this equipment, and by providing other information that may serve to guide the industry. The creation of ASHRAE Standards and Guidelines is determined by the need for them, and conformance to them is completely voluntary.

In referring to this Standard or Guideline and in marking of equipment and in advertising, no claim shall be made, either stated or implied, that the product has been approved by ASHRAE.

(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objections on informative material are not offered the right to appeal at ASHRAE or ANSI.)

FOREWORD

Addendum a updates normative references to reflect most recent year of publications and contact address, as applicable. One new normative reference (ASTM E3158) is added as an alternative test method for whole-building air leakage compliance to give users more options, especially when their building is exceptionally large or has multiple zones. Two NFRC publications are also added to Section 10 because both standards are cited normatively; conversely, a publication previously listed in Section 10 is deleted because it does not cited normatively. Finally, two references to sections of Standard 90.1 have been updated to reflect numbering in the latest published edition of the standard.

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

Addendum a to Standard 90.2-2018

Modify Section 7.5.4.6 as shown to reflect changes to section numbering in Standard 90.1.

7.5.4.6 Lighting in Elevators. All cab lighting systems shall comply with ASHRAE/IES Standard 90.1, Section 10.4.3.1.

Modify Section 10 as shown.

10. NORMATIVE REFERENCES

<u>Reference</u>	<u>Title</u>
[...]	
ASTM International 100 Barr Harbor Dr., West Conshohocken, PA 19428-2959	
ASTM E779- 40 19	Standard Test Method for Determining Air Leakage Rate by Fan Pressurization
ASTM E1827- 2014 2017	Standard Test Methods for Determining Airtightness of Buildings Using an Orifice Blower Door
ASTM E3158-18	<u>Standard Test Method for Measuring the Air Leakage Rate of Large or Multizone Building</u>
ASHRAE 1791 Tullie Circle, NE Atlanta, GA 30329 180 Technology Parkway NW Peachtree Corners, GA 30092	
[...]	
ANSI/ASHRAE Standard 55- 2013 2017	Thermal Environmental Conditions for Human Occupancy
[...]	
ANSI/ASHRAE/IES Standard 90.1- 2016 2019	Energy Standard for Buildings Except Low-Rise Residential Buildings
[...]	
ANSI/ASHRAE Standard 140- 2014 2017	Standard Method of Test for the Evaluation of Building Energy Analysis Computer Programs

<u>Reference</u>	<u>Title</u>
The Association of Pool & Spa Professionals (APSP) 2111 Eisenhower Ave. Alexandria, VA 22314	
<u>ANSI/APSP/ICC-14-2014</u>	<u>American National Standard for Portable Electric Spa Energy Efficiency</u>
[...]	
International Code Council 4051 Flossmoor Road Country Club Hills, IL 60478	
<u>IECC-2015-2018</u>	<u>International Energy Conservation Code</u>
[...]	
National Fenestration Rating Council (NFRC) 6305 Ivy Lane, Suite 140 Greenbelt, MD 20770-6323	
<u>ANSI/NFRC 100-2017</u>	<u>Procedure for Determining Fenestration Product U-Factors</u>
<u>ANSI/NFRC 200-2017</u>	<u>Procedure for Determining Fenestration Product Solar Heat Gain Coefficients and Visible Transmittance at Normal Incidence</u>
RESNET Residential Energy Services Network, Inc. (RESNET) P.O. Box 4561-4867 Patina Court Oceanside, CA 92052-4561-92057	
<u>ANSI/RESNET/ICC 301-2014-2019</u> <u>including Addenda A-2015 and E-2018</u>	<u>Standard for the Calculation and Labeling of the Energy Performance of Low-Rise Residential Buildings <u>Dwelling and Sleeping Units</u> using an Energy Rating Index— including <u>ANSI/RESNET/ICC 380-2019 Addendum A-2019</u> and <u>Addendum B-2020</u></u>
<u>ANSI/RESNET/ICC 380-2016-2019</u>	<u>Standard for Testing Airtightness of Building, <u>Dwelling Unit, and Sleeping Unit</u> Enclosures; <u>Airtightness of Heating and Cooling Air Distribution Systems;</u> and <u>Airflow of Mechanical Ventilation Systems,</u> including Addendum A-2018</u>
[...]	

Modify Section C1.1 as shown.

C1.1 Testing shall be performed by a fan pressurization technique in accordance with ASTM E779, ASTM E1827, ~~ASTM E3158,~~ or ANSI/RESNET/ICC 380, Section ~~3~~ 4.

Modify Section D1.5 as shown to reflect changes to section numbering in Standard 90.1.

D1.5 Insulation materials that are intended to also serve as an *air barrier* shall comply with the air barrier requirements of ASHRAE/IES Standard 90.1, Section ~~5.4.3.1.3~~ 5.4.3.1.2, at the installed thickness and shall be installed in accordance with manufacturer's installation instructions to comply with *air barrier* performance requirements.

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.

ASHRAE · 180 Technology Parkway NW · Peachtree Corners, GA 30092 · www.ashrae.org

About ASHRAE

Founded in 1894, ASHRAE is a global professional society committed to serve humanity by advancing the arts and sciences of heating, ventilation, air conditioning, refrigeration, and their allied fields.

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.

To stay current with this and other ASHRAE Standards and Guidelines, visit www.ashrae.org/standards, and connect on LinkedIn, Facebook, Twitter, and YouTube.

Visit the ASHRAE Bookstore

ASHRAE offers its Standards and Guidelines in print, as immediately downloadable PDFs, and via ASHRAE Digital Collections, which provides online access with automatic updates as well as historical versions of publications. Selected Standards and Guidelines are also offered in redline versions that indicate the changes made between the active Standard or Guideline and its previous version. For more information, visit the Standards and Guidelines section of the ASHRAE Bookstore at www.ashrae.org/bookstore.

IMPORTANT NOTICES ABOUT THIS STANDARD

To ensure that you have all of the approved addenda, errata, and interpretations for this Standard, visit www.ashrae.org/standards to download them free of charge.

Addenda, errata, and interpretations for ASHRAE Standards and Guidelines are no longer distributed with copies of the Standards and Guidelines. ASHRAE provides these addenda, errata, and interpretations only in electronic form to promote more sustainable use of resources.