ASHRAE Shaping Tomorrow's Built Environment Today

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STANDARDS ACTIONS

PUBLIC REVIEW—CALL FOR COMMENTS

Constructive comments are invited for the following Public Review Drafts, which can be accessed at https://osr.ashrae.org. To obtain a paper copy contact ASHRAE, Inc. Attn: Standards Public Review, 180 Technology Parkway, Peachtree Corners, GA 30092, 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 5, 2021 – December 5, 2021

- **1st Public Review of BSR/ASHRAE/IES Addendum *au* to ANSI/ASHRAE/IES Standard 90.1-2019, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

The purpose of this addendum is to correct an issue with the Simplified Building Compliance Path in Section 6.3. Currently, this section does not explicitly require verification of HVAC equipment efficiencies (Section 6.4.1.5.) This modification would specify that Section 6.4.1.5 requirements apply to heating and cooling equipment used under the simplified path.

- **1st Public Review of BSR/ASHRAE/IES Addendum *aw* to ANSI/ASHRAE/IES Standard 90.1-2019, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

Adds minimum efficiency requirements for large diameter ceiling fans (LDCF). The Energy Act of 2020 defines LDCFs as ceiling fans with a blade span greater than 84 inches, established the Ceiling Fan Energy Index (CFEI) as the performance metric, and set an energy conservation standard. The Department of Energy published a rule that starting January 21, 2020, LDCFs meet these requirements. This addendum adds the test procedure for LDCFs, the CFEI metric, and the federal minimum efficiency in a new table.

PUBLIC REVIEW—CALL FOR COMMENTS

- **1st Public Review of BSR/ASHRAE/IES Addendum *az* to ANSI/ASHRAE/IES Standard 90.1-2019, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

Addendum az introduces requirements for the design, installation, and control of compressed air systems. Compressed air systems are an underserved end-use category. Despite accounting for more than 10% of electricity usage in the industrial sector, guidance on energy management and design practice is limited in existing standards and codes. California Title 24, Part 6 now includes compressed air system efficiency measures after a successful adoption effort that involved exhaustive research, modeling, and stakeholder engagement. This proposal applies the lessons learned via the Title 24 process to create a similar set of requirements for 90.1. It includes five measures, each of which addresses common sources of energy waste: requirements for trim compressors and storage, advanced controls, leak testing, monitoring, and pipe sizing.

- **1st Public Review of BSR/ASHRAE/IES Addendum *bb* to ANSI/ASHRAE/IES Standard 90.1-2019, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

This addendum updates the lighting power density (LPD) values in the Building Area Method Compliance Path. Standard 90.1-2019 established consistency among the lighting power compliance approaches and made the Space-by-Space LPD values the primary values. In the Building Area Method, the LPD value for each building type is developed via a weighted-average approach using the Space-by-Space LPD values.

- **1st Public Review of BSR/ASHRAE/IES Addendum *be* to ANSI/ASHRAE/IES Standard 90.1-2019, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

The addendum updates the reference year for Standard 140, Standard Method of Test for the Evaluation of Building Energy Analysis Computer Programs, in Sections 11 and 12 as well as Appendix C and G, to reflect important changes in the standard since 2017.

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- **1st Public Review of BSR/ASHRAE/IES Addendum *bf* to ANSI/ASHRAE/IES Standard 90.1-2019, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

This addendum updates the values for the decorative and retail additional lighting power allowances, adds a new additional allowance for videoconferencing, and moves the allowances and required controls to a table for easy reference.

- **1st Public Review of BSR/ASHRAE/IES Addendum *bh* to ANSI/ASHRAE/IES Standard 90.1-2019, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

This addendum proposes a change to the on-site photovoltaic system parameter for Temperature Coefficient of Power described in Section 11 Table 11.5.1 Part 15, required to determine the amount of on-site renewable energy to be included in the Energy Cost Budget when a Proposed Design does not include an on-site renewable energy system. The updated value, -0.35%/ °C corresponds to a 19% efficient solar panel, which is the standard value since 90.1-2019.

- **1st Public Review of BSR/ASHRAE/IES Addendum *bi* to ANSI/ASHRAE/IES Standard 90.1-2019, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

This proposed addendum addresses roof replacements with a new definition and subsection for handling existing roofs with above-deck insulation. Currently, there are no specific requirements or definitions for roof replacements; this has constrained such projects to the general alteration requirements of Section 5.1.3, which are difficult for certain existing roofs to meet. These modifications to Section 5 will minimize marketplace confusion and prevent conflicting use of the standard.

- **1st Public Review of BSR/ASHRAE/IES Addendum *bj* to ANSI/ASHRAE/IES Standard 90.1-2019, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

This addendum intends to clarify the scoping and applicability of Appendix A of this Standard. The proposed language is focused on two goals: first, improving the format and hierarchy of provisions to be more understandable and enforceable; and second, updating the alternative options available to 90.1 users for compliance. In addition, the update contains revisions to facilitate the review of calculations, tests, and modeling, including where there was confusion and ambiguity with the application of the +/- R-2 tolerance as used in the current standard Section A1.2.

PUBLIC REVIEW—CALL FOR COMMENTS

- **1st Public Review of BSR/ASHRAE/IES Addendum *bk* to ANSI/ASHRAE/IES Standard 90.1-2019, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

Proposed Addendum bk seeks to align humidity requirements in 90.1 with recent changes to 62.1-2019 that involve limiting dew point to 60ºF. Other changes to humidity language are also proposed, with a focus on minimizing the occurrence of simultaneous heating and cooling and encouraging site-recovered energy use.

- **1st Public Review of BSR/ASHRAE/IES Addendum *bm* to ANSI/ASHRAE/IES Standard 90.1-2019, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

Provides explicit instructions for multiple-zone systems to reset the minimum outdoor air setpoint based on a zone outdoor air requirement of zero during the occupied-standby mode. It applies only to systems that already include the components and controls that allow reset of outdoor airflow.

45-day Public Review from November 5, 2021 – December 20, 2021

- **1st Publication Public Review of BSR/ASHRAE Addendum *l* to ANSI/ASHRAE Standard 15-2019, *Safety Standard for Refrigeration Systems***

This proposed addendum to ASHRAE Standard 15-2019 modifies portions of the document to incorporate requirements for commercial refrigeration applications with the use of A2L, A2 and A3 refrigerants. The text developed is in response to CMP0004-001 based on information and requirements in conjunction with proposed product safety standard UL/CSA 60335-2-89, as well as research performed in collaboration of AHRI, ASHRAE, the U.S. Department of Energy, California Energy Commission.

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- **1st Publication Public Review of BSR/ASHRAE Addendum *m* to ANSI/ASHRAE Standard 15-2019, *Safety Standard for Refrigeration Systems***

This proposed addendum to ANSI/ASHRAE Standard 15-2019 modifies allowances for the use of mechanical ventilation to expand this mitigation strategy for human comfort applications using A2L refrigerants.

- **1st Public Review of ASHRAE Guideline 16-2018R, *Selecting Outdoor, Return, and Relief Dampers for Air-Side Economizer Systems***

This guideline provides the basis for selecting and sizing control dampers (outdoor, return, and relief) commonly found in constant volume (CAV) and variable air volume (VAV) air-handling units and systems with air-side economizers.

- **2nd Public Review ISC of BSR/ASHRAE/IES Addendum *t* to ANSI/ASHRAE/IES Standard 90.1-2019, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

This ISC modifies the whole building test requirements compared to the first public review draft. In this version, the testing threshold is 10,000 ft^2 (compared to 25,000 ft^2) and the minimum air tightness performance is 0.35 cfm/ft^2 (versus 0.3 cfm/ft^2).

- **1st Public Review of BSR/ASHRAE/IES Addendum *as* to ANSI/ASHRAE/IES Standard 90.1-2019, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

This addendum has two parts. 1) It cleans up language and spelling errors in the "Testing and Verification" and "Commissioning" requirements throughout the standard, and 2) it moves "Inspections" – currently in Section 5.9.3 – to Section 4, "Administration and Enforcement." In addition, a couple of the inspection items specifically related to verification and commissioning (and not general administration and enforcement) are moved from Section 5.9.3 to Section 5.9.1.

- **1st Public Review of BSR/ASHRAE/IES Addendum *at* to ANSI/ASHRAE/IES Standard 90.1-2019, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

Modifies the definition of "alteration" so that it is not confused as being inclusive of "additions," which are defined separately. This addendum also proposes a new numbering structure for major section headings that would create a consistent framework throughout the standard.

PUBLIC REVIEW—CALL FOR COMMENTS

- **1st Public Review of BSR/ASHRAE/IES Addendum *ay* to ANSI/ASHRAE/IES Standard 90.1-2019, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

This addendum applies the DOE's Appliance Standards and Rulemaking Federal Advisory Committee (ASRAC) VRF Working Group's revisions to the test procedure and Energy Conservation Standards for Variable Refrigerant Flow equipment. The new test procedure, AHRI 1230-2021, is significantly more stringent and will result in lower EERs and IEERs for the same equipment. As a result, changes to Tables 6.8.1-8 and 6.8.1-9 are required, including an update to the referenced test procedure (AHRI 1230-2021).

- **1st Public Review of BSR/ASHRAE/IES Addendum *ba* to ANSI/ASHRAE/IES Standard 90.1-2019, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

This addendum updates space-by-space lighting power density (LPD) values based on improvements in efficacy. On average, LPD values have been reduced by 4% to reflect changes in available technology. Interior controls in Section 9.4.1.1 and Table 9.5.2.1 have also been updated, with various improvements to formatting and the addition of several new requirements for office spaces.

- **1st Public Review of BSR/ASHRAE/IES Addendum *bd* to ANSI/ASHRAE/IES Standard 90.1-2019, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

Adds a new normative appendix (Appendix J) to list chiller performance curve (A-X) inputs based on system type from Table 6.8.1-3. This provides a resource for Chapter 11 or Appendix G users to model minimally-compliant chiller performance for budget and baseline building designs, and for a proposed building design when specific equipment performance is unknown. To accommodate different simulation programs, values are provided for both modeling inputs in IP and SI units.

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- **1st Public Review of BSR/ASHRAE/IES Addendum *bo* to ANSI/ASHRAE/IES Standard 90.1-2019, *Energy Standard for Buildings Except Low-Rise Residential Buildings***

This addendum is an update to the fan power limits in Section 6.5.3.1. The effect of this update would be, on average, a 10% increase in stringency across most fan system types. An important driving factor behind this proposal is to solve problems that have been identified within the current requirements and fan power calculations; for example, in the new requirements: 1) actual electrical input power and efficiency of fan transmission, motor, or variable-speed controller are considered; 2) small, medium, and large air handling systems are covered; 3) the growing use of hot gas reheat coils, water economizer coils, and series energy recovery is acknowledged with new fan power allowances; 4) the scope is expanded to include fan systems that do not include a source of heating or cooling (e.g., large energy recovery ventilators), all fans serving interior spaces, and fans used in alterations. Finally, the power threshold has been reduced to 1 kW input power from 5 motor nameplate horsepower so that fewer fan systems are excluded.

- **1st Withdrawal Public Review of BSR/ASHRAE Standard 137-2013 (RA 2017)W, *Methods of Testing for Efficiency of Space-Conditioning/Water-Heating Appliances that Include a Desuperheater Water Heater***

This standard provides test methods and calculation procedures for establishing the efficiencies of space-conditioning/water-heating appliances having refrigerant-to-water desuperheaters. The standard is proposed for withdrawal as there is no evidence that the standard is in use. With no active users or known equipment covered by the scope of the standard, updating and maintaining the standard is not practical or advised.

PUBLICATION NOTICE

The addenda listed below are now available for free download on the ASHRAE website at: http://www.ashrae.org/standards-addenda.

- **ANSI/ASHRAE Addendum *a* to ANSI/ASHRAE Standard 41.10-2020, *Standard Methods for Refrigerant Mass Flow Rate Measurements Using Flowmeters***
- **ANSI/ASHRAE Addendum *a* to ANSI/ASHRAE Standard 41.11-2020, *Standard Methods for Power Measurement***
- **ANSI/ASHRAE Addendum *d* to ANSI/ASHRAE Standard 55-2020, *Thermal Environmental Conditions for Human Occupancy***
- **ANSI/ASHRAE Addenda *k, l* and *m* to ANSI/ASHRAE Standard 154-2016 ASHRAE Standard 154-2016, *Ventilation for Commercial Cooking Operations***
- **ANSI/ASHRAE Addendum *a* to ANSI/ASHRAE Standard 169-2020, *Climatic Data for Building Design Standards***
- **ANSI/ASHRAE/ASHE Addendum *d* to ANSI/ASHRAE/ASHE Standard 170-2021, *Ventilation of Health Care Facilities***

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NEW REVISION PROJECTS APPROVED

Standards Committee approved the following new revision projects. The TPSs for these projects are not available for public review comment at this time. If you would like to comment, please email Connor Barbaree at: Standards.Section@ashrae.org.

- **BSR/ASHRAE/ACCA 180-2018R, *Standard Practice for Inspection and Maintenance of Commercial-Building HVAC Systems***

- **BSR/ASHRAE Standard 204-2020R, *Method of Test for Rating Micro Combined Heat and Power Devices***

NEW PROJECTS—CALL FOR MEMBERS

A *Call for Members* is announced for the following new revision project committees. Persons who are interested in serving on these ASHRAE committees are asked to indicate their interest by completing the online membership application forms listed under Instructions for New Applicants at https://www.ashrae.org/pcmemberapp or by contacting Connor Barbaree at: ASHRAE, 180 Technology Parkway, Peachtree Corners, GA 30092; phone: 678-539-1138; fax: 678-539-2138; email: Standards.Section@ashrae.org.

- **BSR/ASHRAE/ACCA 180-2018R, *Standard Practice for Inspection and Maintenance of Commercial-Building HVAC Systems***

PURPOSE: The purpose of this standard is to establish minimum HVAC inspection and maintenance requirements that preserve a system's ability to achieve acceptable thermal comfort, energy efficiency, and indoor air quality in commercial buildings.

2. SCOPE:
2.1 This standard provides minimum requirements for the HVAC system inspection and maintenance practice in new and existing buildings. Where specifically noted in this standard, different requirements apply.
2.2 The provisions of this standard do not apply to:
2.2.1 Single-family houses or multi-family structures of three or fewer stories above grade.
2.2.2 HVAC equipment and portions of building systems that primarily provide for industrial, manufacturing, or commercial processes
2.2.3 Other building HVAC systems or elements of building HVAC systems that this standard specifically identifies.
2.3 This standard shall not be used to circumvent any safety, health, or environmental requirements.

NEW PROJECTS—CALL FOR MEMBERS

- **BSR/ASHRAE Standard 204-2020R, *Method of Test for Rating Micro Combined Heat and Power Devices***

Purpose: This standard provides a test method for determining the net electrical generating performance and heat recovery performance of micro combined heat and power devices, sometimes referred to as micro-cogeneration devices. The standard specifies the equipment and instrumentation required, test methods, and calculation procedures.

Scope: This standard applies to combined heat and power devices whose maximum net electrical power output is less than 50 kW and whose maximum useful thermal output is less than 300 kW and whose maximum allowable ratio of thermal output (exclusive of any auxiliary heating equipment) to electrical power is 15. Covered devices are stationary systems that utilize natural gas, propane, or diesel

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

- **GPC 45P, *Measurement of Whole Building Performance for Occupied Buildings except Low-Rise Residential Buildings,*** will hold virtual meetings from 11:00 am to 12:00 pm (Eastern) on the following dates:
  - ⇨ November 17, 2021
  - ⇨ December 8, 2021

For additional information contact Hyojin Kim, Chair of GPC 45 (hyojin.kim@njit.edu).

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INTERIM MEETINGS

- **SSPC 30, *Method of Testing Liquid Chillers,*** will hold a conference call on December 6, 2021 from 1:00 pm to 2:30 pm (Eastern).For additional information contact Justin Prosser, Chair of SSPC 30 (justin.prosser@danfoss.com).

- **SPC 35-2014R, *Method of Testing Refrigerant Driers and Desiccant Materials,*** will hold a conference call on November 15, 2021 from 2:00 pm to 3:30 pm (Eastern). For additional information contact Mandi Lippard, Chair of SPC 35 (mandi.lippard@lubrizol.com).

- **SPC 37-2009R, *Methods of Testing for Rating Electrically Driven Unitary Air-Conditioning and Heat Pump Equipment,*** will hold a conference call on November 18, 2021 For additional information contact Christopher Stone, Chair of SPC 37 (cstone@ahrinet.org).

- **SSPC 62.2, *Ventilation and Acceptable Indoor Air Quality in Residential Buildings.*** The SSPC 62.2 Envelope Subcommittee will hold a webinar on November 22, 2021 from 1:00 pm to 3:00 pm (Eastern). For additional information contact Mark Weber (mweber@ashrae.org).

- **SPC 224P, *Standard for the Application of Building Information Modeling,*** will hold a conference call on November 17, 2021 from 3:00 pm to 4:00 pm (Eastern). For additional information contact Stephen Roth, Chair of SPC 224 (stephenroth@gmail.com).

- **SPC 514P, *Risk Management for Building Water Systems: Physical, Chemical, and Microbial Hazards,*** will hold a conference call on Tuesday, November 16th, 2021, from 10:00 am to 12:00 pm (Eastern). For additional information, please contact Ryan Shanley, Staff Liaison to SPC 514P (rshanley@ashrae.org).

STANDARDS ACHIEVEMENT AWARD

Each year the Society recognizes the outstanding efforts of a single volunteer in the area of standards 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 ASHRAE standards development process based on criteria presented in Appendix B of the Standards Committee Reference Manual, which can be found on the ASHRAE website at: https://www.ashrae.org/standards-forms-procedures.

Nominations are solicited during the first half of the Society year and then the Standards Committee will select the recipient at the 2022 ASHRAE Winter Meeting.

The Standards Achievement Award will be presented during the Honors and Awards portion of the Plenary Session at the ASHRAE Annual Meeting in Toronto. A certificate will be presented to the recipient by the ASHRAE President.

Nominations are due to the Sr. Manager of Standards, Connor Barbaree (cbarbaree@ashrae.org), by December 31, 2021. The nomination form can be found on the ASHRAE website at: https://www.ashrae.org/standards-forms-procedures.

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STANDARDS ACTIONS

JOIN A LISTSERVE

Click on the following link to learn more about ASHRAE Standards Activities https://www.ashrae.org/listserves.

- 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
- SSPC 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