



STANDARDS ACTIONS

PUBLIC REVIEW—CALL FOR COMMENTS

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Constructive comments are invited for the following Public Review Drafts, which can be accessed on ASHRAE's website. All activity for reviewing and commenting on public review drafts can be accomplished completely online at <https://osr.ashrae.org>. To obtain a paper copy of any Public Review Draft contact ASHRAE, Inc. Attn: Standards Public Review, 1791 Tullie Circle, NE, Atlanta, GA 30329-2305, or via email at: standards.section@ashrae.org. Paper copies are \$35.00/copy if 100 pages or less and \$45.00 if over 100 pages.

**30-day Public Review from
November 16, 2018 – December 16, 2018**

♦ **2nd Public Review of BSR/ASHRAE Addendum x to ANSI/ASHRAE Standard 62.1-2016, Ventilation for Acceptable Indoor Air Quality**

The exhaust procedure in Standard 62.1-2016 contains requirements in notes. This proposed addendum relocates those requirements to the body of the standard. The performance compliance path is modified to be consistent with the proposed changes to the IAQ Procedure. Table 6.5.2 (Airstream or Sources) is added as relocated from Section 5.

♦ **2nd Public Review of BSR/ASHRAE Addendum y to ANSI/ASHRAE Standard 62.1-2016, Ventilation for Acceptable Indoor Air Quality**

Since the original publication of Standard 62.1, ASHRAE published Standard 188-2015 Legionellosis: Risk Management for Building Water Systems. This proposed addendum requires advising the owner of the basic requirements of ASHRAE Standard 188.

♦ **2nd ISC Public Review of BSR/ASHRAE Addendum aa to ANSI/ASHRAE Standard 62.1-2016, Ventilation for Acceptable Indoor Air Quality**

The indoor air quality procedure has a long history going back to the 1981 standard. Weaknesses in the requirements for identifying the contaminants of concern, identifying concentration limits and exposure periods, and specifying the percentage of building occupants to be satisfied with perceived IAQ. Although the percentage of building occupants to be satisfied with perceived IAQ may be specified, and the standard requires that it be measured; this measurement usually would take place after occupancy so is often

ignored or omitted. This proposed addendum adds requirements for designing to specific targets. The target design compounds and mixtures are specifically identified.

♦ **1st Public Review of BSR/ASHRAE Addendum ae to ANSI/ASHRAE Standard 62.1-2016, Ventilation for Acceptable Indoor Air Quality**

This proposed addendum adds a maximum indoor air dewpoint in mechanically cooled buildings. The 60°F (15°C) indoor air dewpoint limit avoids the microbial growth problems frequently observed when humid outdoor air infiltrates into buildings. Humidity-related requirements of earlier versions of 62.1 were intended to address both mold growth and comfort concerns by limiting indoor humidity to 65%RH but did not explicitly extend to unoccupied hours when microbial growth often accelerates and because it did not establish a coincident dry bulb temperature and did not limit the mass of water vapor available for surface absorption during periods when cooling is intermittent to conserve energy.

♦ **1st Public Review of BSR/ASHRAE Addendum af to ANSI/ASHRAE Standard 62.1-2016, Ventilation for Acceptable Indoor Air Quality**

The 2018 FGI (Facilities Guidelines Institute) guideline requires certain outpatient spaces to meet local ventilation codes and not ASHRAE/ASHE Standard 170: Neither one of the two mechanical model codes (IMC and UMC) has ventilation rates for these spaces. The IMC and UMC use ASHRAE Standard 62.1 as basis for their ventilation table. This proposed addendum adds ventilation rates for those spaces in order to bridge the gap with ASHRAE/ASHE Standard 170. It was developed in consultation with FGI in order to understand the activity in each space.

♦ **3rd Public Review ISC of BSR/ASHRAE/IES Addendum y to ANSI/ASHRAE/IES Standard 90.1-2016, Energy Standard for Buildings Except Low-Rise Residential Buildings**

In response to comments from the second public review, the word "commonly" was removed from this proposed addendum since it is subject to interpretation.



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<ul style="list-style-type: none"> ♦ 2nd Public Review ISC of BSR/ASHRAE/IES Addendum <i>al</i> to ANSI/ASHRAE/IES Standard 90.1-2016, <i>Energy Standard for Buildings Except Low-Rise Residential Buildings</i> This addendum proposes changes clarify the modeling rules in section G3.1.1(c) to ensure that the intent of this section is met. ♦ 1st Public Review of BSR/ASHRAE/IES Addendum <i>bc</i> to ANSI/ASHRAE/IES Standard 90.1-2016, <i>Energy Standard for Buildings Except Low-Rise Residential Buildings</i> The addendum proposes implementation of condensing boilers for new construction to achieve condensing-level efficiency (i.e., 90% Et) for large boiler systems (i.e., between 1 million and 10 million Btuh), where the proper design considerations are included so that the condensing boilers will operate properly. To ensure condensing occurs, requirements are added to ensure boiler entering water temperature is designed to be low and able to be maintained low by minimizing recirculation of hot water supply into the return. ♦ 2nd Public Review ISC of BSR/ASHRAE/IES Addendum <i>bf</i> to ANSI/ASHRAE/IES Standard 90.1-2016, <i>Energy Standard for Buildings Except Low-Rise Residential Buildings</i> The following addendum represents further modifications to Addendum “bf” as a result of a public comment, and further coordination with existing portions of the section on vestibules. The primary change is relocating revolving doors from an exception (since by exception they are permitted in lieu of vestibule currently) to one of two requirements (a choice). ♦ 1st Public Review of BSR/ASHRAE/IES Addendum <i>bh</i> to ANSI/ASHRAE/IES Standard 90.1-2016, <i>Energy Standard for Buildings Except Low-Rise Residential Buildings</i> Addendum Q reorganized the air leakage requirements, including moving the fenestration and door air leakage requirements from 5.4.3.2 to a new section and table 5.8.3.2. However, Addendum Q accidentally did not delete the last item in Section 5.4.3.2, and inadvertently left out one item related to high speed doors from Table 5.8.3.2. This 	<p>addendum simply corrects these two oversights. There are no changes to technical requirements.</p> <ul style="list-style-type: none"> ♦ 1st Public Review of BSR/ASHRAE/IES Addendum <i>bi</i> to ANSI/ASHRAE/IES Standard 90.1-2016, <i>Energy Standard for Buildings Except Low-Rise Residential Buildings</i> The addendum updates the reference year for Standard 140 in Sections 11 and 12 as well as Appendix C and G. ♦ 1st Public Review of BSR/ASHRAE/IES Addendum <i>bj</i> to ANSI/ASHRAE/IES Standard 90.1-2016, <i>Energy Standard for Buildings Except Low-Rise Residential Buildings</i> This addendum adds tables to the list of products that are exempt from meeting the requirements of section 6.5.6 - Heat Rejection Equipment. ♦ 1st Public Review of BSR/ASHRAE/IES Addendum <i>bk</i> to ANSI/ASHRAE/IES Standard 90.1-2016, <i>Energy Standard for Buildings Except Low-Rise Residential Buildings</i> Currently, the proposed designs with on-site electricity generation systems often mistakenly model the baseline as having all electricity purchased from grid. The addendum clarifies that such projects must model the same electricity generation system in the baseline and proposed design and is aligned with the interpretation IC 90.1-2013-16 OF ANSI/ASHRAE/IES STANDARD 90.1-2013 form January 21, 2018. The proposed designs utilizing cogeneration or combined heat and power systems (CHP) can get credit for recovering waste heat as allowed by 11.4.3.1 and G2.4.1. ♦ 1st Public Review of BSR/ASHRAE/IES Addendum <i>bp</i> to ANSI/ASHRAE/IES Standard 90.1-2016, <i>Energy Standard for Buildings Except Low-Rise Residential Buildings</i> This addendum adds a new table F-5 to specify DOE covered residential water boiler efficiency requirements similar what was done for other regulated products. In table 6.8.1-6 notes have been added to indicate that products that fall under the requirements for DOE regulated products the efficiency levels only apply to products applied outside the US.



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- ♦ **1st Public Review of BSR/ASHRAE/IES Addendum *bq* to ANSI/ASHRAE/IES Standard 90.1-2016, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

In response to a consensus proposal from ASHRAE TC8.6 Subcommittee on Standards and Codes, Table 6.8.1-7 has been updated for the 2019 Edition.

- ♦ **1st Public Review of BSR/ASHRAE/IES Addendum *bt* to ANSI/ASHRAE/IES Standard 90.1-2016, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

This addendum updates the Building Performance Factors (BPFs) that are used for compliance with Appendix G.

- ♦ **1st Public Review of BSR/ASHRAE/IES Addendum *bu* to ANSI/ASHRAE/IES Standard 90.1-2016, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

This addendum revises the appendix g baseline requirements.

- ♦ **1st Public Review of BSR/ASHRAE/IES Addendum *bv* to ANSI/ASHRAE/IES Standard 90.1-2016, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

The purpose of this addendum is to allow designers the option to use ASHRAE Standard 90.4 requirements instead of ASHRAE 90.1 requirements in computer rooms that have an IT equipment load larger than 10 kW. A computer room that has such a load is the same as the defined term “data center” in 90.4.

- ♦ **1st Public Review of BSR/ASHRAE Addendum *e* to ANSI/ASHRAE Standard 90.4-2016, *Energy Standard for Data Centers***

This addendum revises the definition of computer room and data center to be consistent with changes occurring in ASHRAE Standard 90.1.

**45-day Public Review from
November 16, 2018 – December 31, 2018**

- ♦ **2nd Public Review of BSR/ASHRAE Addendum *ab* to ANSI/ASHRAE Standard 62.1-2016, *Ventilation for Acceptable Indoor Air Quality***

Indoor CO2 has had a prominent place in discussions of ventilation and IAQ for many years. The relevant issues include the impacts of CO2 on building occupants, the use of CO2 to control outdoor air ventilation rates, CO2 monitoring as an indicator of general IAQ conditions and the use of indoor CO2 to estimate building ventilation rates. This proposed addendum adds a new Normative Appendix D, Estimation of Steady-State Indoor CO2 Concentrations Based on Per Person Ventilation Rates and Occupant Characteristics. The purpose is to describe the estimation of steady-state indoor carbon dioxide concentrations for a given per person outdoor air ventilation rate.

- ♦ **2nd Public Review of BSR/ASHRAE Addendum *ac* to ANSI/ASHRAE Standard 62.1-2016, *Ventilation for Acceptable Indoor Air Quality***

Informative Appendix C (Summary of Selected Air Quality Guidelines) in 62.1-2016 was deleted in a previous addendum. This proposed addendum adds a new Informative Appendix C with content supportive of changes to the Indoor Air Quality Procedure (IAQP).

- ♦ **2nd Public Review ISC of BSR/ASHRAE/IES Addendum *an* to ANSI/ASHRAE/IES Standard 90.1-2016, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

This ISC updates pump definitions and requirements in Addendum an based on public review comments received during the first public review. The changes improve the language in the addendum.

- ♦ **2nd Public Review ISC of BSR/ASHRAE/IES Addendum *aw* to ANSI/ASHRAE/IES Standard 90.1-2016, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

Addendum AW is a comprehensive revision to the fenestration prescriptive criteria in Tables 5.5-0 through 5.5-8. This 2nd public review ISC to Addendum AW makes corrections in response to comments received on the first public review.



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<ul style="list-style-type: none"> <li data-bbox="105 499 800 840"> <p>♦ 2nd Public Review ISC of BSR/ASHRAE/IES Addendum <i>bb</i> to ANSI/ASHRAE/IES Standard 90.1-2016, <i>Energy Standard for Buildings Except Low-Rise Residential Buildings</i> This addendum revises LPD values. In response to comments received during the first public review, revisions were made to the model. Because of this a number of values changed. A typo resulting in an incorrect value for audience seating area - performance arts theater was corrected and the space type, audience seating area – convention center was removed as it was deemed to be unused.</p> <li data-bbox="105 871 800 1060"> <p>♦ 1st Public Review of BSR/ASHRAE/IES Addendum <i>bd</i> to ANSI/ASHRAE/IES Standard 90.1-2016, <i>Energy Standard for Buildings Except Low-Rise Residential Buildings</i> This addendum adds minimum efficiency requirements for heating chiller packages.</p> <li data-bbox="105 1092 800 1312"> <p>♦ 2nd Public Review of BSR/ASHRAE/IES Addendum <i>be</i> to ANSI/ASHRAE/IES Standard 90.1-2016, <i>Energy Standard for Buildings Except Low-Rise Residential Buildings</i> This addendum updates the efficiency requirements for Computer Room air conditioners as listed in table 6.8.1-11 and adds a new table 6.8.1-19.</p> <li data-bbox="105 1344 800 1564"> <p>♦ 1st Public Review of BSR/ASHRAE/IES Addendum <i>bl</i> to ANSI/ASHRAE/IES Standard 90.1-2016, <i>Energy Standard for Buildings Except Low-Rise Residential Buildings</i> This addendum updates table 6.8.1-1 Electrically Operated Unitary Air Conditioners and Condensing Units—Minimum Efficiency Requirements.</p> <li data-bbox="105 1596 800 1816"> <p>♦ 1st Public Review of BSR/ASHRAE/IES Addendum <i>bm</i> to ANSI/ASHRAE/IES Standard 90.1-2016, <i>Energy Standard for Buildings Except Low-Rise Residential Buildings</i> This addendum updates table 6.8.1-2 Electrically Operated Air Cooled Unitary Heat Pumps—Minimum Efficiency Requirements.</p> 	<ul style="list-style-type: none"> <li data-bbox="820 499 1520 808"> <p>♦ 1st Public Review of BSR/ASHRAE/IES Addendum <i>bn</i> to ANSI/ASHRAE/IES Standard 90.1-2016, <i>Energy Standard for Buildings Except Low-Rise Residential Buildings</i> This addendum updates the table 6.8.1-4 Electrically Operated Packaged Terminal Air Conditioners, Packaged Terminal Heat Pumps, Single-Package Vertical Air Conditioners, Single-Package Vertical Heat Pumps, Room Air Conditioners, and Room Air Conditioner Heat Pumps—Minimum Efficiency Requirements.</p> <li data-bbox="820 840 1520 1092"> <p>♦ 1st Public Review of BSR/ASHRAE/IES Addendum <i>bo</i> to ANSI/ASHRAE/IES Standard 90.1-2016, <i>Energy Standard for Buildings Except Low-Rise Residential Buildings</i> This addendum adds table F-4 and modifies Table 6.8.1-5 Warm-Air Furnaces and Combination Warm-Air Furnaces/Air-Conditioning Units, Warm-Air Duct Furnaces, and Unit Heaters—Minimum Efficiency Requirements.</p> <li data-bbox="820 1123 1520 1375"> <p>♦ 1st Public Review of BSR/ASHRAE/IES Addendum <i>br</i> to ANSI/ASHRAE/IES Standard 90.1-2016, <i>Energy Standard for Buildings Except Low-Rise Residential Buildings</i> New DOE refrigeration minimum efficiency requirements went into effect on March 27, 2017 and this addendum updates the requirements in table 6.8.1-12 and 6.8.1-13 to align with the DOE requirements.</p> <li data-bbox="820 1407 1520 1627"> <p>♦ 1st Public Review of BSR/ASHRAE/IES Addendum <i>bs</i> to ANSI/ASHRAE/IES Standard 90.1-2016, <i>Energy Standard for Buildings Except Low-Rise Residential Buildings</i> This addendum updates table F-2 to reflect the new water heater requirements that were adopted by DOE for residential water heaters effective December 2015.</p>



STANDARDS ACTIONS

INTERIM MEETINGS

A complete listing of project committee interim meetings is provided on ASHRAE's website at:

<https://www.ashrae.org/technical-resources/standards-and-guidelines/project-committee-interim-meetings>

- ♦ **SSPC 30, Method of Testing Liquid Chillers**, will hold a conference call on Wednesday, December 12, 2018 from 3:00 pm to 4:30 pm (Eastern). For additional information contact Justin Prosser, Chair of SSPC 30 (jprosser@ahrinet.org).
- ♦ **SPC 196P, Method of Test for Measuring Refrigerant Leak Rates**, will hold a webinar on Friday, November 16, 2018 from 9:30 am to 11:00 am (Eastern). For additional information contact Piotr Domanski, Chair of SPC 196 (piotr.domanski@nist.gov).

STANDARDS ACHIEVEMENT AWARD

Each year the Society recognizes the outstanding efforts of a single volunteer in the area of ASHRAE standards and guidelines development. The Standards Achievement Award recognizes excellence in volunteer service and serves to heighten general membership awareness of, and interest in, standards activities.

The award is open to ASHRAE members who have demonstrated outstanding achievement in the development of ASHRAE standards and guidelines based on criteria presented in Appendix B of the Standards Committee Reference Manual, which can be found on the ASHRAE website at: <http://www.ashrae.org/standards-forms-procedures>.

Nominations are solicited during the first half of the Society year. Standards Committee will review all nominations meeting the minimum criteria and select the recipient at the ASHRAE Winter Meeting in Atlanta.

The Standards Achievement Award will be presented during the Honors and Awards portion of the Plenary Session at the ASHRAE Annual Meeting in Kansas City. A plaque and lapel pin will be presented to the recipient by the ASHRAE President.

Please submit your nomination to the Manager of Standards (sferguson@ashrae.org) by December 31, 2018. The nomination form can be found listed under the "Other Forms" heading on the ASHRAE website at: <http://www.ashrae.org/standards-forms-procedures>.

PUBLICATION NOTICE

The standards and guideline documents listed below are now available for purchase on the ASHRAE website at: <http://www.ashrae.org/published-standards>, or by contacting the Sales Department at: ASHRAE, 1791 Tullie Circle, NE, Atlanta, GA 30329-2305. Email: orders@ashrae.org. Fax: 404-321-5479. Telephone: 404.636.8400 (worldwide) or toll free at 1.800.527.4723 for orders in the U.S. and Canada. Addenda may be downloaded for free on the ASHRAE website at: <http://www.ashrae.org/standards-addenda>.

- ♦ **ANSI/ASHRAE Standard 29-2015 (RA2018), Methods of Testing Automatic Ice Makers**



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- ⇒ [SSPC 41 — Standard Methods for Measurement](#)
- ⇒ [SSPC 62.1 — Ventilation for Acceptable Indoor Air Quality](#)
- ⇒ [SSPC 62.2 — Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings](#)
- ⇒ [SSPC 90.1 — Energy Standard for Buildings Except Low-Rise Residential Buildings](#)
- ⇒ [SSPC 90.2 — Energy Efficient Design of Low-Rise Residential Buildings](#)
- ⇒ [SPC 90.4 — Energy Standard for Data Centers and Telecommunications Buildings](#)
- ⇒ [SSPC 161 — Air Quality within Commercial AirCraft](#)
- ⇒ [SPC 188 — Legionellosis: Risk Management for Building Water Systems](#)
- ⇒ [SSPC 189.1 — Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings](#)
- ⇒ [Code Interaction Subcommittee \(CIS\) Listserve](#)