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Project Initiation Notification System (PINS)

ANSI Procedures require notification of ANSI by ANSI-accredited standards developers (ASD) of the initiation and scope of activities expected to result in new or revised American National Standards (ANS). Early notification of activity intended to reaffirm or withdraw an ANS and in some instances a PINS related to a national adoption is optional. The mechanism by which such notification is given is referred to as the PINS process. For additional information, see clause 2.4 of the ANSI Essential Requirements: Due Process Requirements for American National Standards.

Following is a list of proposed actions and new ANS that have been received recently from ASDs. Please also review the section in Standards Action entitled "American National Standards Maintained Under Continuous Maintenance" for additional or comparable information with regard to standards maintained under the continuous maintenance option. Use the following Public Document Library url to access PDF & EXCEL reports of approved & proposed ANS: List of Approved and Proposed ANS

Directly and materially affected interests wishing to receive more information or to submit comments are requested to contact the standards developer directly within 30 days of the publication of this announcement.

ASC X9 (Accredited Standards Committee X9, Incorporated)

Ambria Frazier; Ambria.frazier@x9.org | 275 West Street, Suite 107 | Annapolis, MD 21401 www.x9.org

National Adoption

BSR X9.134-5-202X, Mobile Payments-to-Businesses for Mobile Financial Services (national adoption with modifications of ISO 12812 Part 5)

Stakeholders: Card schemes, financial institutions, non-bank technology providers, application developers, card issuers, acquirers, merchants, end users, and others.

Project Need: A number of considerations have been identified for a mobile payments to businesses standard. In essence, mobile payments to businesses concerns: (1) Users who interact directly with Mobile Devices typically initiating transactions using Mobile Financial Services (MFS); (2) Mobile Devices that interact with users and the telecommunications infrastructure; and (3) MFS, developed and managed by MFSPs that provide online transactions to users. As X9.134 - Part 5 will adopt and adapt ISO 12812-5, it will address the following considerations: User considerations. The MFSP shall provide to the customer a document for Terms of Service that addresses the following: (1) ease of use, (2) cyberattack resistance, (3) transaction fee transparency, (4) clear assignment of liabilities between parties, (5) returns and exchanges, and (6) chargebacks and disputes. MFSP and Third-Party Considerations MFSPs, and third parties offering mobile payments to business solutions shall comply with functional and security requirements related to the MFS as specified in this document. Implementation of this requirement is the responsibility of the MFSP.

Scope: Part 5 of the suite of standards for mobile banking/payments will include specific requirements applicable to all mobile financial service providers (“MFSPs”) detailing the approach to a secure deployment and operation of an MFS application for mobile payments to businesses in order to facilitate and promote interoperability, security, and quality of MFS services throughout the U.S. A summary of those requirements, as initially provided by the U.S., through X9 (X9F4) and ISO TC68/SC2 (WG13), chaired by the U.S., includes but is not limited to: (1) security, (2) notice, (3) logging, (4) receipt, and (5) consumer education requirements.

ASME (American Society of Mechanical Engineers)

Terrell Henry; ansibox@asme.org | Two Park Avenue, M/S 6-2B | New York, NY 10016-5990 www.asme.org

Revision

BSR/ASME PTC 31-202x, High-Purity Water Treatment Systems (revision of ANSI/ASME PTC 31-2011 (R2017))
Stakeholders: Manufacturers, operators, suppliers, general interest.

Project Need: Revise the Standard to include additional equipment used in HPW Water Treatment systems and to bring it up to date with current business practices.

Scope: This Code defines the procedures for the accurate field testing of high-purity water treatment systems for the purpose of determining level of performance. It is based on the use of accurate instrumentation and the best analytical and measurement procedures available.

ASTM (ASTM International)

Laura Klineburger; accreditation@astm.org | 100 Barr Harbor Drive | West Conshohocken, PA 19428-2959 www.astm.org

New Standard

BSR/ASTM E1529-202x, Standard Test Methods for Determining Effects of Large Hydrocarbon Pool Fires on Structural Members and Assemblies (new standard)
Stakeholders: Fire Resistance industries.

Project Need: It is the intent that tests conducted in accordance with these test methods will indicate whether structural members of assemblies, or fire-containment wall assemblies, will continue to perform their intended function during the period of fire exposure. These tests shall not be construed as having determined suitability for use after fire exposure.

Scope: The test methods described in this fire-test-response standard are used for determining the fire-test response of columns, girders, beams, or similar structural members, and fire-containment walls, of either homogeneous or composite construction, that are employed in HPI or other facilities subject to large hydrocarbon pool fires.

ASTM (ASTM International)

Laura Klineburger; accreditation@astm.org | 100 Barr Harbor Drive | West Conshohocken, PA 19428-2959 www.astm.org

New Standard

BSR/ASTM E1537-202x, Test Method for Fire Testing of Upholstered Furniture (new standard)
Stakeholders: Furnishings and Contents industries.

Project Need: The purpose of this test method is to determine the burning behavior of upholstered furniture used in public occupancies by measuring specific fire-test responses when the specimen of furniture is subjected to a specified flaming ignition source under well-ventilated conditions.

Scope: This is a fire-test-response standard.

ASTM (ASTM International)

Laura Klineburger; accreditation@astm.org | 100 Barr Harbor Drive | West Conshohocken, PA 19428-2959 www.astm.org

New Standard

BSR/ASTM E1623-202x, Standard Test Method for Determination of Fire and Thermal Parameters of Materials, Products, and Systems Using an Intermediate Scale Calorimeter (ICAL) (new standard)
Stakeholders: Smoke and Combustion Products industries.

Project Need: This test method is also intended to provide information about other fire parameters such as thermal conductivity; specific heat, radiative, and convective heat transfer coefficients; flame radiation factor; air entrainment rates; flame temperatures; minimum surface temperatures for upward and downward flame spread; heat of gasification, nondimensional heat of gasification (1)2, and the Φ flame spread parameter (see Test Method E1321). While some studies have indicated that this test method is suitable for determining these fire parameters, insufficient testing and research have been done to justify inclusion of the corresponding testing and calculating procedures.

Scope: This fire-test-response standard assesses the response of materials, products, and assemblies to controlled levels of radiant heat exposure with or without an external ignitor.

ASTM (ASTM International)

Laura Klineburger; accreditation@astm.org | 100 Barr Harbor Drive | West Conshohocken, PA 19428-2959 www.astm.org

New Standard

BSR/ASTM E2707-202x, Standard Test Method for Determining Fire Penetration of Exterior Wall Assemblies Using a Direct Flame Impingement Exposure (new standard)
Stakeholders: External Fire Exposures industries.

Project Need: This test method provides data suitable for comparing the performance of materials, which are used as the exposed surfaces of exterior walls in construction applications.

Scope: This fire-test-response standard prescribes a method to assess the fire performance of a vertically oriented specimen exposed to direct flame impingement in a simulated external fire exposure potentially encountered in a “Wildland Urban Interface” scenario.

ATIS (Alliance for Telecommunications Industry Solutions)

Drew Greco; dgreco@atis.org | 1200 G Street NW, Suite 500 | Washington, DC 20005 www.atis.org

Revision

BSR/ATIS 0300097-202x, Structure for the Identification of Communications Connections for Information Exchange (revision of ANSI/ATIS 0300097-2017)
Stakeholders: Communications industry.

Project Need: There is a need to update the contact information in this standard.

Scope: This standard provides the code and format structures necessary for identification of communications connections and describes the code structures with various combinations of data units represented within those structures. This standard contains clauses that cover its purpose and scope; describes format structures and data elements for message trunks; and message trunk groups, special services circuits, and facilities. It also contains definitions and references. Its intended use is to provide a standard that facilitates information exchange among humans and machines.

ATIS (Alliance for Telecommunications Industry Solutions)

Drew Greco; dgreco@atis.org | 1200 G Street NW, Suite 500 | Washington, DC 20005 www.atis.org

Revision

BSR/ATIS 0600005-202x, Acoustic Measurement (revision of ANSI/ATIS 0600005-2017)
Stakeholders: Communications industry.

Project Need: There is a need to revise this standard to clarify test methods and reporting requirements.

Scope: Acoustic noise from telecom equipment adds to regulated environmental noise. This standard provides measurement methods for acoustic noise that are accurate and repeatable. Emission limits are set in units of sound power for equipment installed in temperature-controlled environments.

CSA (CSA America Standards Inc.)

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Revision

BSR/CSA C448 SERIES-202x, Design and installation of ground source heat pump systems for commercial and residential buildings (revision, redesignation and consolidation of ANSI/CSA/IGSHPA C448 SERIES-2016 (R2021))
Stakeholders: Consumers, manufacturers, certifying agencies.

Project Need: Ensuring that the latest innovative/technology/safety features are available for users, addressing needs of regulators by providing suitable requirements, and supporting certification bodies.

Interest Categories: Design, Installation, Maintenance; Producer Interest; Professional Services; Regulatory Authority and User Interest

Scope: Applies to:
- Direct-expansion ground source heat pumps for systems using ground heat exchangers as a thermal source or sink for heating and/or cooling, with or without a supplementary heating source;
- Unitary-single-package or split-system liquid-source and ground-source heat pumps for all systems using groundwater, submerged heat exchangers, or ground heat exchangers as a thermal source or sink for heating and/or cooling, with or without a supplementary heating source. This Standard also applies to thermal energy storage systems. This Standard applies to new and retrofit installations. This Standard covers minimum requirements for equipment and material selection, site survey, system design, installation, testing and verification, documentation, and commissioning and decommissioning. This Standard applies to standing column-well ground-source heat-pump systems.

DirectTrust (DirectTrust.org, Inc.)

Stacy Clements; standards@directtrust.org | 1629 K Street NW, Suite 300 | Washington, DC 20006 www.DirectTrust.org

New Standard

BSR/DS 2022-05-100-202x, Privacy-Enhancing Health Record Locator Service Ecosystem (new standard)
Stakeholders: a) Healthcare Sector (b) Government Sector (c) Healthcare Payer Sector (d) Consumer Sector and General Interest e) Information Technology Sector f) Interoperability and Systems Integration Sector

Project Need: There is broad agreement that the only way to improve patient-matching and health-record-location to a near 100% solution is a universal patient ID (UPI). Yet, the prohibition against government action on such a solution in Section 510 of the Congressional Appropriations bill has remained in place since HIPAA was enacted. There is opposition to a governmentally issued universal patient ID across the political spectrum. High-fidelity probabilistic matching of patient records based on demographics alone remains elusive, and some would say it is mathematically impossible. The absence of a UPI in the US, (1) limits the ability for interoperability to scale, (2) will inhibit/preclude patient access to their own data with a single credential, (3) degrades privacy by requiring the collection of more patient-identifiable data to ensure accurate matching, and (4) prevents current and future exchange paradigms from achieving high-fidelity patient matching. This standard will define a model that could be deployed either voluntarily by the private sector or with the support of government funding or encouragement. The deployment of such a standard could improve efficiency and reduce costs for query-based exchange, direct exchange, and patient-mediated exchange by reducing infrastructure requirements and computing costs. Most importantly, such a model could enable the long sought-after goal of reliably assembling a longitudinal health record for patients.

Interest Categories: a) Healthcare Sector (b) Government Sector (c) Healthcare Payer Sector (d) Consumer Sector and General Interest e) Information Technology Sector f) Interoperability and Systems Integration Sector

Scope: Managing identity and health information interoperability in healthcare is a special problem unlike other identity and identifier topics. To be useful as a mechanism for assembling a longitudinal health record, a system also needs to enable access to the locations where records are available for the individual. The goal of this Standards Development activity is to identify existing standards, profile existing standards and/or create new standards as needed for a privacy-preserving record locator along with the interactions of associated actors. The model should support a nationwide patient-credential and patient-matching ecosystem. Prior art, draft, and normative standards for consideration include OpenID Connect (OIDC), OAuth2, Universal Data Access Profiles (UDAP), ASTM/ANSI E1714 “Properties of a Universal Healthcare Identifier”, ASTM/ANSI E2553-07 “Implementation of a Voluntary Universal Healthcare Identification System”, The Digital Currency Initiative, The Vaccine Credential Initiative (VCI), Verifiable Credentials and Decentralized Identifiers, HL7 SMART on FHIR®, The Direct Standard™, and Notifications via the Direct Standard™ which also references HL7 V2 ADT messages and Integrating the Healthcare Enterprise (IHE) XD Metadata. The new Standard will define electronic interactions between Identity Providers, Electronic Health Record Systems, Health Information Exchanges (HIEs), Health Information Networks (HINs), and a Record Locator Service which contains no demographics, only identifiers assumed to be modeled as in ASTM E1714.

IAPMO (ASSE Chapter) (ASSE International Chapter of IAPMO)

Terry Burger; terry.burger@asse-plumbing.org; standards@iapmostandards.org | 18927 Hickory Creek Drive, Suite 220 | Mokena, IL 60448 www.asse-plumbing.org

Revision

BSR/ASSE 1099/WSC PST-202x, Pressurized Water Storage Tanks (revision of ANSI/ASSE 1099/WSC-PST-2021)
Stakeholders: Plumbing industry, plumbers, inspectors, and contractors.

Project Need: This standard prescribes minimum performance and construction requirements for pressurized storage tanks for service in water well systems. The added provisions will assist the installers and local jurisdictions to confirm that the tanks being installed are meeting minimum health and safety requirements.

Interest Categories: Manufacturer User Research/Standards/Testing Laboratory Enforcing Authority General Interest

Scope: This standard covers pressurized water-storage tanks used in well-water potable-water-supply systems. These tanks collect and store underground water under pressurized conditions to provide cold-water supply to single or multiple premises.

IES (Illuminating Engineering Society)

Patricia McGillicuddy; pmcgillicuddy@ies.org | 120 Wall Street, Floor 17 | New York, NY 10005-4001 www.ies.org

New Standard

BSR/IES RP-Parks-202x, Recommended Practice: Exterior Lighting for Parks and Protected Areas (new standard)
Stakeholders: Designers; architects; municipalities; federal, state, and local governments; engineers; users; general public; and environmentalists.

Project Need: The recommendations apply to exterior night-time lighting used in parks and environmentally protected areas. LZ-0 lighting zone zero recommendations for inclusion in RP-43-xx.

Interest Categories: USERS: Specifier, Public Interest, Producer; General Interest: Government, Regulatory, Academic, Research.

Scope: This recommended practice contains recommendations for exterior nighttime lighting to be used in parks and protected areas that minimize adverse effects on flora and fauna found within these environments. The recommended practices will identify the ecological impact of light spectrum, glare, light trespass, and skyglow and prescribe illumination levels for a range of applications.

ITI (INCITS) (InterNational Committee for Information Technology Standards)

Barbara Bennett; comments@standards.incits.org | 700 K Street NW, Suite 600 | Washington, DC 20001 www.incits.org

New Standard

INCITS 578-202x, Information technology - SCSI / ATA Translation - 6 (SAT-6) (new standard)
Stakeholders: ICT industry - Consumers and developers of SCSI, ATA, and other data-storage devices and systems benefit from this standard through a variety of value propositions in products available on the open market.

Project Need: The project involves a compatible evolution of the present SCSI/ATA Translation-5.

Scope: SAT-6 is the next generation of SCSI/ATA Translation standards. It follows SAT-5, SAT-4, SAT-3, SAT-2, and SAT. The following items should be considered for inclusion in SAT-6: Command duration limits; necessary support for ZBC-3, SBC-5, ACS-6, ZAC-3, and SPC-6; and other capabilities that may fit within the scope of this project.

ITI (INCITS) (InterNational Committee for Information Technology Standards)

Barbara Bennett; comments@standards.incits.org | 700 K Street NW, Suite 600 | Washington, DC 20001 www.incits.org

New Standard

INCITS 579-202x, Information Technology - Zoned Block Commands - 3 (ZBC-3) (new standard)
Stakeholders: ICT industry - The proposed project involves the compatible evolution of ZBC-2. Consumers and developers of SCSI data-storage devices based on logical blocks benefit from this standard through a wider variety of value propositions in products available on the open market.

Project Need: This project complements the SCSI Block Command standards (e.g., currently SBC-5, INCITS 571 -202x). SBC-5 devices typically allow random writing. ZBC-3 devices require writing at specific points on their media but allow random reading.

Scope: Storage devices continue to see value in recording technologies that allow random reading of data that is already written, while requiring writing to occur at specific media locations. The proposed new standard builds on the work accomplished in ZBC-2 to continue and improve support for new technologies with these data-recording properties. The following items should be considered for inclusion into the ZBC-3 standard: corrections for difficulties discovered during the development and use of products based on ZBC-2; enhanced command and error-handling definitions to support new customer requirements; and other capabilities that may fit within the scope of this project.

NFPA (National Fire Protection Association)

Dawn Michele Bellis; dbellis@nfpa.org | One Batterymarch Park | Quincy, MA 02169 www.nfpa.org

New Standard

BSR/NFPA 1022-202x, Standard for Fire and Emergency Services Analyst Professional Qualifications (new standard)
Stakeholders: Manufacturers, users, installers/maintainers, labor, enforcing authorities, insurance, consumers, special experts, and research and testing.

Project Need: Public interest and need.

Scope: This standard identifies the minimum job performance requirements (JPRs) for public safety personnel who use, manage, review, analyze, support, or evaluate data and related technical systems.

SCTE (Society of Cable Telecommunications Engineers)

Kim Cooney; kcooney@scte.org | 140 Philips Rd | Exton, PA 19341 www.scte.org

Revision

BSR/SCTE 226-202x, Cable Facility Classification Definitions and Criteria (revision of ANSI/SCTE 226-2015)
Stakeholders: Cable telecommunications industry.

Project Need: Update current technology.

Interest Categories: General Interest, Producer and User.

Scope: This SCTE standard defines classes of critical facilities along with expected performance availability across five classes of structures thus creating a common nomenclature for critical facilities.

UL (Underwriters Laboratories)

Marcia Kawate; Marcia.M.Kawate@ul.org | 47173 Benicia Street | Fremont, CA 94538 https://ul.org/

New Standard

BSR/UL 495-202x, Standard for Safety for Power-Operated LP-Gas Dispensing Equipment (new standard)
Stakeholders: Manufacturers of power-operated LP-Gas dispensers, Fuel-dispenser trade associations, Authorities Having Jurisdiction, users of fuel-dispensing equipment, and other interested parties.

Project Need: The purpose is to provide an ANSI-approved standard, UL 495, for Power-Operated LP-Gas Dispensing Equipment intended for power-operated equipment for dispensing liquefied petroleum gas. In addition to updating requirements to address current technologies and industry practices, this new edition will also include the merger of a UL Standard with Canadian specific requirements to form a binational US/Canada consensus standard. This supports the industry need for harmonizing American and Canadian requirements.

Scope: These requirements cover power-operated equipment for dispensing liquefied petroleum gas into the fuel storage container of a vehicle where the gas is primarily used as an engine fuel. The electrical features of power-operated dispensers are as described as follows: In the United States, UL 1238 - Control Equipment for Use with Flammable Liquid and LP-Gas Dispensing Devices, and in Canada, CSA C22.2 No. 22 - Electrical Equipment for Flammable and Combustible Fuel Dispensers.

UL (Underwriters Laboratories)

Vickie Hinton; Vickie.T.Hinton@ul.org | 12 Laboratory Drive | Research Triangle Park, NC 27709-3995 https://ul.org/

New Standard

BSR/UL 120601-202x, Recommended Practice for Wiring Methods for Hazardous (Classified) Locations Instrumentation - Part 1: Intrinsic Safety (new standard)
Stakeholders: Manufacturers, supply chain, certification agencies, and installers of intrinsically safe systems for hazardous locations; other stakeholders from the hazardous locations industry.

Project Need: To obtain national recognition of the UL-only version of ANSI/ISA RP12.06.01-2003 and continue requirements for the uniform installation of intrinsically safe systems for hazardous (classified) locations.

Interest Categories: Manufacturers, supply chain, certification agencies, and installers of intrinsically safe systems for hazardous locations.

Scope: This recommended practice is intended to promote the uniform installation of intrinsically safe systems for hazardous (classified) locations. Information is provided to clarify and explain the requirements of Articles 504 and 505 of the National Electrical Code (NEC), ANSI/NFPA 70. This recommended practice applies to the installation of intrinsically safe systems for use in hazardous (classified) locations. This recommended practice provides guidance to those who design, install, and maintain intrinsically safe systems for hazardous (classified) locations. This recommended practice should be used in conjunction with nationally recognized codes that cover wiring practices - such as the National Electrical Code (NEC), ANSI/NFPA 70; and the Canadian Electrical Code (CEC) Part I, CSA C22.1.

Call for Comment on Standards Proposals

American National Standards

This section solicits public comments on proposed draft new American National Standards, including the national adoption of ISO and IEC standards as American National Standards, and on proposals to revise, reaffirm or withdraw approval of existing American National Standards. A draft standard is listed in this section under the ANSI-accredited standards developer (ASD) that sponsors it and from whom a copy may be obtained. Comments in connection with a draft American National Standard must be submitted in writing to the ASD no later than the last day of the comment period specified herein. Such comments shall be specific to the section (s) of the standard under review and include sufficient detail so as to enable the reader to understand the commenter's position, concerns and suggested alternative language, if appropriate. Please note that the ANSI Executive Standards Council (ExSC) has determined that an ASD has the right to require that interested parties submit public review comments electronically, in accordance with the developer's procedures.

Ordering Instructions for "Call-for-Comment" Listings

1. Order from the organization indicated for the specific proposal.
2. Use the full identification in your order, including the BSR prefix; for example, Electric Fuses BSR/SAE J554.
3. Include remittance with all orders.
4. BSR proposals will not be available after the deadline of call for comment.

Comments should be addressed to the organization indicated, with a copy to the Board of Standards Review, American National Standards Institute, 25 West 43rd Street, New York, NY 10036. e-mail: psa@ansi.org
* Standard for consumer products

Comment Deadline: April 10, 2022

ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

180 Technology Parkway, Peachtree Corners, GA 30092 | mweber@ashrae.org, www.ashrae.org

Addenda

BSR/ASHRAE Addendum 62.1h-202x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2019)
This proposed addendum is to address Minimum Maintenance Activity and Frequency for Ventilation System Equipment and Associated Components.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: Online Comment Database at https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

Comment Deadline: April 10, 2022

ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

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Addenda

BSR/ASHRAE Addendum 62.1i-202x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2019)
ASHRAE/ASHE Standard 170 in its 2021 version has added Table 8-2 which covers low-infection-risk outpatient facilities. Table 8-2 lists Ra and Rp values for spaces in outpatient facilities that are also shown in ASHRAE 62.1-2019. This proposed addendum aims at coordination of the two standards by deleting the outpatient spaces from Table 6-1. However, building codes (e.g., IMC) still do not reference ASHRAE/ASHE Standard 170 for Business Occupancy (B) Outpatient facilities. For this reason, the spaces deleted from Table 6-1 are now added to a normative appendix to provide AHJs with Ra and Rp values for outpatient facilities not covered by Standard 170. In addition, some ventilation rates and air classifications have been aligned with ASHRAE/ASHE Standard 170.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: Online Comment Database at https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

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Addenda

BSR/ASHRAE Addendum b to Standard 41.10-202x, Standard Methods for Refrigerant Mass Flow Rate Measurements Using Flowmeters (addenda to ANSI/ASHRAE Standard 41.10-2020)
This addendum adds new definitions to Section 3, adds a new Section 5.4, and revises several other sections (5.1, 5.5, 5.7.2, 5.8.2, 9.1, 10.5, 10.6, and 11).
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: http://www.ashrae.org/standards-research--technology/public-review-drafts

ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

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Addenda

BSR/ASHRAE Addendum n to BSR/ASHRAE Standard 154-202x, Ventilation for Commercial Cooking Operations (addenda to ANSI/ASHRAE Standard 154-2016)
This addendum updates Normative References and adds two new references.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: http://www.ashrae.org/standards-research--technology/public-review-drafts

Comment Deadline: April 10, 2022

ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

180 Technology Parkway, Peachtree Corners, GA 30092 | rshanley@ashrae.org, www.ashrae.org

Addenda

BSR/ASHRAE Addendum r to BSR/ASHRAE Standard 15-202x, Safety Standard for Refrigeration Systems (addenda to ANSI/ASHRAE Standard 15-2019)
This proposed addendum revises the definition of “machinery room” to be consistent with Section 8, “Installation Restrictions,” as modified by Addendum h to ANSI/ASHRAE Standard 15-2016.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

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Addenda

BSR/ASHRAE/ICC/IES/USGBC Addendum p to BSR/ASHRAE/ICC/IES/USGBC Standard 189.1-202x, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020)
This proposal consolidates filtration requirements that were previously split between PM10 and PM2.5 to prevent confusion when both are applicable. Under the new requirements, air cleaners for both PM10 and PM2.5 levels would be required to have a MERV 13 filter or greater
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

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Addenda

BSR/ASHRAE/IES Addendum ac to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
Addendum ac proposes updates to interior lighting power and control requirements. A major change under review has been the removal of parking garage daylight transition lighting from the exempted requirements. Since the first public review, additional changes have been suggested by commenters to refine the definition of parking-garage daylight transition zone. Additionally, commenters have helped develop more precise language for the video broadcasting category seen in this ISC.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

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Addenda

BSR/ASHRAE/IES Addendum al to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
This addendum introduces a new option for lighting compliance. Currently users can choose from three prescriptive options or a modeling-based method; this alternate path would allow a performance approach that is not dependent on meeting each of the prescriptive requirements in Section 9. This 2nd public review ISC addresses public review comments regarding conflict of mandatory lighting control and exterior lighting requirements. It also updates the header in Table 3.5-1 to correct column label acronyms.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

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Addenda

BSR/ASHRAE/IES Addendum ar to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
This addendum proposes new requirements for lighting used within indoor plant-growth facilities using a new metric, photosynthetic photon efficacy (PPE), developed by the American Society of Agricultural and Biological Engineers (ASABE) for the ANSI/ASABE S640 standard. This ISC modifies the first public review draft to enable the use of luminaires with removable and/or serviceable lamps; it also improves upon the definitions of “greenhouse” and “indoor grow,” lowers the stringency for smaller indoor grow facilities, and removes daylight control requirements.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

180 Technology Parkway, Peachtree Corners, GA 30092 | etoto@ashrae.org, www.ashrae.org

Addenda

BSR/ASHRAE/IES Addendum ba to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
In this independent substantive change to addendum ba, some of the LPD values proposed in the first public review draft are being revised based on commenter feedback, specifically: lobbies, restrooms, and gym playing areas. These LPDs were selected to achieve energy savings in a manner that accommodates current best design practices.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

Comment Deadline: April 10, 2022

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Addenda

BSR/ASHRAE/IES Addendum bb to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
This ISC adjusts the LPD allowances for the Building Area Method compliance path based on proposed changes to the space-by-space LPDs in Addendum ba used to compute them.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

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Addenda

BSR/ASHRAE/IES Addendum bq to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
This addendum adds a requirement to perform electrical energy monitoring with separate metering for refrigeration systems where refrigeration accounts for 10% or more of the building load.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

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Addenda

BSR/ASHRAE/IES Addendum br to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
This addendum increases the efficacy threshold for lamps and luminaires in Section 9.4.3 (Dwelling Units) and proposes new requirements for lighting controls serving the interior and exterior of a dwelling unit.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

Comment Deadline: April 10, 2022

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Addenda

BSR/ASHRAE/IES Addendum bt to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
Proposes updates to Appendix G to clarify modeling for hot-water pumps, chilled-water pumps, and preheat coils in the baseline design; specifically, (1) pumps should not be modeled as running when a load is not present in the hot or chilled water loop and (2) the preheat coil setpoint should be based on the maximum setpoint of the HVAC zones served by the system.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

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Addenda

BSR/ASHRAE/IES Addendum bv to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
This addendum updates the Building Performance Factors (BPFs) that are used for determining compliance with Appendix G (see Section 4.2.1.1.) The current BPFs represent the savings of a design minimally compliant with the current edition of Standard 90.1 compared to a design compliant with Standard 90.1 -2004. The updated BPFs were determined using prototype energy models developed by PNNL to be consistent with Appendix G baseline rules; an additional factor was then applied across the resulting BPFs in anticipation of further energy improvements before the final 2022 publication.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

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180 Technology Parkway, Peachtree Corners, GA 30092 | etoto@ashrae.org, www.ashrae.org

Addenda

BSR/ASHRAE/IES Addendum bw to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
The purpose of this addendum is to clarify that the specified fan energy index (FEI) in Section 6.5.3.1.3 is the value determined “at its highest design airflow rate.” This addendum also modifies an exception to the FEI requirements to clarify that emergency operation can be performed by normal fans.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

Comment Deadline: April 10, 2022

ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

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Addenda

BSR/ASHRAE/IES Addendum bz to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
Adds language to the Section 6.5.6 (Energy Recovery) to clarify that energy recovery performance is based on the enthalpy recovery ratio where humidification is being provided, while it is based on the sensible energy recovery ratio where humidification is not provided.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

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Addenda

BSR/ASHRAE/IES Addendum cc to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
Proposes a modest (and cost-effective) increase to the on-site renewable energy requirement in Section 10.5.1.1 previously added by published Addendum by. At the new prescribed values, 0.5 W/ft2 (5.4 W/m2), modeling has shown that less than 3 – 16% of roof space would be required, depending on the building type. Existing exceptions to the requirements and tradeoff options in the performance path are not being modified.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

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Addenda

BSR/ASHRAE/IES Addendum ce to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
Addendum ce adds a reference standard (ANSI/AISI/COFS S250) to support changes to the envelope provisions related to steel-framed walls. This addition enables the use of steel-framed walls with framing spacing between 6 to 24 inches and a wider range of member sizes, which eliminates the need to take an alternate approach for obtaining approvals. ANSI/AISI/COFS S250 also provides a means for evaluating wall assemblies wherein all insulation is located outside the wall cavity.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

Comment Deadline: April 10, 2022

ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

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Addenda

BSR/ASHRAE/IES Addendum cf to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
Proposes changes to the elevator requirements in Section 10.4.3 for overall energy improvements, including more efficient lighting and ventilation fans.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

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Addenda

BSR/ASHRAE/IES Addendum cg to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
Adds a new definition and requirements for insulated metal panels (IMPs) used in the building envelope with details on determining U-factors for IMPs used in roof, wall, and floor assemblies.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

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Addenda

BSR/ASHRAE/IES Addendum ci to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
This addendum proposes an expansion to requirements so that economizers are required for individual fan-cooling units greater than 33,000 Btu/h (9.7 kW) located outside the building envelope.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

Comment Deadline: April 10, 2022

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Addenda

BSR/ASHRAE/IES Addendum cj to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
Corrects errors identified in the minimum efficiency requirements for centrifugal chillers in Table 6.8.1-16. Both IP and SI tables contain errors in the size category column and those capacity ranges needed to be adjusted. This addendum also contains corrections to errors that were identified in the efficiencies listed for capacity categories 3 and 4 in the IP table only.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

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Modifies Appendix G to align with changes made to Section 6, including the removal of equations that should no longer be referenced and the combination of efficiency requirements for PTAC and PTHP of different capacities. This addendum also adjusts how equipment is identified, going from “water-cooled” to “liquid-cooled” to describe displacement and centrifugal chillers in Table G3.5.3.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

BPI (Building Performance Institute)

107 Hermes Road, Suite 110, Malta, NY 12020 | standards@bpi.org, www.bpi.org

New Standard

BSR/BPI 1100-T-202x, Home Energy Auditing Standard (new standard)
This standard practice defines the minimum criteria for conducting a building science-based residential whole-building assessment as specified in this standard. The assessment shall include an audit that will address energy usage and limited aspects of building durability, occupant comfort, and health and safety. The audit report will provide a comprehensive list of prioritized recommendations to improve the energy efficiency of the home and to address related health and safety, comfort, and building durability issues as identified in this standard. The audit report will include a cost-benefit analysis. Residential building types covered in this standard are defined as: existing detached single-family dwellings, manufactured housing, townhouses, and condos; or as defined by the Authority Having Jurisdiction.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: standards@bpi.org

Comment Deadline: April 10, 2022

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | rbrooker@nsf.org, www.nsf.org

Revision

BSR/NSF 173-202x (i97r1), Dietary Supplements (revision of ANSI/NSF 173-2021)
The purpose of NSF/ANSI 173 is to serve as an evaluation tool for analyzing dietary supplements. Certification to this Standard serves as a communication tool between manufacturers of ingredients and finished product, retailers, healthcare practitioners, and consumers. This Standard provides test methods and evaluation criteria to allow for the determination that a dietary supplement contains the ingredients claimed on the label, either qualitatively or quantitatively, and that it does not contain specific undeclared contaminants. In some instances, validated laboratory methods are not yet available for analyzing certain ingredients. In such cases, new methods will be added to this Standard as they become available.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: rbrooker@nsf.org

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | rbrooker@nsf.org, www.nsf.org

Revision

BSR/NSF 173-202x (i98r1), Dietary Supplements (revision of ANSI/NSF 173-2021)
The purpose of NSF/ANSI 173 is to serve as an evaluation tool for analyzing dietary supplements. Certification to this Standard serves as a communication tool between manufacturers of ingredients and finished product, retailers, healthcare practitioners, and consumers. This Standard provides test methods and evaluation criteria to allow for the determination that a dietary supplement contains the ingredients claimed on the label, either qualitatively or quantitatively, and that it does not contain specific undeclared contaminants. In some instances, validated laboratory methods are not yet available for analyzing certain ingredients. In such cases, new methods will be added to this Standard as they become available.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: rbrooker@nsf.org

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | rbrooker@nsf.org, www.nsf.org

Revision

BSR/NSF 173-202x (i100r1), Dietary Supplements (revision of ANSI/NSF 173-2021)
The purpose of NSF/ANSI 173 is to serve as an evaluation tool for analyzing dietary supplements. Certification to this Standard serves as a communication tool between manufacturers of ingredients and finished product, retailers, healthcare practitioners, and consumers. This Standard provides test methods and evaluation criteria to allow for the determination that a dietary supplement contains the ingredients claimed on the label, either qualitatively or quantitatively, and that it does not contain specific undeclared contaminants. In some instances, validated laboratory methods are not yet available for analyzing certain ingredients. In such cases, new methods will be added to this Standard as they become available.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: rbrooker@nsf.org

Comment Deadline: April 10, 2022

UL (Underwriters Laboratories)

12 Laboratory Drive, Research Triangle Park, NC 27709-3995 | Nicolette.A.Weeks@ul.org, https://ul.org/

Revision

BSR/UL 852-202x, Standard for Metallic Sprinkler Pipe for Fire Protection Service (March 11, 2022) (revision of ANSI/UL 852-2018)
This proposal covers: (1) Withdrawal of Proposal: Proposed third edition of the Standard for Metallic Sprinkler Pipe for Fire Protection Service, which includes first-time SCC approval for Metallic Sprinkler Pipe for Fire Protection Service, ANSI/CAN/UL 852.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: https://csds.ul.com/Home/ProposalsDefault.aspx

UL (Underwriters Laboratories)

47173 Benicia Street, Fremont, CA 94538 | Paul.E.Lloret@ul.org, https://ul.org/

Revision

BSR/UL 1484-202x, Standard for Safety for Residential Gas Detectors (revision of ANSI/UL 1484-2022)
Proposed new requirements for a One-Year Sensor Stability Test for Gas Sensors.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: https://csds.ul.com/Home/ProposalsDefault.aspx

UL (Underwriters Laboratories)

12 Laboratory Drive, Research Triangle Park, NC 27709-3995 | Joshua.Johnson@ul.org, https://ul.org/

Revision

BSR/UL 2238-202X, Standard for Cable Assemblies and Fittings for Industrial Control and Signal Distribution (revision of ANSI/UL 2238-2021)
(1) Jacket Retention Test; (2) Vibration Test rack construction.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: https://csds.ul.com/Home/ProposalsDefault.aspx

Comment Deadline: April 25, 2022

AAMI (Association for the Advancement of Medical Instrumentation)

901 N. Glebe Road, Suite 300, Arlington, VA 22203 | OMunteanu@aami.org, www.aami.org

New Standard

BSR/AAMI SW96-202x, Standard for medical device security - Security risk management for device manufacturers (new standard)
This standard provides requirements and guidance when addressing design, production, and post-production security risk management within the risk management framework defined by ANSI/AAMI/ISO 14971. While it is based on the ANSI/AAMI/ISO 14971 framework for medical device risk management, most concepts are applicable to any healthcare product, including digital health, that requires the management of security.
Single copy price: $290.00
Obtain an electronic copy from: OMunteanu@aami.org
Send comments (copy psa@ansi.org) to: OMunteanu@aami.org

AARST (American Association of Radon Scientists and Technologists)

527 N. Justice Street, Hendersonville, NC 28739 | StandardsAssist@gmail.com, www.aarst.org

Revision

BSR/AARST RMS-LB-202x, Radon Mitigation Standards for Schools and Large Buildings (revision of ANSI/AARST RMS-LB-2020)
This standard of practice specifies minimum requirements for methods that mitigate risks to occupants posed by radon gas, chemical vapors, or other hazardous soil gases that are present within existing schools and large buildings. This proposed revision to Sections 9.2 and 9.3 (initial post-mitigation measurements) is the result of harmonization efforts for ANSI/AARST SGM-SF, ANSI/AARST RMS-MF, and ANSI/AARST RMS-LB.
Single copy price: $TBD
Obtain an electronic copy from: https://standards.aarst.org/public-review
Order from: Gary Hodgden; StandardsAssist@gmail.com
Send comments (copy psa@ansi.org) to: Same

AARST (American Association of Radon Scientists and Technologists)

527 N. Justice Street, Hendersonville, NC 28739 | StandardsAssist@gmail.com, www.aarst.org

Revision

BSR/AARST RMS-MF-202x, Radon Mitigation Standards for Multifamily Buildings (revision of ANSI/AARST RMS-MF-2020)
This standard of practice specifies minimum requirements for methods that mitigate risks to occupants posed by radon gas, chemical vapors or other hazardous soil gases that are present within existing multifamily buildings. The proposed revisions to Section 9.2 and 9.3 (Initial Post-mitigation Testing) updates initial procedures relative to determining mitigation system performance as applicable to ANSI/AARST SGM-SF, ANSI/AARST RMS-MF and ANSI/AARST RMS-LB.
Single copy price: $TBD
Obtain an electronic copy from: https://standards.aarst.org/public-review
Order from: Gary Hodgden; StandardsAssist@gmail.com
Send comments (copy psa@ansi.org) to: Same

Comment Deadline: April 25, 2022

AARST (American Association of Radon Scientists and Technologists)

527 N. Justice Street, Hendersonville, NC 28739 | StandardsAssist@gmail.com, www.aarst.org

Revision

BSR/AARST SGM-SF-202x, Soil Gas Mitigation Standards for Existing Homes (revision of ANSI/AARST SGM-SF -2020)
This standard of practice specifies minimum requirements for methods that mitigate risks to occupants posed by radon gas, chemical vapors, or other hazardous soil gases that are present within existing homes. The proposed revisions to Sections 9.2 and 9.3 (Initial Post-mitigation Testing) update initial procedures relative to determining mitigation system performance as applicable to ANSI/AARST SGM-SF, ANSI/AARST RMS-MF, and ANSI/AARST RMS-LB.
NOTE: This proposed revision to Sections 9.2 and 9.3 (initial post-mitigation testing) is the result of harmonization efforts for ANSI/AARST SGM-SF, ANSI/AARST RMS-MF and ANSI/AARST RMS-LB.
Single copy price: $TBD
Obtain an electronic copy from: https://standards.aarst.org/public-review
Order from: Gary Hodgden; StandardsAssist@gmail.com
Send comments (copy psa@ansi.org) to: Same

ABYC (American Boat and Yacht Council)

613 Third Street, Suite 10, Annapolis, MD 21403 | bgoodwin@abycinc.org, www.abycinc.org

Revision

BSR/ABYC H-24-202x, Gasoline (Petrol) Fuel Systems (revision of ANSI/ABYC H-24-2017)
This standard addresses the design, choice of materials for, construction, installation, repair, and maintenance of permanently installed gasoline (petrol) fuel systems.
Single copy price: $50.00
Obtain an electronic copy from: www.abycinc.org
Send comments (copy psa@ansi.org) to: comments@abycinc.org

ABYC (American Boat and Yacht Council)

613 Third Street, Suite 10, Annapolis, MD 21403 | bgoodwin@abycinc.org, www.abycinc.org

Revision

BSR/ABYC H-30-202x, Hydraulic Systems (revision of ANSI/ABYC H-30-2017)
This standard addresses for the design, construction, installation, operation, and control of hydraulic components and systems used to transmit force. This standard applies to all boats equipped with hydraulic systems.
Single copy price: $50.00
Obtain an electronic copy from: www.abycinc.org
Send comments (copy psa@ansi.org) to: comments@abycinc.org

Comment Deadline: April 25, 2022

ABYC (American Boat and Yacht Council)

613 Third Street, Suite 10, Annapolis, MD 21403 | bgoodwin@abycinc.org, www.abycinc.org

Revision

BSR/ABYC P-21-202x, Manual and Assisted Hydraulic Steering Systems (revision of ANSI/ABYC P-21-2017)
This standard addresses the design, construction, and installation of remote manual and assisted hydraulic steering systems and their major components. This standard applies to engine mounted and boat mounted remote manual and assisted hydraulic steering systems used with single, twin, triple, and quadruple engine installations of outboard engines over 20 hp (14.9 kW) per outboard engine, as well as single and twin engine inboard, sterndrive, and water jet drives.
Single copy price: $50.00
Obtain an electronic copy from: www.abycinc.org
Send comments (copy psa@ansi.org) to: comments@abycinc.org

ACI (American Concrete Institute)

38800 Country Club Drive, Farmington Hills, MI 48331 | shannon.banchero@concrete.org, www.concrete.org

New Standard

BSR/ACI CODE-355.2-202x, Post-Installed Mechanical Anchors in Concrete - Qualification Requirements and Commentary (new standard)
ACI 355.2 prescribes testing programs and evaluation requirements for post-installed mechanical anchors intended for use in concrete under the design provisions of ACI 318. Criteria are prescribed for determining whether anchors are acceptable for use in uncracked concrete only, or in cracked as well as uncracked concrete. Performance categories for anchors are established, as are the criteria for assigning anchors to each category. The anchor performance categories are used by ACI 318 to assign capacity reduction factors and other design parameters.
Single copy price: Free
Obtain an electronic copy from: https://www.concrete.org/publications/standards/upcomingstandards.aspx
Order from: Shannon Banchero; shannon.banchero@concrete.org
Send comments (copy psa@ansi.org) to: Same

APCO (Association of Public-Safety Communications Officials-International)

351 N. Williamson Boulevard, Daytona Beach, FL 32114-1112 | apcostandards@apcointl.org, www.apcoIntl.org

New Standard

BSR/APCO 2.102.1-202x, APCO NENA Advanced Automatic Crash Notification (AACN) Vehicle Emergency Data Set (VEDS) (new standard)
Advanced Automatic Crash Notification (AACN) Vehicle Emergency Data Set (VEDS) determines useful and critical data elements needed to provide an efficient emergency response to vehicle emergency incidents. This standard will provide a common dataset that can be used to deliver AACN data to Emergency Communication Centers (ECCs) and responders. The dataset identifies crash and medical data elements and will use a common data exchange format to allow multiple methods of data transfer and handling.
Single copy price: Free
Obtain an electronic copy from: https://www.apcointl.org/services/standards/standards-review-comment/
Send comments (copy psa@ansi.org) to: Mindy Adams apcostandards@apcointl.org

Comment Deadline: April 25, 2022

ASC X9 (Accredited Standards Committee X9, Incorporated)

275 West Street, Suite 107, Annapolis, MD 21401 | Ambria.frazier@x9.org, www.x9.org

Revision

BSR X9.143-202x, Interoperable Secure Key Exchange Key Block Specification for Symmetric Algorithms (revision of ANSI X9.143-2021)
This document describes a method consistent with the requirements of ANSI X9.24, Retail Financial Services Symmetric Key Management - Part 1, for the secure exchange of keys between SCDs that share a symmetric key to wrap keys and other relevant data. This could be host-to-host or host-to-transaction originating SCD. This method may also be used for the storage of keys under a symmetric key. Interoperability may be less of a factor when storing keys for use with a given implementation. The symmetric key used for storage need not be shared when using this method for key storage.
Single copy price: $140.00
Obtain an electronic copy from: ambria.frazier@x9.org
Send comments (copy psa@ansi.org) to: ambria.frazier@x9.org

ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

180 Technology Parkway, Peachtree Corners, GA 30092 | mweber@ashrae.org, www.ashrae.org

Addenda

BSR/ASHRAE Addendum 62.1ag-202x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2019)
This proposed addendum replaces the calculation method in current Normative Appendix B2 (Separation of Exhaust Outlets and Outdoor Air Intakes) with a new method based upon ASHRAE Research Project 1635 (2016). This research was sponsored by ASHRAE Technical Committee (TC) 4.3. The purpose of this Research Project is to provide a simple, yet accurate procedure for calculating the minimum distance required between the outlet of an exhaust system, and the outdoor air intake to a ventilation system to avoid re-entrainment of exhaust gases. The new procedure addresses the technical deficiencies in the simplified equations and tables that are currently in Standard 62.1-2019, Ventilation for Acceptable Indoor Air Quality, and model building codes.
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Addenda

BSR/ASHRAE/IES Addendum ag to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
Addendum ag introduced a new proposed method to Standard 90.1 entitled the "Total System Performance Ratio (TSPR)" that would provide an additional path for mechanical system compliance. This third public review ISC draft takes consideration of various comments received by committee members and reviewers of the previous two drafts. A full list of changes is provided in the foreword. In summary: clarifications have been made to better identify system parameters, heat pump supplementing control limits, and DOAS efficiency inputs; software testing requirements are more thoroughly detailed; and new text is added to validate the use of part-load adjustment methods in addition to part-load curves. This ISC also addresses concerns related to building geometry limitations associated with the simplified block model by allowing zoning configurations with greater complexity.
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Addenda

BSR/ASHRAE/IES Addendum am to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
This ISC makes additional revisions to the lighting control requirements in Table 9.4.2-2. In response to comments received during the first public review of addendum am, walkways of all widths have been combined into one category and walkway LPAs are now based on W/linear ft (W/linear m) instead of area.
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Addenda

BSR/ASHRAE/IES Addendum ap to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
Addendum ap introduces a new section to Standard 90.1 for the use of energy credits to enable a modest increase to the stated baseline efficiency requirements. A total of 33 measures are included for use in all climate zones, covering eight building types. The credit requirement is about a 4-5% additional energy cost savings for most buildings, based on national average energy prices used for ASHRAE 90.1 analysis. While selection of measures is flexible for individual buildings, the requirements were based on a cost-effective demonstration package identified for each building type and climate zone. In this ISC, the number of credits associated with several measures has been revised, in most cases, based on an updated analysis. Thresholds have also been modified for all project types: new buildings, additions, alterations, and build-outs. Various comment-based changes have been implemented such as removal of the service water heating measure previously used to demonstrate cost effectiveness for multifamily buildings. Substantive changes have been made to H02/H03 (calculating HVAC efficiency), H06 (proration of DOAS credits), W01/02/03 (use of COP or UEF, combination systems, removal of exhaust air limitation), and a new measure H07 for Guideline 36 control sequences was introduced. In lighting, the simplified building method is now an option for L03 and the maximum LPD reduction for L06 was lowered from 15% to 10%. Finally, load management and renewable measures can now be combined to achieve up to 60% of the required credits.
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Addenda

BSR/ASHRAE/IES Addendum aq to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
Addendum aq introduces requirements for service water heating piping insulation and reorganization of existing pipe insulation tables developed for space heating. The purpose of this ISC is to propose two new exceptions to the insulation requirements where piping passes through a framing member or connects to a vertical support.
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Addenda

BSR/ASHRAE/IES Addendum av to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
Addendum av was first launched during revision of 90.1-2016 following the publication of ASHRAE Research Project 1365 which found that unaccounted heat flow through the cumulative impact of thermal bridges can increase the annual energy consumption associated with the building envelope. This ISC is a continuation of exhaustive efforts to respond to previous review comments and primarily includes revisions for clarity throughout Section 5.5.5.1 and Appendix J.
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Addenda

BSR/ASHRAE/IES Addendum ay to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
This addendum is in response to an update making AHRI-1230-2021 the DOE-approved test procedure for Variable Refrigerant Flow (VRF) equipment. In the first public review draft, the new test procedure was added for VRF equipment in Tables 6.8.1-8 and 6.8.1-9. In this ISC, the corresponding EER values for VRF equipment are being lowered between 4.2 and 6.7% to account for the increased stringency of the test procedure, which has resulted in lower ratings for the same equipment. With these changes, minimum full-load efficiency is still expected to increase by 8-10%.
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Addenda

BSR/ASHRAE/IES Addendum bd to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
Proposes a new normative appendix (Appendix J) to list the 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. Section 11 and Appendix G were modified to include language pointing users to Appendix J where performance curves are supported by their simulation program.
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Addenda

BSR/ASHRAE/IES Addendum bo to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
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. The new requirements provide the following improvements as explained during the first public review: (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; and (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. This second public review draft incorporates all of the above changes proposed during the first public review, but with an increase to the fan power allowance for alterations and revisions to correct errors identified in the fan power tables.
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BSR/ASHRAE/IES Addendum bs to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
Updates the lighting power allowances (LPA) in Section 9.3, Simplified Building Method Compliance Path, to maintain alignment with the established method (0.9x the Building Area Method LPA values). This proposal also removes an exception that allowed alterations to meet an efficacy adjustment as that was to encourage the installation of LEDs now in widespread use. Finally, Table 9.3.1-1 was reformatted to clarify how compliance is achieved based on the total building LPA.
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Addenda

BSR/ASHRAE/IES Addendum bx to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
Modifies Table 6.8.1-5 for warm-air furnace efficiency requirements to more accurately distinguish between different products and test procedures based on locations in which they are used and their status as DOE- or non-DOE-covered products.
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Addenda

BSR/ASHRAE/IES Addendum cl to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
This addendum modifies defined terms to cover three existing definitions – “authority having jurisdiction,” “building official,” and “code official” – under one term, “code official.” This is intended to clarify application of the standard and create alignment with the 2021 IECC.
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Addenda

BSR/ASHRAE/IES Addendum cm to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
Updates Section 12 (Normative References) where applicable to reflect new effective dates and additional materials being cited in the standard.
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BSR/ASHRAE/IES Addendum co to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)
Proposes new performance requirements for alterations. Larger retrofit projects are allowed a 5% increase in Building Performance Factor (BPF) relative to new construction, while smaller projects – as defined by the percentage of HVAC, lighting, and envelope items being replaced – are now subject to a new Section G3.3.
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New Standard

BSR/ASTM WK61117-202x, Practice for Electrofusion Joining Polyethylene (PE) Pipe and Fittings for Pressure Pipe Service (new standard)
https://www.astm.org/ansi-review
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New Standard

BSR/ASTM WK73586-202x, Specification for Selection and Application of Thermal Insulation Systems on Liquefied Natural Gas (LNG) Type C Tanks (new standard)
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New Standard

BSR/ASTM WK76998-202x, Guide for Determining Allowable Tensile Load for Polyamide-12 (PA12) Gas Pipe during Pull-In Installation (new standard)
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Reaffirmation

BSR/ASTM E122-202x, Practice for Calculating Sample Size to Estimate, with Specified Precision, the Average for a Characteristic of a Lot or Process (reaffirmation of ANSI/ASTM E122-2017)
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Reaffirmation

BSR/ASTM E456-2013a (R202x), Terminology Relating to Quality and Statistics (reaffirmation of ANSI/ASTM E456-2013a (R2017))
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Reaffirmation

BSR/ASTM E2782-202x, Guide for Measurement Systems Analysis (MSA) (reaffirmation of ANSI/ASTM E2782-2017)
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Reaffirmation

BSR/ASTM F1178-202x, Specification for Performance of Enameling System, Baking, Metal Joiner Work and Furniture (reaffirmation of ANSI/ASTM F1178-2011 (R2015))
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Revision

BSR/ASTM D3240-202x, Test Method for Undissolved Water In Aviation Turbine Fuels (revision of ANSI/ASTM D3240-2015)
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Revision

BSR/ASTM D4054-202x, Practice for Evaluation of New Aviation Turbine Fuels and Fuel Additives (revision of ANSI/ASTM D4054-2021A)
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Revision

BSR/ASTM D6792-202x, Practice for Quality Management Systems in Petroleum Products, Liquid Fuels, and Lubricants Testing Laboratories (revision of ANSI/ASTM D6792-2021C)
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Revision

BSR/ASTM D8073-202x, Test Method for Determination of Water Separation Characteristics of Aviation Turbine Fuel by Small Scale Water Separation Instrument (revision of ANSI/ASTM D8073-2021)
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Revision

BSR/ASTM E23-202x, Test Methods for Notched Bar Impact Testing of Metallic Materials (revision of ANSI/ASTM E23-2018)
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Revision

BSR/ASTM E29-202x, Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications (revision of ANSI/ASTM E29-2013 (R2019))
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Revision

BSR/ASTM E691-202x, Practice for Conducting an Interlaboratory Study to Determine the Precision of a Test Method (revision of ANSI/ASTM E691-2021)
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Revision

BSR/ASTM E1354-202x, Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter (revision of ANSI/ASTM E1354-2017)
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Revision

BSR/ASTM E1474-202x, Test Method for Determining the Heat Release Rate of Upholstered Furniture and Mattress Components or Composites Using a Bench Scale Oxygen Consumption Calorimeter (revision of ANSI/ASTM E1474-2021)
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Revision

BSR/ASTM E1740-202x, Test Method for Determining the Heat Release Rate and Other Fire-Test-Response Characteristics of Wall-Covering or Ceiling-Covering Composites Using a Cone Calorimeter (revision of ANSI/ASTM E1740-2020A)
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Revision

BSR/ASTM E2067-202x, Practice for Full-Scale Oxygen Consumption Calorimetry Fire Tests (revision of ANSI/ASTM E2067-2020)
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Revision

BSR/ASTM E2257-202x, Test Method for Room Fire Test of Wall and Ceiling Materials and Assemblies (revision of ANSI/ASTM E2257-2017)
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Revision

BSR/ASTM E3048-202x, Test Method for Determination of Time to Burn-Through Using the Intermediate Scale Calorimeter (ICAL) Radiant Panel (revision of ANSI/ASTM E3048-2019A)
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Revision

BSR/ASTM F822-202x, Specification for Chest of Drawers (Chiffonier), Steel, Marine (revision of ANSI/ASTM F822-1993 (R2017))
https://www.astm.org/ansi-review
Single copy price: Free
Obtain an electronic copy from: cleonard@astm.org
Order from: Laura Klineburger; accreditation@astm.org
Send comments (copy psa@ansi.org) to: Same

Comment Deadline: April 25, 2022

ASTM (ASTM International)

100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 | accreditation@astm.org, www.astm.org

Revision

BSR/ASTM F823-202x, Specification for Desk, Log, Marine, Steel, with Cabinet (revision of ANSI/ASTM F823 -1993 (R2017))
https://www.astm.org/ansi-review
Single copy price: Free
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Send comments (copy psa@ansi.org) to: Same

ASTM (ASTM International)

100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 | accreditation@astm.org, www.astm.org

Revision

BSR/ASTM F824-202x, Specification for Tables, Mess, Marine, Steel (revision of ANSI/ASTM F824-1993 (R2017))
https://www.astm.org/ansi-review
Single copy price: Free
Obtain an electronic copy from: cleonard@astm.org
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ASTM (ASTM International)

100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 | accreditation@astm.org, www.astm.org

Revision

BSR/ASTM F825-202x, Specification for Drawers, Furniture, Marine, Steel (revision of ANSI/ASTM F825-1993 (R2017))
https://www.astm.org/ansi-review
Single copy price: Free
Obtain an electronic copy from: cleonard@astm.org
Order from: Laura Klineburger; accreditation@astm.org
Send comments (copy psa@ansi.org) to: Same

Comment Deadline: April 25, 2022

ASTM (ASTM International)

100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 | accreditation@astm.org, www.astm.org

Revision

BSR/ASTM F826-202x, Specification for Tops, Furniture, Marine, Steel (revision of ANSI/ASTM F826-1994 (R2017))
https://www.astm.org/ansi-review
Single copy price: Free
Obtain an electronic copy from: cleonard@astm.org
Order from: Laura Klineburger; accreditation@astm.org
Send comments (copy psa@ansi.org) to: Same

ASTM (ASTM International)

100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 | accreditation@astm.org, www.astm.org

Revision

BSR/ASTM F1018-202x, Specification for Steel Emergency Gear Stowage Locker (revision of ANSI/ASTM F1018-1987A (R2017))
https://www.astm.org/ansi-review
Single copy price: Free
Obtain an electronic copy from: cleonard@astm.org
Order from: Laura Klineburger; accreditation@astm.org
Send comments (copy psa@ansi.org) to: Same

ASTM (ASTM International)

100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 | accreditation@astm.org, www.astm.org

Revision

BSR/ASTM F1114-202x, Specification for Heat Sanitizing Commercial Pot, Pan, and Utensil Stationary Rack Type Water-Driven Rotary Spray (revision of ANSI/ASTM F1114-2016)
https://www.astm.org/ansi-review
Single copy price: Free
Obtain an electronic copy from: cleonard@astm.org
Order from: Laura Klineburger; accreditation@astm.org
Send comments (copy psa@ansi.org) to: Same

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ASTM (ASTM International)

100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 | accreditation@astm.org, www.astm.org

Revision

BSR/ASTM F1202-202x, Specification for Washing Machines, Heat Sanitizing, Commercial, Pot, Pan, and Utensil Vertically Oscillating Arm Type (revision of ANSI/ASTM F1202-2016)
https://www.astm.org/ansi-review
Single copy price: Free
Obtain an electronic copy from: cleonard@astm.org
Order from: Laura Klineburger; accreditation@astm.org
Send comments (copy psa@ansi.org) to: Same

ASTM (ASTM International)

100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 | accreditation@astm.org, www.astm.org

Revision

BSR/ASTM F1203-202x, Specification for Washing Machines - Pot, Pan, and Utensil, Heat Sanitizing, Commercial Rotary Conveyor Type (revision of ANSI/ASTM F1203-2016)
https://www.astm.org/ansi-review
Single copy price: Free
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Order from: Laura Klineburger; accreditation@astm.org
Send comments (copy psa@ansi.org) to: Same

ASTM (ASTM International)

100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 | accreditation@astm.org, www.astm.org

Revision

BSR/ASTM F2160-202x, Specification for Solid Wall High Density Polyethylene (HDPE) Conduit Based on Controlled Outside Diameter (OD) (revision of ANSI/ASTM F2160-2016)
https://www.astm.org/ansi-review
Single copy price: Free
Obtain an electronic copy from: cleonard@astm.org
Order from: Laura Klineburger; accreditation@astm.org
Send comments (copy psa@ansi.org) to: Same

Comment Deadline: April 25, 2022

ASTM (ASTM International)

100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 | accreditation@astm.org, www.astm.org

Revision

BSR/ASTM F2769-202x, Specification for Polyethylene of Raised Temperature (PE-RT) Plastic Hot and Cold-Water Tubing and Distribution Systems (revision of ANSI/ASTM F2769-2018)
https://www.astm.org/ansi-review
Single copy price: Free
Obtain an electronic copy from: cleonard@astm.org
Order from: Laura Klineburger; accreditation@astm.org
Send comments (copy psa@ansi.org) to: Same

ASTM (ASTM International)

100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 | accreditation@astm.org, www.astm.org

Revision

BSR/ASTM F3371-202x, Specification for Polyolefin Pipe and Fittings for Drainage, Waste, and Vent Applications (revision of ANSI/ASTM F3371-2019)
https://www.astm.org/ansi-review
Single copy price: Free
Obtain an electronic copy from: cleonard@astm.org
Order from: Laura Klineburger; accreditation@astm.org
Send comments (copy psa@ansi.org) to: Same

AWS (American Welding Society)

8669 NW 36th Street, Suite 130, Miami, FL 33166-6672 | sborrero@aws.org, www.aws.org

New Standard

BSR/AWS D10.4M/D10.4-202x, Guide for Welding Austenitic Stainless Steel Piping and Tubing (new standard)
This document presents a detailed discussion of the metallurgical characteristics and weldability of many grades of austenitic stainless steel used in piping and tubing. The delta ferrite content as expressed by Ferrite Number (FN) is explained, and its importance in minimizing hot cracking is discussed. Several figures and tables illustrate recommended joint designs and procedures. Annex A presents information on the welding of high-carbon stainless-steel cast-pipe fitting.
Single copy price: $36.00
Obtain an electronic copy from: sborrero@aws.org
Order from: Stephen Borrero, sborrero@aws.org
Send comments (copy psa@ansi.org) to: Same

Comment Deadline: April 25, 2022

BIFMA (Business and Institutional Furniture Manufacturers Association)

678 Front Avenue NW, Grand Rapids, MI 49504 | dpanning@bifma.org, www.bifma.org

Reaffirmation

BSR/BIFMA X5.1-2017 (R202x), General-Purpose Office Chairs (reaffirmation of ANSI/BIFMA X5.1-2017)
This standard is intended to provide manufacturers, specifiers, and users with a common basis for evaluating the safety, durability, and structural adequacy of general-purpose office chairs.
Single copy price: Free
Obtain an electronic copy from: dpanning@bifma.org
Send comments (copy psa@ansi.org) to: dpanning@bifma.org

FCI (Fluid Controls Institute)

1300 Sumner Avenue, Cleveland, OH 44115 | fci@fluidcontrolsinstitute.org, www.fluidcontrolsinstitute.org

Revision

BSR/FCI 69-1-202x, Pressure Rating Standard for Steam Traps (revision of ANSI/FCI 69-1-2017)
The standard provides the minimum requirements for the design, fabrication, pressure rating, and marking of pressure-containing housings for steam traps.
Single copy price: Free
Obtain an electronic copy from: fci@fluidcontrolsinstitute.org
Send comments (copy psa@ansi.org) to: Leslie Schraff, fci@fluidcontrolsinstitute.org

IAPMO (Z) (International Association of Plumbing & Mechanical Officials)

18927 Hickory Creek Drive, Suite 220, Mokena, IL 60448 | terry.burger@asse-plumbing.org; standards@iapmostandards.org, https://www.iapmostandards.org

Revision

BSR/CSA B45.5/IAPMO Z124-202x, Plastic Plumbing Fixtures (revision of ANSI/CSA B45.5/IAPMO Z124 -2016)
This Standard covers plastic plumbing fixtures and specifies requirements for materials, construction, performance, testing, and markings.
Single copy price: Free
Obtain an electronic copy from: standards@iapmostandards.org
Order from: Terry Burger; terry.burger@asse-plumbing.org; standards@iapmostandards.org
Send comments (copy psa@ansi.org) to: Same

Comment Deadline: April 25, 2022

IES (Illuminating Engineering Society)

120 Wall Street, Floor 17, New York, NY 10005-4001 | pmcgillicuddy@ies.org, www.ies.org

New Standard

BSR/IES LP-16-202x, Lighting Practice: Documenting Control Intent Narratives and Sequence of Operations (new standard)
This document provides guidance on the documentation of Control Intent Narratives and Sequences of Operation (CIN and SOO). It is not intended to be a design guide, but rather a reference manual of best practices on how the design, once formulated, is included in the project documentation and communicated to the construction and commissioning teams.
Single copy price: $25.00
Obtain an electronic copy from: pmcgillicuddy@ies.org
Send comments (copy psa@ansi.org) to: pmcgillicuddy@ies.org

IES (Illuminating Engineering Society)

120 Wall Street, Floor 17, New York, NY 10005-4001 | pmcgillicuddy@ies.org, www.ies.org

New Standard

BSR/IES RP-43-202x, Recommended Practice: Lighting Exterior Applications (illuminance table only) (new standard)
The purpose of this Recommended Practice (RP) is to provide pedestrian-oriented illumination recommendations for the reassurance, safety, comfort, amenity, and enjoyment of people in outdoor environments in lighting zones LZ1 through LZ4. This RP includes recommendations beyond illuminance, which, when considered alone, is inadequate for addressing the visual needs of pedestrian-based tasks. Rather, it takes a comprehensive approach and makes recommendations based on lighting zone, glare avoidance, spectrum, and other visually influential conditions. Application of these recommendations will ultimately enhance the visual experience for people, while also respecting the environment.
Single copy price: $10.00
Obtain an electronic copy from: pmcgillicuddy@ies.org
Send comments (copy psa@ansi.org) to: pmcgillicuddy@ies.org

IES (Illuminating Engineering Society)

120 Wall Street, Floor 17, New York, NY 10005-4001 | pmcgillicuddy@ies.org, www.ies.org

Revision

BSR/IES RP-6-202x, Recommended Practice: Lighting Sports and Recreational Areas (revision of ANSI/IES RP -6-2020)
The purpose of this Recommended Practice is to provide the reader with recommendations to aid in the design of sports lighting systems. Popular sports such as baseball, tennis, basketball, and football, as well as recreational social activities such as horseshoe pitching and croquet are covered. Venues for spectators of amateur, collegiate, and professional sports are complex facilities that should provide not only for the spectators but also the equipment used in modern sports broadcasting. This document does not address the needs of broadcasting; for this, the reader should look for guidance from the sports league or the project consultant.
Single copy price: $25.00
Obtain an electronic copy from: pmcgillicuddy@ies.org
Send comments (copy psa@ansi.org) to: pmcgillicuddy@ies.org

Comment Deadline: April 25, 2022

NCPDP (National Council for Prescription Drug Programs)

9240 East Raintree Drive, Scottsdale, AZ 85260 | mweiker@ncpdp.org, www.ncpdp.org

New Standard

BSR/NCPDP Medicaid Pharmacy Encounters Reporting Standard-202x, NCPDP Medicaid Pharmacy Encounters Reporting Standard (new standard)
Standardization of data content and file layout for reporting of Medicaid Managed Care Organization pharmacy claims to the state agency.
Single copy price: $200.00 (non-member)
Obtain an electronic copy from: mweiker@ncpdp.org
Send comments (copy psa@ansi.org) to: mweiker@ncpdp.org

NCPDP (National Council for Prescription Drug Programs)

9240 East Raintree Drive, Scottsdale, AZ 85260 | mweiker@ncpdp.org, www.ncpdp.org

Revision

BSR/NCPDP FB v55-202x, NCPDP Formulary and Benefit Standard v55 (revision and redesignation of ANSI/NCPDP FB v54-2021)
This Formulary and Benefit Standard provides a standard means for pharmacy benefit processors (including health plans and Pharmacy Benefit Managers) to communicate formulary and benefit information to prescribers via technology vendor systems.
Single copy price: $200.00 (non-member)
Obtain an electronic copy from: mweiker@ncpdp.org
Send comments (copy psa@ansi.org) to: mweiker@ncpdp.org

NCPDP (National Council for Prescription Drug Programs)

9240 East Raintree Drive, Scottsdale, AZ 85260 | mweiker@ncpdp.org, www.ncpdp.org

Revision

BSR/NCPDP PDMP Reporting Standard v15-202x, NCPDP Prescription Drug Monitoring Programs (PDMP) Reporting Standard v15 (revision and redesignation of ANSI/NCPDP PDMP Reporting Standard v14-2021)
Report controlled substance and other required drug information to assist healthcare prescribers to deter prescription drug abuse to ensure access for patients with valid medical needs. The standard assists in allowing for a sustainable approach to eliminate data silos and promote interoperability by allowing actionable and timely information to prescribers and pharmacies using existing workflows to ease adoption, and support patient safety efforts to curb prescription drug abuse.
Single copy price: $200.00 (non-member)
Obtain an electronic copy from: mweiker@ncpdp.org
Send comments (copy psa@ansi.org) to: mweiker@ncpdp.org

Comment Deadline: April 25, 2022

NCPDP (National Council for Prescription Drug Programs)

9240 East Raintree Drive, Scottsdale, AZ 85260 | mweiker@ncpdp.org, www.ncpdp.org

Revision

BSR/NCPDP RTPB Standard v13-202x, NCPDP RealTime Prescription Benefit Standard v13 (revision and redesignation of ANSI/NCPDP RTPB Standard v12-2021)
The NCPDP Real-Time Prescription Benefit (RTPB) Standard Implementation Guide is intended to meet the industry need within the pharmacy services sector to facilitate the ability for pharmacy benefit payers/processors to communicate to providers and to ensure a consistent implementation of the standard throughout the industry. The RTPB Standard enables the exchange of patient eligibility, product coverage, and benefit financials for a chosen product and pharmacy, and identifies coverage restrictions, and alternatives when they exist.
Single copy price: $200.00 (non-member)
Obtain an electronic copy from: mweiker@ncpdp.org
Send comments (copy psa@ansi.org) to: mweiker@ncpdp.org

NCPDP (National Council for Prescription Drug Programs)

9240 East Raintree Drive, Scottsdale, AZ 85260 | mweiker@ncpdp.org, www.ncpdp.org

Revision

BSR/NCPDP SC WG110088202Yxx-202x, NCPDP SC WG110088202Yxx (revision and redesignation of ANSI/NCPDP SC Standard v2022011-2021)
The standard provides general guidelines for developers of pharmacy or physician management systems who wish to provide prescription transmission functionality to their clients. The standard addresses the electronic transmission of new prescriptions, prescription refill requests, prescription fill status notifications, and cancellation notifications.
Single copy price: $200.00 (non-member)
Obtain an electronic copy from: mweiker@ncpdp.org
Send comments (copy psa@ansi.org) to: mweiker@ncpdp.org

NCPDP (National Council for Prescription Drug Programs)

9240 East Raintree Drive, Scottsdale, AZ 85260 | mweiker@ncpdp.org, www.ncpdp.org

Revision

BSR/NCPDP Specialized Standard WG110088202Yxx-202x, NCPDP Specialized Standard WG110088202Yxx (revision and redesignation of ANSI/NCPDP Specialized Standard v2022011-2021)
The NCPDP Specialized Standard will house transactions that are not eprescribing but are part of the NCPDP XML environment. The standard provides general guidelines for developers of systems who wish to provide business functionality of these transactions to their clients. The guide describes a set of transactions and the implementation of these transactions.
Single copy price: $200.00 (non-member)
Obtain an electronic copy from: mweiker@ncpdp.org
Send comments (copy psa@ansi.org) to: mweiker@ncpdp.org

Comment Deadline: April 25, 2022

NCPDP (National Council for Prescription Drug Programs)

9240 East Raintree Drive, Scottsdale, AZ 85260 | mweiker@ncpdp.org, www.ncpdp.org

Revision

BSR/NCPDP TC VF9-202x, NCPDP Telecommunication Standard Version F9 (revision and redesignation of ANSI/NCPDP TC VF8-2021)
The standard supports the format for electronic communication of pharmacy service-related billing, prior authorization processing, and information reporting between pharmacies and other responsible parties. This standard addresses the data format and content, the transmission protocol, and other appropriate telecommunication requirements.
Single copy price: $200.00 (non-member)
Obtain an electronic copy from: mweiker@ncpdp.org
Send comments (copy psa@ansi.org) to: mweiker@ncpdp.org

NEMA (ASC C8) (National Electrical Manufacturers Association)

1300 North 17th Street, Suite 900, Arlington, VA 22209 | Khaled.Masri@nema.org, www.nema.org

Revision

BSR ICEA P-117-734-202X, Ampacities for Single-Conductor Solid Dielectric Power Cable 15 kV through 35 kV (revision of ANSI/ICEA P-117-734-2016)
This publication presents calculated ampacities for 15 through 35 kV, single-conductor solid-dielectric insulated 15 through 35 kV power cables with multiple bonded and grounded shields, copper or aluminum conductors, single- or three-phase operation, spaced, or trefoil configurations, single or double circuits, directly buried or in buried ducts. Ampacities are given for three or four different shield resistances for each conductor size.
Single copy price: $120.00
Obtain an electronic copy from: khaled.masri@nema.org
Order from: Khaled Masri; Khaled.Masri@nema.org
Send comments (copy psa@ansi.org) to: Same

NSAA (ASC B77) (National Ski Areas Association)

133 S Van Gordon Street, Suite 300, Lakewood, CO 80228 | mlane@nsaa.org

Revision

BSR B77.1-202x, Passenger Ropeways - Aerial Tramways, Aerial Lifts, Surface Lifts, Tows and Conveyors - Safety Standard (revision of ANSI B77.1-2017)
This document establishes a standard for the design, manufacture, construction, operation, and maintenance of passenger ropeways. For this standard, passenger ropeway categories include:
- aerial tramways (single and double reversible);
- aerial lifts (detachable lifts, chair lifts, and similar equipment);
- surface lifts (T-bars, J-bars, platter lifts, and similar equipment);
- tows (wire rope and fiber rope tows); and
- conveyors.
Single copy price: $35.00
Obtain an electronic copy from: mlane@nsaa.org
Order from: Michael Lane; mlane@nsaa.org
Send comments (copy psa@ansi.org) to: Same

Comment Deadline: April 25, 2022

OEOSC (ASC OP) (Optics and Electro-Optics Standards Council)

75 Barett Drive, #1190, Webster, NY 14580 | paugino@optimaxsi.com, www.OEOSC.org

National Adoption

BSR OEOSC ISO 10110-1-202x, Optics and Electro-Optical Instruments - Preparation of drawings for optical elements and systems - Part 1: General (identical national adoption of ISO 10110-01:2019 and revision of ANSI/OEOSC OP1.0110-1-2011)
This document specifies the general layout of drawings for optical elements and systems. It defines formats, notations, and indications that apply throughout the other parts of the ISO 10110 series of optical drawing standards.
Single copy price: $140.00
Obtain an electronic copy from: paugino@optimaxsi.com
Order from: OEOSC, c/o Patrick Augino, 75 Barrett Dr. #1190, Webster, NY 14580
Send comments (copy psa@ansi.org) to: Same

OEOSC (ASC OP) (Optics and Electro-Optics Standards Council)

75 Barett Drive, #1190, Webster, NY 14580 | paugino@optimaxsi.com, www.OEOSC.org

National Adoption

BSR OEOSC ISO 10110-18-202x, Optics and Electro-Optical Instruments - Preparation of drawings for optical elements and systems - Part 18: Stress birefringence, bubbles and inclusions, homogeneity, and striae (identical national adoption of ISO 10110-18:2018)
This document is a part of the ISO 10110 series of technical drawing standards for optical elements and systems. It specifies the indication of tolerances for four categories of imperfections within optical materials: stress birefringence, bubbles and inclusions, homogeneity, and striae. Tolerances may be applied to a finished optical part, a finished system of optical parts, or to the raw material used to manufacture an optical part.
Single copy price: $100.00
Obtain an electronic copy from: paugino@optimaxsi.com
Order from: OEOSC, c/o Patrick Augino, 75 Barrett Dr. #1190, Webster, NY 14580
Send comments (copy psa@ansi.org) to: Same

OEOSC (ASC OP) (Optics and Electro-Optics Standards Council)

75 Barett Drive, #1190, Webster, NY 14580 | paugino@optimaxsi.com, www.OEOSC.org

National Adoption

BSR OEOSC ISO 10110-5-202x, Optics and Electro-Optical Instruments - Preparation of drawings for optical elements and systems - Part 5: Surface form tolerances (identical national adoption of ISO 10110-5:2015 and revision of ANSI/OEOSC OP1.0110-5:2015)
This document is a part of the ISO 10110 series of technical drawing standards for optical elements and systems. It specifies rules for indicating the tolerance for surface form deviations.
Single copy price: $100.00
Obtain an electronic copy from: paugino@optimaxsi.com
Order from: OEOSC, c/o Patrick Augino, 75 Barrett Dr. #1190, Webster, NY 14580
Send comments (copy psa@ansi.org) to: Same

Comment Deadline: April 25, 2022

OEOSC (ASC OP) (Optics and Electro-Optics Standards Council)

75 Barett Drive, #1190, Webster, NY 14580 | paugino@optimaxsi.com, www.OEOSC.org

National Adoption

BSR OEOSC ISO 10110-8-202x, Optics and Electro-Optical Instruments - Preparation of drawings for optical elements and systems - Part 8: Surface texture (identical national adoption of ISO 10110-8:2019 and revision of ANSI/OEOSC OP1.0110-8-2014)
This document is a part of the ISO 10110 series of technical drawing standards for optical elements and systems. It specifies rules for indicating the tolerances for surface texture that can be effectively described with statistical methods. Typically, surface texture is associated with high spatial frequency errors (roughness) and mid-spatial frequency errors (waviness).
Single copy price: $100.00
Obtain an electronic copy from: paugino@optimaxsi.com
Order from: OEOSC, c/o Patrick Augino, 75 Barrett Dr. #1190, Webster, NY 14580
Send comments (copy psa@ansi.org) to: Same

SCTE (Society of Cable Telecommunications Engineers)

140 Philips Rd, Exton, PA 19341 | kcooney@scte.org, www.scte.org

Reaffirmation

BSR/SCTE 14-2016 (R202x), Test Method for Hex Crimp Tool Verification/Calibration (reaffirmation of ANSI/SCTE 14-2016)
To determine and verify the actual crimp dimension of hex crimp tools. Provide a calibration technique for adjusting hex crimp tools.
Single copy price: $50.00
Obtain an electronic copy from: admin@standards.scte.org
Order from: Global Engineering Documents, (800) 854-7179, www.global.ihs.com
Send comments (copy psa@ansi.org) to: admin@standards.scte.org

SCTE (Society of Cable Telecommunications Engineers)

140 Philips Rd, Exton, PA 19341 | kcooney@scte.org, www.scte.org

Reaffirmation

BSR/SCTE 171-202x, Passive Network Device (NID) Enclosure Specification (reaffirmation of ANSI/SCTE 171 -2016)
This specification applies to recommended mechanical, electrical, and environmental performance of Network Interface Device enclosures for use in broadband deployment.
Single copy price: $50.00
Obtain an electronic copy from: admin@standards.scte.org
Order from: Global Engineering Documents, (800) 854-7179, www.global.ihs.com
Send comments (copy psa@ansi.org) to: admin@standards.scte.org

Comment Deadline: April 25, 2022

SCTE (Society of Cable Telecommunications Engineers)

140 Philips Rd, Exton, PA 19341 | kcooney@scte.org, www.scte.org

Reaffirmation

BSR/SCTE 240-2017 (R202x), SCTE Test Procedures for Testing CWDM Systems in Cable Telecommunications Access Networks (reaffirmation of ANSI/SCTE 240-2017)
This document describes procedures to support the measurement and characterization of the system optical (loss) performance through the passive points and segments of a Coarse Wavelength Division Multiplexing (CWDM)-based Multi-point Optical Access Network (CWDM-MOAN) fiber cable plant. The procedures contained in this standard are designed to be used in conjunction with the relevant industry test procedures for testing outside-plant optical systems.
Single copy price: $50.00
Obtain an electronic copy from: admin@standards.scte.org
Order from: Global Engineering Documents, (800) 854-7179, www.global.ihs.com
Send comments (copy psa@ansi.org) to: admin@standards.scte.org

TAPPI (Technical Association of the Pulp and Paper Industry)

15 Technology Parkway, Suite 115, Peachtree Corners, GA 30092 | standards@tappi.org, www.tappi.org

Revision

BSR/TAPPI T 456 om-202x, Tensile breaking strength of water-saturated paper and paperboard (wet tensile strength) (revision of ANSI/TAPPI T 456 om-2015)
This method describes the procedure for the determination of the tensile strength of paper and paperboard after saturation with water.
Single copy price: Free
Obtain an electronic copy from: standards@tappi.org
Order from: standards@tappi.org
Send comments (copy psa@ansi.org) to: Brittaney Lovett, standards@tappi.org

TAPPI (Technical Association of the Pulp and Paper Industry)

15 Technology Parkway, Suite 115, Peachtree Corners, GA 30092 | standards@tappi.org, www.tappi.org

Revision

BSR/TAPPI T 702 om-202x, Rheological measurements for characterization of polyolefins: Low-density polyethylene (LDPE) for extrusion coating (revision of ANSI/TAPPI T 702 om-2014)
In extrusion coating, a thin molten polymer film is coated on some kind of substrate. At high-extrusion coating speed, even a minor disturbance on the melt web causes major quality problems, which very rapidly lead to large quantities of waste. Therefore, higher coating speeds require polymers with high and even quality in order to avoid waste due to polymer-edge instability and web break.
Single copy price: Free
Obtain an electronic copy from: standards@tappi.org
Order from: standards@tappi.org
Send comments (copy psa@ansi.org) to: Brittaney Lovett, standards@tappi.org

Comment Deadline: April 25, 2022

UL (Underwriters Laboratories)

12 Laboratory Drive, Research Triangle Park, NC 27709-3995 | Tony.Partridge@ul.org, https://ul.org/

Reaffirmation

BSR/UL 810A-2012 (R202x), Standard for Electrochemical Capacitors (reaffirmation of ANSI/UL 810A-2012 (R2017))
(1) Reaffirmation and continuance of the first edition of the Standard for Electrochemical Capacitors, UL 810A, as an American National Standard.
Single copy price: Free
Obtain an electronic copy from: https://csds.ul.com/Home/ProposalsDefault.aspx
Order from: http://www.shopulstandards.com
Send comments (copy psa@ansi.org) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: https://csds.ul.com/Home/ProposalsDefault.aspx

UL (Underwriters Laboratories)

12 Laboratory Drive, Research Triangle Park, NC 27709-3995 | Tony.Partridge@ul.org, https://ul.org/

Reaffirmation

BSR/UL 60384-14-2017 (R202x), Safety Requirements for Fixed Capacitors for Use in Electronic Equipment - Part 14: Sectional Specification: Fixed Capacitors for Electromagnetic Interference Suppression and Connection to the Supply Mains (reaffirmation of ANSI/UL 60384-14-2017)
(1) Reaffirmation and continuance of the second edition of the Safety Requirements for Fixed Capacitors for Use in Electronic Equipment - Part 14: Sectional Specification: Fixed Capacitors for Electromagnetic Interference Suppression and Connection to the Supply Mains, UL 60384-14, as an American National Standard.
Single copy price: Free
Obtain an electronic copy from: https://csds.ul.com/Home/ProposalsDefault.aspx
Order from: http://www.shopulstandards.com
Send comments (copy psa@ansi.org) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: https://csds.ul.com/Home/ProposalsDefault.aspx

VITA (VMEbus International Trade Association (VITA))

929 W. Portobello Avenue, Mesa, AZ 85210 | jing.kwok@vita.com, www.vita.com

New Standard

BSR/VITA 62.1-202x, Three Phase High-Voltage Power Supply Front End in a 3U Plug-In Module Standard (new standard)
This standard provides requirements for a Three-Phase High-Voltage Power Supply Front End in a 3U Plug-In Module that can be used to power a VPX chassis in the VITA 62 family of standards. The module will fit within the standard envelope defined for VPX modules in the VITA 48.0 standards.
Single copy price: $25.00
Obtain an electronic copy from: admin@vita.com
Send comments (copy psa@ansi.org) to: admin@vita.com

Comment Deadline: April 25, 2022

VITA (VMEbus International Trade Association (VITA))

929 W. Portobello Avenue, Mesa, AZ 85210 | jing.kwok@vita.com, www.vita.com

Revision

BSR/VITA 48.4-202x, Liquid Flow Thru VPX Plug In Module Standard (revision of ANSI/VITA 48.4-2018)
This standard establishes the mechanical-design interface control, outline, and mounting requirements for a liquid-flow-through cooled Plug-In Module to ensure the mechanical intermateability of 6U VPX liquid-flow-through cooled Plug-In Module within associated sub-racks. The connector layout remains common with VITA 46. This Plug-In Module uses liquid flowing through an integral heatsink of the module for cooling the electronic components and circuit boards. The quick disconnect coupling assemblies allow fluidic coupling to the chassis coolant manifold. This revision expands the supplier list for COTS components, corrects errors in depicted dimensions, adds additional conformance, and improves elements to expand the supplier base.
Single copy price: $25.00
Obtain an electronic copy from: admin@vita.com
Send comments (copy psa@ansi.org) to: admin@vita.com

VITA (VMEbus International Trade Association (VITA))

929 W. Portobello Avenue, Mesa, AZ 85210 | jing.kwok@vita.com, www.vita.com

Revision

BSR/VITA 62-202x, Modular Power Supply Standard (revision of ANSI/VITA 62-2016)
This standard provides requirements for building a power supply module that can be used to power a VPX chassis. The module will fit within the standard envelope defined for VPX modules in the VITA 48.0 standards. This revision clarifies hold-up options and other requirements.
Single copy price: $25.00
Obtain an electronic copy from: admin@vita.com
Send comments (copy psa@ansi.org) to: admin@vita.com

Comment Deadline: May 10, 2022

ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 | ansibox@asme.org, www.asme.org

Reaffirmation

BSR/ASME A112.1.2-2012 (R202x), Air Gaps in Plumbing Systems (for Plumbing Fixtures and Water-Connected Receptors) (reaffirmation of ANSI/ASME A112.1.2-2012 (R2017))
This Standard identifies methods of providing protection against backsiphonage through means of an air gap and establishes physical requirements and methods of testing air gaps for plumbing fixtures and water receptors.
Single copy price: $43.00
Order from: https://cstools.asme.org/csconnect/PublicReviewPage.cfm
Send comments (copy psa@ansi.org) to: Angel Guzman Rodriguez; guzman@asme.org

Comment Deadline: May 10, 2022

ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 | ansibox@asme.org, www.asme.org

Reaffirmation

BSR/ASME A112.3.1-2007 (R202x), Stainless Steel Drainage Systems for Sanitary DWV, Storm, and Vacuum Applications, Above- and Below-Ground (reaffirmation of ANSI/ASME A112.3.1-2007 (R2017))
This Standard establishes material, dimensions, mechanical, and physical (including marking) requirements for socket-type, seam-welded, stainless steel pipe, fittings, joints, and drains for use in plumbing sanitary and storm, drain, waste, and vent (DWV), and vacuum systems. It includes minimum requirements for workmanship, dimensions, weld strength, pressure testing, and marking that incorporates a push-fit joining method.
Single copy price: $49.00
Order from: https://cstools.asme.org/csconnect/PublicReviewPage.cfm
Send comments (copy psa@ansi.org) to: Angel Guzman Rodriguez; guzman@asme.org

ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 | ansibox@asme.org, www.asme.org

Reaffirmation

BSR/ASME A112.6.2-2017 (R202x), Framing-Affixed Supports for Off-the-Floor Plumbing Fixtures (reaffirmation of ANSI/ASME A112.6.2-2017)
This Standard covers framing-affixed supports (i.e., carriers), with or without concealed tanks, including combination carriers and fittings, for off-the-floor plumbing fixtures (i.e., water closets, urinals, bidets, lavatories, and sinks). This Standard specifies definitions, materials, general requirements, strength and deflection requirements, and marking requirements. It is not intended to limit the use of other materials and designs that comply with the requirements of this Standard.
Single copy price: $75.00
Order from: https://cstools.asme.org/csconnect/PublicReviewPage.cfm
Send comments (copy psa@ansi.org) to: Angel Guzman Rodriguez; guzman@asme.org

ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 | ansibox@asme.org, www.asme.org

Reaffirmation

BSR/ASME A112.14.1-2003 (R202x), Backwater Valves (reaffirmation of ANSI/ASME A112.14.1-2003 (R2017))
This Standard establishes requirements for dimensions, performance requirements, connections, materials and finishes, testing, and marking of backwater valves. Types of backwater valves covered in this Standard include horizontal backwater valves, combination horizontal backwater valves and manual gate valves, terminal backwater valves, combination floor drains with backwater valves, vertical or 90 deg backwater valves, and related products.
Single copy price: $41.00
Order from: https://cstools.asme.org/csconnect/PublicReviewPage.cfm
Send comments (copy psa@ansi.org) to: Angel Guzman Rodriguez; guzman@asme.org

Comment Deadline: May 10, 2022

ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 | ansibox@asme.org, www.asme.org

Reaffirmation

BSR/ASME A112.18.3-2002 (R202x), Performance Requirements for Backflow Protection Devices and Systems in Plumbing Fixture Fittings (reaffirmation of ANSI/ASME A112.18.3-2002 (R2017))
This Standard addresses functional performance and requires physical characteristics of devices and systems which provide backflow protection consistent with the level of risk associated with the plumbing fixture fitting application. The Standard establishes specific performance criteria and provides the test methods to prove compliance. It is applicable to all plumbing fixture fittings with outlets not protected by an air gap.
Single copy price: $41.00
Order from: https://cstools.asme.org/csconnect/PublicReviewPage.cfm
Send comments (copy psa@ansi.org) to: Angel Guzman Rodriguez; guzman@asme.org

ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 | ansibox@asme.org, www.asme.org

Reaffirmation

BSR/ASME A112.19.10-2017 (R202x), Retrofit Dual Flush Devices for Water Closets (reaffirmation of ANSI/ASME A112.19.10-2017)
This Standard establishes physical, material, testing, and marking requirements for retrofit dual-flush devices that are installed within gravity-type water-closet tanks and have a full flush volume of 4.8 Lpf (1.28 gpf) or greater volume.
Single copy price: $49.00
Order from: https://cstools.asme.org/csconnect/PublicReviewPage.cfm
Send comments (copy psa@ansi.org) to: Angel Guzman Rodriguez; guzman@asme.org

ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 | ansibox@asme.org, www.asme.org

Reaffirmation

BSR/ASME A112.19.15-2012 (R202x), Bathtub/Whirlpool Bathtubs with Pressure Sealed Doors (reaffirmation of ANSI/ASME A112.19.15-2012 (R2017))
This Standard establishes material, mechanical, electrical, marking, and testing requirements for bathtubs/whirlpool bathtubs with doors that are made watertight by the use of a pressure seal. It addresses the functional performance and physical characteristics for a pressure-sealed door of a bathtub/whirlpool bathtub. The door is intended to allow for entry into the fixture when the tub is empty and to maintain watertightness when the tub is full. The use of alternate materials or methods is permitted, provided the proposed material and method comply with the performance requirements and intent of this Standard.
Single copy price: $38.00
Order from: https://cstools.asme.org/csconnect/PublicReviewPage.cfm
Send comments (copy psa@ansi.org) to: Angel Guzman Rodriguez; guzman@asme.org

Comment Deadline: May 10, 2022

ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 | ansibox@asme.org, www.asme.org

Reaffirmation

BSR/ASME A112.21.3M-1985 (R202x), Hydrants for Utility and Maintenance Use (reaffirmation of ANSI/ASME A112.21.3M-1985 (R2017))
The scope of this Standard is the development of standards for hydrants including non-freeze wall, ground, post, and floor types and moderate-climate wall and floor types, which are used in buildings and grounds as water-supply terminals, employed principally for lawn and flower-bed watering hoses and normal building maintenance functions. This Standard covers definitions, connections, materials, variations, testing and operation, and general requirements for the hydrant types included in the scope.
Single copy price: $39.00
Order from: https://cstools.asme.org/csconnect/PublicReviewPage.cfm
Send comments (copy psa@ansi.org) to: Angel Guzman Rodriguez; guzman@asme.org

ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 | ansibox@asme.org, www.asme.org

Revision

BSR/ASME A112.19.3-202x/CSA B45.4-202x, Stainless Steel Plumbing Fixtures (revision of ANSI/ASME A112.19.3-2017/CSA B45.4-2017)
This Standard covers plumbing fixtures made of stainless-steel alloys and specifies requirements for materials, construction, performance, testing, and markings.
Single copy price: Free
Order from: https://cstools.asme.org/csconnect/PublicReviewPage.cfm
Send comments (copy psa@ansi.org) to: Angel Guzman Rodriguez; guzman@asme.org

ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 | ansibox@asme.org, www.asme.org

Revision

BSR/ASME A112.6.7/CSA B79.7-202x, Sanitary Floor Sinks (revision and redesignation of ANSI/ASME A112.6.7-2010 (R2019))
This Standard covers sanitary floor sinks and specifies requirements for materials, construction, inspection, testing, and marking.
Single copy price: Free
Order from: https://cstools.asme.org/csconnect/PublicReviewPage.cfm
Send comments (copy psa@ansi.org) to: Angel Guzman Rodriguez; guzman@asme.org

Comment Deadline: May 10, 2022

UL (Underwriters Laboratories)

333 Pfingsten Road, Northbrook, IL 60062 | megan.monsen@ul.org, https://ul.org/

New Standard

BSR/UL 498B-202x, Standard for Safety for Receptacles with Integral Switching Means (new standard)
The proposed first edition of the Receptacles with Integral Switching Means, UL 498B, covers a receptacle with integral switching means rated 600 V or less, used in ordinary dry locations and intended for connection to a branch circuit in accordance with the National Electrical Code, NFPA 70.
Single copy price: Free
Obtain an electronic copy from: https://csds.ul.com/Home/ProposalsDefault.aspx
Order from: http://www.shopulstandards.com
Send comments (copy psa@ansi.org) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: https://csds.ul.com/Home/ProposalsDefault.aspx

UL (Underwriters Laboratories)

333 Pfingsten Road, Northbrook, IL 60062-2096 | jeffrey.prusko@ul.org, https://ul.org/

New Standard

BSR/UL 1349-202x, Standard for Safety for LP-Gas Vaporizers (new standard)
UL is proposing to merge ULC/ORD-C1349, Guide for the Investigation of LP-Gas Vaporizers, with UL 1349, Outline of Investigation for LP-Gas Vaporizers, as a Joint Canada-US Standard. The new standard intends to address the US and Canadian stakeholder needs in a single standard and would allow for consolidation and consistency between American and Canadian requirements and meet the demands of the SCC and ANSI. The new/revised requirements of this standard are intended to meet current Codes and provide a simple Dual Certification path for the same products in a single test program. This proposed standard will be published as ANSI/CAN/UL/ULC 1349, Standard for LP-Gas Vaporizers.
Single copy price: Free
Obtain an electronic copy from: https://csds.ul.com/Home/ProposalsDefault.aspx
Order from: http://www.shopulstandards.com
Send comments (copy psa@ansi.org) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: https://csds.ul.com/Home/ProposalsDefault.aspx

UL (Underwriters Laboratories)

333 Pfingsten Road, Northbrook, IL 60062 | Elizabeth.Northcott@ul.org, https://ul.org/

New Standard

BSR/UL 8801-202x, Standard for Safety for Photovoltaic (PV) Luminaire Systems (new standard)
(1) Proposed adoption of the first edition of the Standard for Photovoltaic (PV) Luminaire Systems, UL 8801, as a UL standard for the U.S. and Canada.
Single copy price: Free
Obtain an electronic copy from: https://csds.ul.com/Home/ProposalsDefault.aspx
Order from: http://www.shopulstandards.com
Send comments (copy psa@ansi.org) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: https://csds.ul.com/Home/ProposalsDefault.aspx

Comment Deadline: May 10, 2022

UL (Underwriters Laboratories)

12 Laboratory Drive, Research Triangle Park, NC 27709-3995 | griff.edwards@ul.org, https://ul.org/

Revision

BSR/UL 162-202x, Standard for Foam Equipment and Liquid Concentrates (March 11, 2022) (revision of ANSI/UL 162-2022)
This proposal covers: (1) Temperature range for solution and fuel.
Single copy price: Free
Obtain an electronic copy from: https://csds.ul.com/Home/ProposalsDefault.aspx
Order from: http://www.shopulstandards.com
Send comments (copy psa@ansi.org) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: https://csds.ul.com/Home/ProposalsDefault.aspx

UL (Underwriters Laboratories)

12 Laboratory Drive, Research Triangle Park, NC 27709-3995 | Wathma.Jayathilake@ul.org, https://ul.org/

Revision

BSR/UL 283-202x, Standard for Central-Station Alarm Services (Proposal dated 08-27-21) (revision of ANSI/UL 283-2021)
The requirements of this standard apply to central stations providing central-station fire-alarm service and that may monitor remote supervising station system-type fire alarm systems, central-station burglar alarm systems, central-stations that monitor burglar alarm systems that are not central-station burglar-alarm-type, residential monitoring stations monitoring residential alarm systems, redundant sites, and remote signal management centers. The requirements also apply to monitoring stations that are intended to be located in buildings constructed in accordance with building codes.
Single copy price: Free
Obtain an electronic copy from: https://csds.ul.com/Home/ProposalsDefault.aspx
Order from: http://www.shopulstandards.com
Send comments (copy psa@ansi.org) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: https://csds.ul.com/Home/ProposalsDefault.aspx

Comment Deadline: May 10, 2022

UL (Underwriters Laboratories)

333 Pfingsten Road, Northbrook, IL 60062-2096 | jeffrey.prusko@ul.org, https://ul.org/

Revision

BSR/UL 407-202x, Standard for Safety for Manifolds for Compressed Gases (revision of ANSI/UL 407-2004 (R2017))
To merge ULC/ORD-C407, Guide for the Investigation of High-Pressure Gas Manifolds, with ANSI/UL 407, Manifolds for Compressed Gases, as a Joint Canada-US Standard. The new standard intends to address the US and Canadian stakeholder needs in a single standard and would allow for consolidation and consistency between American and Canadian requirements and meet the demands of the SCC and ANSI. The new/revised requirements of this standard are intended to meet current Codes and provide a simple Dual Certification path for the same products in a single test program. This proposed standard will be published as ANSI/CAN/UL/ULC 407, Standard for Manifolds for Compressed Gases. The current version of UL 407 was used as the base document.
Single copy price: Free
Obtain an electronic copy from: https://csds.ul.com/Home/ProposalsDefault.aspx
Order from: http://www.shopulstandards.com
Send comments (copy psa@ansi.org) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: https://csds.ul.com/Home/ProposalsDefault.aspx

Final Actions on American National Standards

The standards actions listed below have been approved by the ANSI Board of Standards Review (BSR) or by an ANSI-Audited Designator, as applicable.

AAMI (Association for the Advancement of Medical Instrumentation)

901 N. Glebe Road, Suite 300, Arlington, VA 22203 | jallen@aami.org, www.aami.org

New Standard

ANSI/AAMI HIT1000-1-2022, Health IT Software and Systems - Part 1: Fundamental concepts and principles (new standard) Final Action Date: 3/1/2022

AGA (ASC Z380) (American Gas Association)

400 North Capitol Street, NW, Suite 450, Washington, DC 20001 | btansey@aga.org, www.aga.org

Revision

ANSI GPTC Z380.1-2022, Addendum No. 1, Guide for Transmission, Distribution and Gathering Piping Systems, 2022 Edition (revision, redesignation and consolidation of ANSI/GPTC Z380.1-2018, Addendum No. 1-2018, ANSI/GPTC Z380.1-2018, Addendum No. 2-2018, ANSI/GPTC Z380.1-2018, Addendum No. 3-2019, ANSI GPTC Z380.1-2018, Addendum No. 4-2019, ANSI/GPTC Z380.1-2018, Addendum No. 5-2019, ANSI/GPTC Z380.1 -2018, Addendum No. 6-2021) Final Action Date: 3/1/2022

AISI (American Iron and Steel Institute)

25 Massachusetts Avenue, NW, Suite 800, Washington, DC 20001 | jlarson@steel.org, www.steel.org

Supplement

ANSI/AISI S310-20/S1-2022, Supplement 1 to the 2020 Edition of the North American Standard for the Design of Profiled Steel Diaphragm Panels, 2022 (supplement to ANSI/AISI S310-2020) Final Action Date: 2/28/2022

APTech (ASC CGATS) (Association for Print Technologies)

113 Seaboard Lane, Suite C250, Franklin, TN 37067 | dorf@aptech.org, www.printtechnologies.org

Revision

ANSI CGATS.4-2021, Graphic technology - Graphic arts reflection densitometry measurements - Terminology, equations, image elements and procedures (revision of ANSI/CGATS.4-2011 (R2016)) Final Action Date: 2/28/2022

ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

180 Technology Parkway, Peachtree Corners, GA 30092 | etoto@ashrae.org, www.ashrae.org

Addenda

ANSI/ASHRAE/ICC/IES/USGBC Addendum n to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020) Final Action Date: 2/28/2022

Addenda

ANSI/ASHRAE/IES Addendum cb to ANSI/ASHRAE/IES Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019) Final Action Date: 3/1/2022

Addenda

ANSI/ASHRAE/IES Addendum d to ANSI/ASHRAE/IES Standard 90.2-2018, Energy Efficient Design of Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.2-2018) Final Action Date: 2/28/2022

ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

180 Technology Parkway, Peachtree Corners, GA 30092 | etoto@ashrae.org, www.ashrae.org

Addenda

ANSI/ASHRAE/IES Addendum z to ANSI/ASHRAE/IES Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019) Final Action Date: 2/28/2022

Revision

ANSI/ASHRAE Standard 41.2-2022, Standard Methods for Air Velocity and Airflow Measurements (revision of ANSI/ASHRAE Standard 41.2-2018) Final Action Date: 2/28/2022

Revision

ANSI/ASHRAE Standard 118.2-2022, Method of Testing for Rating Residential Water Heaters and Residential-Duty Commercial Water Heaters (revision of ANSI/ASHRAE Standard 118.2-2006) Final Action Date: 3/1/2022

Revision

ANSI/ASHRAE Standard 120-2022, Method of Testing to Determine Flow Resistance of HVAC Ducts and Fittings (revision of ANSI/ASHRAE Standard 120-2017) Final Action Date: 2/28/2022

Revision

ANSI/ASHRAE Standard 139-2022, Method of Testing for Rating Desiccant Dehumidifiers Utilizing Heat for the Regeneration Process (revision of ANSI/ASHRAE Standard 139-2019) Final Action Date: 2/28/2022

Revision

ANSI/ASHRAE Standard 174-2022, Method of Test for Rating Desiccant-Based Dehumidification Equipment (revision of ANSI/ASHRAE Standard 174-2018) Final Action Date: 2/28/2022

ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 | ansibox@asme.org, www.asme.org

Reaffirmation

ANSI/ASME B1.3-2007 (R2022), Screw Thread Gaging Systems for Acceptability - Inch and Metric Screw Threads (UN, UNR, UNJ, M, and MJ) (reaffirmation of ANSI/ASME B1.3-2007 (R2017)) Final Action Date: 2/28/2022

Reaffirmation

ANSI/ASME B1.30-2002 (R2022), Screw Threads - Standard Practice for Calculating and Rounding Dimensions (reaffirmation of ANSI/ASME B1.30-2002 (R2017)) Final Action Date: 2/28/2022

Reaffirmation

ANSI/ASME B47.1-2007 (R2022), Gage Blanks (reaffirmation of ANSI/ASME B47.1-2007 (R2012)) Final Action Date: 2/28/2022

Reaffirmation

ANSI/ASME V&V 10.1-2012 (R2022), An Illustration of the Concepts of Verification and Validation in Computational Solid Mechanics (reaffirmation of ANSI/ASME V&V 10.1-2012) Final Action Date: 2/28/2022

Revision

ANSI/ASME B30.13-2022, Storage/Retrieval (S/R) Machines and Associated Equipment (revision of ANSI/ASME B30.13-2017) Final Action Date: 3/1/2022

ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 | ansibox@asme.org, www.asme.org

Revision

ANSI/ASME B30.16-2022, Overhead Underhung and Stationary Hoists (revision of ANSI/ASME B30.16-2017) Final Action Date: 3/1/2022

ASTM (ASTM International)

100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 | accreditation@astm.org, www.astm.org

New Standard

ANSI/ASTM F3534-2022, Specification for MRS-Rated Metric- and Inch-Sized Crosslinked Polyethylene (PEX) Pressure Pipe for Gas Distribution Applications (new standard) Final Action Date: 2/22/2022

Reaffirmation

ANSI/ASTM F480-2014 (R2022), Specification for Thermoplastic Well Casing Pipe and Couplings Made in Standard Dimension Ratios (SDR), SCH 40 and SCH 80 (reaffirmation of ANSI/ASTM F480-2014) Final Action Date: 2/22/2022

Reaffirmation

ANSI/ASTM F1097-2017 (R2022), Specification for Mortar, Refractory (High-Temperature, Air-Setting) (reaffirmation of ANSI/ASTM F1097-2017) Final Action Date: 2/22/2022

Reaffirmation

ANSI/ASTM F1145-2005 (R2022), Specification for Turnbuckles, Swaged, Welded, Forged (reaffirmation of ANSI/ASTM F1145-1992 (R2017)) Final Action Date: 2/22/2022

Reaffirmation

ANSI/ASTM F1716-1996 (R2022), Guide for Transition and Performance of Marine Software Systems Maintenance (reaffirmation of ANSI/ASTM F1716-2008 (R2015)) Final Action Date: 2/22/2022

Reaffirmation

ANSI/ASTM F1757-1996 (R2022), Guide for Digital Communication Protocols for Computerized Systems (reaffirmation of ANSI/ASTM F1757-2008 (R2015)) Final Action Date: 2/22/2022

Reaffirmation

ANSI/ASTM F2001-2015 (R2022), Guide for Vessel-Related Technical Information for Use in Developing an Electronic Database and Ship Safety Record (reaffirmation of ANSI/ASTM F2001-2015) Final Action Date: 2/22/2022

Reaffirmation

ANSI/ASTM F2017-2015 (R2022), Guide for Database Structure of Electronic Data Interchange between Ship Owner and Shipyard for Contract Administration (reaffirmation of ANSI/ASTM F2017-2015) Final Action Date: 2/22/2022

Reaffirmation

ANSI/ASTM F2021-2017 (R2022), Guide for Design and Installation of Plastic Siphonic Roof Drainage Systems (reaffirmation of ANSI/ASTM F2021-2017) Final Action Date: 2/22/2022

Reaffirmation

ANSI/ASTM F2135-2001 (R2022), Specification for Molded Drain, Waste, and Vent (DWV) Short-Pattern Plastic Fittings (reaffirmation of ANSI/ASTM F2135-2001 (R2017)) Final Action Date: 2/22/2022

ASTM (ASTM International)

100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 | accreditation@astm.org, www.astm.org

Reaffirmation

ANSI/ASTM F2192-2005 (R2022), Test Method for Determining and Reporting the Berthing Energy and Reaction of Marine Fenders (reaffirmation of ANSI/ASTM F2192-2005 (R2017)) Final Action Date: 2/22/2022

Reaffirmation

ANSI/ASTM F2218-2002 (R2022), Guide for Hardware Implementation for Computerized Systems (reaffirmation of ANSI/ASTM F2218-2008 (R2015)) Final Action Date: 2/22/2022

Reaffirmation

ANSI/ASTM F2536-2017 (R2022), Guide for Installing Plastic DWV Piping Suspended from On-Grade Slabs (reaffirmation of ANSI/ASTM F2536-2017) Final Action Date: 2/22/2022

Revision

ANSI/ASTM F876-2022, Specification for Crosslinked Polyethylene (PEX) Tubing (revision of ANSI/ASTM F876 -2020B) Final Action Date: 2/22/2022

Revision

ANSI/ASTM F1337-2022, Practice for Human Systems Integration Program Requirements for Ships and Marine Systems, Equipment, and Facilities (revision of ANSI/ASTM F1337-2010 (R2015)) Final Action Date: 2/22/2022

Revision

ANSI/ASTM F2623-2022, Specification for Polyethylene of Raised Temperature (PE-RT) Systems for Non-Potable Water Applications (revision of ANSI/ASTM F2623-2019) Final Action Date: 2/22/2022

Revision

ANSI/ASTM F3123-2022, Specification for Metric Outside Diameter Polyethylene (PE) Plastic Pipe (DR-PN) (revision of ANSI/ASTM F3123-2018A) Final Action Date: 2/22/2022

AWI (Architectural Woodwork Institute)

46179 Westlake Drive, Suite 120, Potomac Falls, VA 20165-5874 | cdermyre@awinet.org, www.awinet.org

New Standard

ANSI/AWI 0400-2022, Factory Finishing (new standard) Final Action Date: 3/4/2022

CSA (CSA America Standards Inc.)

8501 East Pleasant Valley Road, Cleveland, OH 44131-5575 | ansi.contact@csagroup.org, www.csagroup.org

Reaffirmation

ANSI Z83.4-2016 (R2022), Non-Recirculating Direct Gas-Fired Heating and Forced Ventilation Appliances for Commercial and Industrial Application (same as CSA 3.7-2016) (reaffirmation of ANSI Z83.4-2016) Final Action Date: 3/3/2022

IEEE (ASC N42) (Institute of Electrical and Electronics Engineers)

445 Hoes Lane, Piscataway, NJ 08854 | J.Santulli@ieee.org, www.ieee.org

Addenda

ANSI N42.32a-2022, Performance Criteria for Alarming Personal Radiation Detectors for Homeland Security (addenda to ANSI N42.32-2016) Final Action Date: 3/4/2022

IEEE (ASC N42) (Institute of Electrical and Electronics Engineers)

445 Hoes Lane, Piscataway, NJ 08854 | J.Santulli@ieee.org, www.ieee.org

New Standard

ANSI N42.17AC-2022, Performance Specifications for Health Physics Instrumentation - Portable Survey Instrumentation for Use in Normal and Extreme Environmental Conditions (new standard) Final Action Date: 3/4/2022

ITI (INCITS) (InterNational Committee for Information Technology Standards)

700 K Street NW, Suite 600, Washington, DC 20001 | comments@standards.incits.org, www.incits.org

National Adoption

INCITS/ISO/IEC 18013-5:2021 [2022], Personal identification - ISO-compliant driving licence - Part 5: Mobile driving licence (mDL) application (identical national adoption of ISO/IEC 18013-5:2021) Final Action Date: 2/28/2022

NEMA (ASC C119) (National Electrical Manufacturers Association)

1300 North 17th Street, Suite 900, Rosslyn, VA 22209 | Pau_orr@nema.org, www.nema.org

Revision

ANSI C119.0-2022, Electric Connectors - Testing Methods and Equipment Common to the ANSI C119 Family of Standards (revision of ANSI C119.0-2015) Final Action Date: 3/1/2022

NEMA (ASC C137) (National Electrical Manufacturers Association)

1300 N 17th Street, Suite 900, Rosslyn, VA 22209 | Michael.Erbesfeld@nema.org, www.nema.org

Revision

ANSI/C137.0-2022, Standard for Lighting Systems Terms and Definitions (revision of ANSI C137.0-2017) Final Action Date: 3/3/2022

Revision

ANSI/C137.1-2022, 0-10V Dimming Interface for LED Drivers, Fluorescent Ballasts, and Controls (revision of ANSI/C137.1-2019) Final Action Date: 3/3/2022

NENA (National Emergency Number Association)

1700 Diagonal Road, Suite 500, Alexandria, VA 22314 | darnold@nena.org, www.nena.org

Reaffirmation

ANSI/NENA STA-026.5-2016 (R2022), NENA PSAP Master Clock Standard (reaffirmation of ANSI/NENA STA-026.5 -2016) Final Action Date: 2/28/2022

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | arose@nsf.org, www.nsf.org

Revision

ANSI/NSF 18-2022 (i21r1), Manual Food and Beverage Dispensing Equipment (revision of ANSI/NSF 18-2020) Final Action Date: 2/27/2022

RESNET (Residential Energy Services Network, Inc.)

4867 Patina Court, Oceanside, CA 92057 | rick.dixon@resnet.us, www.resnet.us.com

Addenda

ANSI/RESNET/ICC 301-2019 Addendum C-2021, Default Values for Duct Leakage to Outside (addenda to ANSI/RESNET/ICC 301-2019) Final Action Date: 3/1/2022

SCTE (Society of Cable Telecommunications Engineers)

140 Philips Rd, Exton, PA 19341 | kcooney@scte.org, www.scte.org

Revision

ANSI/SCTE 04-2021, Test Method for F Connector Return Loss (revision of ANSI/SCTE 04-2014) Final Action Date: 2/28/2022

TCNA (ASC A108) (Tile Council of North America)

100 Clemson Research Blvd., Anderson, SC 29625 | KSimpson@tileusa.com, www.tcnatile.com

Revision

ANSI A137.1-2022, Standard Specifications for Ceramic Tile (revision of ANSI A137.1-2021) Final Action Date: 3/3/2022

Revision

ANSI A137.2-2022, Standard Specifications for Glass Tile (revision of ANSI A137.2-2021) Final Action Date: 3/3/2022

UL (Underwriters Laboratories)

12 Laboratory Drive, Research Triangle Park, NC 27709-3995 | Nicolette.A.Weeks@ul.org, https://ul.org/

Revision

ANSI/UL 199-2022, Standard for Automatic Sprinklers for Fire-Protection Service (revision of ANSI/UL 199-2020) Final Action Date: 2/25/2022

Revision

ANSI/UL 1678-2022, Standard for Household, Commercial, and Institutional-Use Carts, Stands and Entertainment Centers for Use with Audio and/or Video Equipment (revision of ANSI/UL 1678-2019) Final Action Date: 3/2/2022

Revision

ANSI/UL 1973-2022, Standard for Safety for Batteries for Use in Stationary and Motive Auxiliary Power Applications (revision of ANSI/UL 1973-2018) Final Action Date: 2/25/2022

Revision

ANSI/UL 120002-2022, Recommended Practice for Certificates for Equipment for Hazardous (Classified) Locations (revision of ANSI/UL 120002-2009 (R2014)) Final Action Date: 3/3/2022

Call for Members (ANS Consensus Bodies)

Directly and materially interested parties who wish to participate as a member of an ANS consensus body for the standards listed are requested to contact the sponsoring developer directly in a timely manner.

ANSI Accredited Standards Developer

CSA - CSA America Standards Inc.

CSA Group, an ANSI-accredited SDO, is seeking additional experts to serve on the bi-national Fuel Cell Technical Committee. The Fuel Cell Technical Committee develops and maintains minimum safety standards and essential requirements for the design construction and maintenance of:
a) stationary, portable, and micro fuel cells;
b) hydrogen generation technologies using all fuels (e.g., electrolysis, coal, natural gas);
c) related components and equipment for stationary, portable and micro fuel cells; and
d) related components and equipment installed for hydrogen generation technologies using all fuels.

We are seeking interested stakeholders who will actively participate and contribute to the development and maintenance of these important standards through CSA's accredited Standards Development Process(es).

The Technical Committee is seeking members in the following categories:

User interest — those who predominantly represent consumer interests or end users of the subject product (s), material(s), or service(s), and who are not involved in any way in production or distribution of the subject product(s), material(s), or service(s).

Regulatory authority — those who are predominantly involved in regulating the use of the subject product (s), material(s), or service(s).

What is expected?
· Strong interest and knowledge of the subject matter
· Active participation and willingness to work on a Technical Committee electronically and in-person
· Ability to represent a stakeholder category outlined above
· Ability to work in a multi-stakeholder environment, following the principles of consensus

If you are interested in participating as a new member of the CSA Fuel Cell Technical Committee, please submit a brief bio along with a statement outlining your interest and ability to contribute to the work to Mark Duda at mark.duda@csagroup.org. If you know of a colleague who may be interested in this project, feel free to distribute this document.

Call for Members (ANS Consensus Bodies)

ANSI Accredited Standards Developer

SCTE (Society of Cable Telecommunications Engineers)

SCTE, an ANSI-accredited SDO, is the primary organization for the creation and maintenance of standards for the cable telecommunications industry. SCTE's standards mission is to develop standards that meet the needs of cable system operators, content providers, network and customer premises equipment manufacturers, and all others who have an interest in the industry through a fair, balanced and transparent process.
SCTE is currently seeking to broaden the membership base of its ANS consensus bodies and is interested in new members in all membership categories to participate in new work in fiber-optic networks, advanced advertising, 3D television, and other important topics. Of particular interest is membership from the content (program and advertising) provider and user communities. Membership in the SCTE Standards Program is open to all directly and materially affected parties as defined in SCTE's membership rules and operating procedures. More information is available at www.scte.org or by e-mail from standards@scte.org.
Membership in the SCTE Standards Program is open to all directly and materially affected parties as defined in SCTE's membership rules and operating procedures. More information is available at www.scte.org or by e-mail from standards@scte.org.

ANSI Accredited Standards Developers

DirectTrust - DirectTrust.org, Inc.

DS2022_05 - Privacy-Enhancing Health Record Locator Service Ecosystem

DirectTrust is seeking members to complete the DS2022_05 - Privacy-Enhancing Health Record Locator Service Ecosystem consensus body for proposed American National Standards (ANSs).
Are you interested in contributing to the development of a standard for a privacy-enhancing record locator service ecosystem?
DirectTrust is currently seeking members in the following categories:

- Healthcare Sector
- Government Sector
- Healthcare Payer Sector
- Consumer Sector and General Interest
- Information Technology Sector
- Interoperability and Systems Integration Sector

If you are interested in joining the DS2022_05- Privacy-Enhancing Health Record Locator Service Ecosystem Consensus Body, contact Standards@DirectTrust.org.

AAMI (Association for the Advancement of Medical Instrumentation)

901 N. Glebe Road, Suite 300, Arlington, VA 22203 | OMunteanu@aami.org, www.aami.org

BSR/AAMI SW96-202x, Standard for medical device security - Security risk management for device manufacturers (new standard)

ATIS (Alliance for Telecommunications Industry Solutions)

1200 G Street NW, Suite 500, Washington, DC 20005 | dgreco@atis.org, www.atis.org

BSR/ATIS 0300097-202x, Structure for the Identification of Communications Connections for Information Exchange (revision of ANSI/ATIS 0300097-2017)

Call for Members (ANS Consensus Bodies)

ATIS (Alliance for Telecommunications Industry Solutions)

1200 G Street NW, Suite 500, Washington, DC 20005 | dgreco@atis.org, www.atis.org

BSR/ATIS 0600005-202x, Acoustic Measurement (revision of ANSI/ATIS 0600005-2017)

FCI (Fluid Controls Institute)

1300 Sumner Avenue, Cleveland, OH 44115 | fci@fluidcontrolsinstitute.org, www.fluidcontrolsinstitute.org

BSR/FCI 69-1-202x, Pressure Rating Standard for Steam Traps (revision of ANSI/FCI 69-1-2017)

IES (Illuminating Engineering Society)

120 Wall Street, Floor 17, New York, NY 10005-4001 | pmcgillicuddy@ies.org, www.ies.org

BSR/IES LP-16-202x, Lighting Practice: Documenting Control Intent Narratives and Sequence of Operations (new standard)

IES (Illuminating Engineering Society)

120 Wall Street, Floor 17, New York, NY 10005-4001 | pmcgillicuddy@ies.org, www.ies.org

BSR/IES RP-Parks-202x, Recommended Practice: Exterior Lighting for Parks and Protected Areas (new standard)

IES (Illuminating Engineering Society)

120 Wall Street, Floor 17, New York, NY 10005-4001 | pmcgillicuddy@ies.org, www.ies.org

BSR/IES RP-6-202x, Recommended Practice: Lighting Sports and Recreational Areas (revision of ANSI/IES RP-6 -2020)

IES (Illuminating Engineering Society)

120 Wall Street, Floor 17, New York, NY 10005-4001 | pmcgillicuddy@ies.org, www.ies.org

BSR/IES RP-43-202x, Recommended Practice: Lighting Exterior Applications (illuminance table only) (new standard)

ITI (INCITS) (InterNational Committee for Information Technology Standards)

700 K Street NW, Suite 600, Washington, DC 20001 | comments@standards.incits.org, www.incits.org

INCITS 578-202x, Information technology - SCSI / ATA Translation - 6 (SAT-6) (new standard)

ITI (INCITS) (InterNational Committee for Information Technology Standards)

700 K Street NW, Suite 600, Washington, DC 20001 | comments@standards.incits.org, www.incits.org

INCITS 579-202x, Information Technology - Zoned Block Commands - 3 (ZBC-3) (new standard)

NEMA (ASC C8) (National Electrical Manufacturers Association)

1300 North 17th Street, Suite 900, Arlington, VA 22209 | Khaled.Masri@nema.org, www.nema.org

BSR ICEA P-117-734-202X, Ampacities for Single-Conductor Solid Dielectric Power Cable 15 kV through 35 kV (revision of ANSI/ICEA P-117-734-2016)

Call for Members (ANS Consensus Bodies)

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | rbrooker@nsf.org, www.nsf.org

BSR/NSF 173-202x (i97r1), Dietary Supplements (revision of ANSI/NSF 173-2021)

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | rbrooker@nsf.org, www.nsf.org

BSR/NSF 173-202x (i98r1), Dietary Supplements (revision of ANSI/NSF 173-2021)

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | rbrooker@nsf.org, www.nsf.org

BSR/NSF 173-202x (i100r1), Dietary Supplements (revision of ANSI/NSF 173-2021)

VITA (VMEbus International Trade Association (VITA))

929 W. Portobello Avenue, Mesa, AZ 85210 | jing.kwok@vita.com, www.vita.com

BSR/VITA 48.4-202x, Liquid Flow Thru VPX Plug In Module Standard (revision of ANSI/VITA 48.4-2018)

VITA (VMEbus International Trade Association (VITA))

929 W. Portobello Avenue, Mesa, AZ 85210 | jing.kwok@vita.com, www.vita.com

BSR/VITA 62.1-202x, Three Phase High-Voltage Power Supply Front End in a 3U Plug-In Module Standard (new standard)

VITA (VMEbus International Trade Association (VITA))

929 W. Portobello Avenue, Mesa, AZ 85210 | jing.kwok@vita.com, www.vita.com

BSR/VITA 62-202x, Modular Power Supply Standard (revision of ANSI/VITA 62-2016)

Accreditation Announcements (Standards Developers)

Public Review of Revised ASD Operating Procedures

IEEE - Institute of Electrical and Electronics Engineers

Comment Deadline: March 27, 2022

The IEEE - Institute of Electrical and Electronics Engineers, an ANSI Member and Accredited Standards Developer, has submitted revisions to its currently accredited IEEE-SA Standards Board Operations Manual and IEEE-SA Standards Board Bylaws for documenting consensus on IEEE-sponsored American National Standards, under which it was last reaccredited in 2021. As the revisions appear to be substantive in nature, the reaccreditation process is initiated.

To obtain a copy of the revised procedures or to offer comments, please contact: David Ringle, Institute of Electrical and Electronics Engineers (IEEE) | 445 Hoes Lane, Piscataway, NJ 08854-4141 | (732) 562-3806, d.ringle@ieee.org

Click here to view/download a copy of the revisions during the public review period.

Please submit any public comments on the revised procedures to IEEE by March 28, 2022, with a copy to the ExSC Recording Secretary in ANSI's New York Office (jthompso@ANSI.org).

Meeting Notices (Standards Developers)

ANSI Accredited Standards Developer

ASA - Acoustical Society of America

Meeting Times: May 23-27, 2022

Acoustical Society of America (ASA Standards) will be holding meetings in conjunction with the ASA 182nd Meeting May 23-27, 2022

May 23, 2022 ASC S2 Mechanical Vibration and Shock (5:00pm-6:15pm MST) Denver, CO
May 23, 2022 ASACOS Steering Meeting (7:00pm-9:30pm MST) Denver, CO
May 24, 2022 ASACOS Meeting (7:30am-9:00am MST) Denver, CO
May 24, 2022 Standards Plenary Meeting (9:15am-10:45am MST) Denver, CO
May 24, 2022 ASC S1, Acoustics Meeting (11:00am-12:15pm MST) Denver, CO
May 24, 2022 ASC S3, Bioacoustics (2:00pm-3:15pm MST) Denver, CO
May 24, 2022 ASC S3/SC1, Animal Bioacoustics (3:30pm-4:45pm MST) Denver, CO
May 24, 2022 ASC S12, Noise (5:00pm-6:15pm MST) Denver, CO

Meetings will take place at Sheraton Denver Downtown Hotel Denver, Colorado. For more information, please visit our website at https://asastandards.org/ or email us at standards@acousticalsociety.org

American National Standards (ANS) Process

Please visit ANSI's website (www.ansi.org) for resources that will help you to understand, administer and participate in the American National Standards (ANS) process. Documents posted at these links are updated periodically as new documents and guidance are developed, whenever ANS-related procedures are revised, and routinely with respect to lists of proposed and approved ANS. The main ANS-related linkis www.ansi.org/asd and here are some direct links as well as highlights of information that is available:

Where to find Procedures, Guidance, Interpretations and More...

Please visit ANSI's website (www.ansi.org)

- ANSI Essential Requirements: Due process requirements for American National Standards (always current edition): www.ansi.org/essentialrequirements
- ANSI Standards Action (weekly public review announcements of proposed ANS and standards developer accreditation applications, listing of recently approved ANS, and proposed revisions to ANS-related procedures): www.ansi.org/standardsaction
- Accreditation information – for potential developers of American National Standards (ANS): www.ansi.org/sdoaccreditation
- ANS Procedures, ExSC Interpretations and Guidance (including a slide deck on how to participate in the ANS process and the BSR-9 form): www.ansi.org/asd
- Lists of ANSI-Accredited Standards Developers (ASDs), Proposed ANS and Approved ANS: www.ansi.org/asd
- American National Standards Key Steps: www.ansi.org/anskeysteps
- American National Standards Value: www.ansi.org/ansvalue
- ANS Web Forms for ANSI-Accredited Standards Developers - PINS, BSR8|108, BSR11, Technical Report: https://www.ansi.org/portal/psawebforms/
- Information about standards Incorporated by Reference (IBR): https://ibr.ansi.org/
- ANSI - Education and Training: www.standardslearn.org

American National Standards Under Continuous Maintenance

The ANSI Essential Requirements: Due Process Requirements for American National Standards provides two options for the maintenance of American National Standards (ANS): periodic maintenance (see clause 4.7.1) and continuous maintenance (see clause 4.7.2). Continuous maintenance is defined as follows:

The standard shall be maintained by an accredited standards developer. A documented program for periodic publication of revisions shall be established by the standards developer. Processing of these revisions shall be in accordance with these procedures. The published standard shall include a clear statement of the intent to consider requests for change and information on the submittal of such requests. Procedures shall be established for timely, documented consensus action on each request for change and no portion of the standard shall be excluded from the revision process. In the event that no revisions are issued for a period of four years, action to reaffirm or withdraw the standard shall be taken in accordance with the procedures contained in the ANSI Essential Requirements.

The Executive Standards Council (ExSC) has determined that for standards maintained under the Continuous Maintenance option, separate PINS announcements are not required. The following ANSI Accredited Standards Developers have formally registered standards under the Continuous Maintenance option.

- AAMI (Association for the Advancement of Medical Instrumentation)
- AARST (American Association of Radon Scientists and Technologists)
- AGA (American Gas Association)
- AGSC (Auto Glass Safety Council)
- ASC X9 (Accredited Standards Committee X9, Incorporated)
- ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)
- ASME (American Society of Mechanical Engineers)
- ASTM (ASTM International)
- GBI (Green Building Initiative)
- HL7 (Health Level Seven)
- Home Innovation (Home Innovation Research Labs)
- IES (Illuminating Engineering Society)
- ITI (InterNational Committee for Information Technology Standards)
- MHI (Material Handling Industry)
- NBBPVI (National Board of Boiler and Pressure Vessel Inspectors)
- NCPDP (National Council for Prescription Drug Programs)
- NEMA (National Electrical Manufacturers Association)
- NFRC (National Fenestration Rating Council)
- NISO (National Information Standards Organization)
- NSF (NSF International)
- PRCA (Professional Ropes Course Association)
- RESNET (Residential Energy Services Network, Inc.)
- SAE (SAE International)
- TCNA (Tile Council of North America)
- TIA (Telecommunications Industry Association)
- UL (Underwriters Laboratories)

To obtain additional information with regard to these standards, including contact information at the ANSI Accredited Standards Developer, please visit ANSI Online at www.ansi.org/asd, select "American National Standards Maintained Under Continuous Maintenance." Questions? psa@ansi.org.

ANSI-Accredited Standards Developers (ASD) Contacts

The addresses listed in this section are to be used in conjunction with standards listed in PINS, Call for Comment, Call for Members and Final Actions. This section is a list of developers who have submitted standards for this issue of *Standards Action* – it is not intended to be a list of all ANSI-Accredited Standards Developers. Please send all address corrections to the PSA Department at psa@ansi.org.

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AWI
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AWS
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BIFMA
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FCI
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www.fluidcontrolsinstitute.org

Leslie Schraff
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IAPMO (ASSE Chapter)
ASSE International Chapter of IAPMO
18927 Hickory Creek Drive, Suite 220
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IAPMO (Z)
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IEEE (ASC C63)
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IES
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ISO & IEC Draft International Standards

This section lists proposed standards that the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) are considering for approval. The proposals have received substantial support within the technical committees or subcommittees that developed them and are now being circulated to ISO and IEC members for comment and vote. Standards Action readers interested in reviewing and commenting on these documents should order copies from ANSI.

COMMENTS

Comments regarding ISO documents should be sent to ANSI's ISO Team (isot@ansi.org); comments on ISO documents must be submitted electronically in the approved ISO template and as a Word document as other formats will not be accepted.

Those regarding IEC documents should be sent to Tony Zertuche, General Secretary, USNC/IEC, at ANSI's New York offices (tzertuche@ansi.org). The final date for offering comments is listed after each draft.

ORDERING INSTRUCTIONS

ISO and IEC Drafts can be made available by contacting ANSI's Customer Service department. Please e-mail your request for an ISO or IEC Draft to Customer Service at sales@ansi.org. When making your request, please provide the date of the Standards Action issue in which the draft document you are requesting appears.

ISO Standards

Air quality (TC 146)

ISO/FDIS 21438-1, Workplace atmospheres - Determination of inorganic acids by ion chromatography - Part 1: Non-volatile acids (sulfuric acid and phosphoric acid) - 12/25/2020, $82.00

Anaesthetic and respiratory equipment (TC 121)

ISO/DIS 80601-2-72, Medical electrical equipment - Part 2-72: Particular requirements for basic safety and essential performance of home healthcare environment ventilators for ventilator-dependent patients - 5/20/2022, $175.00

Banking and related financial services (TC 68)

ISO/DIS 19092, Financial services - Biometrics - Security framework - 5/23/2022, $134.00

Control and safety devices for non industrial gas-fired appliances and systems (TC 161)

ISO/DIS 23551-8, Safety and control devices for gas burners and gas-burning appliances - Particular requirements - Part 8: Multifunctional controls - 5/21/2022, $98.00

ISO/DIS 23551-12, Safety and control devices for gas burners and gas-burning appliances - Particular requirements - Part 12: Multifunctional controls with integral overpressure protection safety function for use with butane gas cartridge used in portable gas appliances - 5/21/2022, $88.00

Corrosion of metals and alloys (TC 156)

ISO/DIS 5156, Corrosion of metals and alloys - Corrosion test method for disinfectant - Total immersion method - 5/26/2022, $46.00

Cosmetics (TC 217)

ISO/FDIS 24442, Cosmetics - Sun protection test methods - In vivo determination of sunscreen UVA protection - 12/24/2020, $125.00

Fasteners (TC 2)

ISO/DIS 8675.2, Fasteners - Hexagon thin nuts (style 0), with fine pitch thread - 4/24/2022, $46.00

Fluid power systems (TC 131)

ISO/FDIS 8133, Hydraulic fluid power - Mounting dimensions for accessories for single rod cylinders, 16 MPa (160 bar) compact series - 4/16/2021, $62.00

Internal combustion engines (TC 70)

ISO/DIS 4548-14, Methods of test for full-flow lubricating oil filters for internal combustion engines - Part 14: Cold start simulation and hydraulic pulse durability for composite filter housings - 5/22/2022, $46.00

Nuclear energy (TC 85)

ISO/DIS 18589-3, Measurement of radioactivity in the environment - Soil - Part 3: Test method of gamma-emitting radionuclides using gamma-ray spectrometry - 5/23/2022, $102.00

Paints and varnishes (TC 35)

ISO/DIS 1518-1, Paints and varnishes - Determination of scratch resistance - Part 1: Constant-loading method - 5/23/2022, $53.00

ISO/DIS 7784-1, Paints and varnishes - Determination of resistance to abrasion - Part 1: Method with abrasive-paper covered wheels and rotating test specimen - 5/23/2022, $46.00

ISO/DIS 7784-2, Paints and varnishes - Determination of resistance to abrasion - Part 2: Method with abrasive rubber wheels and rotating test specimen - 5/23/2022, $46.00

Personal safety - Protective clothing and equipment (TC 94)

ISO/FDIS 12312-1, Eye and face protection - Sunglasses and related eyewear - Part 1: Sunglasses for general use - 11/12/2020, $102.00

Plain bearings (TC 123)

ISO/DIS 7148-1, Plain bearings - Testing of the tribological behaviour of bearing materials - Part 1: Testing of bearing metals - 5/21/2022, $58.00

ISO/DIS 7148-2, Plain bearings - Testing of the tribological behaviour of bearing materials - Part 2: Testing of polymer-based bearing materials - 5/21/2022, $88.00

Plastics (TC 61)

ISO/DIS 5677, Testing and characterization of mechanically recycled Polypropylene (PP) and Polyethylene (PE) for intended use in different plastics processing techniques - 5/21/2022, $40.00

Plastics pipes, fittings and valves for the transport of fluids (TC 138)

ISO/DIS 4981, Plastic piping systems for non-pressure underground conveyance and storage of non-potable water - Boxes used for retention, detention, transportation and storage systems - Specifications for storm water boxes made of PP and PVC-U - 5/19/2022, $71.00

ISO/DIS 4982, Plastics piping systems for non-pressure underground conveyance and storage of non-potable water - Arch-shaped, corrugated wall chambers made of PE or PP used for retention, detention, transportation and storage systems - Product specifications and performance criteria - 5/19/2022, $107.00

Road vehicles (TC 22)

ISO/FDIS 22900-2, Road vehicles - Modular vehicle communication interface (MVCI) - Part 2: Diagnostic protocol data unit (D-PDU API) - 11/29/2020, $269.00

Robots and robotic devices (TC 299)

ISO/DIS 31101, Robotics - Application services provided by service robots - Safety management systems requirements - 5/20/2022, $119.00

Rubber and rubber products (TC 45)

ISO/DIS 24087, Rubber, vulcanized - Determination of the glass transition temperature and enthalpy by differential scanning calorimetry (DSC) - 5/22/2022, $62.00

Ships and marine technology (TC 8)

ISO/DIS 5694, Ships and marine technology - Deck covering - 5/23/2022, $46.00

ISO/DIS 24681, Ships and marine technology - Fibre-reinforced plastic gratings - 5/23/2022, $62.00

Sizing system, designations and marking for boots and shoes (TC 137)

ISO/DIS 19407, Footwear - Sizing - Conversion of sizing systems - 5/20/2022, $53.00

ISO/DIS 19408, Footwear - Sizing - Vocabulary and terminology - 5/21/2022, $77.00

Steel (TC 17)

ISO/DIS 683-17, Heat-treatable steels, alloy steels and free-cutting steels - Part 17: Ball and roller bearing steels - 5/20/2022, $88.00

Steel and aluminium structures (TC 167)

ISO/DIS 17607-1, Steel structures - Execution of structural steelwork - Part 1: General requirements and vocabulary - 5/22/2022, $107.00

ISO/DIS 17607-2, Steel structures - Execution of structural steelwork - Part 2: Steels - 5/22/2022, $112.00

ISO/DIS 17607-3, Steel structures - Execution of structural steelwork - Part 3: Fabrication - 5/22/2022, $165.00

ISO/DIS 17607-4, Steel structures - Execution of structural steelwork - Part 4: Erection - 5/22/2022, $155.00

ISO/DIS 17607-5, Steel structures - Execution of structural steelwork - Part 5: Welding - 5/22/2022, $112.00

ISO/DIS 17607-6, Steel structures - Execution of structural steelwork - Part 6: Bolting - 5/22/2022, $155.00

Thermal insulation (TC 163)

ISO/FDIS 12241, Thermal insulation for building equipment and industrial installations - Calculation rules - 12/25/2020, $125.00

Transport information and control systems (TC 204)

ISO/DIS 12813, Electronic fee collection - Compliance check communication for autonomous systems - 5/20/2022, $125.00

Water re-use (TC 282)

ISO/DIS 24575, Guidelines for cost analysis in planning of decentralized wastewater treatment and/or reuse - 5/20/2022, $88.00

ISO/IEC JTC 1, Information Technology

ISO/IEC FDIS 22989, Information technology - Artificial intelligence - Artificial intelligence concepts and terminology - 4/12/2021, $125.00

ISO/IEC FDIS 23053, Framework for Artificial Intelligence (AI) Systems Using Machine Learning (ML) - 4/12/2021, $102.00

ISO/IEC FDIS 20897-2, Information security, cybersecurity and privacy protection - Physically unclonable functions - Part 2: Test and evaluation methods - 1/17/2021, $93.00

ISO/IEC DIS 22123-1, Information technology - Cloud computing - Part 1: Vocabulary - 5/26/2022, $67.00

ISO/IEC DIS 23009-1/DAmd 1, Information technology - Dynamic adaptive streaming over HTTP (DASH) - Part 1: Media presentation description and segment formats - Amendment 1: Preroll, nonlinear playback and other extensions - 5/23/2022, $107.00

ISO/IEC DIS 23093-4, Information technology - Internet of media things - Part 4: Reference software and conformance - 5/20/2022, $62.00

ISO/IEC DIS 23090-13, Information technology - Coded representation of immersive media - Part 13: Video decoding interface for immersive media - 5/23/2022, $112.00

Other

ISO/IEC DIS 17043, Conformity assessment - General requirements for the competence of proficiency testing providers - 5/21/2022, $107.00

IEC Standards

46C/1215/CDV, IEC 61156-11 ED2: Multicore and symmetrical pair/quad cables for digital communications - Part 11: Symmetrical single pair cables with transmission characteristics up to 1,25 GHz - Horizontal floor wiring - Sectional specification, 05/27/2022

JTC1-SC25/3080/CD, ISO/IEC 15045-4-1 ED1: Information Technology - Home Electronic System (HES) gateway - Part 4-1: Structural classes, 04/29/2022

JTC1-SC25/3081/CD, ISO/IEC 15045-4-2 ED1: Information Technology - Home Electronic System (HES) gateway - Part 4-2: Structural classes?Simple gateway, 04/29/2022

JTC1-SC41/277/FDIS, ISO/IEC 30169 ED1: Internet of Things (IoT) - IoT applications for electronic label system (ELS), 04/29/2022

All-or-nothing electrical relays (TC 94)

94/669/CD, IEC 61810-7-45 ED1: All-or-nothing electrical relays - Tests and Measurements - Part 7-45: Maximum frequency of operation, 04/29/2022

94/668/CD, IEC 61810-7-47 ED1: All-or-nothing electrical relays - Tests and Measurements - Part 7-47: Making and breaking capacities, 04/29/2022

94/667/CD, IEC 61810-7-48 ED1: All-or-nothing electrical relays - Tests and Measurements - Part 7-48: Contact reliability test, 04/29/2022

Capacitors and resistors for electronic equipment (TC 40)

40/2920/CDV, IEC 60115-4 ED3: Fixed resistors for use in electronic equipment - Part 4: Sectional specification: Power resistors for through hole assembly on circuit boards (THT) or for assembly on chassis, 05/27/2022

40/2932/NP, PNW TS 40-2932 ED1: Packaging of components for automatic handling - Part 6-1: Bulk case packaging for miniaturized surface mounting components, 05/27/2022

Electrical accessories (TC 23)

23A/996/CD, IEC 61196-12 ED1: Coaxial communication cables - Part 12: Specification for hanging brackets for radiating cables, 05/27/2022

Electrostatics (TC 101)

101/654/DPAS, IEC PAS 61340-5-6 ED1: Electrostatics- Part 5-6: Protection of electronic devices from electrostatic phenomena - Process Assessment Techniques, 04/29/2022

Flat Panel Display Devices (TC 110)

110/1419/CD, IEC 62908-12-10 ED2: Touch and interactive displays - Part 12-10: Measurement methods of touch displays - Touch and electrical performance, 04/29/2022

110/1418/CD, IEC 62977-3-6 ED1: Electronic displays - Part 3-6: Evaluation of optical performance - Spatial resolution, 04/29/2022

Industrial-process measurement and control (TC 65)

65E/854/CDV, IEC 62769-1 ED3: Field Device Integration (FDI) - Part 1: Overview, 05/27/2022

65E/865/CDV, IEC 62769-100 ED2: Field device integration (FDI) - Part 100: Profiles - Generic protocols, 05/27/2022

65E/860/CDV, IEC 62769-101-1 ED3: Field device Integration (FDI) - Part 101-1: Profiles - Foundation Fieldbus H1, 05/27/2022

65E/861/CDV, IEC 62769-101-2 ED3: Field Device Integration (FDI) - Part 101-2: Profiles - Foundation Fieldbus HSE, 05/27/2022

65E/852/CDV, IEC 62769-102-2 ED1: Field device integration (FDI) - Part 102-2: Profiles - EtherNet/IP, 05/27/2022

65E/862/CDV, IEC 62769-103-1 ED3: Field Device Integration (FDI) - Part 103-1: Profiles - PROFIBUS, 05/27/2022

65E/863/CDV, IEC 62769-103-4 ED3: Field Device Integration (FDI) - Part 103-4: Profiles - PROFINET, 05/27/2022

65E/864/CDV, IEC 62769-109-1 ED3: Field device integration (FDI) - Part 109-1: Profiles - HART and Wireless HART, 05/27/2022

65E/866/CDV, IEC 62769-150-1 ED2: Field device integration (FDI) - Part 150-1: Profiles - ISA100 WIRELESS, 05/27/2022

65E/853/CDV, IEC 62769-151-1 ED1: Field device integration (FDI) - Part 150-1: Profiles - OPC UA, 05/27/2022

65E/855/CDV, IEC 62769-2 ED3: Field Device Integration (FDI) - Part 2: FDI Client, 05/27/2022

65E/856/CDV, IEC 62769-3 ED3: Field Device Integration (FDI) - Part 3: Server, 05/27/2022

65E/857/CDV, IEC 62769-4 ED3: Field Device Integration (FDI) - Part 4: FDI Packages, 05/27/2022

65E/858/CDV, IEC 62769-5 ED3: Field Device Integration (FDI) - Part 5: Information Model, 05/27/2022

65E/867/CDV, IEC 62769-6 ED3: Field Device Integration (FDI) - Part 6: Technology Mapping, 05/27/2022

65E/868/CDV, IEC 62769-6-100 ED1: Field Device Integration (FDI) - Part 6-100: Technology Mapping - Net, 05/27/2022

65E/870/CDV, IEC 62769-6-200 ED1: Field Device Integration (FDI) - Part 6-200: Technology Mapping - HTML5, 05/27/2022

65E/859/CDV, IEC 62769-7 ED3: Field Device Integration (FDI) - Part 7: Communication Devices, 05/27/2022

65E/851/CDV, IEC 62769-8 ED1: Field device integration (FDI) - Part 8:EDD to OPC-UA Mapping, 05/27/2022

Insulating materials (TC 15)

15/967/CD, IEC 60674-3-3 ED2: Plastic films for electrical purposes - Part 3:Specifications for individual materials - Sheet 3: Polycarbonate (PC) films used for electrical insulation, 05/27/2022

Lamps and related equipment (TC 34)

34A/2272(F)/FDIS, IEC 60810/AMD2 ED5: Amendment 2 - Lamps, light sources and LED packages for road vehicles - Performance requirements, 04/01/2022

Power electronics (TC 22)

22G/450(F)/CDV, IEC 61800-3 ED4: Adjustable speed electrical power drive systems - Part 3: EMC requirements and specific test methods for PDS and machine tools, 05/06/2022

22/355/FDIS, IEC 62477-1 ED2: Safety requirements for power electronic converter systems and equipment - Part 1: General, 04/15/2022

Power system control and associated communications (TC 57)

57/2461/CDV, IEC 62351-9 ED2: Power systems management and associated information exchange - Data and communications security - Part 9: Cyber security key management for power system equipment, 05/27/2022

Semiconductor devices (TC 47)

47/2756(F)/FDIS, IEC 63275-2 ED1: Semiconductor devices - Reliability test method for silicon carbide discrete metal-oxide semiconductor field effect transistors - Part 2: Test method for bipolar degradation due to body diode operation, 04/01/2022

47A/1135/CD, EMC IC modelling - Part 4: Models of integrated circuits for RF immunity behavioural simulation - Conducted immunity modelling (ICIM-CI) - Section 1: Technical Report on the use of ICIM-CI model (IEC 62433-4) to predict the IC conducted immunity in a PCB, 05/27/2022

Standard voltages, current ratings and frequencies (TC 8)

8A/101/CD, IEC TR 63401-1 ED1: Interconnecting inverter-based resources to low short circuit ratio ac networks, 04/29/2022

8A/102/CD, IEC TR 63401-3 ED1: Fast Frequency Response and Frequency Ride-Through from Inverter-Based Resources during Severe Frequency Disturbances, 04/29/2022

Switchgear and controlgear (TC 17)

17C/840/FDIS, IEC 62271-204 ED2: High-voltage switchgear and controlgear - Part 204: Rigid gas-insulated transmission lines for rated voltage above 52 kV, 04/15/2022

SyCSmartCities

SyCSmartCities/253/DTS, IEC SRD 63152-2 ED1: Systems Reference Deliverable (SRD) - City Service Continuity – Implementation Guideline and City Service Cases, 05/27/2022

SyCAAL/258/CD, IEC SRD 63426 ED1: Reference standards portfolio (RSP) for AAL in Connected Home Environment, 05/27/2022

Newly Published ISO & IEC Standards

Listed here are new and revised standards recently approved and promulgated by ISO - the International Organization for Standardization – and IEC – the International Electrotechnical Commission. Most are available at the ANSI Electronic Standards Store (ESS) at www.ansi.org. All paper copies are available from Standards resellers (http://webstore.ansi.org/faq.aspx#resellers).

ISO Standards

Geotechnics (TC 182)

ISO 17892-12:2018/Amd 2:2022, - Amendment 2: Geotechnical investigation and testing - Laboratory testing of soil - Part 12: Determination of liquid and plastic limits - Amendment 2, $20.00

Health Informatics (TC 215)

ISO 13972:2022, Health informatics - Clinical information models - Characteristics, structures and requirements, $225.00

ISO 17439:2022, Health informatics - Development of terms and definitions for health informatics glossaries, $73.00

Implants for surgery (TC 150)

ISO 14708-4:2022, Implants for surgery - Active implantable medical devices - Part 4: Implantable infusion pump systems, $225.00

Information and documentation (TC 46)

ISO 15924:2022, Information and documentation - Codes for the representation of names of scripts, $73.00

Paints and varnishes (TC 35)

ISO 22553-10:2022, Paints and varnishes - Electro-deposition coatings - Part 10: Edge protection, $48.00

Pigments, dyestuffs and extenders (TC 256)

ISO 18473-4:2022, Functional pigments and extenders for special applications - Part 4: Nanoscale titanium dioxide for photocatalytic application, $48.00

Plastics (TC 61)

ISO 489:2022, Plastics - Determination of refractive index, $73.00

ISO 21368:2022, Adhesives - Guidelines for the fabrication of adhesively bonded structures and reporting procedures suitable for the risk evaluation of such structures, $250.00

Rolling bearings (TC 4)

ISO 3030:2022, Rolling bearings - Radial needle roller and cage assemblies - Boundary dimensions, geometrical product specifications (GPS) and tolerance values, $73.00

Ships and marine technology (TC 8)

ISO 11606:2022, Ships and marine technology - Marine electromagnetic compasses, $111.00

ISO 20673:2022, Ships and marine technology - Electric rudder angle indicators, $48.00

Steel (TC 17)

ISO 15179:2022, Hot-rolled twin-roll cast steel sheet of structural quality and high strength steel, $73.00

ISO 15208:2022, Continuous hot-dip zinc-coated twin-roll cast steel sheet of commercial quality, $111.00

ISO 15211:2022, Steel sheet, twin-roll cast, zinc-coated by the continuous hot-dip process, of structural quality and high strength, $111.00

ISO 16573-2:2022, Steel - Measurement method for the evaluation of hydrogen embrittlement resistance of high-strength steels - Part 2: Slow strain rate test, $73.00

Sustainable development in communities (TC 268)

ISO 37166:2022, Smart community infrastructures - Urban data integration framework for smart city planning (SCP), $175.00

Technical drawings, product definition and related documentation (TC 10)

ISO 10209:2022, Technical product documentation - Vocabulary - Terms relating to technical drawings, product definition and related documentation, $48.00

Technical systems and aids for disabled or handicapped persons (TC 173)

ISO 7176-14:2022, Wheelchairs - Part 14: Power and control systems for electrically powered wheelchairs and scooters - Requirements and test methods, $225.00

Tractors and machinery for agriculture and forestry (TC 23)

ISO 11850:2011/Amd 2:2022, - Amendment 2: Machinery for forestry - General safety requirements - Amendment 2: Access to operators station and maintenance locations, $20.00

Water quality (TC 147)

ISO 10304-4:2022, Water quality - Determination of dissolved anions by liquid chromatography of ions - Part 4: Determination of chlorate, chloride and chlorite in water with low contamination, $111.00

ISO Technical Specifications

Blockchain and distributed ledger technologies (TC 307)

ISO/TS 23635:2022, Blockchain and distributed ledger technologies - Guidelines for governance, $149.00

Health Informatics (TC 215)

ISO/TS 17117-2:2022, Health informatics - Terminological resources - Part 2: Implementation Capability (TIC), $73.00

Transport information and control systems (TC 204)

ISO/TS 5255-1:2022, Intelligent transport systems - Low-speed automated driving system (LSADS) service - Part 1: Role and functional model, $111.00

ISO/IEC JTC 1, Information Technology

ISO/IEC 15946-5:2022, Information security - Cryptographic techniques based on elliptic curves - Part 5: Elliptic curve generation, $175.00

ISO/IEC 18047-3:2022, Information technology - Radio frequency identification device conformance test methods - Part 3: Test methods for air interface communications at 13,56 MHz, $200.00

IEC Standards

Bare aluminium conductors (TC 7)

IEC 62641 Ed. 1.0 b:2022, Conductors for overhead lines - Aluminium and aluminium alloy wires for concentric lay stranded conductors, $133.00

IEC 63248 Ed. 1.0 b:2022, Conductors for overhead lines - Coated or cladded metallic wire for concentric lay stranded conductors, $259.00

Cables, wires, waveguides, r.f. connectors, and accessories for communication and signalling (TC 46)

IEC 61169-17 Ed. 1.0 b:2022, Radio-frequency connectors - Part 17: Sectional specification for RF coaxial connectors with inner diameter of outer conductor 6,5 mm (0,256 in) with screw coupling - Characteristic impedance 50 ohms (Type TNC), $183.00

Fibre optics (TC 86)

IEC 61754-4 Ed. 3.0 b:2022, Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 4: Type SC connector family, $259.00

IEC 61754-6 Ed. 3.0 b:2022, Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 6: Type MU connector family, $392.00

IEC 60794-1-220 Ed. 1.0 b:2022, Optical fibre cables - Part 1 -220: Generic specification - Basic optical cable test procedures - Environmental test methods - Salt spray corrosion test, method F20 , $25.00

S+ IEC 61754-4 Ed. 3.0 en:2022 (Redline version), Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 4: Type SC connector family, $338.00

S+ IEC 61754-6 Ed. 3.0 en:2022 (Redline version), Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 6: Type MU connector family, $510.00

Other

CISPR 16-1-6 Amd.2 Ed. 1.0 b:2022, Amendment 2 - Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-6: Radio disturbance and immunity measuring apparatus - EMC antenna calibration, $183.00

CISPR 16-1-6 Ed. 1.2 b:2022, Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-6: Radio disturbance and immunity measuring apparatus - EMC antenna calibration, $886.00

Secondary cells and batteries (TC 21)

IEC 62660-3 Ed. 2.0 b:2022, Secondary lithium-ion cells for the propulsion of electric road vehicles - Part 3: Safety requirements, $221.00

S+ IEC 62660-3 Ed. 2.0 en:2022 (Redline version), Secondary lithium-ion cells for the propulsion of electric road vehicles - Part 3: Safety requirements, $288.00

Semiconductor devices (TC 47)

IEC 60749-28 Ed. 2.0 b:2022, Semiconductor devices - Mechanical and climatic test methods - Part 28: Electrostatic discharge (ESD) sensitivity testing - Charged device model (CDM) - device level, $310.00

IEC 60747-5-14 Ed. 1.0 en:2022, Semiconductor devices - Part 5 -14: Optoelectronic devices - Light emitting diodes - Test method of the surface temperature based on the thermoreflectance method, $183.00

S+ IEC 60749-28 Ed. 2.0 en:2022 (Redline version), Semiconductor devices - Mechanical and climatic test methods - Part 28: Electrostatic discharge (ESD) sensitivity testing - Charged device model (CDM) - device level, $404.00

International Electrotechnical Commission (IEC)

Call for Members (USNC)

USNC TAG Administrator and USNC TAG Members Needed

IEC Systems Committee (SyC) Sustainable Electrified Transportation (SET)

IEC approved one (1) new Committee: IEC Systems Committee (SyC) Sustainable Electrified Transportation (SET)

Individuals who are interested in becoming a USNC Technical Advisory Group (TAG) Member or the USNC TAG Administrator for the USNC TAG to SyC Sustainable Electrified Transportation (SET) are invited to contact Betty Barro at bbarro@ansi.org as soon as possible.

Please see the scope for SyC SET below:

Scope

· Address systems level standardization in the area of sustainability of electric transportation.
· Offer wider opportunities to cope with this increasing market and the immense pace of upcoming changes around sustainable transportation.
· Help leverage the IEC and its visibility as a major contributor to the standardization in the transportation sector, which is witnessing an unprecedented electrification, while attracting cross sector top level experts to join the IEC work.

Registration of Organization Names in the United States

The Procedures for Registration of Organization Names in the United States of America (document ISSB 989) require that alphanumeric organization names be subject to a 90-day Public Review period prior to registration. For further information, please contact the Registration Coordinator at (212) 642-4975.
When organization names are submitted to ANSI for registration, they will be listed here alphanumerically. Alphanumeric names appearing for the first time are printed in bold type. Names with confidential contact information, as requested by the organization, list only public review dates.

Public Review

NOTE: Challenged alphanumeric names are underlined. The Procedures for Registration provide for a challenge process, which follows in brief. For complete details, see Section 6.4 of the Procedures.

A challenge is initiated when a letter from an interested entity is received by the Registration Coordinator. The letter shall identify the alphanumeric organization name being challenged and state the rationale supporting the challenge. A challenge fee shall accompany the letter. After receipt of the challenge, the alphanumeric organization name shall be marked as challenged in the Public Review list. The Registration Coordinator shall take no further action to register the challenged name until the challenge is resolved among the disputing parties.

Proposed Foreign Government Regulations

Call for Comment

U.S. manufacturers, exporters, regulatory agencies and standards developing organizations may be interested in proposed foreign technical regulations notified by Member countries of the World Trade Organization (WTO). In accordance with the WTO Agreement on Technical Barriers to Trade (TBT Agreement), Members are required to notify proposed technical regulations that may significantly affect trade to the WTO Secretariat in Geneva, Switzerland. In turn, the Secretariat issues and makes available these notifications. The purpose of the notification requirement is to provide global trading partners with an opportunity to review and comment on the regulations before they become final.

The USA Inquiry Point for the WTO TBT Agreement is located at the National Institute of Standards and Technology (NIST) in the Standards Coordination Office (SCO). The Inquiry Point distributes the notified proposed foreign technical regulations (notifications) and makes the associated full-texts available to U.S. stakeholders via its online service, Notify U.S. Interested U.S. parties can register with Notify U.S. to receive e-mail alerts when notifications are added from countries and industry sectors of interest to them. To register for Notify U.S., please visit: http://www.nist.gov/notifyus/.

The USA WTO TBT Inquiry Point is the official channel for distributing U.S. comments to the network of WTO TBT Enquiry Points around the world. U.S. business contacts interested in commenting on the notifications are asked to review the comment guidance available on Notify U.S. at: https://tsapps.nist.gov/notifyus/data/guidance/guidance.cfm prior to submitting comments.

For further information about the USA TBT Inquiry Point, please visit: https://www.nist.gov/standardsgov/what-we-do/trade-regulatory-programs/usa-wto-tbt-inquiry-point Contact the USA TBT Inquiry Point at (301) 975-2918; F: (301) 926-1559; E: usatbtep@nist.gov or notifyus@nist.gov.

BSR/ASHRAE Addendum h
to ANSI/ASHRAE Standard 62.1-2019

Public Review Draft

Proposed Addendum h to Standard 62.1-2019, Ventilation and Acceptable Indoor Air Quality

First Public Review (February 2022)
(Draft shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at www.ashrae.org/standards-research--technology/public-review-drafts and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at www.ashrae.org/bookstore or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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ASHRAE, 180 Technology Parkway, Peachtree Corners, Georgia 30092

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FOREWORD

This proposed addendum is to address Minimum Maintenance Activity and Frequency for Ventilation System Equipment and Associated Components.

[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 h to 62.1-2019

Revise Section 8 as shown below.

8. OPERATIONS AND MAINTENANCE

8.1 General

8.1.1 Application. The requirements of this section apply to buildings and their ventilation systems and their components constructed or renovated after the adoption date of this section.

8.1.2 Building Alterations or Change of Use. When buildings are altered or when changes in building use, occupant category, significant change in occupant density, or other changes inconsistent with system design assumptions are made, the ventilation system design, operation, and maintenance shall be reevaluated and the operations and maintenance (O&M) manual updated as necessary.

8.2 O&M Manual. An O&M manual, either written or electronic, shall be developed and maintained on site or in a centrally accessible location for the working life of the applicable ventilation system equipment or components. This manual shall be updated as necessary. The manual shall include the O&M procedures, ventilation system operating schedules and any changes made thereto, final design drawings, maintenance schedules based on manufacturer instructions, and the maintenance requirements and frequencies provided in Table 8-1 and ASHRAE Standard 180 (Tables 5-1 to 5-25).

Table 8-1 Minimum Maintenance Activity and Frequency for Ventilation System Equipment and Associated Components

Inspection/Maintenance Task	Frequency [a]
~~a. Investigate system for water intrusion or accumulation. Rectify as necessary.~~	~~As necessary~~
~~b. Verify that the space provided for routine maintenance and inspection of open cooling tower water systems, closed cooling tower water systems, and evaporative condensers is unobstructed.~~	~~Monthly~~
~~c. Open cooling tower water systems, closed cooling tower water systems, and evaporative condensers shall be treated to limit the growth of microbiological contaminants, including *legionella sp.*~~	~~Monthly~~
~~d. Verify that the space provided for routine maintenance and inspection of equipment and components is unobstructed.~~	~~Quarterly~~

e. Check pressure drop and scheduled replacement date of filters and air-cleaning devices. Clean or replace as necessary to ensure proper operation.	Quarterly
f. Check ultraviolet lamp. Clean or replace as needed to ensure proper operation.	Quarterly
g. Visually inspect dehumidification and humidification devices. Clean and maintain to limit fouling and microbial growth. Measure relative humidity and adjust system controls as necessary.	Quarterly
h. Maintain floor drains and trap primer located in air plenums or rooms that serve as air plenums to prevent transport of contaminants from the floor drain to the plenum.	Semiannually
i. Check ventilation and IAQ related control systems and devices for proper operation. Clean, lubricate, repair, adjust, or replace as needed to ensure proper operation.	Semiannually
j. Check P-traps in floor drains located in plenums or rooms that serve as air plenums. Prime as needed to ensure proper operation.	Semiannually
k. Check fan belt tension. Check for belt wear and replace if necessary to ensure proper operation. Check sheaves for evidence of improper alignment or evidence of wear and correct as needed.	Semiannually
l. Check variable-frequency drive for proper operation. Correct as needed.	Semiannually
m. Check for proper operation of cooling or heating coil for damage or evidence of leaks. Clean, restore, or replace as required.	Semiannually
n. Visually inspect outdoor air intake louvers, bird screens, mist eliminators, and adjacent areas for cleanliness and integrity; clean as needed; remove all visible debris or visible biological material observed and repair physical damage to louvers, screens, or mist eliminators if such damage impairs the item from providing the required outdoor air entry.	Semiannually
o. Visually inspect natural ventilation openings and adjacent areas for cleanliness and integrity; clean as needed. Remove all visible debris or visible biological material observed and repair physical damage to louvers, and screens if such damage impairs the item from providing the required outdoor air entry. Manual and/or automatic opening apparatus shall be physically tested for proper operation and repaired or replaced as necessary.	Semiannually
p. Verify the operation of the outdoor air ventilation system and any dynamic minimum outdoor air controls.	Annually
q. Check air filter fit and housing seal integrity. Correct as needed.	Annually
r. Check control box for dirt, debris, and/or loose terminations. Clean and tighten as needed.	Annually
s. Check motor contactor for pitting or other signs of damage. Repair or replace as needed.	Annually
t. Check fan blades and fan housing. Clean, repair, or replace as needed to ensure proper operation.	Annually
u. Check integrity of all panels on equipment. Replace fasteners as needed to ensure proper integrity and fit/finish of equipment.	Annually
v. Assess field serviceable bearings. Lubricate if necessary.	Annually
w. Check drain pans, drain lines, and coils for biological growth. Check adjacent areas for evidence of unintended wetting. Repair and clean as needed.	Annually
x. Check for evidence of buildup or fouling on heat exchange surfaces. Restore as needed to ensure proper operation.	Annually
y. Inspect unit for evidence of moisture carryover from cooling coils beyond the drain pan. Make corrections or repairs as necessary.	Annually
z. Check for proper damper operation. Clean, lubricate, repair, replace, or adjust as needed to ensure proper operation.	Annually
aa. Visually inspect areas of moisture accumulation for biological growth. If present, clean or disinfect as needed.	Annually

a. Minimum frequencies may be increased or decreased if indicated in the O&M manual.

Table 8-1 Minimum Maintenance Activity and Frequency for Ventilation System Equipment and Associated Components *(Continued)*

Inspection/Maintenance Task	Frequency [a]
ab. Check condensate pump. Clean or replace as needed.	Annually

~~ac. Visually inspect exposed ductwork and external piping for insulation and vapor barrier for integrity. Correct as needed.~~	~~Annually~~
~~ad~~a. Verify the accuracy of permanently mounted sensors whose primary function is outdoor air delivery monitoring, outdoor air delivery verification, or dynamic minimum outdoor air control, such as flow stations at an air handler and those used for demand control ventilation, including CO_2 sensors. A sensor failing to meet the accuracy specified in the O&M manual shall be recalibrated or replaced. Performance verification shall include output comparison to a measurement reference standard consistent with those specified for similar devices in ASHRAE Standard 41.2 or ASHRAE Standard 111.	5 years
~~ae~~b. Verify the total quantity of outdoor air delivered by air handlers set to minimum outdoor air mode. If measured minimum airflow rates are less than the design minimum rate documented in the O&M manual, ± a 10% balancing tolerance, (1) confirm the measured rate does not conform with the provisions of this standard and (2) adjust or modify the air-handler components to correct the airflow deficiency. Ventilation systems shall be balanced in accordance with ASHRAE Standard 111 or its equivalent, at least to the extent necessary to verify conformance with the total outdoor airflow and space supply airflow requirements of this standard. **Exception:** Units under 2000 cfm (1000 L/s) of supply air are exempt from this requirement.	5 years

a. Minimum frequencies may be increased or decreased if indicated in the O&M manual.

8.3 Ventilation System Operation. Mechanical and natural ventilation systems shall be operated in a manner consistent with the O&M manual. Systems shall be operated such that spaces are ventilated in accordance with Section 6 during periods of expected occupancy.

8.4 Ventilation System Maintenance. The building ventilation system components shall be maintained in accordance with the O&M manual.

Revise Section 9 as shown below. The remainder of Section 9 is unchanged.

9. NORMATIVE REFERENCES

ASHRAE
~~1791 Tullie Circle NE~~ 180 Technology Parkway
~~Atlanta, GA 30329~~ Peachtree Corners, GA 30092, United States
1-404-636-8400; www.ashrae.org

ANSI/ASHRAE/ACCA Standard 180 (2018) Standard Practice for Inspection and Maintenance of Commercial Building HVAC Systems
Section 8.2

BSR/ASHRAE Addendum i
to ANSI/ASHRAE Standard 62.1-2019

Public Review Draft

Proposed Addendum i to Standard 62.1-2019, Ventilation and Acceptable Indoor Air Quality

First Public Review (February 2022)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

ASHRAE/ASHE Standard 170 in its 2021 version has added Table 8-2 which convers low infection risk outpatient facilities. Table 8-2 lists Ra and Rp values for spaces in outpatient facilities that are also shown in ASHRAE 62.1-2019. This proposed addendum aims at coordination of the two standards by deleting the outpatient spaces from Table 6-1. However, building codes (e.g IMC) still do not reference ASHRAE/ASHE Standard 170 for Business Occupancy (B) Oupatinet facilities. For this reason, the spaces deleted from Table 6-1 are now added to a normative Appendix to provided AHJs with Ra and Rp values for outpatient facilities not covered by Standard 170. In addition, some ventilation rates and air classifications have been aligned with ASHRAE/ASHE Standard 170.

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[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 62.1-2019

Modify Table 6-1 as shown below. The remainder of Table 6-1 is unchanged.

Table 6-1 Minimum Ventilation Rates in Breathing Zone *(Continued)*

Occupancy Category	People Outdoor Air Rate R_p		Area Outdoor Air Rate R_a		Default Values Occupant Density	Air Class	OS (6.2.6.1.4)
	cfm/ person	L/s· person	cfm/ft^2	L/s·m^2	#/1000 ft^2 or #/100 m^2		
~~**Outpatient Health Care Facilities** [a,b]~~							
~~Birthing room~~	~~10~~	~~5~~	~~0.18~~	~~0.9~~	~~15~~	~~2~~	
~~Class 1 imaging rooms~~	~~5~~	~~2.5~~	~~0.12~~	~~0.6~~	~~5~~	~~1~~	
~~Dental operatory~~	~~10~~	~~5~~	~~0.18~~	~~0.9~~	~~20~~	~~1~~	
~~General examination room~~	~~7.5~~	~~3.8~~	~~0.12~~	~~0.6~~	~~20~~	~~1~~	
~~Other dental treatment areas~~	~~5~~	~~2.5~~	~~0.06~~	~~0.3~~	~~5~~	~~1~~	
~~Physical therapy exercise area~~	~~20~~	~~10~~	~~0.18~~	~~0.9~~	~~7~~	~~2~~	
~~Physical therapy individual room~~	~~10~~	~~5~~	~~0.06~~	~~0.3~~	~~20~~	~~1~~	
~~Physical therapeutic pool area~~	~~—~~	~~—~~	~~0.48~~	~~2.4~~	~~—~~	~~2~~	
~~Prosthetics and orthotics room~~	~~10~~	~~5~~	~~0.18~~	~~0.9~~	~~20~~	~~1~~	
~~Psychiatric consultation room~~	~~5~~	~~2.5~~	~~0.06~~	~~0.3~~	~~20~~	~~1~~	

~~Psychiatric examination room~~	~~5~~	~~2.5~~	~~0.06~~	~~0.3~~	~~20~~	~~1~~	
~~Psychiatric group room~~	~~5~~	~~2.5~~	~~0.06~~	~~0.3~~	~~50~~	~~1~~	
~~Psychiatric seclusion room~~	~~10~~	~~5~~	~~0.06~~	~~0.3~~	~~5~~	~~1~~	
~~Speech therapy room~~	~~5~~	~~2.5~~	~~0.06~~	~~0.3~~	~~20~~	~~1~~	
~~Urgent care examination room~~	~~7.5~~	~~3.8~~	~~0.12~~	~~0.6~~	~~20~~	~~1~~	
~~Urgent care observation room~~	~~5~~	~~2.5~~	~~0.06~~	~~0.3~~	~~20~~	~~1~~	
~~Urgent care treatment room~~	~~7.5~~	~~3.8~~	~~0.18~~	~~0.9~~	~~20~~	~~1~~	
~~Urgent care triage room~~	~~10~~	~~5~~	~~0.18~~	~~0.9~~	~~20~~	~~1~~	

~~a. Outpatient facilities to which the rates apply are freestanding birth centers, urgent care centers, neighborhood clinics and physicians offices, Class 1 imaging facilities, outpatient psychiatric facilities, outpatient rehabilitation facilities, and outpatient dental facilities.~~
~~b. The requirements of this table provide for acceptable IAQ. The requirements of this table do not address the airborne transmission of airborne viruses, bacteria, and other infectious~~
~~contagions.~~
~~***Informative Note:*** These rates are intended only for outpatient dental clinics where the amount of nitrous oxide is limited. They are not intended for dental operatories in institutional~~
~~buildings where nitrous oxide is piped.~~

Modify Section 6.2.1 as shown below.

6.2.1 Zone Calculations. Ventilation zone parameters shall be determined in accordance with Sections 6.2.1.1 through 6.2.1.3 for ventilation zones served by the ventilation system, except that the ventilation rates from ASHRAE/ASHE Standard 170 shall be used for the occupancy categories within the scope of ASHRAE/ASHE Standard 170. For outpatient facilities not in the scope of ASHRAE/ASHE 170, refer to Normative Appendix P.

Add a new Normative Appendix P as shown below. This is all new material and is therefore not shown in underline. Outpatient Health Care Facility spaces from Table 6-1 have been moved to Table P-1, where changes have occurred, they are shown in underline.

(This is a normative appendix and is part of the standard.)

NORMATIVE APPENDIX P
VENTILATION RATES FOR OUTPATIENT FACITLITIES NOT COVERED BY ASHRAE/ASHE STANDARD 170

P1. GENERAL

This appendix presents minimum ventilation rates in breathing zone for spaces in outpatient facilities to which the authority having jurisdiction (AHJ) deemed ASHRAE/ASHE Standard 170 not applicable.

P2. VENTILATION RATES

For zones in outpatient facilities not covered bay ASHRAE/ASHE Standard 170, ventilation zone parameters shall be determined in accordance with Sections 6.2.1.1 through 6.2.1.3 using the below rates.

Table P-1 Minimum Ventilation Rates in Breathing Zone

	People Outdoor Air Rate R_p		**Area Outdoor Air Rate R_a**		**Default Values**		
					Occupant Density		
Occupancy Category	**cfm/ person**	**L/s· person**	**cfm/ft^2**	**L/s·m^2**	**#/1000 ft^2 or #/100 m^2**	**Air Class**	**OS (6.2.6.1.4)**

Outpatient Health Care Facilities [a,b]

Birthing room	10	5	0.18	0.9	15	2	
Class 1 imaging rooms	7.5	3.8	0.12	0.6	5	1	
Dental operatory	10	5	0.18	0.9	20	1	
General examination room	7.5	3.8	0.12	0.6	20	1	
Other dental treatment areas	5	2.5	0.06	0.3	5	1	
Physical therapy exercise area	20	10	0.18	0.9	7	2	
Physical therapy individual room	10	5	0.12	0.6	20	2	
Physical therapeutic pool area	—	—	0.48	2.4	—	3	
Prosthetics and orthotics room	10	5	0.18	0.9	20	2	
Psychiatric consultation room	5	2.5	0.06	0.3	20	1	
Psychiatric examination room	5	2.5	0.06	0.3	20	1	
Psychiatric group room	5	2.5	0.06	0.3	50	1	
Psychiatric seclusion room	10	5	0.12	0.6	5	1	
Speech therapy room	5	2.5	0.06	0.3	20	1	
Urgent care examination room	7.5	3.8	0.12	0.6	20	2	
Urgent care observation room	5	2.5	0.06	0.3	20	2	
Urgent care treatment room	7.5	3.8	0.12	0.6	20	2	
Urgent care triage room	10	5	0.18	0.9	20	3	

a. The requirements of this table provide for acceptable IAQ. The requirements of this table do not address the airborne transmission of airborne viruses, bacteria, and other infectious contagions.

b. These rates are intended only for outpatient dental clinics where the amount of nitrous oxide is limited. They are not intended for dental operatories in institutional buildings where nitrous oxide is piped.

BSR/ASHRAE Addendum b
to Standard 41.10-2020

Public Review Draft

Proposed Addendum b to Standard 41.10-2020, Standard Methods for Refrigerant Mass Flow Rate Measurements Using Flowmeters

Second Public Review (March 2022)
(Draft shows only proposed Independent Substantive Changes to Previous Public Review Draft)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at www.ashrae.org/standards-research--technology/public-review-drafts and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at www.ashrae.org/bookstore or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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This is a review of Independent Substantive Changes that were made since the last public review. Text that was removed from the Public Review Draft is provided for reference but is shown in ~~strikeout~~, and text that has been added is shown with underlines.

Only these changes are open to comment at this time. All other material is provided for context only and is not open for Public Review comment except as it relates to the proposed changes.

Background. The first 41.10 Addendum b. public review that ended on 9/26/2021, had a total of 5 public review comments comprised of 2 substantive public review comments and 3 supportive public review comments. The SSPC 41 voting members voted to accept both proposed responses to substantive public review comments during the SSPC 41 2021 Fall Interim Meeting on 10/20/2021. The proposed responses to both of the substantive public review comments were subsequently uploaded into ASHRAE's Online Comment Database, and then the commenter marked both of proposed responses to substantive public review comments "resolved."

Section 3, Definitions: Revise or add the definitions as shown below.

error: ~~the difference between the test result and its corresponding *true value*.~~ the difference between the observed value of the measurand and its corresponding *true value*.

post-test uncertainty*:* an analysis to establish the *uncertainty* of a test result after conducting the test.

pretest uncertainty: an analysis to establish the expected *uncertainty* interval for a test result prior to the conduct of a test.

uncertainty: ~~a measure of the potential error in a measurement that reflects the lack of confidence in the result to a specified level.~~ the limits of error within which the *true value* lies.

Section 5.1, Test Plan: Revise as shown below.

5.1 Test Plan. The test plan shall be one of the following documents:

a. A document provided by the person or the organization that authorized the tests and calculations to be performed.
b. A method of test standard.
c. A rating standard.
d. A regulation or code.
e. Any combination of items a. through d.

The test plan shall specify:
~~a. The refrigerant mass flow rate measurement system accuracy.~~

a. The maximum allowable value for either the accuracy or the measurement uncertainty of the refrigerant mass flow rate measurement system.
b. The values to be determined and recorded that are selected from this list: refrigerant mass flow

rate measurement and refrigerant mass flow rate measurement uncertainty.
c. Any combination of test points and targeted set points to be performed together with operating tolerances.

Section 5.4, Requirements: Add a new Section 5.4, revise Section 5.5, and then renumber the remaining sections in Section 5.

5.4 Pretest Uncertainty Analysis. If required by the test plan in Section 5.1, perform an analysis to establish the expected uncertainty for each refrigerant mass flow test point prior to the conduct of that test in accordance with the pretest uncertainty analysis procedures in ASME PTC 19.1[1].

5.5 Post-test Uncertainty Analysis. If required by the test plan in Section 5.1, perform an analysis to establish the refrigerant mass flow measurement uncertainty for ~~The uncertainty in~~ each refrigerant mass flow test point in accordance with the post-test uncertainty analysis procedures in ASME PTC 19.1[1]. ~~measurement shall be estimated as described in Section 8 for each test point if specified in the test plan.~~ Alternatively, if specified in the test plan, the worst-case uncertainty for all test points shall be estimated and reported for each test point. If specified in the test plan, the uncertainty of the refrigerant mass flow rate measurement shall not exceed the test plan requirement.

Section 5.7.2, Liquid Flowmeters: Make the correction shown below.

5.7.2 Liquid Flowmeters. Liquid refrigerant flowmeters are restricted to applications where the entire refrigerant flow stream that enters and exits the flowmeter shall be in a liquid-only state during data recording. The subcooling at the flowmeter inlet shall be not less than 2 K (3°R). Trace amounts of ~~liquids~~ gases shall be less than 1% by mass unless otherwise specified by the flowmeter manufacturer or by the test plan in Section 5.1.

Section 5.8.2, Steady-State Refrigerant Mass Flow Rate Criteria for Targeted Set Points: Revise Equations 5-16 as shown below.

~~$b\Delta t \leq 0.50\dot{m}_L$ kg/s (lb_m/h)~~ ~~(5-16)~~

$|b\Delta t| \leq 0.50\dot{m}_L$ kg/s (lb_m/h) (5-16)

Section 9.1, Uncertainty Requirements: Revise Equations 5-16 as shown below.

9.1 Post-Test Uncertainty ~~Estimate~~ Analysis. ~~An estimate~~ A post-test analysis of the measurement system uncertainty, performed in accordance with ASME PTC ~~19.1[11]~~ 19.1[1], shall accompany each refrigerant mass flow measurement if specified in the test plan in Section 5.1.

Informative Note: Informative Annexes B and C contain examples of uncertainty calculations.

Section 10.5, Test Results: Revise as shown below.

10.5 Test Conditions

a. Test conditions in accordance with the test plan in Section 5.1
b. Ambient temperature, °C (°F)
c. Barometric pressure, Pa (psia), if ~~pressures~~ pressure instruments are measuring gauge pressure

Section 10.6, Test Results: Revise as shown below.

10.6 Test Results if Required by the Test Plan in Section 5.1

a. Refrigerant mass flow rate, kg/s (lb_m/h).
~~b. Uncertainty in refrigerant mass flow rate unless otherwise required by the test plan in Section 5.1, kg/s (lb_m/h).~~
c. Lubricant circulation rate through the flowmeter if required in Section 5.5, percent.
d. Pretest uncertainty in refrigerant mass flow rate, kg/s (lb_m/h).
e. Post-test uncertainty refrigerant mass flow rate, kg/s (lb_m/h).

Section 11, Reference: Renumber references as shown below.

11. REFERENCES

~~11~~. 1. ANSI/ASME PTC 19.1-2018, Test Uncertainty. ASME, New York, NY
~~1.~~ 2. ANSI/ASHRAE Standard 41.4-2014, *Standard Methods for Measurement of Proportion of Lubricant in Liquid Refrigerant.* Atlanta: ASHRAE. See Note 1.
~~2.~~ 3. NIST Standard Reference Database 23: *NIST Reference Fluid Thermodynamic and Transport Properties Database (REFPROP) Version 9.1,* National Institute of Standards and Technology, Gaithersburg, MD.
~~3.~~ 4. ANSI/ASHRAE Standard 15-2016*, Safety Standard for Refrigeration Systems*. Atlanta: ASHRAE.
~~4.~~ 5. ANSI/ASHRAE Standard 41.11-2014, *Standard Methods for Power Measurement*. Atlanta: ASHRAE. See Note 2.
~~5.~~ 6. ANSI/ASHRAE Standard 41.1-2013, *Standard Methods for Temperature Measurement*. Atlanta: ASHRAE. See Note 3.
~~6.~~ 7. ANSI/ASHRAE Standard 41.3-2014*, Standard Methods for Pressure Measurement*. Atlanta: ASHRAE.

See Note 4.
7. 8. ANSI/ASME PTC 19.5-2004 (R2013), Flow Measurement. ASME, New York, NY. See Note 5.
~~8.~~ 9. ASME MFC-3M-2004, *Measurement of Fluid Flow in Pipes Using Orifice, Nozzle, and Venturi*. ASME, New York, NY. See Note 6.
~~9.~~ 10. ASME. 2007. ASME MFC-3Ma-2007, Addenda to ASME MFC-3M-2004. ASME, New York, NY. See Note 6.
~~10.~~ 11. ANSI/ASHRAE 41.8, *Standard Methods for Liquid Flow Measurement*. Atlanta: ASHRAE. See Note 6.

Informative Notes:

1. Reference ~~1~~ 2 is not required if a lubricant circulation measurement is not required.
2. Reference ~~4~~ 5 is not required unless power measurements are required by the test plan in Section 5.1
3. Reference ~~5~~ 6 is not required if there are no temperature measurements.
4. Reference ~~6~~ 7 is not required if there are no pressure measurements.
5. References ~~7~~ 8, ~~8~~ 9, and 9 10are only required if an orifice flowmeter, a flow nozzle flowmeter, or a venturi tube flowmeter is the selected test method in Section 7.
6. Reference ~~10~~ 11 is only required if an auxiliary lubricant separator is used.

Informative Annex C, Section C1.1, Define the Measurement Process: Revise Equation (7-5) as shown below.

$$\varepsilon = \left[r^{\frac{2}{\gamma}} \left(\frac{\gamma}{\gamma - 1} \right) \left(\frac{1 - r^{\frac{\gamma - 1}{\gamma}}}{1 - r} \right) \left(\frac{1 - \beta^4}{1 - \beta^4 r^{\frac{2}{\gamma}}} \right) \right]^{\frac{1}{2}} \qquad (7\text{-}5)$$

where

r = absolute pressure ratio = ~~$\left(\frac{p_1}{p_2}\right)$~~ $\left(\frac{p_2}{p_1}\right)$ ~~$= \left[\frac{p_1}{(p_1 - \Delta p)}\right]$~~, dimensionless

γ = ratio of specific heat at constant pressure to specific heat at constant volume, dimensionless

β = d/D, dimensionless

BSR/ASHRAE Addendum *n* to
ANSI/ASHRAE Standard 154-2016

Public Review Draft

Proposed Addendum *n* to Standard 154-2016, Ventilation for Commercial Cooking Operations

First Public Review (March 2022)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

This addendum updates Normative References and adds two new references.

Updated Publication Year

9. NFPA. 2021~~2014~~. NFPA 96, *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations* Quincy, MA: National Fire Protection Association.

10. ICC. 2021~~2012~~. *International Mechanical Code*. Washington, D.C.: International Code Council.

13. IAPMO. 2021~~2012~~. *Uniform Mechanical Code*. Ontario, CA: International Association of Plumbing and Mechanical Officials.

14. ASHRAE. 2016~~2007~~. ANSI/ASHRAE 51 (ANSI/AMCA 210), *Laboratory Methods of Testing Fans for Aerodynamic Performance Rating*. Atlanta: ASHRAE (Arlington Heights, IL: Air Movement and Control Association).

15. UL. 2017~~1994~~. UL 705, *Power Ventilators*. Northbrook, IL: Underwriters Laboratories, Inc.

18. ASHRAE. 2021~~2013~~. *ASHRAE Handbook—Fundamentals*. Atlanta: ASHRAE.

Added References

19. UL. 2017. UL 8782, *Outline of Investigation for Pollution Control Unites for Commercial Cooking Operations.* Northbrook, IL: Underwriters Laboratories Inc.

20. ASHRAE. 2019. ANSI/ASHRAE Standard 62.1, *Ventilation for Acceptable Indoor Air Quality. Atlanta: ASHRAE.*

BSR/ASHRAE Addendum r
to ANSI/ASHRAE Standard 15-2019

First Public Review Draft

Proposed Addendum r to Standard 15-2019, Safety Standard for Refrigeration Systems

First Public Review (March 2022)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

A continuous maintenance proposal was submitted to ASHRAE SSPC 15 to clean up the definition of "machinery room." When addendum h to Standard 15-2016 was published, modifications to Section 8 were completed that made the existing definition incomplete, as the current definition refers to specific portions of Section 8. This addendum makes changes accordingly.

Note: 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 r to Standard 15-2019

Modify Section 3 as follows. The remainder of Section 3 remains unchanged.

3. RESTRICTIONS ON REFRIGERANT USE

[…]

machinery room: a designated space meeting the requirements of Sections 8.11, ~~and~~ 8.12, and 8.13 ~~that is designed to house~~ containing one or more *refrigerating systems* or portions thereof, such as *compressors* and *pressure vessels*.

Public Review Draft

Proposed Addendum p to Standard 189.1-2020

Standard for the Design of High-Performance Green Buildings

Except Low-Rise Residential Buildings

First Public Review (February 2022
(Draft Shows Proposed Changes to Current Standard)

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Foreword

ASHRAE 189.1 currently references Standard 62.1 for filtration and air cleaner requirements when outdoor air PM levels are in non-attainment, which is confusing for locations where both PM10 and PM2.5 apply. This addendum removes the distinction between PM10 and PM2.5 and proposes to require MERV 13 filters in outdoor airstreams for all buildings located in nonattainment areas.

This addendum will result in a small cost increase for buildings located in non-attainment areas for PM, increasing the filtration requirement from MERV 11 to MERV 13. In areas that are in attainment for PM2.5 but not PM10, the cost increase will be slightly larger since the filtration requirement will increase from MERV 8 to MERV 13. The cost increase will be due to both an increase in the cost of the filters, but also due to increasing the filter rack dimensions to minimize static pressure increases.

California's Title 24 Energy Code has a requirement for MERV 13 filtration in all mechanical air filtration systems that went into effect in January 2020.

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Addendum p to 189.1-2020

Revise Section 8.3.1.3 as follows:

8.3.1.3 Filtration and Air Cleaner Requirements

a. Particulate Matter. The following requirements shall apply in all buildings.

1. Wetted Surfaces. Particulate matter filters or air cleaners having a minimum efficiency reporting value (MERV) of not less than 8 where rated in accordance with ANSI/ASHRAE Standard 52.2, or not less than Coarse 90% where rated in accordance with ISO 16890, shall be provided upstream of all cooling coils or other devices with wetted surfaces through which air is supplied to an *occupiable space*. These requirements supersede the requirements in ASHRAE Standard 62.1 Section 5.9.

~~**2. Particulate matter smaller than 10 micrometers (PM10).** Particulate matter filters or air cleaners shall be provided in accordance with Standard 62.1, Section 6.1.4.1, with the following modification. Such filters or air cleaners shall have a MERV of not less than 11 where rated in accordance with ASHRAE~~

~~Standard 52.2, or not less than ePM2.5-50% where rated in accordance with ISO 16890.~~

~~3~~2. **Particulate matter removal ~~smaller than 2.5 micrometers (PM2.5).~~** Particulate matter filters or air cleaners shall be provided in accordance with Standard 62.1, Sections 6.1.4.1 and 6.1.4.2, with the following modification. Such filters or air cleaners-shall have a MERV of not less than 13 ~~where~~as rated in accordance with ASHRAE Standard 52.2, or not less than ePM1-50% ~~where~~as rated in accordance with ISO 16890.

Exception to 8.3.1.3(a): In health care facilities, the particulate filter requirements of ASHRAE/ASHE Standard 170 shall apply.

BSR/ASHRAE/IES Addendum AC
to ANSI/ASHRAE/IES Standard 90.1-2019

Public Review Draft

Proposed Addendum AC to Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings

Third Public Review (February 2022)
(Draft Shows Proposed Independent Substantive Changes to Previous Public Review Draft)

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FOREWORD

This ISC to Addendum AC updates language for clarity and to narrow scope on the indoor lighting power exceptions for lighting used for broadcast, film, video and live performance situations.

This ISC updates the definition for parking garage daylight transition zones to align with application design variances referenced in the applicable Illuminating Engineering Society (IES) Recommended Practice.

Energy savings is anticipated with this addendum resulting from improved compliance due to clearer language. These changes do not increase in the cost of construction.

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Addendum AC to 90.1-2019

Modify the standard as follows (IP and SI Units)

[…]

3.2 Definitions
[…]

***parking garage daylight transition zone*:** covered vehicle entrances and exits from *buildings* and parking structures not exceeding a depth of 66 ft (20 m) inside the structure or a depth as determined by ANSI/IES RP-8, and not exceeding a width of 30 ft (9.1 m) to either side of the drive aisle centerline and not extending beyond adjacent walls.

[…]

Table 9.2.2.1 Exceptions to Interior Lighting Power and Minimum Control Requirements

Item #	Equipment/Application	In Addition to and Controlled Separately From *General Lighting*	Required Controls
[…]			
5	Lighting ~~specifically~~ for video broadcasting, video or film production ~~recording~~, or live performance	YES	9.4.1.1(a)—Local control

[…]

Informative Appendix E

[…]

Subsection No.	Reference	Title/Source
3.2	IES RP-8-18	Recommended Practice for Design and Maintenance of Roadway and Parking Facility Lighting

[…]

BSR/ASHRAE/IES Addendum al
to ANSI/ASHRAE/IES Standard 90.1-2019

Public Review Draft

Proposed Addendum al to Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings

Second Public Review (March 2022)
(Draft Shows Proposed Independent Substantive Changes to Previous Public Review Draft)

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FOREWORD

This addendum allows for an alternate compliance method. Currently users can opt to use one of three prescriptive methods or a modeling-based method to demonstrate lighting compliance. This would be an alternate option that uses elements of the space-by-space method as a reference case, but users could comply with the design via a performance method and not use all the mandatory and prescriptive requirements within Chapter 9.

This addendum creates an optional performance path in the standard designed to provide increased flexibility and therefore was not subjected to cost effectiveness analysis.

The 2nd PPR ISC addresses public review comments regarding conflict of mandatory lighting control and exterior lighting requirements. It also updates the header in Table 3.5-1 to correct column labels acronyms.

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Addendum al to 90.1-2019

Modify the standard as follows (IP and SI Units)

Note to Reviewers: *The numbering of Section 9.6 assumes that the current Section 9.6 in 90.1-2019 has been moved into Section 9.5.2 as a Prescriptive Requirement. That change occurred in published addendum ad.*

9.6 Alternate Compliance Path

9.6.1 Lighting System Performance

The *proposed lighting system* complies with the standard if

a. the *proposed lighting system* satisfies the provisions of Sections 9.1, ~~9.4,~~ 9.7, 9.8, and 9.9 and

b. the proposed interior lighting system controls are installed to operate in accordance with the requirements of the applicable control type in 9.4.1.1 and/or 9.4.1.2

c. the proposed exterior lighting system controls are installed to operate in accordance with the requirements of the applicable control type in 9.4.1.4

~~b.~~ d. the *proposed lighting system performance* is less than or equal to the *reference lighting system performance*.

Table L3.5-1 Reference Lighting Control Strategies for Building Interiors

Common *Space* Types	LPD	CSFNDL	CSFDL	Common *Space* Types	LPD	CSFNDL	CSFDL
Atrium				Sales Area	1.05	0%	28%
<20 ft in height	0.39	2%	30%	Seating Area, General	0.23	0%	28%
≥20 ft and ≤40 ft in height	0.48	2%	30%	Stairwell	0.49	30%	30%
>40 ft in height	0.60	2%	30%	Storage Room			
Audience Seating Area				<50 ft^2	0.51	40%	40%
Auditorium	0.61	50%	64%	≥50 ft^2	0.38	70%	84%
Gymnasium	0.23	50%	64%	Vehicular Maintenance Area	0.60	0%	28%
Motion picture theater	0.27	50%	50%	Workshop	1.26	0%	28%
Penitentiary	0.67	50%	64%	Facility for the visually impaired[1]			
Performing arts theater	1.16	50%	50%	Chapel (used primarily by residents)	0.70	0%	28%
Religious facility	0.72	50%	64%	Recreation room/common living room (used primarily by residents)	1.77	0%	28%
Sports arena	0.33	50%	64%	Automotive (See "Vehicular Maintenance Area")	0.60	0%	28%
All other audience seating areas	0.23	50%	64%	Convention Center—Exhibit *Space*	0.61	0%	28%
Banking Activity Area	0.61	10%	38%	Dormitory—Living Quarters	0.50	80%	80%
Breakroom (See Lounge/Breakroom)				Fire Station—Sleeping Quarters	0.23	80%	80%
Classroom/Lecture Hall/Training Room				Gymnasium/Fitness Center			
Penitentiary	0.89	29%	43%	Exercise area	0.90	0%	28%
All other classrooms/lecture halls/training rooms	0.71	29%	43%	Playing area	0.85	0%	28%
Conference/Meeting/ Multipurpose Room	0.97	30%	44%	Healthcare Facility			
Confinement Cells	0.70	10%	10%	Exam/treatment room	1.40	2%	30%
Copy/Print Room	0.31	29%	43%	Imaging room	0.94	2%	2%
Corridor				Medical supply room	0.51	40%	40%
Facility for the visually impaired (and not used primarily by the staff)[1]	0.71	20%	34%	Nursery	0.92	2%	30%
Hospital	0.71	0%	28%	Nurse's station	1.17	2%	30%
All other corridors	0.41	20%	34%	Operating room	2.26	2%	2%
Courtroom	1.20	0%	28%	Patient room	0.68	2%	30%
Computer Room	0.94	0%	28%	Physical therapy room	0.91	2%	30%
Dining Area				Recovery room	1.25	2%	30%
Penitentiary	0.42	0%	28%	Library			
Facility for the visually impaired (and not used primarily by the staff)[1]	1.27	0%	28%	Reading area	0.96	0%	28%
Bar/lounge or leisure dining	0.86	10%	38%	Stacks	1.18	12%	34%
Cafeteria or fast food dining	0.40	0%	28%	Manufacturing Facility			
Family dining	0.60	0%	28%	Detailed manufacturing area	0.80	0%	28%
All other dining areas	0.43	0%	28%	*Equipment* room	0.76	50%	64%
Electrical/Mechanical Room	0.43	50%	50%	Extra high bay area (>50 ft *floor*-to-ceiling height)	1.42	0%	28%
Emergency Vehicle Garage	0.52	5%	33%				
Food Preparation Area	1.09	0%	28%	High bay area (>25 to 50 ft *floor*-to-ceiling height)	1.24	0%	28%
Guest Room	0.41	0.41					
Laboratory				Low bay area (<25 ft *floor*-to-ceiling height)	0.86	0%	28%
In or as a classroom	1.11	12%	34%				
All other laboratories	1.33	0%	28%	Museum			
Laundry/Washing Area	0.53	0%	28%	General exhibition area	0.31	0%	28%
Loading Dock, Interior	0.88	0%	28%	Restoration room	1.10	0%	28%
Lobby				Performing Arts Theater—Dressing Room	0.41	10%	33%
Facility for the visually impaired (and not used primarily by the staff)[1]	1.69	12%	26%	Post Office—Sorting Area	0.76	12%	32%
Elevator	0.65	0%	28%	Religious Facility			
Hotel	0.51	0%	28%	Fellowship hall	0.54	10%	33%
Motion picture theater	0.23	0%	28%	Worship/pulpit/choir area	0.85	20%	38%
Performing arts theater	1.25	12%	32%	Retail Facilities			
All other lobbies	0.84	12%	32%	Dressing/fitting room	0.51	24%	24%
Locker Room	0.52	24%	24%	Mall concourse	0.82	0%	28%
Lounge/Breakroom				Sports Arena—Playing Area[2]			

Common *Space* Types	LPD	CSFNDL	CSFDL	Common *Space* Types	LPD	CSFNDL	CSFDL
Healthcare facility	0.42	24%	38%	Class I facility	2.94	0%	28%
All other lounges/breakrooms	0.59	24%	38%	Class II facility	2.01	0%	28%
Office				Class III facility	1.30	0%	28%
Enclosed and ≤250 ft^2	0.74	29%	43%	Class IV facility	0.86	0%	28%
Enclosed and >250 ft^2	0.66	5%	33%	Transportation Facility			
Open plan	0.61	5%	33%	Baggage/carousel area	0.39	0%	28%
Parking Area, Interior	0.15	40%	58%	Airport concourse	0.25	0%	28%
Pharmacy Area	1.66	0%	0%	Ticket counter	0.51	0%	28%
Restroom				Warehouse—Storage Area			
Facility for the visually impaired (and not used primarily by the staff)[1]	1.26	73%	73%	Medium to bulky, palletized items	0.33	12%	34%
All other restrooms	0.63	73%	73%	Smaller, hand-carried items[3]	0.69	12%	34%

BSR/ASHRAE/IES Addendum ar
to ANSI/ASHRAE/IES Standard 90.1-2019

Public Review Draft

Proposed Addendum ar to Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings

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FOREWORD

This ISC to Addendum AR does the following:

- *Updates the definition of greenhouse and indoor grow for greater clarity and enforceability.*
- *Accepts horticultural lighting efficacy of lamps for luminaires with removable and serviceable lamps.*
- *Removes automatic shut-off of horticultural lighting when there is sufficient daylight.*
- *Creates an efficacy exception for horticultural lighting in small indoor grow facilities.*

A cost effectiveness analysis was completed, and this addendum meets the ASHRAE/IES 90.1 scalar threshold for cost effectiveness.

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Addendum ar to 90.1-2019

Modify the standard as follows (IP and SI Units)

3.2 Definitions

[…]

***Greenhouse**:* a *space* with a skylight roof ratio of 50% or more above the growing area used exclusively for, and essential to horticultural production, cultivation or maintenance by utilizing a sunlit environment ~~with a skylight roof ratio of 50% or more above the growing area~~. *Greenhouses* are those that are erected for a period of 180 days or more.

***Indoor grow**:* a *space*, other than a *greenhouse,* used exclusively for, and essential to horticultural production, cultivation or maintenance ~~with a skylight roof ratio less than 50% above the growing area~~.

[…]

9.4.4 Horticultural Lighting Installations

~~Buildings with at least 40 *kW* of connected load for *horticultural lighting* shall conform to either the *g*~~*Greenhouse horticultural lighting* shall follow the requirements of section 9.4.4.1~~,~~. ~~or *i*~~*Indoor grow horticultural lighting* shall follow the requirements of section 9.4.4.2.

9.4.4.1 *Luminaires* in *greenhouse buildings*~~spaces~~ with at least 40 *kW* of connected load ~~used~~ for *horticultural lighting* shall have a *PPE* of at least 1.7 µmol/J for integrated, non-serviceable *luminaires*, or a *PPE* of at least 1.7 µmol/J for *lamps* in *luminaires* with removable or serviceable *lamps*. *Horticultural lighting* in ~~*G*~~*greenhouse spaces* shall be controlled by a device that *automatically* turns off the *horticultural lighting* ~~when sufficient daylight is available and scheduled shutoff control~~ at specific programmed times.

9.4.4.2 *Luminaires* in *indoor grow* spaces used for *horticultural lighting* shall have a *PPE* of at least 1.9 µmol/J for integrated, non-serviceable *luminaires*, or a *PPE* of at least 1.9 µmol/J for *lamps* in *luminaires* with removable or serviceable *lamps*. ~~and~~ *Horticultural lighting* in *indoor grow spaces* shall be controlled by a device that *automatically* turns off the *horticultural lighting* at specific programmed times.

Exception to 9.4.4.2

Indoor grow buildings with less than 40 *kW* of connected load for *horticultural lighting* shall have a *PPE* of at least 1.7 µmol/J for integrated, non-serviceable *luminaires*, or a *PPE* of at least 1.7 µmol/J for *lamps* in *luminaires* with removable or serviceable *lamps*.

[…]

BSR/ASHRAE/IES Addendum ba
to ANSI/ASHRAE/IES Standard 90.1-2019

Public Review Draft

Proposed Addendum ba to Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings

Second Public Review (February 2022)
(Draft Shows Proposed Independent Substantive Changes to Previous Public Review Draft)

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FOREWORD

This addendum updates space-by-space lighting power density (LPD) values based on comments received during public review of addendum ba. The LPDs in lobbies, restrooms, and gymnasium playing areas were updated.

For hotel and all other lobbies, the new LPDs represent a 5% savings that is comparable to the average savings throughout all space-by-space values compared to the 90.1-2019 standard. Many lobbies are the focal point and showcase of a building and are reasons why tenants occupy a building.

For the restrooms, many stalls are now full height walls due to the need for gender neutral facilities and health reasons. The model was adjusted to determine the updated LPD value.

The model for gym playing area was adjusted to include an indirect lighting option, which results in a higher lighting power density. Multiple design solutions were reflected in the model to adjust the LPD value.

These modifications still result in energy savings and there are no cost increases.

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Addendum ba to 90.1-2019

Modify the standard as follows (IP Units)

Table 9.5.2.1 Space-by-Space *Lighting Power Density* Allowances and Minimum *Control* Requirements Using Either Method

Informative Note: This table is divided into two sections; the first section covers common *space* types typically found in multiple *building* types. The second section covers *building* specific *space* types typically found in a single *building* type.		
Common *Space* Types[1] Where both a common *space* type and a *building* specific *space* type are listed, the *building* specific *space* type shall apply	LPD W/ft^2	RCR
Lobby		
…		
Hotel	~~0.51~~ 0.48	4
…		
All other lobbies	~~0.77~~ 0.80	4
…		
Restroom	~~0.63~~ ~~0.56~~ 0.74	8
…		
Gymnasium/Fitness Center		
…		
Playing area	~~0.62~~ 0.82	4

Modify the standard as follows (SI Units)

Table 9.5.2.1 Space-by-Space *Lighting Power Density* Allowances and Minimum *Control* Requirements Using Either Method

Informative Note: This table is divided into two sections; the first section covers common *space* types typically found in multiple *building* types. The second section covers *building* specific *space* types typically found in a single *building* type.

Common *Space* Types[1] Where both a common *space* type and a *building* specific *space* type are listed, the *building* specific *space* type shall apply	LPD W/m^2	RCR
Lobby		
…		
Hotel	~~4.3~~ 5.2	4
…		
All other lobbies	~~8.3~~ 8.6	4
…		
Restroom	~~6.0~~ 8.0	8
…		
Gymnasium/Fitness Center		
…		
Playing area	~~6.6~~ 8.8	4

BSR/ASHRAE/IES Addendum bb
to ANSI/ASHRAE/IES Standard 90.1-2019

Building Area Method Public Review Draft

Proposed Addendum bb to Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings

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FOREWORD

This addendum ISC adjusts the lighting power density (LPD) values in the Building Area Method Compliance Path due to adjustments from the space-by-space values incorporated within Addendum BA ISC.

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.

The proposed LPD changes were found to be cost effective by the scalar under the original addendum.

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Addendum bb to 90.1-2019

Modify the standard as follows (IP Units)

[…]

Table 9.5.1 *Lighting Power Density* Allowances Using the *Building* Area Method

Building Area Type[a]	*LPD*, W/ft^2
Automotive facility	~~0.72~~ 0.73
Convention center	~~0.63~~ 0.64
Courthouse	~~0.73~~ 0.75
Dining: Bar lounge/leisure	~~0.73~~ 0.74
Dining: Cafeteria/fast food	~~0.68~~ 0.70
Dining: Family	~~0.64~~ 0.65
Dormitory	~~0.51~~ 0.52
Exercise center	~~0.70~~ 0.72
Fire station	~~0.55~~ 0.56
Gymnasium	~~0.73~~ 0.75

Health-care clinic	~~0.76~~ 0.77
Hospital	0.92
Hotel/motel	~~0.52~~ 0.53
Library	0.83
Manufacturing facility	0.82
Motion picture theater	~~0.42~~ 0.43
Multifamily	~~0.45~~ 0.46
Museum	~~0.55~~ 0.56
Office	~~0.61~~ 0.62
Parking garage	0.17
Penitentiary	0.65
Performing arts theater	~~0.81~~ 0.82
Police station	~~0.61~~ 0.62
Post office	~~0.63~~ 0.64
Religious facility	~~0.65~~ 0.66
Retail	~~0.77~~ 0.78
School/university	~~0.69~~ 0.70
Sports arena	~~0.70~~ 0.73
Town hall	~~0.66~~ 0.67
Transportation	~~0.54~~ 0.56
Warehouse	0.45
Workshop	0.86

Modify the standard as follows (SI Units)

Table 9.5.1 *Lighting Power Density* Allowances Using the *Building* Area Method

***Building* Area Type**[a]	***LPD*, W/m^2**
Automotive facility	~~7.8~~ 7.9
Convention center	6.8
Courthouse	~~7.9~~ 8.0
Dining: Bar lounge/leisure	~~7.8~~ 8.0
Dining: Cafeteria/fast food	~~7.3~~ 7.5
Dining: Family	~~6.9~~ 7.0
Dormitory	~~5.5~~ 5.6
Exercise center	~~7.6~~ 7.8
Fire station	~~5.9~~ 6.0
Gymnasium	8.1
Health-care clinic	~~9.8~~ 8.3
Hospital	~~5.5~~ 9.9
Hotel/motel	~~8.9~~ 5.7
Library	~~8.9~~ 9.0
Manufacturing facility	8.8
Motion picture theater	~~4.5~~ 4.6
Multifamily	~~4.8~~ 4.9
Museum	~~5.9~~ 6.0
Office	~~6.5~~ 6.6
Parking garage	~~1.9~~ 1.8
Penitentiary	7.0
Performing arts theater	~~8.7~~ 8.8
Police station	6.6
Post office	6.8
Religious facility	~~7.0~~ 7.1
Retail	~~8.3~~ 8.4
School/university	~~7.4~~ 7.5
Sports arena	~~7.5~~ 7.8
Town hall	~~7.1~~ 7.2
Transportation	~~5.9~~ 6.0
Warehouse	4.8
Workshop	~~9.2~~ 9.3

BSR/ASHRAE/IES Addendum bq
to ANSI/ASHRAE/IES Standard 90.1-2019

Public Review Draft

Proposed Addendum bq to Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings

First Public Review (March 2022)
(Draft Shows Proposed Changes to Current Standard)

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FOREWORD

Electrical monitoring devices give building owners the tools to evaluate energy usage of their building. It allows them to make operational decisions to save future energy. Providing enough breakdowns along with trending data gives building owners the ability to evaluate their systems, determine whether equipment is working efficiently or as intended, evaluate tenant energy usage, and also a tool to review whether systems should be reduced based on utility costs over time. This addendum includes clarification of the exceptions with a focus on the 10% exception.

Refrigeration is a new category added to be separately metered. In retail space (especially in the food service sector), refrigeration can account for close to 20% of the energy usage in a building (per EPA.) For buildings like commercial or residential, the consumption is below 7%. Based on the 10% exception, these buildings would not require to separately meter refrigeration.

Multiple systems were reviewed to be separately metered. However, they were either not in the scope of the standard or typically are not 10% of the energy usage in a building. These systems were electrical vehicle stations, renewables, domestic and service water system pumps, and horizontal and vertical transportation.

There is no direct energy savings measurement from metering or a way to measure cost effectiveness. It is a tool that is added during the construction that helps owners understand their energy usage. It gives the user an ability to monitor their energy usage to help troubleshoot system failures and identify energy wasting loads to reduce energy consumption of the building.

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Addendum bq to 90.1-2019

Modify the standard as follows (IP and SI Units)

8.4.3 Electrical Energy Monitoring

8.4.3.1 Monitoring

Measurement devices shall be installed in new *buildings* to monitor the electrical *energy* use for each of the following separately:

a. Total electrical *energy*
b. *HVAC systems*
c. Interior lighting
d. Exterior lighting
e. Receptacle circuits
f. Refrigeration *systems*

[…]

Exception to 8.4.3.1

~~Up to 10% of the load for each of the~~ Where the design load of any of the categories (b) through (~~e~~f) are less than 10% of the whole building load, these categories shall be allowed to be ~~from other electrical loads~~combined with other categories.

8.4.3.2 Recording and Reporting

The electrical *energy* use for all loads specified in Section 8.4.3.1 shall be recorded a minimum of every 15 minutes and reported at least hourly, daily, monthly, and annually. The data for each tenant *space* shall be made available to that tenant. In *buildings* with a digital *control system* installed to comply with Section 6.4.3.10, the *energy* use data shall be transmitted to the digital *control system* and graphically displayed. The *system* shall be capable of maintaining all data collected for a minimum of 36 months.

Exceptions to Sections 8.4.3.1 and 8.4.3.2

1. *Buildings* less than 25,000 ft^2.
2. Individual tenant *spaces* less than 10,000 ft^2.
3. *Dwelling units.*
4. *Residential buildings* with less than 10,000 ft^2 of common area.
5. Critical ~~and *E*~~*equipment* and life safety branches ~~of NEC~~ NFPA 70 Article 517.

[…]

BSR/ASHRAE/IES Addendum br
to ANSI/ASHRAE/IES Standard 90.1-2019

Public Review Draft

Proposed Addendum br to Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings

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FOREWORD

This addendum increases the efficacy threshold for lamps and luminaires to address currently available technology. The committee also considered raising the threshold for the percentage of lights in a dwelling unit that must be high efficacy but found that raising the threshold above 75% (existing threshold) would entail adding exceptions. In the interest of keeping the requirements straightforward and clear, we chose not to introduce exceptions.

Lighting control requirements have also been added in dwelling units; both for interior spaces and exterior areas, where the exterior lights are dedicated to the dwelling unit. An exception was included for exterior controls for low total wattage applications.

Because lighting controls were added as a requirement, the previous exception to efficacy requirements based on the availability of controls, was eliminated. A cost effectiveness analysis was completed and found to meet the scalar requirements.

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Addendum br to 90.1-2019

Modify the standard as follows (IP and SI Units)

9.4.3 Dwelling Units

Dwelling unit lamps, *luminaires* and lighting controls shall be installed to meet the provisions of Sections 9.4.3.1, 9.4.3.2, and 9.4.3.3. ~~Not less than 75% of the *permanently installed* lighting *fixtures* shall use *lamps* with an *efficacy* of at least 55 lm/W or have a total *luminaire efficacy* of at least 45 lm/W.~~ No other provisions of Section 9 apply to a *dwelling unit*.

~~**Exception to 9.4.3:**~~

~~1. Lighting that is controlled with *dimmers* or controlled in accordance with Section 9.4.1.1(h).~~
~~2. Hotel/motel guest rooms. The requirements for hotel/motel guest rooms are covered in Table 9.6.1 and Section 9.4.1.3(b).~~

9.4.3.1 Lamp and Luminaire Efficacy

At least 75% of the *permanently installed luminaires* shall use *lamps* with an *efficacy* of at least 75 lm/W or have a total *luminaire efficacy* of at least 50 lm/W.

9.4.3.2 Interior Lighting Controls

9.4.3.2.1 50% of *permanently installed* interior *luminaires* shall be controlled with *dimmers* or shall *automatically* be shut-off within 20 minutes of all occupants leaving a space.

9.4.3.3 Exterior Lighting Controls

Permanently installed exterior *luminaires* dedicated to a *dwelling* unit shall be provided with *manual* controls and be *automatically* shut-off through time of day, available daylight or when no activity has been detected for 15 minutes.

Exceptions to 9.4.3.3

1. Applications with a total rated luminaire wattage of no greater than 8 watts.

BSR/ASHRAE/IES Addendum bt
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FOREWORD

This addendum proposes three updates:

1. *A change to Sections G3.1.3.5 to clarify that hot water pumps in the baseline should not be modeled as running when there is no heating load on any of the coils served by the associated hot water loop. For example, in a multifamily building with PTAC system in the baseline, the baseline hot water pumps should run only when any of the apartments require heating and not during the entire year*
2. *A change to Section 3.1.3.10 is analogous to the hot water loop change, to not run the chilled water pumps when there is no load on the chilled water loop.*
3. *A change to Sections G3.1.3.19 to clarify how to determine preheat coil setpoint for baseline systems 5 through 8 in cases where zones served by the system have different heating temperature setpoints.*

This addendum impacts an optional performance path in the standard designed to provide increased flexibility and therefore was not subjected to cost effectiveness analysis.

Addendum bt to 90.1-2019

Proposed Changes to Appendix G

G3.1.3 System-Specific Baseline HVAC System Requirements

Baseline *HVAC systems* shall conform with provisions in this section, where applicable, to the specified baseline *system* types, as indicated in section headings.

……

G3.1.3.5 Hot-Water Pumps <u>(Systems 1,5,7,11 and 12)</u>

The *baseline building design* hot-water pump power shall be 19 W/gpm (300 W·s/L). The pumping *system* shall be modeled as primary-only with continuous variable flow and a minimum of 25% of the design flow rate. <u>Hot water pumps shall only be enabled when a load exists on the associated hot water loop.</u> Hot-water *systems* serving 120,000 ft^2 (11,000 m^2) or more shall be modeled with variable-speed drives, and *systems* serving less than 120,000 ft^2(11,000 m^2) shall be modeled as riding the pump curve.

Exception to G3.1.3.5

The pump power for *systems* using purchased heat shall be 14 W/gpm (220 W·s/L.)

G3.1.3.10 Chilled-Water Pumps (Systems 7, 8, 11, 12, and 13)

Chilled-water *systems* shall be modeled as primary/secondary *systems* with constant-flow primary loop and variable-flow secondary loop. For *systems* with cooling capacity of 300 tons (1055 kW) or more, the secondary pump shall be modeled with variable-speed drives and a minimum flow of 25% of the design flow rate. <u>Chilled water pumps shall only be enabled when a load exists on the associated chilled water loop.</u> For *systems* with less than 300 tons (1055 kW) cooling capacity, the secondary pump shall be modeled as riding the pump curve. The baseline *building* constant-volume primary pump power shall be modeled as 9 W/gpm (140 W·s/L), and the variable-flow secondary pump power shall be modeled as 13 W/gpm (210 W·s/L) at *design conditions*. For

computer room systems using *System* 11 with an integrated *fluid economizer*, the *baseline building design* primary chilled-water pump power shall be increased by 3 W/gpm (48 W·s/L) for flow associated with the *fluid economizer*.

Exception to G3.1.3.10

For *systems* using purchased chilled water, the *building* distribution pump shall be modeled with variable-speed drive, a minimum flow of 25% of the design flow rate, and a pump power of 16 W/gpm (250 kW/1000 L/s.)

.....

G3.1.3.19 Preheat Coils (Systems 5 through 8)

The baseline *system* shall be modeled with a preheat coil controlled to a fixed *set point* 20°F (11°C) less than the maximum design ~~room~~ heating temperature *set point* of the *HVAC zones* served by the *system.*

BSR/ASHRAE/IES Addendum bv
to ANSI/ASHRAE/IES Standard 90.1-2019

Public Review Draft

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FOREWORD

This addendum updates the Building Performance Factors (BPFs) that are used for determining compliance with Appendix G (see Section 4.2.1.1.) The BPFs represent the savings of a design minimally compliant with the current edition of Standard 90.1 compared to design compliant with Standard 90.1-2004. The proposed addendum uses a new methodology to determine the BPFs and also updates stringency to reflect requirements of 90.1 2022. Each of these two areas is further detailed below.

A. Historically, the BPFs were determined as a ratio of regulated loads in the prototype models compliant with the current edition of Standard 90.1 to 90.1 2004 compliant prototypes. This methodology, while capturing the general logic of quantifying performance of a proposed design relative to a stable baseline, did not account for differences between configuration of the 2004 prototype models and modeling requirements of 90.1 Appendix G. As a result, BPFs were excessively stringent for some building types and not stringent enough for others. PNNL recently completed a two-year project to develop Appendix G baseline prototype energy models configured to align with the Appendix G baseline rules, including those for HVAC system types, HVAC system assignments, and construction materials. The current proposal modifies the traditional BPF calculation approach by using these newly configured prototypes for the BPF calculation.
B. For every new edition of Standard 90.1, the BPFs are updated to reflect the increased stringency of the mandatory and prescriptive requirements of the standard. The current proposal used the new approach described above to create BPFs based on an interim assessment of the progress of Standard 90.1-2022 that incorporates only addenda that have been published. In anticipation of a significant number of additional addenda being included in the final edition of Standard 90.1-2022 the interim BPFs are reduced by 8% for all building area types except the “Other” building category which was reduced 5% for all other building area types based on committee judgement.

Cost effectiveness

This addendum impacts an optional performance path in the standard designed to provide increased flexibility and therefore was not subjected to cost effectiveness analysis.

Addendum bv to 90.1-2019

Modify the standard as follows (IP and SI Units)

Table 4.2.1.1 *Building* Performance Factor (BPF)

~~*Building* Area Type~~	~~Climate Zone~~																		
	~~0A~~	~~0B~~	~~1A~~	~~1B~~	~~2A~~	~~2B~~	~~3A~~	~~3B~~	~~3C~~	~~4A~~	~~4B~~	~~4C~~	~~5A~~	~~5B~~	~~5C~~	~~6A~~	~~6B~~	~~7~~	~~8~~
~~Multifamily~~	~~0.68~~	~~0.70~~	~~0.68~~	~~0.70~~	~~0.66~~	~~0.66~~	~~0.69~~	~~0.68~~	~~0.59~~	~~0.74~~	~~0.76~~	~~0.74~~	~~0.70~~	~~0.73~~	~~0.75~~	~~0.68~~	~~0.71~~	~~0.68~~	~~0.72~~
~~lthcare/hospital~~	~~0.60~~	~~0.60~~	~~0.60~~	~~0.60~~	~~0.58~~	~~0.54~~	~~0.56~~	~~0.55~~	~~0.55~~	~~0.55~~	~~0.54~~	~~0.54~~	~~0.57~~	~~0.52~~	~~0.54~~	~~0.57~~	~~0.52~~	~~0.57~~	~~0.57~~
~~Hotel/motel~~	~~0.55~~	~~0.53~~	~~0.55~~	~~0.53~~	~~0.53~~	~~0.52~~	~~0.53~~	~~0.54~~	~~0.54~~	~~0.53~~	~~0.53~~	~~0.52~~	~~0.50~~	~~0.51~~	~~0.51~~	~~0.50~~	~~0.51~~	~~0.50~~	~~0.50~~
~~Office~~	~~0.52~~	~~0.57~~	~~0.52~~	~~0.57~~	~~0.50~~	~~0.56~~	~~0.53~~	~~0.56~~	~~0.48~~	~~0.51~~	~~0.52~~	~~0.49~~	~~0.51~~	~~0.51~~	~~0.49~~	~~0.52~~	~~0.51~~	~~0.49~~	~~0.51~~
~~Restaurant~~	~~0.63~~	~~0.64~~	~~0.63~~	~~0.64~~	~~0.60~~	~~0.60~~	~~0.60~~	~~0.61~~	~~0.58~~	~~0.62~~	~~0.57~~	~~0.61~~	~~0.63~~	~~0.60~~	~~0.64~~	~~0.65~~	~~0.62~~	~~0.67~~	~~0.70~~
~~Retail~~	~~0.51~~	~~0.54~~	~~0.51~~	~~0.54~~	~~0.49~~	~~0.55~~	~~0.51~~	~~0.55~~	~~0.53~~	~~0.51~~	~~0.55~~	~~0.54~~	~~0.50~~	~~0.54~~	~~0.55~~	~~0.50~~	~~0.51~~	~~0.48~~	~~0.50~~
~~School~~	~~0.39~~	~~0.47~~	~~0.39~~	~~0.47~~	~~0.38~~	~~0.43~~	~~0.38~~	~~0.42~~	~~0.40~~	~~0.37~~	~~0.40~~	~~0.38~~	~~0.36~~	~~0.40~~	~~0.36~~	~~0.36~~	~~0.37~~	~~0.36~~	~~0.37~~
~~Warehouse~~	~~0.38~~	~~0.42~~	~~0.38~~	~~0.42~~	~~0.40~~	~~0.42~~	~~0.43~~	~~0.44~~	~~0.43~~	~~0.44~~	~~0.43~~	~~0.46~~	~~0.49~~	~~0.47~~	~~0.48~~	~~0.54~~	~~0.51~~	~~0.57~~	~~0.57~~
~~All others~~	~~0.56~~	~~0.57~~	~~0.56~~	~~0.57~~	~~0.50~~	~~0.52~~	~~0.50~~	~~0.54~~	~~0.53~~	~~0.53~~	~~0.52~~	~~0.54~~	~~0.51~~	~~0.51~~	~~0.50~~	~~0.50~~	~~0.50~~	~~0.50~~	~~0.46~~

Building Area Type	Climate Zone																		
	0A	0B	1A	1B	2A	2B	3A	3B	3C	4A	4B	4C	5A	5B	5C	6A	6B	7	8
Multifamily	0.69	0.68	0.71	0.70	0.72	0.72	0.71	0.76	0.63	0.69	0.76	0.71	0.66	0.72	0.71	0.65	0.67	0.65	0.67
Healthcare/ hospital	0.69	0.69	0.70	0.68	0.67	0.65	0.65	0.66	0.64	0.64	0.66	0.63	0.67	0.65	0.65	0.66	0.67	0.68	0.70
Hotel/motel	0.66	0.66	0.69	0.65	0.65	0.64	0.64	0.65	0.65	0.63	0.65	0.63	0.62	0.63	0.62	0.61	0.62	0.59	0.58
Office	0.54	0.54	0.53	0.52	0.52	0.52	0.50	0.54	0.48	0.48	0.53	0.48	0.49	0.52	0.48	0.48	0.49	0.46	0.48
Restaurant	0.62	0.59	0.57	0.57	0.57	0.53	0.57	0.53	0.51	0.55	0.54	0.54	0.57	0.56	0.55	0.59	0.58	0.61	0.64
Retail	0.51	0.49	0.48	0.48	0.44	0.43	0.43	0.43	0.44	0.42	0.43	0.46	0.43	0.42	0.47	0.43	0.43	0.41	0.44
School	0.52	0.57	0.57	0.56	0.52	0.53	0.52	0.49	0.50	0.46	0.47	0.47	0.47	0.46	0.46	0.46	0.44	0.45	0.45
Warehouse	0.26	0.26	0.22	0.25	0.21	0.22	0.25	0.21	0.19	0.25	0.22	0.22	0.28	0.24	0.22	0.31	0.28	0.29	0.32
All others	0.62	0.60	0.62	0.59	0.55	0.51	0.53	0.52	0.55	0.53	0.52	0.55	0.53	0.53	0.56	0.54	0.54	0.54	0.54

BSR/ASHRAE/IES Addendum bw
to ANSI/ASHRAE/IES Standard 90.1-2019

Public Review Draft

Proposed Addendum bw to Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings

First Public Review (February 2022)
(Draft Shows Proposed Changes to Current Standard)

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FOREWORD

This addendum is intended to explicitly clarify the mandatory provisions for Fan Energy Index (FEI) for in-scope fans by adding "at its highest design airflow rate" in two places in Section 6.5.3.1.3, Fan Efficiency.

Section 6.5.3.1.3 was originally revised with FEI language in Addendum ao to ASHRAE 90.1-2016. Inclusion of the phrase "at the design point of operation" was intended to have been included in that addendum, but it was mistakenly omitted. For cross-reference, the International Energy Conservation Code (IECC) was also updated with FEI language in its last revision cycle (2021 edition), and that code section (2021 IECC, Section C403.8.3, Fan Efficiency) does already include that phrasing.

However, in ASHRAE committee review, it was determined that rephrasing "at the design point of operation" or "at system design conditions" to instead be stated as "at its highest design airflow rate" would be more specific and enforceable language, while also limiting confusion in particular applications.

Therefore, though the proposed addition in this Addendum is already largely understood and implied, it is believed that including this language explicitly will help prevent confusion with application of the FEI requirement for in-scope fans.

There was also a minor change to the exception for emergency operation of fans. The original language only applied to fans that only operate under emergency conditions. The exception was expanded to clarify that normally operating fans that run at higher speeds during emergency conditions do not have to meet the FEI requirement at that higher speed.

Economic Analysis

There is no increase to cost through this change. This is simply a correction to mistakenly omitted language in the previous Addendum (ao to 90.1-2016) that made changes to this Section. This correction will help prevent confusion with application of this Section and does not add additional requirements.

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Addendum bw to 90.1-2019

Make the following changes to Section 6.5.3.1.3 (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.
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~~*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.
5. Ceiling fans.
6. Fans used for moving gases at temperatures above 482°F (250°C.)
7. Fans used for operation in explosive atmospheres.
8. Reversible fans used for tunnel ventilation.
9. Fans outside the scope of AMCA 208.
10. Fans when ~~that are intended to only operate~~operating during emergency conditions.

BSR/ASHRAE/IES Addendum bz
to ANSI/ASHRAE/IES Standard 90.1-2019

Public Review Draft

Proposed Addendum bz to Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings

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FOREWORD

The current enthalpy recovery ratio (ERR) requirement has caused confusion when applied to systems that require only sensible heating energy recovery. For systems that do not provide humidification, there is no heating energy benefit due to latent energy recovery. Thus, a proposal is made to add language to the standard to specify the sensible energy recovery ratio requirement for these systems.

This proposal is consistent with the 90.1 user's manual, which has had the following language going back at least as far as 90.1-2010:
"When outdoor air load is sensible (heating only, no humidification, for example), the above equation is still correct (the enthalpy differences between the airstreams will be composed of sensible heat only). For simplicity in these cases, the designer may replace enthalpy with dry-bulb temperature to calculate recovery effectiveness."

This proposal is intended to clarify the requirements and is not expected to affect energy use or cost-effectiveness.

For reference only, existing definitions in ASHRAE 90.1:

enthalpy recovery ratio: change in the enthalpy of the *outdoor air* supply divided by the difference between the *outdoor air* and entering exhaust air enthalpy, expressed as a percentage.

sensible energy recovery ratio: change in the dry-bulb temperature of the *outdoor air* supply divided by the difference between the *outdoor air* and entering exhaust air dry-bulb temperatures, expressed as a percentage.

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Addendum bz to 90.1-2019

Modify the standard as follows (IP and SI Units)

6.5.6 Energy Recovery

6.5.6.1 Exhaust Air Energy Recovery

6.5.6.1.1 Nontransient Dwelling Units

Nontransient dwelling units shall be provided with outdoor air energy recovery ventilation systems. For *nontransient dwelling units*, *energy* recovery *systems* shall result in an *enthalpy recovery ratio* of at least 50% at the cooling design condition ~~and at least 60% at heating design condition~~.

At the heating design condition, *energy* recovery performance shall be as follows:

a. Where active humidification is provided to *spaces* served by the *system*, *energy* recovery *systems* shall result in an *enthalpy recovery ratio* of at least 60%.

b. Where active humidification is not provided to *spaces* served by the *system*, *energy* recovery *systems* shall result in a *sensible energy recovery ratio* of at least 60%.

The *energy* recovery *system* shall provide the required *enthalpy recovery ratio* or *sensible energy recovery ratio* at both heating and cooling *design conditions*, unless one mode is not required for the climate zone by the exceptions below.

Exceptions to 6.5.6.1.1

1. Nontransient dwelling units in Climate Zone 3C.
2. Nontransient dwelling units with no more than 500 ft^2 (of conditioned floor area inClimate Zone 0, 1, 2, 3, 4C, and 5C.
3. *Energy* recovery performance ~~Enthalpy recovery ratio~~ requirements at heating design condition in Climate Zones 0, 1, and 2.
4. ~~Enthalpy recovery ratio~~*Enthalpy recovery ratio* requirements at cooling design condition in Climate Zones 4, 5, 6, 7, 8.

6.5.6.1.2 Spaces Other than Nontransient Dwelling Units

Each fan *system* serving spaces other than *nontransient dwelling units* shall have an *energy* recovery *system* where the design supply fan airflow rate exceeds the value listed in Tables 6.5.6.1.2-1 and 6.5.6.1.2-2, based on the climate zone and percentage of *outdoor air* at design airflow conditions. Table 6.5.6.1.2-1 shall be used for all *ventilation systems* that operate less than 8000 hours per year, and Table 6.5.6.1.2-1 shall be used for all *ventilation systems* that operate 8000 or more hours per year.

Exceptions to 6.5.6.1.2

1. Laboratory *systems* meeting Section 6.5.7.3.
2. *Systems* serving *spaces* that are not cooled and that are heated to less than 60°F (.)
3. Heating energy recovery where more than 60% of the *outdoor air* heating *energy* is provided from *site-recovered energy* or *on-site renewable energy* in Climate Zones 5 through 8.
4. *Energy recovery performance* requirements at heating design condition in Climate Zones 0, 1, and 2.
5. *Enthalpy recovery ratio* requirements at cooling design condition in Climate Zones 3C, 4C, 5B, 5C, 6B, 7, and 8.

6. Where the sum of the airflow rates exhausted and relieved within 20 ft (of each other is less than 75% of the design outdoor airflow rate, excluding exhaust air that is
    a. used for another *energy* recovery *system*,
    b. not allowed by ASHRAE/ASHE Standard 170 for use in *energy* recovery *systems* with leakage potential, or
    c. of Class 4 as defined in ASHRAE Standard 62.1.
7. S*ystems* in Climate Zones 0 through 4 requiring dehumidification that employ *series energy recovery* and have a minimum SERR of 0.40.
8. *Systems* expected to operate less than 20 hours per week at the *outdoor air* percentage covered by Table 6.5.6.1.2-1.
9. *Indoor pool dehumidifiers* meeting Section 6.5.6.4.

6.5.6.1.2.1 Minimum Enthalpy Recovery Ratio

Energy recovery *systems* required by this section shall result in an *enthalpy recovery ratio* of at least 50% at the cooling design condition. ~~A 50% *enthalpy recovery ratio* shall mean a change in the enthalpy of the *outdoor air* supply equal to 50% of the difference between the *outdoor air* and entering exhaust air enthalpies at *design conditions*.~~

At the heating design condition energy recovery performance shall be as follows:

a. Where active humidification is provided to *spaces* served by the *system*, *energy* recovery *systems* shall result in an *enthalpy recovery ratio* of at least 50%.

b. Where active humidification is not provided to *spaces* served by the *system*, *energy* recovery *systems* shall result in a *sensible energy recovery ratio* of at least 50%.

The *energy* recovery *system* shall provide the required *enthalpy recovery ratio* or *sensible energy recovery ratio* at both heating and cooling *design conditions*, unless one mode is not required for the climate zone by the exceptions to 6.5.6.1.2 ~~below~~.

…

BSR/ASHRAE/IES Addendum cc
to ANSI/ASHRAE/IES Standard 90.1-2019

Public Review Draft

Proposed Addendum cc to Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings

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FOREWORD

This proposed addendum increases the prescriptive on-site renewable energy requirement added in Section 10.5.1.1 by addendum BY published in 2020. An updated analysis demonstrated that the capacity requirement can be increased while passing the ASHRAE scalar assessment for cost effectiveness without tax incentives or subsidies and also considering roof space competition and self-utilization of the renewable energy within the building. In the PNNL prototype buildings, using a scalar value of 20 while also limiting electricity export back into the grid of no more than 0.5% of the total annual building electricity consumption actually justifies capacity values of at least the following values:

1.5 W/ft^2 in A-2 and M occupancy groups,
0.75 W/ft^2 in R, I, and E occupancy groups,
0.75 W/ft^2 in B occupancy groups with IT equipment,
0.50 W/ft^2 in other B occupancy groups including smaller offices,
0.50 W/ft^2 in S occupancy groups, and
0.68 W/ft^2 in all other groups.

Therefore, a capacity requirement of 0.50 W/ft^2 was selected to be conservative. This would require an equivalent area of photovoltaics less than 3 - 16% of roof area across the different building prototypes, although the specific type of on-site renewable energy resource and placement is left up to the designer or building owner, and can also be traded off in the performance path. Additionally, the existing exceptions are maintained.

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Addendum cc to 90.1-2019

Modify the standard as follows (IP and SI Units)

10.5.1.1 On-Site Renewable Energy.

The building site shall have equipment for *on-site renewable energy* with a rated capacity of not less than ~~0.25~~ 0.50 W/ft² or ~~0.85~~ 1.7 Btu/ ft² (~~2.7~~ 5.4 W/m^2) multiplied by the sum of the *gross conditioned floor area* for all floors up to the three (3) largest floors.

Exceptions to 10.5.1.1:

1. Any *building* located where an unshaded flat plate collector oriented toward the equator and tilted at an angle from horizontal equal to the latitude receives an annual daily average incident solar radiation less than 3.5 kWh/m^2·day (1.1 kBtu/ft^2·day).
2. Any *building* where more than 80% of the *roof* area is covered by any combination of *equipment* other than for *on-site renewable energy systems*, planters, vegetated space, *skylights*, or occupied *roof* deck.
3. Any *building* where more than 50% of *roof* area is shaded from direct-beam sunlight by natural objects or by structures that are not part of the *building* for more than 2500 annual hours between 8:00 a.m. and 4:00 p.m.
4. New construction or *additions* in which the sum of the *gross conditioned floor area* of the three largest floors of the new construction or *addition* is less than 10,000 ft^2(1000 m^2).
5. *Alterations*.

Note to reviewers:

This addendum shows the proposed change relative to published addenda BY and AT to ASHRAE 90.1-2019. Exception 5 was introduced by addendum BY and further modified when Addendum AT was published in January 2022 based on the revised definition of alteration in addendum AT. This does not change the requirement or applicability. Additionally, the exceptions are not part of this public review and just shown for context.

Exceptions to 10.5.1.1, Item 5 as modified by Addendum AT:

5. *Alterations* ~~that do not include *additions*~~.

BSR/ASHRAE/IES Addendum ce
to ANSI/ASHRAE/IES Standard 90.1-2019

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FOREWORD

This Addendum is modifying Normative Appendix A, Section A3.3 Steel-Framed Walls by adding a referenced standard and modifying the provisions accordingly. The addition of the ANSI/AISI/COFS S250 referenced standard is intended to overcome a barrier within Standard 90.1 where the accepted framing spacing for cold-formed steel framed walls is limited to 16 and 24 inches on center only.

This S250 standard covers cold-formed steel wall framing spacings from 6 inches to 24 inches, covers member sizes from 3.5 inches to 12 inches wide, and covers member thicknesses from 33 Mils (0.0329 inches thick) to 64 Mils (0.0629 inches thick). This will provide a great deal of latitude for the user of the ASHRAE Standard 90.1, and therefore mitigate the necessity of having to submit for approval under alternate means and methods such as in Section A9 "Determination of Alternate Assembly U-Factor, C-Factor, F-Factors, or Heat Capacities." Further, this standard also includes provisions for evaluation of wall assemblies where all the insulation is located outside the wall cavity, which is an option ASHRAE Standard 90.1 does not cover.

Energy Savings/Cost Impact: The intended result is to have another option that is pre-approved through the use of Normative Appendix A which will reduce the time and cost by the building owner, design professional or others who pursue the alternative means and methods requirement in order to demonstrate compliance with Standard 90.1. The energy requirements of Standard 90.1 do not change as part of this proposal.

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Addendum ce to 90.1-2019

Modify the standard as follows (IP and SI Units)

A2.5 Attic Roofs with Steel Joists

A2.5.1 General

For the purpose of Section A1.2, the base assembly is a *roof* supported by *steel joists* with insulation between the joists. The assembly represents a *roof* in many ways similar to a *roof with insulation entirely above deck* and a *metal building roof*. It is distinguished from the *metal building roof* category in that there is no metal exposed to the exterior. It is distinguished from the *roof with insulation entirely above deck* in that the insulation is located below the deck and is interrupted by metal trusses that provide thermal bypasses to the insulation. The *U-factors* include R-0.17 for exterior air film, R-0 for metal deck, and R-0.61 for interior air film heat flow up. The performance of the insulation/framing layer is calculated using the values in Table A9.2-1.

A2.5.2

U-factors for attic *roofs* with *steel joists* shall be taken from Table A2.5.2. It is acceptable to use these *U-factors* for any attic *roof* with *steel joists*.

A2.5.3

U-factors for attic *roofs* constructed of cold-formed steel conventional C-shape framing or cold-formed steel trusses, where the insulation is located at the ceiling joist or the bottom chord, and where the framing spacing does not exceed 24 in. (600 mm) on-center, shall be determined in accordance with AISI S250.

…

A3.3 Steel-Framed Walls

A3.3.1 General

For the purpose of Section A1.2, the base assembly is a *wall* where the insulation is installed within the cavity of the cold-formed steel stud framing ~~but where there is not a metal exterior surface spanning member~~. The steel stud framing ~~is a minimum uncoated~~ thickness ~~of 0.043 in.(1.1 mm) for 18 gage or 0.054 in.(1.4 mm) for 16 gage~~ is up to 54 Mils (0.0538 in. minimum base steel thickness) (1.36 mm). The *U-factors* include R-0.17 (R-0.03) for exterior air film, R-0.08 (R-0.01) for stucco, R-0.56 (0.10) for 0.625 in.(16 mm) gypsum board on the exterior, R-0.56 (R-0.10) for 0.625 in. (16 mm) gypsum board on the interior, and R-0.68 (R-0.12) for interior vertical surfaces air film. The performance of the insulation/framing layer is calculated using the values in Table A9.2-2. Additional assemblies include *continuous insulation* uncompressed and uninterrupted by framing. ~~*U-factors* are provided for the following configurations:~~

~~a. Standard framing: Steel stud framing at 16 in. (400 mm) on center with cavities filled with 16 in. (400 m) wide insulation for both 3.5 in. (89 mm) deep and 6.0 in. (152 mm) deep *wall* cavities.~~

~~b. Advanced framing: Steel stud framing at 24 in. (600 mm) on center with cavities filled with 24 in. (600 mm) wide insulation for both 3.5 in. (89 mm) deep and 6.0 in. (152 mm) deep *wall* cavities.~~

A3.3.2 Rated R-Value of Insulation for Steel-Framed Walls

A3.3.2.1

Steel stud framing spaced at 16 in. (400 mm) on-center with cavities filled with 16 in. (400 mm) wide insulation for both 3.5 in (89 mm) deep and 6.0 in. (152 mm) deep wall cavities serve as the basis for the *R-value* compliance values in Tables 5.5-0 through 5.5-8.

~~A3.3.2.1~~ A3.3.2.2

The first *rated R-value of insulation* is for uncompressed insulation installed in the cavity between steel studs. It is acceptable for this insulation to also be *continuous insulation* uninterrupted by framing.

~~A3.3.2.2~~ A3.3.2.3

If there are two values, the second *rated R-value of insulation* is for *continuous insulation* uninterrupted by framing, etc., to be installed in addition to the first insulation.

~~A3.3.2.3~~ A3.3.2.4

Opaque mullions in spandrel glass shall be covered with insulation complying with the *steel-framed wall* requirements.

A3.3.3 U-Factors for Steel-Framed Walls

A3.3.3.1

U-factors for *steel-framed walls* shall be determined from one of the following methods: ~~taken from Table A3.3.3.1.~~

a. Table A3.3.3.1, or
b. Testing or calculation methods listed in Section A9.2(b)(3).

A3.3.3.2

~~For *steel-framed walls* with framing at less than 24 in. (600 mm) on center, use the standard framing values as described in Section A3.3.1(a).~~

Where *steel-framed wall* framing is spaced greater than 24 in. (600 mm) on center, the *U-factor* shall be permitted to be determined based on the 24 in. (600 mm) on-center spacing options from A3.3.3.1 or based on ASTM C1363 testing at the actual frame spacing used.

A3.3.3.3

~~For *steel-framed walls* with framing from 24 in. on center to 32 in. on center, use the advanced framing values as described in Section A3.3.1 (b).~~

Where *steel framed wall* assemblies contain no cavity insulation, and where the *building envelope* assembly uses continuous insulation to satisfy the minimum *R-value* for the relevant climate zone in Tables 5.5-0 through 5.5-8, the on-center framing spacing is permitted to be at any dimension.

~~A3.3.3.4~~

~~For *steel-framed walls* with framing greater than 32 in. on center, use the *metal building wall* values in Table A3.2.3.~~

…

A9.2 Required Procedures

Two- or three-dimensional finite difference and finite volume computer models shall be an acceptable alternative method to calculating the thermal performance values for all assemblies and constructions listed below. The following procedures shall also be permitted to determine all alternative *U-factors*, *F-factors*, and *C-factors*:

…

3. *Steel-framed walls*: Testing, ~~or parallel~~ series path calculation method using the cavity insulation/framing layer adjustment factors in Table A9.2-2, or ~~the modified zone method~~ determined in accordance with AISI S250 as modified herein:

a) Where the *steel-framed wall* contains no cavity insulation and uses continuous insulation to satisfy the U-factor maximum, the *steel-framed wall* member spacing is permitted to be installed at any on-center spacing.
b) Where the *steel-framed wall* contains framing at 24 inch (600 mm) on center with a 23% framing factor or framing at 16 inch (400 mm) on-center with a 25% framing factor, the next lower framing member spacing input values shall be used when calculating using AISI S250.
c) Where the *steel-framed wall* contains less than 23% framing factors the AISI S250 shall be used without any modifications.

d) Where the *steel-framed wall* contains other than standard C-shape framing members the AISI S250 calculation option for other than standard C-shape framing is permitted to be used.

…

Modify Chapter 12 Normative References as follows:

Reference	Title
AISI American Iron and Steel Institute 25 Massachusetts Avenue, NW, Suite 800 Washington, DC 20001	
AISI S250-2021	North American Standard for Thermal Transmittance of Building Envelopes with Cold-Formed Steel Framing

BSR/ASHRAE/IES Addendum cf
to ANSI/ASHRAE/IES Standard 90.1-2019

Public Review Draft

Proposed Addendum cf to Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings

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FOREWORD

This proposed addendum improves elevator fan, lighting, and movement efficiency. Changes have been made to each subsection of Section 10.4.3 "Elevators," and the documentation requirements have been moved to a new subsection of Section 10.9.

10.4.3.1 Cab Lighting Power

- Lighting efficacy has been increased from 35 to 50 lumens per watt.
- Lighting for air cleaning is now not included in the limit.
- An exception has been added for elevators in essential facilities where there are special lighting requirements.

10.4.3.2 Ventilation Power Limitation

- The existing fan power metric (W/cfm) has been changed to fan efficacy (cfm/W) and reduced by 24%
- Air cleaning systems employing filters with a rating of MERV 13 or higher are not required to meet the efficacy.

10.4.3.3 Standby Mode

- Coordinated with the requirements in ASME A17.1/CSA B44 to prevent hazardous conditions to passengers that could if de-energized.

10.4.3.4 Energy Use

- Establishing a minimum energy efficiency target of E or better. In some low usage applications, the energy efficiency may be lower, but overall energy consumption is still very low.
- Updated the title to be more appropriate for the subject of the requirement.
- Moved the documentation requirements to Section 10.9

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Addendum cf to 90.1-2019

Modify the standard as follows (I-P and SI Units):

10.4 Mandatory Provisions

…

10.4.3 Elevators

Elevator *systems* shall comply with the requirements of this section.

10.4.3.1 Cab Lighting Power

For the *luminaires* in each elevator cab, not including power for germicidal function, signals, and displays, the sum of the lumens divided by the sum of the watts (as described in Section 9.1.4) shall be no less than ~~35~~50 lm/W.

Exception to 10.4.3.1: This requirement does not apply to elevators in an *essential facility* where special lighting needs are required.

10.4.3.2 Ventilation Efficacy ~~Power Limitation~~

Cab *ventilation* ~~fans~~ for elevators, ~~without~~except elevators with air conditioning or MERV 13 or greater filters, shall ~~not consume over 0.33 W/cfm (0.7 W·s/L)~~ have an efficacy of at least 4.0 cfm/W (1.9 L/s/W) at maximum fan speed.

10.4.3.3 Standby Mode

The elevator cab lighting shall be *automatically* de-energized in accordance with ASME A17.1/CSA B44 Requirement 2.14.7.2.2. Cab *ventilation* fans for elevators without air conditioning shall also be de-energized.

When stopped and unoccupied with *doors* closed for over 15 minutes, cab interior lighting and *ventilation* shall be de-energized until required for operation.

Exception to 10.4.3.3: Forced *ventilation* shall meet the requirements of ASME A17.1/CSA B44 Requirement 2.14.2.3.3

10.4.3.3 ~~Design Documents~~Energy Use

~~Design documents shall list the following~~ ~~for n~~New elevators shall meet the following requirements:

a. Usage category as defined in ISO 25745-2 between 1 and 6. The usage category shall be in accordance with Annex B.

b. The ~~E~~*energy efficiency* class~~es~~ shall ~~A through G~~be E or better per ISO 25745-2, Table 7.

10.9 Verification, Testing, ~~and~~ Commissioning, and Documentation

10.9.1 Verification and Testing

Service water pressure-booster *system* controls, elevator standby mode and whole-building *energy* monitoring shall be *commissioned* or verified and tested to verify that *control* elements and monitoring *systems* are configured and operating in accordance with Sections 10.4.2, 10.4.3.3, , 10.4.5, and 4.2.5.2. *FPT* documentation shall comply with Section 4.2.5.1.2.

10.9.2 Commissioning

The *energy* performance of the other *equipment systems* shall be *commissioned* in accordance with Section 4.2.5.2 and reporting shall comply with Section 4.2.5.2.2.

Informative Note

See Informative Appendix E and Informative Appendix H for commissioning resources.

10.9.3 Documentation

Design documents shall list the following for new elevators:

a. The usage category as defined in ISO 25745-2 between 1 and 6. The usage category shall be in accordance with Annex B.

b. The *energy efficiency* class per ISO 25745-2, Table 7.

BSR/ASHRAE/IES Addendum cg
to ANSI/ASHRAE/IES Standard 90.1-2019

Public Review Draft

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FOREWORD

IMPs are factory-made composite panels formed by bonding two separate metal skins to an insulative core capable of transferring stress between the skins, creating a rigid two-way slab. The metal skins are formed into a variety of joint configurations, allowing use as either a roof or wall panel. In either case, they may be used as exterior cladding or provide a host surface for traditional materials. They may attach to a wide variety of framing systems. IMPs are generally approved for use in exterior roof or wall construction as well as interior partitions through common third-party certification agencies such as Factory Mutual and Underwriters Laboratories. Depending on how they are implemented for a given project, they may be viewed as either a building material, insulation or even an assembly.

Part 1 adds a definition for Insulated Metal Panels (IMPs) and is very similar to the definition added to Chapter 14 of the IBC in the Group A cycle just completed. The only modification is the inclusion of the already defined term "building envelope", creating needed separation from IMPs used as interior partitions.

Part 2 references this definition in a new exception to Section 5.5.3 which carves out IMPs from other opaque roof and wall systems. This exception is needed because it is the IMP core, not the insulation incorporated within the base assembly to which it attaches, that provides the primary thermal resistance and that is contrary to how traditional insulation is evaluated in 90.1. Secondly, this exception directs the user to the new section of Appendix A introduced in part 3 for compliance.

Part 3 adds a section to Normative Appendix A as A9.4.7 and introduces text clarifying how the U-factor of a given IMP is determined. R-value is not mentioned by design. IMP manufacturer data sheets often reference both R-value and U-factor for easy evaluation by architects and building specifiers. However, the manufacturers have been encouraging the market to move to U-factor compliance. This approach allows including side joints, which are generally always present, in the clear-field results.

Current 90.1 compliance paths treat structure, cladding, insulation, and building materials each as separate products. This results in multiple potential compliance paths for multi-function products such as IMPs, each with a possibly different determination. This proposal provides the clarity to highlight a single path consistent with industry practices for IMPs, thereby making 90.1 easier for a building official to apply.

Cost effectiveness
This addendum impacts an optional performance path in the standard designed to provide increased flexibility and therefore was not subjected to cost effectiveness analysis.

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Addendum cg to 90.1-2019

Modify the standard as follows (IP and SI Units)

Modify Section 3 as follows:

3.2 Definitions

insulated metal panel: A factory manufactured panel consisting of metal facings, an insulative core, and a panel joint intended for use in an assembly forming an *exterior wall*, an *exterior wall* covering, or a *roof* covering of a *building envelope*.

Modify Section 5 as follows:

5.5.3.1 Roofs ~~Insulation~~

All *roofs* shall comply with the insulation values specified in Tables 5.5-0 through 5.5-8. *Skylight* curbs shall be insulated to the level of *roofs* with insulation entirely above deck or R-5.0 (R-0.9), whichever is less.

5.5.3.1.1 Roof Solar Reflectance and Thermal Emittance *(unchanged)*

…

5.5.3.1.2 Insulated Metal Panels

The *U-factor* of *roof* assemblies which include *insulated metal panels* shall not be greater than the *U-factors* of Tables 5.5-0 through 5.5-8 for the applicable *class of construction*. *U-factors* of *insulated metal panels* shall be determined in accordance with Section A9.4.7.

…

5.5.3.2 Above Grade Walls ~~Insulation~~

All *above-grade* walls shall comply with the insulation values specified in Tables 5.5-0 through 5.5-8.

Exception to 5.5.3.2

Alternatively, for *mass walls*, where the requirement in Tables 5.5-0 through 5.5-8 is for a maximum assembly U-0.151 followed by footnote "b," ASTM C90 concrete block *walls*, ungrouted or partially grouted at 32 in. or less on center vertically and 48 in. or less on center horizontally, shall have ungrouted cores filled with material having a maximum thermal conductivity of 0.44 Btu·in./h·ft^2·°F. Other *mass walls* with integral insulation shall meet the criteria when their *U-factors* are equal to or less than those for the appropriate thickness and density in the "Partly Grouted, Cells Insulated" column of Table A3.1-3.

5.5.3.2.1 Walls that are both Above and Below Grade *(unchanged)*

…

5.5.3.2.2 Wall Solar Reflectance and Thermal Emittance *(unchanged)*

…

5.5.3.2.3 Insulated Metal Panels

The *U-factor* of *wall* assemblies which include *insulated metal panels* shall not be greater than the *U-factors* of Tables 5.5-0 through 5.5-8 for the applicable *class of construction*. *U-factors* of *insulated metal panels* shall be determined in accordance with Section A9.4.7.

…

5.5.3.3 Below Grade Walls ~~Insulation~~ *(unchanged)*

…

5.5.3.4 Floors ~~Insulation~~

5.5.3.4.1 Floor Insulation

All *floors* shall comply with the insulation values specified in Tables 5.5-0 through 5.5-8.

5.5.3.4.2 Insulated Metal Panels

The *U-factor* of *floor* assemblies which include *insulated metal panels* shall not be greater than the *U-factors* of Tables 5.5-0 through 5.5-8 for the applicable *class of construction*. *U-factors* of *insulated metal panels* shall be determined in accordance with Section A9.4.7.

…

5.5.3.5 Slabs-on-Grade ~~Insulation~~ *(unchanged)*

Modify Appendix A as follows:

A9.4.7 Insulated Metal Panels

U-factors of *insulated metal panels* shall be determined by two- or three-dimensional finite difference or finite volume computer models or by testing in accordance with Section A9.3.2 and shall include panel side joints.

BSR/ASHRAE/IES Addendum ci
to ANSI/ASHRAE/IES Standard 90.1-2019

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FOREWORD

The addendum proposes to extend the economizer requirements down to 33,000 Btu/h (9.7 kW).

The proposal will limit the required addition of economizers with a capacity range of 33,000 Btu/h (9.7 kW) to less than 54,000 Btu/h to individual fan-cooling units located outside the envelope of the building. For this new capacity range economizers are already used, on packaged rooftops and outdoor air handlers and the incremental cost and complexity is not significant but the energy savings are significant. In the 33,000 (9.7 kW) Btu/h to less than 54,000 Btu/h (16 kW) range economizers will not be required for units inside the building where additional ductwork and envelop penetrations would be required. Equal to or above 54,000 (16 kW) Btu/h all units will be required to have an air or fluid economizer.

Note that the charging language for when to use economizers is in Exceptions to 6.5.1 where it states economizers are not required for individual fan-cooling units with a supply capacity less than the minimum listed in Table 6.5.1-1, so the approach of this addendum is to expand table 6.5.1-1.

An energy and economic analysis have been complete for a small office, primary school, large office, and retail builds and shows that the addition of the air economizer meets the scalar ratio limit 11.7 years based on a 15 yr. product life. For the product cost increase, an airside economizer with the required chapter 6 diagnostics and with power exhaust was used. This is conversative because non-economized units likely would have some type of fixed ventilation damper and ventilation hood, but this cost was not deducted from the cost adder.

Energy and Economic Scalar Analysis
(Scalar limit is 11.7 based on a life of 15 yrs.)

Climate Zone	Scalar Ratio							
	Small Office		Primary School		Large Office		Hospital	
	% Savings	Scalar	% Savings	Scalar	% Savings	Scalar	% Savings	Scalar
0A, 0B, 1A, 1B	NA	NA	NA	NA	NA	NA	NA	NA
2A	8%	4.8	6%	11.2	7%	11.1	13%	3.1
2B	25%	1.4	9%	9.1	13%	5.9	19%	2.0
3A	17%	2.9	13%	7.8	21%	4.2	27%	1.5
4A	32%	1.2	18%	5.9	23%	3.5	32%	1.2
5A	49%	0.9	13%	7.8	26%	3.8	25%	1.7
6A	28%	2.2	26%	5.0	35%	2.9	44%	1.1
3B	53%	0.9	40%	3.0	45%	2.3	56%	0.7
3C	61%	1.1	47%	2.6	71%	1.5	72%	0.5
4B	61%	1.0	40%	3.8	47%	2.4	56%	0.9
4C	65%	1.0	57%	1.8	57%	1.7	65%	0.6
5B	60%	1.0	58%	2.3	71%	1.5	72%	0.5
5C	61%	1.0	40%	3.8	47%	2.4	56%	0.9
6B	65%	1.0	57%	1.8	57%	1.7	65%	0.6
7	54%	1.4	45%	4.0	54%	2.1	63%	0.8
8	82%	0.7	61%	2.3	72%	1.5	76%	0.5

Note that the % savings are the % cooling savings for the HVAC unit.

Savings are based on the reference building Energy Plus Models

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Addendum ci to 90.1-2019

Modify table 6.5.1-1 to extend the requirements for economizer down to 33,000 Btu/h (9.7 kW) for I-P and SI.

Table 6.5.1-1 Minimum Fan-Cooling Unit Size for which an Economizer Is Required

Climate Zone	Cooling Capacity for which an Economizer is Required	Application
0A, 0B, 1A, 1B	No economizer	All
2A, 2B, 3A, 4A, 5A, 6A, 3B, 3C, 4B, 4C, 5B, 5C, 6B, 7, 8	≥33,000 (≥ 9.7 *kW*)	Fan-cooling units located outside the building
2A, 2B, 3A, 4A, 5A, 6A, 3B, 3C, 4B, 4C, 5B, 5C, 6B, 7, 8	≥54,000 Btu/h (16 *kW*)	All other fan-cooling unit locations

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FOREWORD

Table 6.8.1-16 was added to the ASHRAE 90.1-2016 to define efficiency requirements for Heat-Pump and Heat Recovery Chiller Packages. Addendum Y was recently approved and published which made some further changes to the requirements. The addendum y can be viewed at the following link.

ANSI/ASHRAE/IES Addendum y to ANSI/ASHRAE/IES Standard 90.1-2019

In review of the requirements for adoption by other standards, we found some errors additional:

1. For the centrifugal category there are 5 capacity ranges, but they are different than positive displacement chillers and the positive displacement were incorrectly copied into the centrifugal part of the table 6.8.1-16. Also for the SI table the >35.57 kW limit for exclusion of heating chillers covered by WSHP's in table 6.8.1-15 is missing.

Chiller Efficiency Capacity Categories for IP Units (tons)		
Capacity Category	Positive Displacement	Centrifugal
1	≥11.25 and <75.00	≥11.25 and <150.0
2	≥75.00 and <150.0	≥150.0 and <300.0
3	≥150.0 and <300.0	≥300.0 and <400.0
4	≥300.0 and <600.0	≥400.0 and <600.0
5	≥600.0	≥600.0
Note that the 11.25 ton (135,000 Btu/h category is covered by WSHP's in table 6.8.1-15		

Chiller Efficiency Capacity Categories for SI Units (kW)		
Capacity Category	Positive Displacement	Centrifugal
1	≥39.57 and <264.0	≥39.57 and <528.0
2	≥264.00 and <528.0	≥528.0 and <1055
3	≥528.0 and <1055	≥1055 and <1407
4	≥1055 and <2110	≥1407 and <2110
5	≥2110	≥2110
Note that the 39.57 kW (135,000 Btu/h) category is covered by WSHP's in table 6.8.1-15		

2. For the I-P cooling performance requirements for centrifugal chillers, the cooling efficiency requirements should all be 5% lower than the requirements for cooling only centrifugal chillers to account for the added use of 4-way valves, accumulators and compressors optimized for a combination of heating and cooling. Note that for IP the efficiency metric the units used are kw/ton so efficiency decreases with increased values of kw/ton, but for SI the units are COP (w/w) so a decrease in efficiency is a decrease in COP. Below you will find a summary table comparing the table 6.8.1-3 and table 6.8.1-16 as modified by addendum Y. For the IP capacity category 3 (≥150 ton to <300 ton) the full load efficiencies and IPLV.IP are not correctly derated and for the IP category 4 (≥300 ton to <400 ton) the IPLV.IP was not correctly derated. For the SI ratings all the efficiencies are correct except the exemption for WSHP below 39.57 kW (135,000 Btu/h) was not included in the SI table as modified by addendum

The following summarizes the analysis of the table 6.8.1-3 and 6.8.1-16

Chiller Efficiency Table Comparison

Table 6.8.1-3			ASHRAE 90.1 I-P						ASHRAE 90.1 SI			
Equipment Type	Size Category	Units	Path A		Path B		Size Category	Units	Path A		Path B	
			Full Load	Part Load	Full Load	Part Load			Full Load	Part Load	Full Load	Part Load
Water Cooled Electrically Operated Centrifugal	<150 tons	kw/ton	0.610	0.550	0.695	0.440	<528 *kW*	COP (W/W)	5.771	6.401	5.065	8.001
	≥150 tons and <300 tons		0.610	0.550	0.635	0.400	≥528 *kW* and <1055 *kW*		5.771	6.401	5.544	8.801
	≥300 tons and <400 tons		0.560	0.520	0.595	0.390	≥1055 *kW* and <1407 *kW*		6.286	6.770	5.917	9.027
	≥400 tons and <600 tons		0.560	0.500	0.585	0.380	≥1407 *kW* and <2110 *kW*		6.286	7.041	6.018	9.264
	≥600 tons		0.560	0.500	0.585	0.380	≥2110 *kW*		6.286	7.041	6.018	9.264

Table 6.8.1-16			ASHRAE 90.1 I-P						ASHRAE 90.1 SI			
Equipment Type	Size Category	Units	Path A		Path B		Size Category kW	Units	Path A		Path B	
			Full Load	Part Load	Full Load	Part Load			Full Load	Part Load	Full Load	Part Load
Water Cooled Electrically Operated Centrifugal	<75	kw/ton	0.6421	0.5789	0.7316	0.4632	<264	COP (W/W)	5.482	6.081	4.812	7.601
	≥75 and <150		0.5895	0.5474	0.6684	0.4211	≥264 and <528		5.482	6.081	5.267	8.361
	≥150 and <300		0.5895	0.5263	0.6263	0.4105	≥528 and <1055		5.972	6.432	5.621	8.576
	≥300 and <600		0.5895	0.5263	0.6158	0.4000	≥1055 and <2110		5.972	6.689	5.717	8.801
	≥600		0.5895	0.5263	0.6158	0.4000	≥2110		5.972	6.689	5.717	8.801

Table 6.8.1-16 addendum Y			ASHRAE 90.1 I-P						ASHRAE 90.1 SI			
Equipment Type	Size Category	Units	Path A		Path B		Size Category kW	Units	Path A		Path B	
			Full Load	Part Load	Full Load	Part Load			Full Load	Part Load	Full Load	Part Load
Water Cooled Electrically Operated Centrifugal	≥11.25[q] and <75.00	kw/ton	0.6421	0.5789	0.7316	0.4632	<264.0	COP (W/W)	5.482	6.081	4.812	7.601
	≥75.00 tons and <150.0		0.5895	0.5474	0.6684	0.4211	≥264.0 and <528.0		5.482	6.081	5.267	8.361
	≥150.0 and <300.0		0.5895	0.5263	0.6263	0.4105	≥528.0 and <1055		5.972	6.432	5.621	8.576
	≥300.0 and <600.0		0.5895	0.5263	0.6158	0.4000	≥1055 and <2110		5.972	6.689	5.717	8.801
	≥600.0		0.5895	0.5263	0.6158	0.4000	≥2110		5.972	6.689	5.717	8.801

Deference between table 6.8.1-3 and 6.8.1-16			ASHRAE 90.1 I-P						ASHRAE 90.1 SI			
Equipment Type	Size Category	Units	Path A		Path B		Size Category kW	Units	Path A		Path B	
			Full Load	Part Load	Full Load	Part Load			Full Load	Part Load	Full Load	Part Load
Water Cooled Electrically Operated Centrifugal	≥11.25[q] and <150.00	kw/ton	5.0%	5.0%	5.0%	5.0%	≥39.57[q] and <528.0	COP (W/W)	-5.0%	-5.0%	-5.0%	-5.0%
	≥150.0 tons and <300.0		-3.5%	-0.5%	5.0%	5.0%	≥528.0 and <1055		-5.0%	-5.0%	-5.0%	-5.0%
	≥300.0 and <400.0		5.0%	1.2%	5.0%	5.0%	≥1055 and <1407		-5.0%	-5.0%	-5.0%	-5.0%
	≥400.0 and <600.0		5.0%	5.0%	5.0%	5.0%	≥1407 and <2110		-5.0%	-5.0%	-5.0%	-5.0%
	≥600.0		5.0%	5.0%	5.0%	5.0%	≥2110		-5.0%	-5.0%	-5.0%	-5.0%

Deference between table 6.8.1-3 and 6.8.1-16 addendum Y			ASHRAE 90.1 I-P						ASHRAE 90.1 SI			
Equipment Type	Size Category	Units	Path A		Path B		Size Category	Units	Path A		Path B	
			Full Load	Part Load	Full Load	Part Load	kW		Full Load	Part Load	Full Load	Part Load
Water Cooled Electrically Operated Centrifugal	≥11.25[q] and <150.00	kw/ton	5.0%	5.0%	5.0%	5.0%	≥39.57[q] and <528.0	COP (W/W)	-5.0%	-5.0%	-5.0%	-5.0%
	≥150.0 tons and <300.0		-3.5%	-0.5%	5.0%	5.0%	≥528.0 and <1055		-5.0%	-5.0%	-5.0%	-5.0%
	≥300.0 and <400.0		5.0%	1.2%	5.0%	5.0%	≥1055 and <1407		-5.0%	-5.0%	-5.0%	-5.0%
	≥400.0 and <600.0		5.0%	5.0%	5.0%	5.0%	≥1407 and <2110		-5.0%	-5.0%	-5.0%	-5.0%
	≥600.0		5.0%	5.0%	5.0%	5.0%	≥2110		-5.0%	-5.0%	-5.0%	-5.0%

Table 6.8.1-16 Corrections			ASHRAE 90.1 I-P						ASHRAE 90.1 SI			
Equipment Type	Size Category	Units	Path A		Path B		Size Category	Units	Path A		Path B	
			Full Load	Part Load	Full Load	Part Load			Full Load	Part Load	Full Load	Part Load
Water Cooled Electrically Operated Centrifugal	≥11.25[q] and <150.00	kw/ton	0.6421	0.5789	0.7316	0.4632	≥39.57[q] and <528.0	COP (W/W)	4.812	6.081	4.812	7.601
	≥150.0 tons and <300.0		0.6190	0.5748	0.6684	0.4211	≥528.0 and <1055		5.267	6.081	5.267	6.361
	≥300.0 and <400.0		0.5895	0.5526	0.6263	0.4105	≥1055 and <1407		5.621	6.432	5.621	8.567
	≥400.0 and <600.0		0.5895	0.5263	0.6158	0.4000	≥1407 and <2110		5.717	6.689	5.717	8.801
	≥600.0		0.5895	0.5263	0.6158	0.4000	≥2110		5.717	6.689	5.717	8.801

[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 cj to 90.1-2019

Note: Table 6.8.1-16 has been modified by addendum Y which has been published and can be reviewed at the following link

ANSI/ASHRAE/IES Addendum y to ANSI/ASHRAE/IES Standard 90.1-2019

This addendum shows the changes relative to addendum Y.

Modify Table 6.8.1-16 (I-P) for centrifugal chillers.

***Equipment* Type**	**Size Category Refrigerating Capacity[n] ton$_R$**	**Cooling Operation *Efficiency*[a,d,e,j]** **Air Source *EER* (FL/*IPLV*), Btu/W-h** **Liquid-Source Power Input per Capacity (FL/*IPLV*), kW/ton$_R$**	
		Path A	**Path B**
Liquid Source Electrically Operated Centrifugal	≥11.25[q]<~~75.00~~150.0	≤0.6421 FL ≤0.5789 *IPLV*.IP	≤0.7316 FL 0.4632 *IPLV*.IP
	≥~~75.00~~150.0 and <~~150.0~~300.0	≤~~0.5895~~ 0.6190 FL ≤~~0.5474~~ 0.5748 *IPLV*.IP	≤0.6684 FL 0.4211 *IPLV*.IP
	≥~~150.0~~300 and <~~300.0~~400.0	≤0.5895 FL ≤~~0.5263~~ 0.5526 *IPLV*.IP	≤0.6263 FL ≤0.4105 *IPLV*.IP
	≥~~300.0~~400.0 and <600.0	≤0.5895 FL ≤0.5263 *IPLV*.IP	≤0.6158 FL ≤0.4000 *IPLV*.IP
	≥600.0	≤0.5895 FL ≤0.5263 *IPLV*.IP	≤0.6158 FL ≤0.4000 *IPLV*.IP

Modify Table 6.8.1-16 (SI) for centrifugal chillers:

***Equipment* Type**	**Size Category Refrigerating Capacity[n] kW**
Liquid Source Electrically Operated Centrifugal	≥39.57[q] and <~~264.0~~528.0
	≥~~264.0~~528.0 and <~~528~~1055
	≥~~528.0~~1055 and <~~1055~~1407
	≥~~1055~~1407 and <2110
	≥2110

Below the line summary – This is only shown for clarification to show both the addendum Y and this addendum changes to the table. This is not open for public review comments.

The green text are changes that were approved by addendum Y and are shown for clarity but are not open for comment. The ~~red~~ and blue are the proposed changes.

~~Equipment~~ *Equipment* **Type**	**Size Category** **Refrigerating Capacity[n] ton$_R$**	Cooling Operation *Efficiency*[a,d,e,j] Air Source ~~(EER~~*EER* (FL/*IPLV*), Btu/W-h ~~Fluid~~ Liquid-Source Power Input per Capacity (FL/~~IPLV~~*IPLV*) kW/ton$_R$	
		Path A	**Path B**
~~Water~~ Liquid Source Electrically Operated Centrifugal	≥11.25[q]<~~75.00~~150.0 Tons	≤0.6421 FL ≤0.5789 *IPLV*.IP	≤0.7316 FL ≤0.4632 *IPLV*.IP
	≥~~75.00~~150.0 and <~~150.0~~300.0	≤~~0.5895~~ 0.6190 FL ≤~~0.5474~~ 0.5748 *IPLV*.IP	≤0.6684 FL ≤0.4211 *IPLV*.IP
	≥~~150.0~~300 and <~~300.0~~400.0	≤0.5895 FL ≤~~0.5263~~ 0.5526 *IPLV*.IP	≤0.6263 FL ≤0.4105 *IPLV*.IP
	≥~~300.0~~400.0 and <600.0	≤0.5895 FL ≤0.5263 *IPLV*.IP	≤0.6158 FL ≤0.4000 *IPLV*.IP
	≥600.0	≤0.5895 FL ≤0.5263 *IPLV*.IP	≤0.6158 FL ≤0.4000 *IPLV*.IP

Make the following changes to the SI table 6.8.1-16 to correct the capacity categories to align with table 6.8.1-3

~~Equipment~~ *Equipment* **Type**	**Size Category** **Refrigerating Capacity[n] kW**
~~Water~~ Liquid Source Electrically Operated Centrifugal	39.57[q] and <~~264.0~~528.0
	≥~~264.0~~528.0 and <~~528~~1055
	≥~~528.0~~1055 and <~~1055~~1407
	≥~~1055~~1407 and <2110
	≥2110

BSR/ASHRAE/IES Addendum cq
to ANSI/ASHRAE/IES Standard 90.1-2019

Public Review Draft

Proposed Addendum cq to Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings

First Public Review (March 2022)
(Draft Shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at www.ashrae.org/standards-research--technology/public-review-drafts and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at www.ashrae.org/bookstore or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, www.ashrae.org.

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ASHRAE, 180 Technology Parkway NW, Peachtree Corners, GA 30092

(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 objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)

FOREWORD

When HVAC equipment efficiency adjustment equations were removed from Appendix G in Addendum Z to Standard 90.1-2016, a reference to those equations was inadvertently left in. Addendum Z also removed the dependency on capacity for PTAC and PTHP equipment efficiency in the baseline and instead specifies a single efficiency value for that equipment. However, language addressing how to determine the correct capacity for use when establishing baseline efficiency was inadvertently left in, This addendum fixes both of these oversights.

Also, Addendum X to 90.1-2019 changed terminology from water-cooled to liquid-cooled for various chillers. This addendum makes Appendix G consistent with that change.

Cost effectiveness
This editorial change has no impact on costs or savings.

Addendum cq to 90.1-2019

Modify the standard as follows (IP Units)

Table G3.1 Modeling Requirements for Calculating Proposed and Baseline Building Performance

No.	Proposed Building Performance
10.	*HVAC Systems*

The *HVAC system* type and all related performance parameters in the *proposed design*, such as *equipment* capacities and efficiencies, shall be determined as follows:

..

b. Where an *HVAC system* has been designed and submitted with design documents, the HVAC model shall be consistent with design documents. Mechanical *equipment* efficiencies shall be adjusted from actual *design conditions* to the standard rating conditions specified in Section 6.4.1 if required by the simulation model. Where *efficiency* ratings include supply fan *energy*, the *efficiency* rating shall be adjusted to remove the supply fan *energy* from the *efficiency* rating in the *baseline building design*. ~~The equations in Section G3.1.2.1 shall not be used in the *proposed design.*~~ The *proposed design HVAC system* shall be modeled using *manufacturers*' full- and part-load data for the *HVAC system* without fan power.

G3.1.2.1 Equipment Efficiencies

All HVAC *equipment* in the *baseline building design* shall be modeled at the minimum *efficiency* levels, both part load and full load, in accordance with Tables G3.5.1 through G3.5.6. Where multiple *HVAC zones* ~~*or residential spaces*~~ are combined into a single *thermal block* in accordance with Table G3.1, the efficiencies (for baseline HVAC System Types ~~1, 2,~~ 3, 4, 9, and 10) taken from Tables G3.5.1, G3.5.2, ~~G3.5.4,~~ and G3.5.5 shall be based on the equipment capacity of the *thermal block* divided by the number of *HVAC zones* ~~*or residential spaces*~~. HVAC System Types 5 or 6 efficiencies taken from Table G3.5.1 shall be based on the cooling equipment capacity of a single floor when grouping identical floors in accordance with Section G3.1.1(a)(4). Fan *energy* shall be modeled separately according to Section G3.1.2.9.

G.3.1.3.7 Type and Number of Chillers

Peak Coincident Cooling Load of Baseline HVAC *systems* using chilled water	Number and Type of Chillers
≤300 tons	1 ~~water~~ liquid-cooled screw chiller
>300 tons, <600 tons	2 ~~water~~ liquid-cooled screw chillers sized equally
≥600 tons	2 ~~water~~ liquid-cooled centrifugal chillers minimum with chillers added so that no chiller is larger than 800 tons, all sized equally

Modify the standard as follows (IP)

Table G3.5.3 *Performance Rating Method* Water Chilling Packages—Minimum *Efficiency* Requirements

Equipment Type	Size Category	Subcategory or Rating Condition	Minimum *Efficiency*	Test Procedure
~~Water~~ Liquid-cooled, electrically operated, positive displacement (rotary screw and scroll)	<150 tons	kW/ton	0.790 FL 0.676 *IPLV*.IP	ARI 550/590
	≥150 tons and <300 tons		0.718 FL 0.629 *IPLV*.IP	
	≥300 tons		0.639 FL 0.572 *IPLV*.IP	
~~Water~~ Liquid-cooled, electrically operated, centrifugal	<150 tons	kW/ton	0.703 FL 0.670 *IPLV*.IP	ARI 550/590
	≥150 tons and <300 tons		0.634 FL 0.596 *IPLV*.IP	
	≥300 tons		0.576 FL 0.549 *IPLV*.IP	

Modify the standard as follows (SI Units)

Table G3.1 Modeling Requirements for Calculating Proposed and Baseline Building Performance

No.	Proposed Building Performance
10.	*HVAC Systems*

The *HVAC system* type and all related performance parameters in the *proposed design*, such as *equipment* capacities and efficiencies, shall be determined as follows:

..

b. Where an *HVAC system* has been designed and submitted with design documents, the HVAC model shall be consistent with design documents. Mechanical *equipment* efficiencies shall be adjusted from actual *design conditions* to the standard rating conditions specified in Section 6.4.1 if required by the simulation model. Where *efficiency* ratings include supply fan *energy*, the *efficiency* rating shall be adjusted to remove the supply fan *energy* from the *efficiency* rating in the *baseline building design*. ~~The equations in Section G3.1.2.1 shall not be used in the *proposed design*.~~ The *proposed design HVAC system* shall be modeled using *manufacturers*' full- and part-load data for the *HVAC system* without fan power.

G3.1.2.1 Equipment Efficiencies

All HVAC *equipment* in the *baseline building design* shall be modeled at the minimum *efficiency* levels, both part load and full load, in accordance with Tables G3.5.1 through G3.5.6. Where multiple *HVAC zones* ~~or *residential spaces*~~ are combined into a single *thermal block* in accordance with Table G3.1, the efficiencies (for baseline HVAC System Types ~~1, 2,~~ 3, 4, 9, and 10) taken from Tables G3.5.1, G3.5.2, ~~G3.5.4,~~ and G3.5.5 shall be based on the equipment capacity of the *thermal block* divided by the number of *HVAC zones* ~~or *residential spaces*~~. HVAC System Types 5 or 6 efficiencies taken from Table G3.5.1 shall be based on the cooling equipment capacity of a single floor when grouping identical floors in accordance with Section G3.1.1(a)(4). Fan *energy* shall be modeled separately according to Section G3.1.2.9.

G.3.1.3.7 Type and Number of Chillers

Peak Coincident Cooling Load of Baseline HVAC *systems* using chilled water	Number and Type of Chillers
≤1055 kW	1 ~~water~~ liquid-cooled screw chiller
>1055 kW, <2110 kW	2 ~~water~~ liquid-cooled screw chillers sized equally
≥2110 kW	2 ~~water~~ liquid-cooled centrifugal chillers minimum with chillers added so that no chiller is larger than 2813 kW, all sized equally

Table G3.5.3 *Performance Rating Method* Water Chilling Packages—Minimum *Efficiency* Requirements

Equipment Type	Size Category	Subcategory or Rating Condition	Minimum *Efficiency*	Test Procedure
~~Water~~ Liquid-cooled, electrically operated, positive displacement (rotary screw and scroll)	<528 kW	*COP*	4.45 *COP* 5.20 *IPLV*.SI	ARI 550/590
	≥528 kW and <1055 kW		4.90 *COP* 5.60 *IPLV*.SI	
	≥1055 kW		5.50 *COP* 6.15 *IPLV*.SI	
~~Water~~ Liquid-cooled, electrically operated, centrifugal	<528 kW	*COP*	5.00 *COP* 5.25 *IPLV*.SI	ARI 550/590
	≥528 kW and <1055 kW		5.55 *COP* 5.90 *IPLV*.SI	
	≥1055 kW		6.10 *COP* 6.40 *IPLV*.SI	

BSR/BPI-1100-T-202X: Home Energy Auditing Standard

Second Public Review

Content below shows proposed substantive changes since the previous Public Comment Draft. To view the draft standard in full and see the proposed changes in context, please request an electronic copy from standards@bpi.org.

Note: Red underlined text indicates an addition. Red strike-through text indicates a deletion. Only the red text is open for comment.

2.1.3 Occupant/Homeowner education regarding efficient operation and use of appliances and equipment in the home.

2.2.6 A set of recommended health and safety measures.

3.8 Evaluation of smoke and carbon monoxide alarms.

8 Indoor Air Quality and Ventilation

The audit shall include inspection of air infiltration sources, air barriers, and **ventilation.** Consider the house ventilation as a system, including both whole-building ventilation and local/spot exhaust ventilation.

9.5 Evaluation of dehumidification appliance/s operation, condition and efficiency.

[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by gray highlighting. Rationale statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI Standard for Dietary Supplements –

Dietary Supplements

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5 Product requirements

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5.3 Contaminants

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5.3.2 Pesticides

Products claiming to contain botanical ingredients shall ~~be tested according to Section 7.2.1 to confirm that they do~~ not contain pesticides at levels greater than the maximum allowable level per day as listed in Annex N-2. Pesticides testing shall be in accordance with Section 7.2.1.

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7 Test methods used by testing laboratories for detection of contaminants – Dietary ingredients and finished products

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7.2 Pesticides

7.2.1 Multiresidue method

Pesticide testing is required where the daily serving of botanical material is sufficient to potentially meet or exceed pesticide limits. This determination may be made using the most sensitive pesticide maximum allowable level (MAL) and the instrument Limit of Detection for this pesticide (LOD) with the following calculation:

$$Botanical\ material\ (g/day) = \frac{Most\ sensitive\ pesticide\ MAL}{Most\ sensitive\ pesticide\ LOD}$$

Pesticide ~~Products containing botanicals shall be evaluated using~~ testing shall utilize a multi-residue method contained in the FDA's *Pesticide Analytical Manual* (PAM I) or a QuEChERS method utilizing gas chromatography (GC) and/or liquid chromatography (LC) with technically sound method of detection which may include a mass spectrometer or tandem mass spectrometers (MS/MS).

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[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by gray highlighting. Rationale statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI Standard
for Dietary Supplements –

Dietary Supplements

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4 Labeling and literature requirements

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4.1 Caffeine

Supplements that contain or may contain any amount of added caffeine must declare the total amount of caffeine per serving on the label. Supplements containing 5 mg to 25 mg of naturally occurring caffeine must declare the presence of caffeine on the label. Supplements containing 25 mg or greater of naturally occurring caffeine must declare the total amount of caffeine per serving on the label, except that this requirement does not apply to products in which the only caffeine-containing ingredients consist of crude raw botanicals or botanical ingredients in which the caffeine is not more concentrated than in the source crude botanical.

In addition, if the product contains caffeine at greater than 100 mg per serving, the following warnings (or equivalent) must be present on the label:

— do not use if sensitive to caffeine
— not recommended for use by children under 18 years of age; and — not recommended for use by pregnant or nursing women.

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[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by gray highlighting. Rationale statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI Standard
for Dietary Supplements –

Dietary Supplements

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5 Product requirements

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5.6 Proteins

Protein content, for products that claim protein at greater than 5% daily value (DV), shall exclude quantifiable nonprotein nitrogen-containing substances (e.g., free amino acids, taurine, creatine, alkaloids, etc.) that may be present in the product.

5.6.1 Collagen Peptides

Collagen and collagen peptides do not contribute to the %DV due to the PDCAAS value. Collagen based products often claim protein at <5% daily value (DV) or the %DV is not stated. Collagen Peptides in products that claim protein at <5% daily value (DV), shall include quantifiable collagen protein hydrolysate products (e.g., free amino acids in collagen peptides) and other protein hydrolysis constituents that may be present in a product.

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6 Test methods used by testing laboratories for identification and quantification of ingredients – Dietary ingredients and finished products

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6.2.5 Proteins

The quantity of protein shall be analyzed using scientifically validated methods which are suitable for the intended purpose. Methods used shall exclude or account for nitrogen containing nonprotein compounds including those released from source during the preparatory process of analysis. Sources for methods should include AOAC International, USP, and other method sources. Modification of an existing method to better suit the sample under test is allowable. If no appropriate method exists, development of a new method is allowed. The use of any modified or new method shall require that an assessment be performed which includes the validation and application of the method regarding specificity, linearity, precision, accuracy, spike recovery and method detection limits (if applicable). For complex product formulations for which a scientifically valid method is not available and cannot be developed, input records and raw material analysis results may be used to assess the quantities of protein in the product.

*Note: Protein analysis, for Collagen Peptide products, as described in 5.6.1, shall utilize a valid combustion method for the determination and calculation of the quantity of collagen in the product or ingredients.

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BSR/UL 852, Standard for Metallic Sprinkler Pipe for Fire Protection Service

2. Withdrawal of Proposal: Proposed Third Edition of the Standard for Metallic Sprinkler Pipe for Fire Protection Service, which includes first time SCC approval for Metallic Sprinkler Pipe for Fire Protection Service, ANSI/CAN/UL 852

PROPOSAL

If the 2019-10-25 proposal is withdrawn, the current requirements in the standard would remain unchanged.

BSR/UL 1484, Standard for Safety for Residential Gas Detectors

PROPOSAL

(NEW)

49.18 One Year (minimum) Sensor Stability Test for Gas Sensors

49.18.1 General

49.18.1.1 A minimum fifteen samples of the gas sensor shall be placed within a closed chamber (test fixture) that shall allow for the following:

a) Logging of the manufacturer's defined sensor output parameters;

b) Control of the rate of gas injection to reach the target gas concentration within 3 minutes;

c) Recommended/supporting electronic detection circuitry, which shall be supplied by the sensor manufacturer for each gas sensor under test;

d) Application of the target gas concentration for a minimum of one year as follows:

1) For sensors intended to detect gases at flammable or combustible concentrations before toxic or asphyxiant levels are achieved the following shall be required:

i) The manufacturer shall identify each specific gas type that the sensor is intended to detect;

ii) Sensor data from the manufacturer shall be provided demonstrating the sensor's performance when subject to each gas specified in item (i);

iii) Unless the manufacturer identifies the sensor's ability to speciate gas types, at a minimum, 15 gas sensor samples shall be subjected to Methane and 15 gas sensor samples shall be subjected to propane;

iv) The test gases specified in item (iii) may be changed or additional gases added to the test program if data from items (i) and (ii) demonstrate that additional gases and/or concentrations may be required;

v) The test gas concentration for each gas used during testing shall be a minimum of 60 ppm ± 5 ppm;

vi) When applicable, the sensor manufacturer shall provide sensor data that details the sensors' cross-sensitivity performance when calibrated to a specific gas.

2) For gases other than those specified in 49.18.1.1 (d) (1) and with gas concentrations that are toxic before becoming flammable, combustible or being considered an asphyxiant, the following shall be required:

i) Minimum 15 sensors shall be subjected to each gas type that the product is intended to detect;

ii) The manufacturer shall provide information on the intended application and additional cross-sensitivity gas(es) which the sensor is intended to detect.

iii) The sensor manufacturer shall provide sensor data that details the sensor's response to each gas type and the sensor's performance range when subject to each gas as specified in (i) and (ii);

iv) The test gas concentration shall be set at the Time Weighted Average (TWA) gas concentration:

A. As defined in the NIOSH Pocket Guide to Chemical Hazards or,

B. If more than one TWA value is provided in the NIOSH Pocket Guide to Chemical Hazards, the lowest TWA gas concentration shall be used or,

C. The gas supplier's TWA as specified in the Material Safety Data Sheet (MSDS) shall be used if a TWA gas concentration value is not defined in the NIOSH Pocket Guide to Chemical Hazards or,

D. The manufacturer may identify response limits that represent a detection response faster than the TWA,

E. In no case shall the performance of the sensor exceed the TWA response limits as specified in item (iv).

(NEW)

49.18.2 Test Gas

49.18.2.1 The test gas concentration that envelopes the gas sensor shall be maintained as follows:

a) If the target gas concentration shall flow directly from a gas cylinder onto the sensor, i.e., using a calibration cup provided by the manufacturer; the gas cylinder shall be accurate within ±2 %. The calibration record for the gas cylinder shall be based on the country specific traceability standard, or

b) If the sensors are placed within a test chamber with the test gas diluted within the chamber to reach the target gas concentration, the gas concentration within the test chamber shall be maintained to within +20, - 5 % of the target gas concentration.

c) For items (a) and (b), the manufacturer shall demonstrate that the gas flow across the sensor or air movement within the chamber shows the;

1) Airflow is sufficient to uniformly mix the gas,

2) Airflow does not exceed 16 ±7 ft/min (4.88 m ± 2.1 m/min) or,

3) Airflow, if in excess of item (c) (2), may be increased or decreased but only if the change in airflow is verified to not affect the intended operation or manufacturer's performance specifications for the sensor. The increase in air flow shall only be used to provide a more homogeneous mixture of the test and/or target gas which may be heavier

or lighter than air, thus requiring a change in airflow. The airflow shall be set to the minimum level necessary to maintain a homogeneous mixture of the target gas.

d) The relative humidity for the test gas that envelopes the sensor or environment that the sensor is within shall be maintained at 50 ±20 % for the duration of the test.

e) The temperature for the test gas that envelopes the sensor or environment that the sensor is within shall be maintained at 23 ±3°C (73.4 ±5.4°F) for the duration of the test.

f) For manufacturer temperature and humidity specifications in excess of (d) and (e), ambient test conditions may also be conducted based on the manufacturer's specifications.

g) If the manufacturer's sensor specification document identifies recommended temperature and/or humidity compensation in excess of (d) and (e), then the tests noted in 49.18 shall also be conducted;

1) For a minimum of one year at the temperature and relative humidity as specified by the manufacturer;

2) With the manufacturer's provided compensation circuitry for each sensor.

h) If required by the gas supplier, gas cylinder maintenance procedures for gases that have a life expectancy or scheduled maintenance shall be provided.

49.18.2.2 For target gas concentrations exceeding 0.04 % of the total gas concentration, Oxygen (O2) measurements shall be recorded to demonstrate that the O2 concentration remains at 20.9 % within ±5 % of accuracy.

49.18.2.3 The balance gas, either in the gas cylinder or within the test chamber, shall be as follows:

a) The sensor manufacturer shall identify the gas type, gas concentration and the balance gas concentration(s) that the sensor is intended to be subject to during normal operation,

b) For balance gas identified as "clean air," it shall be verified to consist of a composition not exceeding - 20.9 % O_2 (Oxygen) - Balance N_2 (Nitrogen). With a target gas concentration as specified in 49.18.2.2, the gas cylinder calibration certificates may be used to verify that the balance gas used in the gas tests defined in 49.18.2.1 (a) and (b) are representative of clean air or the manufacturer's defined balance gas.

49.18.2.4 If the test gas concentrations and performance of the sensor are not altered or impaired, the sensor manufacture may provide alternative gas injection, gas maintenance, target gas and balance gas concentrations, methods, and ambient test conditions in addition to the requirements outlined within section 49.18.

(NEW)

49.18.3 Sensor Data Collection

49.18.3.1 Each sensor shall be energized with the manufacturer's recommended electronic circuit design. This electronic circuit shall be included as supporting hardware for each sensor. The analog and/or

digital output measurements/data from the sensor/circuit and gas analyzer (when used) shall be recorded at least once every 3 hours for the test duration with the minimum data:

a) Recorded and maintained in a format that is agreed between the test organization and manufacturer, and

b) The test method and data collection shall be reviewed by the test organization at least once every thirty days (monthly) for the duration of the test program.

49.18.3.2 The sensor data shall include but may not be limited to:

a) All gas cylinder(s) calibration details that include gas supplier, cylinder identification, gas tolerance, gas concentration and balance gas concentration and,

b) All ambient environmental test conditions as specified within 49.18 and,

c) Unedited (raw), analog and/or digital output measurements/data from the sensor/circuit and,

d) Where applicable, converted data that correlates the sensor/circuit data to the intended gas concentration and,

e) Calibrated reference analyzer data (if applicable),

49.18.3.3 The manufacturer shall provide the necessary information to convert the analog and/or digital output measurements/data from the sensor to a correlated test gas concentrations. This information shall also be provided in the manufacturer's specification documentation included with the sensor.

49.18.3.4 If the test gas concentrations and performance of the sensor are not affected, the sensor manufacturer may provide alternative data collection methods and equipment to those defined in 49.18.3.1 through 49.18.3.3.

(NEW)

49.18.4 Gas Sensor Sensitivity Test

49.18.4.1 At the start and end of the one-year test, and at least once monthly, the sensitivity of each sensor shall be checked and recorded as follows:

a) 0 ppm (clean air, 20.9 % O_2 – Balance N_2) or within the tolerance accuracy of the gas monitoring device(s), and

b) Hydrocarbon sensors shall be exposed to the gas concentrations as specified in the Detection Threshold Test, Section 49.

49.18.4.2 The sensor shall be subjected to the test gas requirements specified in 49.18.1 through 49.18.4 and 49.18.4.1 for a minimum duration of one year.

49.18.4.3 The gas sensor drift for all sensors shall not exceed the gas sensors' specified tolerance ranges:

a) In clean air and/or,

b) When exposed to gas over the course of one year and/or,

c) When subjected to each ambient environmental condition,

49.18.4.4 The manufacturer's sensor documentation shall be provided with each sensor or with each batch of sensors and include the following:

a) The gas sensor's specified tolerance and/or

b) If applicable, a custom calculation method required to verify the sensor's sensitivity performance. This calculation method shall be used to verify that the test data collected during performance testing remains within the manufacturer's defined limits which are based on its custom sensitivity calculation method.

BSR/UL 2238, Standard for Cable Assemblies and Fittings for Industrial Control and Signal Distribution

1. Jacket Retention Test

PROPOSAL

27.1 For devices molded onto jacketed cord, employing either 18 AWG (0.824 mm^2), 17 AWG (1.04 mm^2), 16 AWG (1.31 mm^2), 15 AWG (1.65 mm^2) or 14 AWG (2.08 mm^2) conductors, there shall not be fillers, separators, insulation, or bare conductors visible at the point where the cord enters the fitting as a result of the test described in 27.2 – 27.5. A male cable fitting or female cable fitting of a cable assembly shall retain the jacket of the flexible cord to which it is molded.

2. Vibration Test Rack Construction

PROPOSAL

26.1.5 Three of the six devices are to be mounted to a test rack constructed of any rigid material (i.e., cast-iron, steel, or aluminum) which neither absorbs nor creates any variation of the applied frequency waveform, ~~angles not smaller than 1/8 by 1-1/4 by 1-1/4 in (3.2 by 31.8 by 31.8 mm) welded~~ ~~to~~ forming a rigid assembly. Mounting holes are to be provided for attachment of the test rack to a vibration platform.