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# Project Initiation Notification System (PINS)

Section 2.5.1 of the *ANSI Essential Requirements* ([www.ansi.org/essentialrequirements](http://www.ansi.org/essentialrequirements)) describes the Project Initiation Notification System (PINS) and includes requirements associated with a PINS Deliberation. Following is a list of PINS notices submitted for publication in this issue of ANSI Standards Action by ANSI-Accredited Standards Developers (ASDs). Please also review the section in Standards Action entitled "American National Standards Maintained Under Continuous Maintenance" for information about American National Standards (ANS) maintained under the continuous maintenance option, as a PINS to initiate a revision of such standards is not required. 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 interested parties wishing to receive more information or to submit comments are to contact the sponsoring ANSI-Accredited Standards Developer directly **within 30 calendar days** of the publication of this PINS announcement.

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## ABYC (American Boat and Yacht Council)

Emily Parks <[eparks@abycinc.org](mailto:eparks@abycinc.org)> | 613 Third Street, Suite 10 | Annapolis, MD 21403 [www.abycinc.org](http://www.abycinc.org)

### Revision

BSR/ABYC A-16-202x, Installation of Electric Navigation Lights (revision of ANSI/ABYC A-16-2021)

Stakeholders: Surveyors, consumers, insurance personnel, boat manufacturers, engine manufacturers, accessory manufacturers, government, service specialists, and trade associations.

Project Need: This standard applies to the installation of electric navigation lights on boats.

Interest Categories: Manufacturer - Boats, Manufacturer - Engines, Manufacturer - Accessory, Trade Associations, Insurance/Survey, Specialist Service, Specialist Misc., Government, Consumer

This standard applies to the installation of electric navigation lights on boats.

## ABYC (American Boat and Yacht Council)

Emily Parks <[eparks@abycinc.org](mailto:eparks@abycinc.org)> | 613 Third Street, Suite 10 | Annapolis, MD 21403 [www.abycinc.org](http://www.abycinc.org)

### Revision

BSR/ABYC C-5-202x, Construction and Testing of Electric Navigation Lights (revision of ANSI/ABYC C-5-2021)

Stakeholders: Surveyors, consumers, insurance personnel, boat manufacturers, engine manufacturers, accessory manufacturers, government, service specialists, and trade associations.

Project Need: This standard applies to the requirements for the design, construction, performance, and testing of electric navigation lights for boats.

Interest Categories: Manufacturer - Boats, Manufacturer - Engines, Manufacturer - Accessory, Trade Associations, Insurance/Survey, Specialist Service, Specialist Misc., Government, Consumer

This standard applies to the requirements for the design, construction, performance, and testing of electric navigation lights for boats.

**ABYC (American Boat and Yacht Council)**

Emily Parks <[eparks@abycinc.org](mailto:eparks@abycinc.org)> | 613 Third Street, Suite 10 | Annapolis, MD 21403 [www.abycinc.org](http://www.abycinc.org)

**Revision**

BSR/ABYC E-11-202x, AC and DC Electrical Systems on Boats (revision of ANSI/ABYC E-11-2023)

Stakeholders: Surveyors, consumers, insurance personnel, boat manufacturers, engine manufacturers, accessory manufacturers, government, service specialists, and trade associations.

Project Need: This standard applies to: alternating current (AC) electrical systems on boats operating at frequencies of 50 or 60 Hz and less than 300 V, including shore power systems up to the point of connection to the shore outlet and including the shore power cable, and direct current (DC) electrical systems on boats operating at 60 V nominal or less.

Interest Categories: Manufacturer - Boats, Manufacturer - Engines, Manufacturer - Accessory, Trade Associations, Insurance/Survey, Specialist Service, Specialist Misc., Government, Consumer

This standard addresses the design, construction, and installation of alternating current (AC) electrical systems and direct current (DC) electrical systems on boats.

**AHRI (Air-Conditioning, Heating, and Refrigeration Institute)**

Karl Best <[kbest@ahrinet.org](mailto:kbest@ahrinet.org)> | 2311 Wilson Boulevard, Suite 400 | Arlington, VA 22201-3001 [www.ahrinet.org](http://www.ahrinet.org)

**Revision**

BSR/AHRI Standard 600 (I-P)-202x, Standard for Performance Rating of Water/Brine to Air Heat Pump Equipment (revision of ANSI/AHRI Standard 600-2023 (I-P))

Stakeholders: Groups and individuals known to be, or who have indicated that they are, directly and materially affected by the standard, including manufacturers, testers, regulators and trade or professional organizations.

Project Need: This project will develop a seasonal cooling and heating metric for residential products in AHRI Standard 600.

Interest Categories: Component Manufacturer, Consumer/User, General Interest, Product Manufacturer, Regulatory Agency; Testing Laboratory

This standard applies to factory-made water/brine to air heat pump equipment. This standard applies only to electrically operated, vapor compression refrigeration systems.

**AHRI (Air-Conditioning, Heating, and Refrigeration Institute)**

Karl Best <[kbest@ahrinet.org](mailto:kbest@ahrinet.org)> | 2311 Wilson Boulevard, Suite 400 | Arlington, VA 22201-3001 [www.ahrinet.org](http://www.ahrinet.org)

**New Standard**

BSR/AHRI Standard 660 (SI/I-P)-202x, Standard for Performance Rating of Water/Brine to Water Heat Pump Equipment (new standard)

Stakeholders: Groups and individuals known to be, or who have indicated that they are, directly and materially affected by the standard, including manufacturers, testers, regulators and trade or professional organizations.

Project Need: Develop a new test and rating standard for commercial and residential water/brine to water heat pumps.

Interest Categories: Component Manufacturer, Consumer/User, General Interest, Product Manufacturer, Regulatory Agency; Testing Laboratory

Scope of the standard includes commercial and residential water/brine to water heat pumps. Out of scope are those covered by AHRI Standards 550/590 (I-P) and 551/591 (SI).

**ASA (ASC S12) (Acoustical Society of America)**

Raegan Ripley <[standards@acousticalsociety.org](mailto:standards@acousticalsociety.org)> | 1305 Walt Whitman Road, Suite 300 | Melville, NY 11747 [www.acousticalsociety.org](http://www.acousticalsociety.org)

**Revision**

BSR S12.1-202x, Guidelines for the Preparation of Standard Procedures to Determine the Noise Emission from Sources (revision of ANSI ASA S12.1 (R2023))

Stakeholders: Industries making powered equipment including appliances, powered tools, and vehicles. Governments that use standardized methods for assessing noise emission of products.

Project Need: Update the recommendations in S12.1 to include references to current revisions of SAE, ISO, and other relevant standards. Include both sound power and sound pressure methods.

Interest Categories: User, Producer, General Interest

S12.1 is unique among acoustic measurement standards in that it gives guidance on choosing the applicable standard with a view toward making the resulting measurements relevant to human perception and impact. It deserves to be updated to reference suitable standards that might not be known to people developing new sources of noise.

**ASME (American Society of Mechanical Engineers)**

Terrell Henry <[ansibox@asme.org](mailto:ansibox@asme.org)> | Two Park Avenue, M/S 6-2B | New York, NY 10016-5990 [www.asme.org](http://www.asme.org)

**Revision**

BSR/ASME B16.52-202x, Forged Nonferrous Fittings, Socket Welding and Threaded (Titanium, Titanium Alloys, Aluminum, and Aluminum Alloys) (revision of ANSI/ASME B16.52-2018)

Stakeholders: This standard will have a major impact on the construction logistics for the ASME B31 piping industry that requires aluminum materials.

Project Need: Aluminum Material Spec. ASTM B361 and Titanium Material Spec. ASTM B363 both make reference to fittings to ASME B16.11. ASME B16.11 does not have in its scope the construction of fittings from these materials. This project will develop a standard applicable to aluminum, aluminum alloys, titanium and titanium alloys for B16.11 type fittings that currently have no coverage under ASME standards.

Interest Categories: AC Designer/Constructor, AD Distributor, AF General Interest, AH Insurance/Inspection, AK Manufacturer, AM Material Manufacturer, AT Regulatory, AW User

This Standard covers ratings, dimensions, tolerances, marking, and material requirements for Titanium, Titanium Alloys, Aluminum, and Aluminum Alloys forged nonferrous fittings, both socket-welding and threaded.

**ASTM (ASTM International)**

Lauren Daly <[accreditation@astm.org](mailto:accreditation@astm.org)> | 100 Barr Harbor Drive | West Conshohocken, PA 19428-2959 [www.astm.org](http://www.astm.org)

**Revision**

BSR/ASTM F3312-202x, Practice for Liquefied Natural Gas (LNG) Bunkering Hose Transfer Assembly (revision of ANSI/ASTM F3312-2018)

Stakeholders: Machinery and Piping Systems Industry

Project Need: This practice provides guidance on the minimum requirements for the design, manufacture, installation, and operation of bunker hose transfer assemblies for cryogenic service pertaining to bunkering of LNG-fueled vessels. The bunker hose transfer assemblies addressed by this practice are for connections between the LNG-fueled vessel bunker manifold presentation flange connections and the LNG supplier bunkering manifold presentation flange connections.

Interest Categories: Producer, User, General Interest

This practice covers the minimum requirements for the design, manufacturing, and deployment of bunker hose transfer assemblies for cryogenic service pertaining to bunkering of liquefied natural gas (LNG)-fueled vessels. The bunker hose transfer assemblies addressed by this practice are for connections between the LNG-fueled vessel bunker manifold presentation flange connections and the LNG supplier bunkering manifold presentation flange connections.

**CSA (CSA America Standards Inc.)**

Debbie Chesnik <[ansi.contact@csagroup.org](mailto:ansi.contact@csagroup.org)> | 8501 East Pleasant Valley Road | Cleveland, OH 44131-5575 [www.csagroup.org](http://www.csagroup.org)

**Revision**

BSR Z83.11-202x, Gas food service equipment (same as CSA 1.8) (revision of ANSI Z83.11-2016/CSA 1.8-2016 (R2021))  
Stakeholders: Manufacturers, installers, consumers

Project Need: Update of the current standard to include additional coverage for safety and performance testing

Interest Categories: Manufacturers, installers, consumers, regulator authorities

This Standard applies to newly produced gas food service equipment providing coverage for ranges and unit broilers, baking and roasting ovens, counter appliances, deep fat fryers, kettles, steam cookers, steam generators, tableside cooking appliances (see Clause 3, Definitions), hereinafter referred to either (1) appliances constructed entirely of new, unused parts and materials for use in food service centers of commercial, industrial, institutional and public assembly buildings, or (2) outdoor appliances constructed entirely of new, unused parts and materials for outdoor use and/or for installation in either carts or trailers: (a) for use with natural gas; (b) for use with manufactured gas; (c) for use with mixed gas; (d) for use with propane gas; (e) for use with liquefied petroleum gases (see Clause 5.2-e); (f) for a tableside cooking appliance only, for use with butane gas; (g) for use with LP gas-air mixtures; and (h) for use with either natural, manufactured, or mixed gas and convertible for use with either propane gas or liquefied petroleum gases.

**ECIA (Electronic Components Industry Association)**

Laura Donohoe <[ldonohoe@ecianow.org](mailto:ldonohoe@ecianow.org)> | 13873 Park Center Road, Suite 315 | Herndon, VA 20171 [www.ecianow.org](http://www.ecianow.org)

**Revision**

BSR/EIA 198-2-F-202x, Ceramic Dielectric Capacitors Classes I, II, III, and IV - Part II: Test Methods (revision and redesignation of ANSI/EIA 198-2-E-2014)

Stakeholders: Electronics, electrical and telecommunications industries

Project Need: Revise and redesignate the current American National Standard,

Interest Categories: User, Producer, General Interest

This standard establishes uniform methods for testing ceramic capacitors, including basic environmental tests to determine resistance to deleterious effects of natural elements, and physical and electrical tests.

**ESTA (Entertainment Services and Technology Association)**

Richard Nix <[standards@esta.org](mailto:standards@esta.org)> | 271 Cadman Plaza, P.O. Box 23200 | Brooklyn, NY 11202-3200 [www.esta.org](http://www.esta.org)

**Revision**

BSR/E1.6-1-202x, Powered Hoist Systems (revision of ANSI E1.6-1-2021)

Stakeholders: Powered rigging system manufacturers, system designers, installers, specifiers, users, and owners.

Project Need: This standard is being revised to correspond with updated technology and with changes in recommended industry practice

Interest Categories: Custom Market producers, Mass market producers, Designers, Dealer or rental companies, Users, and General Interest

This standard is a complete revision of the previous version. It establishes requirements for the design, manufacture, installation, inspection, and maintenance of powered hoist systems for lifting and suspension of loads for performance, presentation, and theatrical production. It does not apply to the structure to which the hoist is attached, to attachment of loads to the load-carrying device, or to systems for flying people. Excluded are welded link chain hoists, and manually powered hoists, including auxiliary drill operation.

**ESTA (Entertainment Services and Technology Association)**

Richard Nix <[standards@esta.org](mailto:standards@esta.org)> | 271 Cadman Plaza, P.O. Box 23200 | Brooklyn, NY 11202-3200 [www.esta.org](http://www.esta.org)

***New Standard***

BSR/E1.31-1-202x, Per-slot priority extension for ANSI E1.31 (new standard)

Stakeholders: Architectural Control and Device Manufacturers; Media Server, Lighting, Sound, and Projection System Manufacturers; Integrators; System Programmers; other Entertainment Manufacturers

Project Need: This is a formal adoption of a method already in-use in the entertainment industry.

Interest Categories: Custom Market producers, Mass market producers, Designers, Dealer or rental companies, Users, and General Interest

ANSI E1.31 provides a fast and efficient mechanism to transport the well-understood ANSI E1.11 protocol, but it also introduces a complication not possible in the original DMX standard -- multiple sources. ANSI E1.31 does not cover cases where a controller wants to explicitly control a small subsection of values without disturbing the rest. Over the course of time, entertainment manufacturers created a technique to individually set priorities per-slot. This extension to E1.31 formally codifies that technique as an American National Standard.

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Richard Nix <[standards@esta.org](mailto:standards@esta.org)> | 271 Cadman Plaza, P.O. Box 23200 | Brooklyn, NY 11202-3200 [www.esta.org](http://www.esta.org)

***New Standard***

BSR/ES1.43-202x, Event Safety – Material Handling (new standard)

Stakeholders: Event organizers, producers, and event personnel

Project Need: Material handling and the related field of ergonomics are some of the most common and potentially life changing injury hazards that people in the event and entertainment industry face. Many might reasonably point out that several material handling standards and regulations already exist, yet despite their existence the rate of life-changing injury and death in the event and entertainment industry remain unacceptably high. Material handling in the entertainment industry is unique and complex when compared to the existing ANSI standards related to material handling, which focus on industrial or warehouse settings with specific types of materials, and lack the context or visibility to effectively change the behaviors of event organizers and event personnel.

Interest Categories: Designers; Dealer or rental companies; Equipment providers; Event producers; Event workers; Performing artists; Insurance companies

This standard addresses provision, availability, and use of safe material handling procedures, equipment, training & planning at special events. It will help identify and assess specific material handling hazards specific to the event environment, and help the reader to understand how lack of planning, appropriate equipment, and training can negatively impact life safety at an event.

**ESTA (Entertainment Services and Technology Association)**

Richard Nix <[standards@esta.org](mailto:standards@esta.org)> | 271 Cadman Plaza, P.O. Box 23200 | Brooklyn, NY 11202-3200 [www.esta.org](http://www.esta.org)

**Revision**

BSR/E1.51-202x, The Selection, Installation, and Use of Single-Conductor Portable Power Feeder Cable Systems for Use at 600 Volts Nominal or Less for the Distribution of Electrical Energy in the Television, Film, Live Performance and Event Industries in Canada (revision of ANSI E1.51-2018)

Stakeholders: Film, television, and special event companies working in Canada, whether US-based or domestic; stage electricians, film studio and location electricians; employers of these workers.

Project Need: Recent changes to the CEC have rendered some of the existing requirements of ANSI E1.51 outdated, so they must be brought current in order to maintain correlation with the CEC.

Interest Categories: Custom Market producers, Mass market producers, Designers, Dealer or rental companies, Users, and General Interest

ANSI E1.51 is being revised to correlate and harmonize with new requirements in the Canadian Electrical Code. This standard covers the selection, installation, and safe use of single-conductor portable power feeder cable for events of a temporary nature in Canada. For the purposes of this Standard, "single-conductor portable power feeder cable system" covers any use of these cable types and single-pole separable connectors, both in-line and panel mounted, between the load terminals of the main overcurrent protection device used to energize the system and the line terminals of the feeder inlet of the last disconnecting means or utilization equipment.

**ESTA (Entertainment Services and Technology Association)**

Richard Nix <[standards@esta.org](mailto:standards@esta.org)> | 271 Cadman Plaza, P.O. Box 23200 | Brooklyn, NY 11202-3200 [www.esta.org](http://www.esta.org)

**New Standard**

BSR/E1.73-5-202x, Gobo Definitions Library for E1.73-1 Next Gen Entertainment Control Model: Uniform Device Representation (UDR) (new standard)

Stakeholders: Entertainment equipment manufacturers (lighting, automation, sound, video etc.), organizations and users making use of this equipment.

Project Need: This standard provides an industry-recognized consistent way of understanding the structure and capabilities of devices across all parts of the entertainment and architectural disciplines.

Interest Categories: Custom Market producers, Mass market producers, Designers, Dealer or rental companies, Users, and General Interest

This standard defines structures and uses of the data model and structures defined in E1.73-1 Uniform Device Representation related to understanding and manipulating gobo capabilities. These objects are expected to be used by many implementers of the UDR standard to describe entertainment and architectural devices. The definitions provided are intended to describe visual and audio elements of a production or environment.

**ESTA (Entertainment Services and Technology Association)**

Richard Nix <[standards@esta.org](mailto:standards@esta.org)> | 271 Cadman Plaza, P.O. Box 23200 | Brooklyn, NY 11202-3200 [www.esta.org](http://www.esta.org)

***New Standard***

BSR/E1.73-6-202x, Shape Definitions Library for E1.73-1 Next Gen Entertainment Control Model: Uniform Device Representation (UDR) (new standard)

Stakeholders: Entertainment equipment manufacturers (lighting, automation, sound, video etc.), organizations and users making use of this equipment.

Project Need: This standard provides an industry-recognized consistent way of understanding the structure and capabilities of devices across all parts of the entertainment and architectural disciplines.

Interest Categories: Custom Market producers, Mass market producers, Designers, Dealer or rental companies, Users, and General Interest

This standard defines structures and uses of the data model and structures defined in E1.73-1 Uniform Device Representation related to understanding and manipulating shape capabilities. These objects are expected to be used by many implementers of the UDR standard to describe entertainment and architectural devices. The definitions provided are intended to describe visual and audio elements of a production or environment.

**ESTA (Entertainment Services and Technology Association)**

Richard Nix <[standards@esta.org](mailto:standards@esta.org)> | 271 Cadman Plaza, P.O. Box 23200 | Brooklyn, NY 11202-3200 [www.esta.org](http://www.esta.org)

***New Standard***

BSR/E1.81-202x, Rigging System Signage Requirements (new standard)

Stakeholders: Rigging equipment manufacturers, installers, consultants, users, facilities management

Project Need: Some ANS entertainment rigging equipment standards include a requirement for signs and labels to warn users of operational hazards, and refer to the ANSI Z535 suite of standards for the design of those materials. However, ANSI Z535 addresses primarily only the visual aspects of the signs with only some basic guidance as to how the consequences of exposure, i.e., Warning vs. Danger vs. Notice, may be distinguished. Z535 provides no guidance for the hazards that are typical of the common types of stage equipment, nor guidance to help identify the hazards for which other warnings may be required. Equipment designers need guidance through the process of identifying residual risk after design and in the creation of signs and labels to warn about them.

Interest Categories: Custom Market producers, Mass market producers, Designers, Dealer or rental companies, Users, and General Interest

This standard applies to general, warning, caution, operational, instructional, and miscellaneous signage to be provided for entertainment rigging systems: Statically suspended, Rope and sandbag, Manual counterweight, Powered hoists, Manual hoists, and Fire safety curtains. Signage requirements for live performer flying is not included.



## IEEE (Institute of Electrical and Electronics Engineers)

Suzanne Merten <[s.merten@ieee.org](mailto:s.merten@ieee.org)> | 445 Hoes Lane | Piscataway, NJ 08854-4141 [www.ieee.org](http://www.ieee.org)

### **Revision**

BSR/IEEE 400.4-202x, Guide for Field Testing of Shielded Power Cable Systems Rated 5 kV and Above with Damped Alternating Current (DAC) Voltage (revision of ANSI/IEEE 400.4-2015)

Stakeholders: Electrical power utilities, industrial plants with electrical power distribution systems.

Project Need: Cables and their accessories are a significant part of any electrical distribution and transmission system and demand high reliability and long life expectancy. In order to achieve optimum performance of the power cable system, standards and guidelines have been developed that address the specific testing and diagnostic requirements and recommendations for all types of new and service-aged cable systems. This guide is one part of an omnibus guide that discusses known techniques for performing electrical tests in the field on shielded power cable systems. The current guide was initially published in 2015, and will be expired in 2025. The power cable industry has gained more experiences from new applications of this technology in power cable diagnosis in the last 7 years. Additionally, power cable technologies and applications are evolving with the new trends in power systems such as electrification, renewable energies, environmental requirements, etc. Therefore, this guide needs to be updated to implement this technology and to accommodate the evolvement of modern power systems.

Interest Categories: A subset of the interest categories on this list is expected to comprise the consensus body: <https://ieee.box.com/v/Interest-Categories>

This guide presents the applicability of performing and evaluating testing and diagnosis of shielded power cable systems rated 5 kV and above using damped alternating current voltages (DAC). It applies to all types of shielded power cable systems that are intended for the transmission or distribution of electric power.

## IEEE (Institute of Electrical and Electronics Engineers)

Suzanne Merten <[s.merten@ieee.org](mailto:s.merten@ieee.org)> | 445 Hoes Lane | Piscataway, NJ 08854-4141 [www.ieee.org](http://www.ieee.org)

### **New Standard**

BSR/IEEE 690-202x, Standard for Design and Installation of Cable Systems for Class 1E Circuits in Nuclear facilities (new standard)

Stakeholders: Stakeholders for the Standard include owners, operators, engineers and designers of nuclear facilities, regulatory authorities, and manufacturers.

Project Need: There's a need to upgrade to current industry requirements and update of references.

Interest Categories: A subset of the interest categories on this list is expected to comprise the consensus body: <https://ieee.box.com/v/Interest-Categories>

This standard provides direction for the design and installation of safety-related electrical cable systems, including associated circuits, in nuclear facilities. Guidance is also provided for:

- Design, installation, and performance requirements of those nonsafety-related cable systems that may affect the function of safety-related systems.
- Applications of cable-penetration, fire stops, cable fire breaks, and cable-system enclosures for cable systems for Class 1E circuits.

## IEEE (Institute of Electrical and Electronics Engineers)

Suzanne Merten <[s.merten@ieee.org](mailto:s.merten@ieee.org)> | 445 Hoes Lane | Piscataway, NJ 08854-4141 [www.ieee.org](http://www.ieee.org)

### **Revision**

BSR/IEEE 1242-202x, Guide for Specifying and Selecting Power, Control, and Special-Purpose Cable for Petroleum and Chemical Plants (revision of ANSI/IEEE 1242-2016)

Stakeholders: Petrochemical Plants and Refineries, Engineering Firms, Wire and Cable Manufacturers, Oil and Gas Companies

Project Need: The purpose of this revision is to update this Guide to include the latest cable engineering technology, methods, materials, and installation practices designed to improve the performance of these cables. Each clause of the guide will be reviewed for correctness and additional clauses will be added to reflect the the latest, as well as time-tested, technology for cables used in petrochemical plants

Interest Categories: A subset of the interest categories on this list is expected to comprise the consensus body: <https://ieee.box.com/v/Interest-Categories>

This guide provides information on the specification and selection of power, control, and special-purpose cable, as typically used in petroleum, chemical, and similar plants. It addresses materials, design, testing, installations, and applications. More recent developments, such as fire-rated circuit integrity cables are included. This guide is not intended to be a design document, although many of the problems associated with the specification and selection of power, control, and special-purpose cable for petroleum and chemical plant applications can be avoided by considering the information presented in this guide. It is recognized that there may be other types of cable used in the petroleum and chemical industries, especially considering the global marketplace. This guide does not preclude the use of such cables.

## IEEE (Institute of Electrical and Electronics Engineers)

Suzanne Merten <[s.merten@ieee.org](mailto:s.merten@ieee.org)> | 445 Hoes Lane | Piscataway, NJ 08854-4141 [www.ieee.org](http://www.ieee.org)

### **New Standard**

BSR/IEEE 1848.1-202x, Standard for Techniques & Measures to Manage Functional Safety and Other Risks With Regard to Electromagnetic Disturbances – Machinery Sector (new standard)

Stakeholders: Designers of electronic products, equipment, systems, machinery, and installations. Manufacturers of electronic products, equipment, systems, machinery, and installations. Owners and users of products, equipment, systems, machinery, and installations that incorporate digital electronic control. Specialized risk assessors, whether for Functional Safety, Medical Risk, or other issues for which risk must be managed.

Project Need: There is a rapid increase in modern digital technologies in all applications, plus many new applications that have only been made possible by such technologies. Many of these applications require the management of risks using functional safety techniques to achieve acceptably low failure rates throughout their life. The need to manage these risks led to the publication of numerous functional safety standards, including IEC 62061 and ISO 13849, used in the machinery sector. The current approach for managing risks due to Electromagnetic Interference (EMI) is to test the control systems for immunity to a subset of electromagnetic disturbances. However, it has been apparent for many years that testing alone is insufficient to ensure adequate performance of safety systems. Adding the techniques and measures envisioned in this standard to the present Electromagnetic Compatibility (EMC) laboratory testing regime will make it practical to adequately demonstrate to an independent assessor that electromagnetic disturbances will not cause unacceptable failures in safety systems and limit the related risks to tolerable levels. This IEEE standard will fill the increasing need for a robust set of appropriate requirements.

Interest Categories: A subset of the interest categories on this list is expected to comprise the consensus body: <https://ieee.box.com/v/Interest-Categories>

This standard provides a set of practical techniques and measures for managing functional safety and other risks due to electromagnetic (EM) disturbances throughout the life of industrial and consumer machinery products. These risks include hardware and software errors, malfunctions or failures in sub-systems, equipment, and systems that employ modern digital technologies (i.e., hardware and software). Exclusions: Excluded from the scope of this standard are medical machinery, e.g., surgical robots, laboratory equipment, imaging systems, etc. Other sector-specific standards cover these products.

**IEEE (Institute of Electrical and Electronics Engineers)**

Suzanne Merten <[s.merten@ieee.org](mailto:s.merten@ieee.org)> | 445 Hoes Lane | Piscataway, NJ 08854-4141 [www.ieee.org](http://www.ieee.org)

***New Standard***

BSR/IEEE 1945-202x, Standard for Internet of Things (IoT) Computing Edge Computing on Unmanned Aircraft Systems - Part 1: General Requirements (new standard)

Stakeholders: Manufacturers/users/regulators of Unmanned Aircraft Systems.

Project Need: With the increasingly complex applications of UAS, the requirements for on-board arithmetic power are getting higher and higher. This standard applies to the design, development, and application of edge computing nodes in UAS to solve the problem of insufficient on-board arithmetic power of UAS.

Interest Categories: A subset of the interest categories on this list is expected to comprise the consensus body: <https://ieee.box.com/v/Interest-Categories>

This document provides definitions of Internet of Things (IoT) edge computing terms and types of edge computing nodes for Unmanned Aircraft Systems (UASs), proposes a system architecture and a functional architecture for UAS edge computing, and specifies the functional requirements of UAS edge computing nodes.

**IEEE (Institute of Electrical and Electronics Engineers)**

Suzanne Merten <[s.merten@ieee.org](mailto:s.merten@ieee.org)> | 445 Hoes Lane | Piscataway, NJ 08854-4141 [www.ieee.org](http://www.ieee.org)

***New Standard***

BSR/IEEE 2776-202x, Guide for Specifying and Selecting Cables for Nuclear Facilities (new standard)

Stakeholders: Nuclear Utilities, Other Nuclear Facilities, Nuclear Power Plant and Facility Designers, and Manufacturers

Project Need: A guide that may be used to specify polymeric cable designs intended for use in nuclear facilities based on empirically derived operational experience does not exist. The nuclear industry would utilize the guide to help assure safe and reliable operation of polymeric cables intended to be installed in nuclear facilities.

Interest Categories: A subset of the interest categories on this list is expected to comprise the consensus body: <https://ieee.box.com/v/Interest-Categories>

This document provides guidance for specifying appropriate polymeric cable designs for applications in nuclear facilities based upon anticipated environmental conditions, intended performance classifications, and historic operational experience. Performance classifications are delineated by voltage level (e.g., medium voltage and low voltage) and cable type (e.g., control, instrumentation, power, thermocouple). Environmental conditions include one or a combination of thermal, radiation, submerged/wetted, flexing/mechanical, and chemical exposures (e.g., chemical spray, oils, cable lubricants, hydraulic oils).

## IEEE (Institute of Electrical and Electronics Engineers)

Suzanne Merten <[s.merten@ieee.org](mailto:s.merten@ieee.org)> | 445 Hoes Lane | Piscataway, NJ 08854-4141 [www.ieee.org](http://www.ieee.org)

### ***New Standard***

BSR/IEEE 3005.2-202x, Recommended Practice for Application of Generator Systems for Emergency and Standby Power in Industrial and Commercial Power Systems. (new standard)

Stakeholders: Engine-generator suppliers, fuel cell suppliers, healthcare, data centers, communication providers, manufacturers, commercial buildings, architects, and building engineers.

Project Need: A reliable electrical power supply is increasingly critical to operation of industrial and commercial power systems due to increased utilization of technology in fields ranging from health care to manufacturing. This recommended practice will provide guidance for engineers in the design, specification and installation of generators as sources in emergency and standby power systems. The availability of this information will promote correct application of generators and improved reliability of the systems they supply.

Interest Categories: A subset of the interest categories on this list is expected to comprise the consensus body: <https://ieee.box.com/v/Interest-Categories>

This recommended practice describes considerations for the application of electric generator systems as emergency and standby power sources in industrial and commercial power systems. Both rotating machines driven by engines or turbines and static inverters associated with chemical energy sources are addressed. Information is provided on alternator and inverter characteristics, prime mover types, fuel supply, controls, auxiliary systems, sizing criteria and installation considerations.

## IEEE (Institute of Electrical and Electronics Engineers)

Suzanne Merten <[s.merten@ieee.org](mailto:s.merten@ieee.org)> | 445 Hoes Lane | Piscataway, NJ 08854-4141 [www.ieee.org](http://www.ieee.org)

### ***New Standard***

BSR/IEEE 3386-202x, Standard for Defining and Inferring User Accessibility Needs for Applications including Augmented Reality and Artificial Intelligence Systems (new standard)

Stakeholders: Software producers and consumers

Project Need: Generally speaking, there is not a consistently agreed-upon method that defines how to build an application or a website that is fully accessible. By seeking guidance from, for example, Web Content Accessibility Guidelines (WCAG), we aim to recommend practices for building more accessible applications by enabling auto-detection of accessibility needs and availability, auto-speech-to-text, information processing, multimodal presentation, and captioning.

Interest Categories: A subset of the interest categories on this list is expected to comprise the consensus body: <https://ieee.box.com/v/Interest-Categories>

The standard supports the development of accessible applications including augmented reality and artificial intelligence to address insufficiencies with existing content accessibility guidelines. Through the establishment of defined user accessibility needs and accommodation needs, this standard supports user interactions. Accessible applications include speech to text, text processing, information presentation, cued speech, captioning media, text to speech, cognitive load and auto-detection of user accessibility limitations that may exist in augmented reality technologies and applications.

## IEEE (Institute of Electrical and Electronics Engineers)

Suzanne Merten <[s.merten@ieee.org](mailto:s.merten@ieee.org)> | 445 Hoes Lane | Piscataway, NJ 08854-4141 [www.ieee.org](http://www.ieee.org)

### ***New Standard***

BSR/IEEE 3393-202x, Recommended Practice on the Application of IEEE Std 1653.2, Standard for Uncontrolled Traction Power Rectifiers for Substation Applications up to 1500 V DC Nominal Output, to Power Components other than Rectifiers (new standard)

Stakeholders: Transit Authorities, Manufacturers and Consultants

Project Need: This project provides clarification on the application of IEEE Std 1653.2 for equipment other than rectifiers since there is currently no standard available to address this subject.

Interest Categories: A subset of the interest categories on this list is expected to comprise the consensus body: <https://ieee.box.com/v/Interest-Categories>

This recommended practice provides methods and calculations to determine the sizing and testing methods of infrastructure components other than rectifiers. It uses IEEE Std 1653.2-2020, which provides testing methods for rectifiers, as its basis.

## IEEE (Institute of Electrical and Electronics Engineers)

Suzanne Merten <[s.merten@ieee.org](mailto:s.merten@ieee.org)> | 445 Hoes Lane | Piscataway, NJ 08854-4141 [www.ieee.org](http://www.ieee.org)

### ***New Standard***

BSR/IEEE 3407-202x, Standard for End-to-End Software Testing Automation Tools (new standard)

Stakeholders: All software industries and the industries that are looking to test software products in real integration environments to deliver high quality by reducing the testing overhead & cost.

Project Need: The standardization of end-to-end software testing automation tools is necessary to develop high-quality software products with less testing effort. These standard tools are also used to standardize the software testing processes in the industries to increase productivity and quality of the products.

Interest Categories: A subset of the interest categories on this list is expected to comprise the consensus body: <https://ieee.box.com/v/Interest-Categories>

This standard addresses end-to-end software testing automation tools that are used to test end-to-end functionalities of the system in real software integration environments. These standardized tools are used to prepare and execute testing automation scripts faster to deliver high-quality products by reducing the overhead on automation scripts preparation, maintenance, and execution. The end-to-end testing automation covers the testing of each layer of the application that includes functional/integration testing (includes but not limited to user interface testing, application programming interface (API) testing, data flow and data testing, business logic testing, messaging testing, and visualization testing), performance testing and load testing. This standard also covers the grouping mechanisms of the test scenarios to group the scenarios in different categories like regression test, sanity test, smoke test, load test and with the ability to support custom tags so that the categorized test scenarios can be executed independently. The scope of this standard is to provide a minimum set of requirements for these tools.

## IEEE (Institute of Electrical and Electronics Engineers)

Suzanne Merten <[s.merten@ieee.org](mailto:s.merten@ieee.org)> | 445 Hoes Lane | Piscataway, NJ 08854-4141 [www.ieee.org](http://www.ieee.org)

### ***New Standard***

BSR/IEEE 3415-202x, Guide for Sampling Evaluation of the State of Operating Electrical Energy Meters (new standard)  
Stakeholders: Stakeholders for this proposed guide mainly include utilities, testing agencies, meter manufacturers, meter research institutes, universities and other interested organizations.

Project Need: There are many manufacturers, types and specifications of electrical energy meters. It is necessary to study the characteristics of different electrical energy meters, set up an appropriate lot and sampling system, and form a plan for evaluating the state of lots, so as to provide sufficient data support for managing the electrical energy meters. Operating environment affects the metering characteristics and service life of electrical energy meters. However, existing standards for electrical energy meters are all based on fixed test conditions, ignoring the impact of environmental factors. The sampling evaluation method specified in this guide can save social resources and reduce e-waste pollution while ensuring the fairness of electricity metering. Through big data analysis, it can also predict the potential risk of electrical energy meters in advance, help the selection of electrical energy meters, and promote the healthy development of electrical energy meters industry. Therefore, it is urgent to develop a technical guide to give guidance on sampling evaluation of the state of operating electrical energy meters.

Interest Categories: A subset of the interest categories on this list is expected to comprise the consensus body: <https://ieee.box.com/v/Interest-Categories>

This guide describes the formation of lots, sampling impact factors, sampling systems, evaluation methods, and other contents in the sampling evaluation of the state of operating electrical energy meters. This guide applies to the operating electrical energy meters managed by the utilities, whose electrical parameters are obtained through the electrical energy data acquisition system, and directs the process of the sampling evaluation.

## IEEE (Institute of Electrical and Electronics Engineers)

Suzanne Merten <[s.merten@ieee.org](mailto:s.merten@ieee.org)> | 445 Hoes Lane | Piscataway, NJ 08854-4141 [www.ieee.org](http://www.ieee.org)

### ***New Standard***

BSR/IEEE 3418-202x, Guide for the Selection of Permanent Grounding Components for Overhead Transmission Lines (new standard)

Stakeholders: Researchers, designers, operations and maintenance staff, grounding engineering design companies, grounding material manufacturers, and grounding material quality inspection organizations.

Project Need: Due to the complexity of climate and soil environments, the design of grounding devices for transmission lines may face problems such as non-compliant grounding resistance or excessive material waste. Although existing standards have been developed for protective grounding and lightning protection systems for overhead transmission lines, there is a lack of technical requirements and standards for specific guidance on the selection of grounding materials for overhead transmission lines. Therefore, it is necessary to comprehensively define the guidelines for the selection of materials for overhead transmission lines and to unify their standards. The publication of this standard will provide more convenience and benefits to users such as operation and maintenance staffs.

Interest Categories: A subset of the interest categories on this list is expected to comprise the consensus body: <https://ieee.box.com/v/Interest-Categories>

This guide describes the classification and selection of materials and components for permanent grounding on alternating current (AC) and direct current (DC) overhead transmission lines. This guide applies to the grounding materials used on overhead transmission line structures, including the principal materials, auxiliary materials, and connectors.

## IEEE (Institute of Electrical and Electronics Engineers)

Suzanne Merten <[s.merten@ieee.org](mailto:s.merten@ieee.org)> | 445 Hoes Lane | Piscataway, NJ 08854-4141 [www.ieee.org](http://www.ieee.org)

### ***New Standard***

BSR/IEEE 3422-202x, Recommended Practice for Metaverse Ecosystem Reference Models (new standard)

Stakeholders: Developers, operators, and service providers of metaverse applications, metaverse content creators, end users who interact directly or indirectly with metaverse applications.

Project Need: The metaverse is an emerging technology ecosystem incorporating a wide range of information technology and applications. Although industry has already launched metaverses and metaverse-based applications, and although the underlying technologies are similar, there are divergent notions of what constitutes a "metaverse". Reference models aid developers and system integrators define these notions, communicate requirements and specifications, and identify and address issues such as ethics, privacy, and user safety that are of concern to regulatory agencies and the public.

Interest Categories: A subset of the interest categories on this list is expected to comprise the consensus body: <https://ieee.box.com/v/Interest-Categories>

This recommended practice defines reference models for ecosystems based on metaverse-related technologies and applications, including functional components, digital assets, data structures, interfaces, interoperability methods, and application types. This recommended practice addresses ethical as well as technical and architectural considerations.

## IEEE (Institute of Electrical and Electronics Engineers)

Suzanne Merten <[s.merten@ieee.org](mailto:s.merten@ieee.org)> | 445 Hoes Lane | Piscataway, NJ 08854-4141 [www.ieee.org](http://www.ieee.org)

### ***Revision***

BSR/IEEE 60780-323-202x, IEC/IEEE International Standard - Nuclear facilities -- Electrical equipment important to safety -- Qualification (revision of ANSI/IEEE 60780-323-2016)

Stakeholders: The stakeholders are the nuclear power generating stations and nuclear facilities, engineers and designers of qualified equipment, equipment manufacturers, qualification laboratories, etc.

Project Need: Update references and update with current Industry experience for 10-year revision cycle.

Interest Categories: A subset of the interest categories on this list is expected to comprise the consensus body: <https://ieee.box.com/v/Interest-Categories>

This International Standard describes the basic requirements for qualifying electrical equipment important to safety and interfaces (electrical and mechanical) that are to be used in nuclear facilities. The principles, methods, and procedures described are intended to be used for qualifying equipment, maintaining and extending qualification, and updating qualification, as required, if the equipment is modified. The qualification requirements in this standard, when met, demonstrate and document the ability of equipment to perform safety function(s) under applicable service conditions, including design basis events and certain design extension conditions, and reduce the risk of environmentally induced common-cause equipment failure. This standard does not provide environmental stress levels or performance requirements. Other aspects, relating to quality assurance, selection and use of electronic devices, design and modification of digital systems are not part of this standard. Other IEC or IEEE standards that present qualification programmes for specific equipment, specific environments, or specific parts of the qualification programme may be used to supplement this standard, as applicable. The bibliography lists other standards related to equipment qualification.



## IES (Illuminating Engineering Society)

Patricia McGillicuddy <[pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org)> | 120 Wall Street, Floor 17 | New York, NY 10005-4001 [www.ies.org](http://www.ies.org)

### **Revision**

BSR/IES LS-X-202x, Lighting Science: Vision, Perception + Acuity (revision, redesignation and consolidation of ANSI/IES LS-7-2020 and ANSI/IES LS-8-2020)

Stakeholders: Lighting practitioners, electrical engineers, architects, interior designers, the general public.

Project Need: To merge ANSI/IES LS-7-20 Lighting Science: Vision - Eye and Brain and ANSI/IES LS-8-20 Lighting Science: Vision - Perceptions and Performance, to reduce redundancy, provide one comprehensive standard on Vision, and update both with new research references.

Interest Categories: Producers, USER Specifier, USER Affected, USER Public Interest, General Interest Academic Research, General Interest Regulatory.

The purpose of this Lighting Science (LS) document is to describe and explain the human visual system, including its components in the eye and the brain, as well as provide an overview of visual perceptions and performance, covering topics such as brightness, glare, flicker, and visibility. The structure and function of the various components of the human visual system are explained, as well as the ways in which individual people differ in their visual abilities. It is important to note that this document is not intended to provide comprehensive coverage on the subjects contained herein. This document introduces scientific literature and past research results but does not serve as a complete literature review on any specific topic. Basic descriptions and background of visual phenomena are provided to guide lighting practitioners. For some topics, established formulas and processes are reviewed, but specific criteria or other recommendations are not provided. Finally, two annexes are included. Annex A provides a review of psychophysics, which is the primary method of study of human perception and performance, in order to help readers understand the strength and limitations of the provided material. Annex B discusses the known effects of visual factors on driving.

## IES (Illuminating Engineering Society)

Patricia McGillicuddy <[pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org)> | 120 Wall Street, Floor 17 | New York, NY 10005-4001 [www.ies.org](http://www.ies.org)

### **Revision**

BSR/IES LP-1-202x, Lighting Practice: Design and Process Quality Lighting for People and Buildings (revision, redesignation and consolidation of ANSI/IES LP-1-2020 and ANSI/IES LP-7-2020)

Stakeholders: Lighting Practitioners, Electrical Engineers, Architects, Interior Designers, Regulatory, the general public.

Project Need: Merge ANSI/IES LP-1-20, Lighting Practice: Design and Process: Quality Lighting for People and Buildings, and ANSI/IES LP-7-20, Lighting Practice: The Lighting Design and Construction Process, into one comprehensive standard, and update as needed.

Interest Categories: General Interest Regulatory, General Interest Academic Research, USER Specifier, USER Affected, Producer.

BSR/IES LP-1-xx, Lighting Practice: Design and Process: Quality Lighting for People and Buildings, is to introduce architects, lighting designers, design engineers, interior designers and other lighting professionals to the principles of quality lighting design. These principles, related to visual performance, energy and economics, and aesthetics, can be applied to a wide range of interior and exterior spaces to aid designers in providing high-quality lighting to their projects. This document also covers the essential process that a lighting practitioner follows in concert with members of the building team to document a design for construction.



**IES (Illuminating Engineering Society)**

Patricia McGillicuddy <[pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org)> | 120 Wall Street, Floor 17 | New York, NY 10005-4001 [www.ies.org](http://www.ies.org)

***New Standard***

BSR/IES LM-73S-202x, IES Approved Method for Distribution Photometry of Entertainment Lighting Luminaires Using Solid State Light Sources (new standard)

Stakeholders: Lighting practitioners, architects, electrical engineers, interior designers, regulatory, test labs, producers.

Project Need: To provide photometric testing laboratories with a standard method for testing entertainment lighting luminaires utilizing SSL sources, and the calculated quantities and graphs specific to entertainment lighting applications.

Interest Categories: Testing Lab Equipment Manufacturers, Test Lab Users, General Interest Regulatory, General Interest Academic Research, User Affected.

The scope of this test method includes the measurement methods for entertainment lighting luminaires in order to provide the required angular photometric data covered in applicable ANSI/ESTA publications. It describes characteristics of luminaires and some components, as well as the requirements for the thermal environment and proper control of the electrical and mechanical systems required for achieving accurate and consistent photometric results. This approved method covers LED luminaires, OLED luminaires, luminaires utilizing LED lamps, luminaires utilizing OLED lamps, and luminaires utilizing LED light engines, all of which will be referred to as SSL products or device under test (DUT). SSL products are intended to directly connect to AC mains power or to a DC voltage power supply to operate.

**IES (Illuminating Engineering Society)**

Patricia McGillicuddy <[pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org)> | 120 Wall Street, Floor 17 | New York, NY 10005-4001 [www.ies.org](http://www.ies.org)

***Reaffirmation***

BSR/IES LM-63-2020 (R202x), Technical Memorandum: Ray File Format for the Description of the Emission Properties of Light Sources (reaffirmation of ANSI/IES LM-63-2020)

Stakeholders: Lighting practitioners, architects, electrical engineers, interior designers, regulatory, luminaire manufacturers, academic, research.

Project Need: Re-affirm current standard.

Interest Categories: Testing Lab Equipment Manufacturers, Test Lab Users, USER-Specifier, USER-Affected, General Interest Regulatory, General Interest Academic Research, Producer.

Photometric data file formats specifically for data transfer, data storage and retrieval, and other data usage purposes.

## IES (Illuminating Engineering Society)

Patricia McGillicuddy <[pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org)> | 120 Wall Street, Floor 17 | New York, NY 10005-4001 [www.ies.org](http://www.ies.org)

### ***New Standard***

BSR/IES RP- (Transport)-202x, Recommended Practice: Lighting Transportation Facilities (new standard)

Stakeholders: Lighting practitioners, electrical engineers, architects, interior designers, city planning officials, regulatory, luminaire manufacturers, academics, researchers, transportation operators & owners, the general public.

Project Need: This document covers lighting for areas that are specific to transportation terminals. It does not cover lighting for offices within such terminals; corridors, restrooms, or other common areas; retail spaces; parking areas; or the areas where the transport vehicles themselves are found—for example, the airside areas at an airport. (Refer to the Preface for information on the documents that do cover these kinds of applications.)

Interest Categories: USER-Specifier, USER-Affected, Producer, General Interest Regulatory, General Interest Academic Research, USER-Public Interest.

This Recommended Practice (RP) gives recommendations for the ground-based facilities used by air, rail, and bus travelers. They are often complex environments that accommodate large numbers of people as well as queues for checking in and security, food service and retail spaces, and waiting areas. A typical consequence of this is very large spaces that require lighting for a variety of tasks and functions. Urban areas of even modest size have airports and bus terminals that are important for local trade, transportation, and economic growth. Major cities have large airports with multiple terminals. It is important that these complexes provide for not only the practical mechanics of traveling for thousands of travelers, such as checking in, security, baggage handling, and waiting, but also venues for food service and retail, and comfortable and attractive spaces for business travelers and tourists.

## IES (Illuminating Engineering Society)

Patricia McGillicuddy <[pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org)> | 120 Wall Street, Floor 17 | New York, NY 10005-4001 [www.ies.org](http://www.ies.org)

### ***Revision***

BSR/IES RP-43-202x, Recommended Practice: Outdoor Lighting Design for People and the Environment (revision, redesignation and consolidation of ANSI/IES RP-43-2022, ANSI/IES LP-2-2020 and ANSI/IES LP-11-2020)

Stakeholders: Lighting practitioners, architects, electrical engineers, interior designers, regulatory, academic, research, landscape, the general public.

Project Need: Merge ANSI/IES LP-2-20, Lighting Practice: Designing Quality Lighting for People in Outdoor Environments; ANSI/IES LP-11-20, Lighting Practice: Environmental Considerations for Outdoor Lighting; and ANSI/IES RP-43-22, Recommended Practice: Lighting Exterior Applications into one comprehensive standard and update with new best practices and research.

Interest Categories: USER-specifier, General Interest Regulatory, General Interest Academic Research, Producers, USER-Affected.

To provide pedestrian-oriented lighting recommendations for the reassurance, safety, comfort, amenity, and enjoyment of pedestrians in outdoor environments. These recommendations provide a general basis for lighting and space design, including the flexibility for application of multiple methods. In addition, the new document will outline the environmental considerations of exterior lighting, especially as related to glare, sky glow, light trespass and the impact of electric light at night on flora and fauna. The new document will contain revised Lighting Zone definitions in a Normative (required) Annex.

**IES (Illuminating Engineering Society)**

Patricia McGillicuddy <[pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org)> | 120 Wall Street, Floor 17 | New York, NY 10005-4001 [www.ies.org](http://www.ies.org)

**Reaffirmation**

BSR/IES TM-25-2020 (R202x), Technical Memorandum: Ray File Format for the Description of the Emission Properties of Light Sources (reaffirmation of ANSI/IES TM-25-2020)

Stakeholders: Lighting practitioners, electrical engineers, architects, interior designers, test labs, luminaire manufacturers, regulatory, academic, research, the general public.

Project Need: Re-affirm current standard.

Interest Categories: Testing Lab Equipment Manufacturers, Testing Equipment Users, USER-Specifiers, USER-Affected, Producers, General Interest Regulatory, General Interest Academic Research.

Standard ray file format to describe the emission properties of light sources. The ray file format contains information necessary to interface between ray tracing or other optical design, simulation, analysis and metrology software used in lighting applications.

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Patricia McGillicuddy <[pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org)> | 120 Wall Street, Floor 17 | New York, NY 10005-4001 [www.ies.org](http://www.ies.org)

**Reaffirmation**

BSR/IES TM-27-2020 (R202x), Technical Memorandum: IES Standard Format for the Electronic Transfer of Spectral Data (reaffirmation of ANSI/IES TM-27-2020)

Stakeholders: Lighting practitioners, electrical engineers, architects, interior designers, test lab equipment manufacturers, test lab users, luminaire manufacturers, the general public.

Project Need: Re-affirm current standard.

Interest Categories: USER-Specifier, Producer, Test Lab Equipment Manf, Test Lab User, General Interest Regulatory, General Interest Academic Research, USER-Affected.

Transfer of spectral data of optical radiation including light sources, lamps, and luminaires, as well as reflectance and transmittance spectra of materials.

**ISA (Organization) (International Society of Automation)**

Charley Robinson <[crobinson@isa.org](mailto:crobinson@isa.org)> | 3252 S. Miami Blvd, Suite 102 | Durham, NC 27703 [www.isa.org](http://www.isa.org)

**Revision**

BSR/ISA 96.08.01-202x, Guidelines for the Specification of Linear and Rotary Gas Over Oil Valve Actuators (revision of ANSI/ISA 96.08.01-2017)

Stakeholders: End users, suppliers and related that are involved in applying Linear and Rotary Gas Over Oil Valve Actuators in industrial processing applications.

Project Need: To establish minimum design requirements and to assist users in specifying gas over oil valve actuators.

Interest Categories: End users, producers, consultants/general.

This standard provides basic requirements for mechanical integrity, selection and sizing of gas over oil actuators, both rotary and linear, provided in double and single acting designs. Actuators for rotative applications may include scotch yoke type, rotary vane type, or helical spline. For linear applications, actuators shall be of the linear hydraulic design. This document applies to actuators with a maximum allowable operating pressure from 150 psig to 1500 psig using direct piped natural or sour gas segregated from the actuator by means of gas-over-oil tanks.

# 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](mailto:psa@ansi.org)

\* Standard for consumer products

## Comment Deadline: December 3, 2023

### ACMA (American Composites Manufacturers Association)

2000 N. 15th Street, Suite 250, Arlington, VA 22201 | [Lphillips@acmanet.org](mailto:Lphillips@acmanet.org), [www.acmanet.org](http://www.acmanet.org)

#### *New Standard*

ANSI/ACMA/UCSC-FRP Composite Utility Poles-1-2018, Standard Specification for FRP Composite Utility Poles (new standard)

By developing a Standard Specification for FRP Composite Utility Poles, the UCSC will be able to bring further understanding of composites as well as communicate the means to specify these products properly. This standard specification is consistent with the UCSC mission 'to improve power delivery and communications infrastructure by promoting the use and understanding of composite poles and crossarms for electrical distribution, transmission and communication structure applications.

[Click here to view these changes in full](#)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: La'kia Phillips <[Lphillips@acmanet.org](mailto:Lphillips@acmanet.org)>

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

180 Technology Parkway, Peachtree Corners, GA 30092 | [cking@ashrae.org](mailto:cking@ashrae.org), [www.ashrae.org](http://www.ashrae.org)

#### *Addenda*

BSR/ASHRAE Addendum d to ANSI/ASHRAE Standard 30-2019, Method of Testing Liquid Chillers (addenda to ANSI/ASHRAE Standard 30-2019)

The purpose of Addendum d to Standard 30-2019 is to align the stability requirements in the standard with the measurements supporting the purpose of the test. The purposes of the test include measurement of thermal capacity and energy efficiency.

[Click here to view these changes in full](#)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: <http://www.ashrae.org/standards-research-technology/public-review-drafts>

## Comment Deadline: December 3, 2023

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

180 Technology Parkway, Peachtree Corners, GA 30092 | [rshanley@ashrae.org](mailto:rshanley@ashrae.org), [www.ashrae.org](http://www.ashrae.org)

#### **Addenda**

BSR/ASHRAE Addendum i to ANSI/ASHRAE Standard 15-2022, Safety Standard for Refrigeration Systems (addenda to ANSI/ASHRAE Standard 15-2022)

A continuous maintenance proposal was submitted to address the relative pressures (vacuum) of Section 9.2.1 for system design pressure and of Section 9.13.6.1 (leak test during evacuation). Because a refrigeration system would by necessity be subjected to sub-atmospheric pressures during evacuation, the proposal is to modify Section 9.2.1.

[Click here to view these changes in full](#)

Send comments (copy [psa@ansi.org](mailto: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.)**

180 Technology Parkway, Peachtree Corners, GA 30092 | [etoto@ashrae.org](mailto:etoto@ashrae.org), [www.ashrae.org](http://www.ashrae.org)

#### **Addenda**

BSR/ASHRAE/IES Addendum i to ANSI/ASHRAE/IES Standard 90.2-2018, High-Performance Energy Design of Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.2-2018)

This proposed Independent Substantive Change to Addendum i clarifies the new proposed definition for “common areas” in addition to common area component requirements for maximum SHGC and U-factor.

[Click here to view these changes in full](#)

Send comments (copy [psa@ansi.org](mailto: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](mailto:etoto@ashrae.org), [www.ashrae.org](http://www.ashrae.org)

#### **Addenda**

BSR/ASHRAE/IES Addendum j to ANSI/ASHRAE/IES Standard 90.1-2022, Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2022)

This proposed Independent Substantive Change to Addendum j provides some adjustments and clarifications to improve the use of the H01 (HVAC System Performance Improvement) energy credit.

[Click here to view these changes in full](#)

Send comments (copy [psa@ansi.org](mailto: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](mailto:etoto@ashrae.org), [www.ashrae.org](http://www.ashrae.org)

#### **Addenda**

BSR/ASHRAE/IES Addendum j to ANSI/ASHRAE/IES Standard 90.2-2018, High-Performance Energy Design of Residential Buildings (addenda to ANSI/ASHRAE 90.2-2018)

Addendum j proposed new renewable energy requirements. In this version of the addendum, the new provisions for off-site power and energy storage are joined by an additional requirement to use Renewable Energy Certificates (RECs) to assign the off-site production to an owner.

[Click here to view these changes in full](#)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: <https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts>

## Comment Deadline: December 3, 2023

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

180 Technology Parkway, Peachtree Corners, GA 30092 | [etoto@ashrae.org](mailto:etoto@ashrae.org), [www.ashrae.org](http://www.ashrae.org)

#### **Addenda**

BSR/ASHRAE/IES Addendum o to ANSI/ASHRAE/IES Standard 90.2-2018, High-Performance Energy Design of Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.2-2018)

This addendum removes the three-story limitation from the current definition of “residential buildings” to align with the latest approved Title, Purpose, and Scope of 90.2, which includes all residential buildings.

[Click here to view these changes in full](#)

Send comments (copy [psa@ansi.org](mailto: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](mailto:etoto@ashrae.org), [www.ashrae.org](http://www.ashrae.org)

#### **Addenda**

BSR/ASHRAE/IES Addendum q to ANSI/ASHRAE/IES Standard 90.1-2022, Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2022)

Addendum q proposes to add pad-type (wetted media) adiabatic fluid coolers along with a minimum efficiency and the recently published CTI acceptance test code to Table 6.8.1-7 Heat Rejection Equipment. This includes a new definition for pad-type adiabatic coolers and a new Section 13 reference for CTI ATC-105.

[Click here to view these changes in full](#)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: <https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts>

### **EOS/ESD (ESD Association, Inc.)**

218 W. Court Street, Rome, NY 13440 | [jkirk@esda.org](mailto:jkirk@esda.org), <https://www.esda.org>

#### **Revision**

BSR/EOS ESD SP5.0-202x, ESD Association Standard Practice for Electrostatic Discharge Sensitivity Testing - Reporting ESD Withstand Levels on Datasheets (revision of ANSI/ESD SP5.0-2018)

This document applies to ESD withstand level information in datasheets or other information publications such as reliability or qualification reports. All packaged semiconductor devices, thin film circuits, surface acoustic wave (SAW) devices, optoelectronic devices, hybrid integrated circuits (HICs), and multi-chip modules (MCMs) should have this information provided. NOTE: This document does not apply to electrically initiated explosive devices, flammable liquids, or powders.

[Click here to view these changes in full](#)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Christina Earl, [cearl@esda.org](mailto:cearl@esda.org)

## Comment Deadline: December 3, 2023

### NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | [arose@nsf.org](mailto:arose@nsf.org), [www.nsf.org](http://www.nsf.org)

#### Revision

BSR/NSF 49-202x (i128r3), Biosafety Cabinetry: Design, Construction, Performance, and Field Certification (revision of ANSI/NSF 49-2020)

This Standard applies to Class II (laminar flow) biosafety cabinetry designed to minimize hazards inherent in work with agents assigned to biosafety levels 1, 2,3, or 4. It also defines the tests that shall be passed by such cabinetry to meet this Standard. This Standard includes basic requirements for the design, construction, and performance of biosafety cabinets (BSCs) that are intended to provide personnel, product, and environmental protection; reliable operation; durability and structural stability; cleanability; limitations on noise level; illumination; vibration; and motor / blower performance.

[Click here to view these changes in full](#)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: [arose@nsf.org](mailto:arose@nsf.org)

### NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | [arose@nsf.org](mailto:arose@nsf.org), [www.nsf.org](http://www.nsf.org)

#### Revision

BSR/NSF 49-202x (i172r2), Biosafety Cabinetry: Design, Construction, Performance, and Field Certification (revision of ANSI/NSF 49-2022)

This standard applies to Class II (laminar flow) biosafety cabinetry designed to minimize hazards inherent in work with agents assigned to Biosafety Levels 1, 2, 3, or 4. It also defines the tests that shall be passed by such cabinetry to meet this standard.

[Click here to view these changes in full](#)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Allan Rose <[arose@nsf.org](mailto:arose@nsf.org)>

### NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | [arose@nsf.org](mailto:arose@nsf.org), [www.nsf.org](http://www.nsf.org)

#### Revision

BSR/NSF 49-202x (i194r2), Biosafety Cabinetry: Design, Construction, Performance, and Field Certification (revision of ANSI/NSF 49-2022)

This standard applies to Class II (laminar flow) biosafety cabinetry designed to minimize hazards inherent in work with agents assigned to Biosafety Levels 1, 2, 3, or 4. It also defines the tests that shall be passed by such cabinetry to meet this standard.

[Click here to view these changes in full](#)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: [arose@nsf.org](mailto:arose@nsf.org)

### ULSE (UL Standards & Engagement)

333 Pflugstein Road, Northbrook, IL 60062-2096 | [Susan.P.Malohn@ul.org](mailto:Susan.P.Malohn@ul.org), <https://ulse.org/>

#### National Adoption

BSR/UL 62093-202x, Photovoltaic System Power Conversion Equipment - Design Qualification and Type Approval (national adoption of IEC 62093 with modifications and revision of ANSI/UL 62093-2017 (R2021))

1. Revisions to Proposed Second Edition of the UL IEC-Based Standard for Photovoltaic System Power Conversion Equipment – Design Qualification and Type Approval, UL 62093

[Click here to view these changes in full](#)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/ProposalAvailable>.



## Comment Deadline: December 3, 2023

### ULSE (UL Standards & Engagement)

333 Pfingsten Road, Northbrook, IL 60062-2096 | [Lisette.delgado@ul.org](mailto:Lisette.delgado@ul.org), <https://ulse.org/>

#### Revision

BSR/UL 1682-202x, Standard for Safety for Plugs, Receptacles, and Cable Connectors of the Pin and Sleeve Type (revision of ANSI/UL 1682-2022)

This revision of ANSI/UL 1682 expands requirements for Weather-Resistant Receptacles.

[Click here to view these changes in full](#)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/ProposalAvailable>.

### ULSE (UL Standards & Engagement)

100 Queen Street, Suite 1040, Ottawa, ON K1P 1J9 Canada | [celine.eid@ul.org](mailto:celine.eid@ul.org), <https://ulse.org/>

#### Revision

BSR/UL 1990-202x, Standard for Safety for Nonmetallic Underground HDPE Conduit with Conductors (revision of ANSI/UL 1990-2023)

1. Referenced Publication Correction 2. Unit Conversion Error

[Click here to view these changes in full](#)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area <https://csds.ul.com/ProposalAvailable>.

## Comment Deadline: December 18, 2023

### AAMI (Association for the Advancement of Medical Instrumentation)

901 N. Glebe Road, Arlington, VA 22203 | [mmiskell@aami.org](mailto:mmiskell@aami.org), [www.aami.org](http://www.aami.org)

#### Reaffirmation

BSR/AAMI/ISO 11137-2 (R202x), Sterilization of health care products-Radiation-Part 2: Establishing the sterilization dose (reaffirmation of ANSI/AAMI/ISO 11137-2, third edition-2013 (R2019))

This document specifies methods for determining the minimum dose needed to achieve a specified requirement for sterility and methods to substantiate the use of 25 kGy or 15 kGy as the sterilization dose to achieve a sterility assurance level, SAL, of 10<sup>-6</sup>. This document also specifies methods of sterilization dose audit used to demonstrate the continued effectiveness of the sterilization dose. This document defines product families for sterilization dose establishment and sterilization dose audit.

Single copy price: \$266.00 (non-member); \$149.00 (member)

Obtain an electronic copy from: Mike Miskell: [mmiskell@aami.org](mailto:mmiskell@aami.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Mike Miskell: [mmiskell@aami.org](mailto:mmiskell@aami.org)



## Comment Deadline: December 18, 2023

### ACP (American Clean Power Association)

1501 M Street NW, Suite 1000, Washington, DC 22205 | [dbrown@cleanpower.org](mailto:dbrown@cleanpower.org), [www.cleanpower.org](http://www.cleanpower.org)

#### ***New Standard***

BSR/ACP OCRP-4-202x, U.S. Recommended Practices for Geotechnical and Geophysical Investigations and Design (new standard)

The recommended practices will focus on: • Offshore wind facilities that may potentially be installed in U.S. state and federal waters in the continental United States, Hawaii, and Alaska, including inland bodies of water such as the Great Lakes • Fresh and salt water at any water depth • All wind turbine generating (WTG) substructures and foundations in contact with the sea floor • All offshore substations, meteorological towers and other offshore wind components in contact with the sea floor • Fixed bottom and floating structure associated with offshore wind components • All phases of project life: planning, designing, constructing, operating, decommissioning and re-powering.

Single copy price: Free

Obtain an electronic copy from: [standards@cleanpower.org](mailto:standards@cleanpower.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Same

### ADA (American Dental Association)

211 East Chicago Avenue, Chicago, IL 60611-2678 | [bralowerp@ada.org](mailto:bralowerp@ada.org), [www.ada.org](http://www.ada.org)

#### ***National Adoption***

BSR/ADA Standard No. 145-202x, Dentistry - Interoperability of CAD/CAM Systems (identical national adoption of ISO 18618:2022 and revision of ANSI/ADA Standard No. 145-2020)

This document specifies an extensible markup language (XML) format to facilitate the transfer of dental case data and CAD/CAM data between software systems.

Single copy price: \$237.00

Obtain an electronic copy from: [standards@ada.org](mailto:standards@ada.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Same

### ADA (American Dental Association)

211 East Chicago Avenue, Chicago, IL 60611-2678 | [bralowerp@ada.org](mailto:bralowerp@ada.org), [www.ada.org](http://www.ada.org)

#### ***National Adoption***

BSR/ADA Standard No. 159-202x, Dentistry - Coiled Springs for Use in Orthodontics (national adoption of ISO 17254:2016, with incorporation of ISO 17254:2016/Amd.1:2020 with modifications and revision of ANSI/ADA Standard No. 159-2018)

This standard applies to coiled springs for use in orthodontic appliances. This standard gives details of methods to compare the physical and mechanical behavior of coiled springs, the test methods by which they can be determined, as well as packaging and labelling requirements.

Single copy price: \$35.00

Obtain an electronic copy from: [standards@ada.org](mailto:standards@ada.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Same

## Comment Deadline: December 18, 2023

### **ADA (American Dental Association)**

211 East Chicago Avenue, Chicago, IL 60611-2678 | [bralowerp@ada.org](mailto:bralowerp@ada.org), [www.ada.org](http://www.ada.org)

#### ***National Adoption***

BSR/ADA Standard No. 180-202x, Dentistry - Test Methods for Rotary Instruments (identical national adoption of ISO 8325:2023)

This document specifies general test methods for rotary instruments used in dentistry. These test methods are used for measuring the dimensional characteristics, neck strength and surface roughness of rotary instruments, such as burs, cutters, polishers, grinding instruments and rotary instruments used for oral surgery such as drills and countersinks.

Single copy price: \$77.00

Obtain an electronic copy from: [standards@ada.org](mailto:standards@ada.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Same

### **ADA (American Dental Association)**

211 East Chicago Avenue, Chicago, IL 60611-2678 | [bralowerp@ada.org](mailto:bralowerp@ada.org), [www.ada.org](http://www.ada.org)

#### ***National Adoption***

BSR/ADA Standard No. 209-202x, Dentistry - Test Method for the Evaluation of High Temperature Sintering Furnace Measurement with a Separate Thermocouple (identical national adoption of ISO 13078-3:2023)

This document specifies a test method for the calibration of resistance-heated high temperature sintering furnaces that are suitable for the sintering of dental restorations in the temperature range up to 1 700 °C.

Single copy price: \$51.00

Obtain an electronic copy from: [standards@ada.org](mailto:standards@ada.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Same

### **ADA (American Dental Association)**

211 East Chicago Avenue, Chicago, IL 60611-2678 | [bralowerp@ada.org](mailto:bralowerp@ada.org), [www.ada.org](http://www.ada.org)

#### ***National Adoption***

BSR/ADA Standard No. 212-202x, Dentistry - Powder Jet Handpieces and Powders (identical national adoption of ISO 20608:2018)

This document specifies the general requirements, test methods, manufacturer's information, marking and packaging of powder jet handpieces and their associated powders for use in the field of dentistry.

Single copy price: \$116.00

Obtain an electronic copy from: [standards@ada.org](mailto:standards@ada.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Same

### **ADA (American Dental Association)**

211 East Chicago Avenue, Chicago, IL 60611-2678 | [bralowerp@ada.org](mailto:bralowerp@ada.org), [www.ada.org](http://www.ada.org)

#### ***National Adoption***

BSR/ADA Standard No. 213-202x, Dentistry - Intraoral Camera (identical national adoption of ISO 23450:2021)

This document specifies requirements and test methods for intraoral cameras used in dentistry on patients for pictorial representation of oral cavities in order to support diagnosis and facilitate patient information. It specifies requirements, test methods, instructions for use and marking.

Single copy price: \$116.00

Obtain an electronic copy from: [standards@ada.org](mailto:standards@ada.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Same

## Comment Deadline: December 18, 2023

### ADA (American Dental Association)

211 East Chicago Avenue, Chicago, IL 60611-2678 | [bralowerp@ada.org](mailto:bralowerp@ada.org), [www.ada.org](http://www.ada.org)

#### *National Adoption*

BSR/ADA Standard No. 32-202x, Dentistry - Orthodontic Wires (national adoption of ISO 15841:2014, with incorporation of ISO 15841:2014/Amd.1:2020 with modifications and revision of ANSI/ADA Standard No. 32-2017)

This standard specifies requirements and test methods for wires to be used in fixed and removable orthodontic appliances.

Single copy price: \$65.00

Obtain an electronic copy from: [standards@ada.org](mailto:standards@ada.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Same

### ADA (American Dental Association)

211 East Chicago Avenue, Chicago, IL 60611-2678 | [bralowerp@ada.org](mailto:bralowerp@ada.org), [www.ada.org](http://www.ada.org)

#### *National Adoption*

BSR/ADA Standard No. 73-202x, Dentistry - Endodontic Absorbent Points (identical national adoption of ISO 7551:2023 and revision of ANSI/ADA Standard No. 73-2008 (R2020))

This document specifies the requirements and test methods for sterilized absorbent points used in endodontic procedures. This document specifies numerical systems and a color-coding system for designating the sizes of absorbent points.

Single copy price: \$77.00

Obtain an electronic copy from: [standards@ada.org](mailto:standards@ada.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Same

### ADA (American Dental Association)

211 East Chicago Avenue, Chicago, IL 60611-2678 | [bralowerp@ada.org](mailto:bralowerp@ada.org), [www.ada.org](http://www.ada.org)

#### *New Standard*

BSR/ADA Standard No. 1111-202x, Dentistry - Oral Dataset Interoperability Network (new standard)

This standard will provide guidance for the identification and implementation of secure synchronization, access, user authentication, transfer and storage of dental data within an interoperable network.

Single copy price: \$35.00

Obtain an electronic copy from: [standards@ada.org](mailto:standards@ada.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Same

### ADA (American Dental Association)

211 East Chicago Avenue, Chicago, IL 60611-2678 | [bralowerp@ada.org](mailto:bralowerp@ada.org), [www.ada.org](http://www.ada.org)

#### *New Standard*

BSR/ADA Standard No. 187-202x, Dental CAD/CAM Machinable Ceramic Blanks (new standard)

This standard specifies the requirements and test methods for fully dense ceramic blanks and the machinability of fully dense and partially sintered ceramic blanks used for the fabrication of dental fixed restorations.

Single copy price: \$35.00

Obtain an electronic copy from: [standards@ada.org](mailto:standards@ada.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Same

## Comment Deadline: December 18, 2023

### **ANS (American Nuclear Society)**

5200 Thatcher Road, Suite 142, Downers Grove, IL 60515 | [kmurdoch@ans.org](mailto:kmurdoch@ans.org), [www.ans.org](http://www.ans.org)

#### **Reaffirmation**

BSR/ANS 16.1-2019 (R202x), Measurement of the Leachability of Solidified Low-Level Radioactive Wastes by a Short-Term Test Procedure (reaffirmation of ANSI/ANS 16.1-2019)

This standard provides a procedure to measure and index the release rates of non-volatile radionuclides from waste forms in demineralized water over a five-day test period. It can be applied to any material from which test specimens can be prepared by casting or cutting into a shape for which the surface area and volume can be determined. The results of this procedure do not represent waste form degradation in any specific environmental situation. The test presented in this ANS-16.1 standard is an adaptation of the provisions published in the original version of this standard in 1986.

Single copy price: \$50.00

Obtain an electronic copy from: [orders@ans.org](mailto:orders@ans.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Patricia Schroeder <[pschroeder@ans.org](mailto:pschroeder@ans.org)>

### **ANS (American Nuclear Society)**

5200 Thatcher Road, Suite 142, Downers Grove, IL 60515 | [kmurdoch@ans.org](mailto:kmurdoch@ans.org), [www.ans.org](http://www.ans.org)

#### **Reaffirmation**

BSR/ANS 19.1-2019 (R202x), Nuclear Data Sets for Reactor Design Calculations (reaffirmation of ANSI/ANS 19.1-2019)

This standard identifies and describes the specifications for developing, preparing, and documenting nuclear data sets to be used in reactor design calculations. The specifications include (a) criteria for acceptance of evaluated nuclear data sets; (b) criteria for processing evaluated data sets and preparation of processed continuous data and averaged data sets, and (c) identification of specific evaluated, processed continuous, and averaged data sets that meet these criteria for specific reactor types.

Single copy price: \$117.00

Obtain an electronic copy from: [orders@ans.org](mailto:orders@ans.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Patricia Schroeder <[pschroeder@ans.org](mailto:pschroeder@ans.org)>

### **ASA (ASC S1) (Acoustical Society of America)**

1305 Walt Whitman Road, Suite 300, Melville, NY 11747 | [standards@acousticalsociety.org](mailto:standards@acousticalsociety.org), [www.acousticalsociety.org](http://www.acousticalsociety.org)

#### **Reaffirmation**

BSR S1.4/Part 3 (R202x), Electroacoustics - Sound Level Meters - Part 3: Periodic Tests (a nationally adopted international standard) (reaffirm a national adoption ANSI/ASA S1.4-2014/Part 3/IEC 61672-3-2013 (R2019)) ANSI/ASA S1.4-2014/Part 3 / IEC 61672-3:2013 describes procedures for periodic testing of timeweighting, integrating-averaging, and integrating sound level meters that were designed to conform to the class 1 or class 2 specifications of ANSI/ASA S1.4-2014/Part 1 / IEC 61672-1. The aim of the standard is to ensure that periodic testing is performed in a consistent manner by all laboratories. The purpose of periodic testing is to assure the user that the performance of a sound level meter conforms to the applicable specifications of ANSI/ASA S1.4-2014/Part 1 / IEC 61672-1 for a limited set of key tests and for the environmental conditions under which the tests were performed.

Single copy price: \$291.00

Obtain an electronic copy from: [standards@acousticalsociety.org](mailto:standards@acousticalsociety.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Same

## Comment Deadline: December 18, 2023

### **ASA (ASC S1) (Acoustical Society of America)**

1305 Walt Whitman Road, Suite 300, Melville, NY 11747 | [standards@acousticalsociety.org](mailto:standards@acousticalsociety.org), [www.acousticalsociety.org](http://www.acousticalsociety.org)

#### **Reaffirmation**

BSR/ASA S1.4-2014/Part 1/IEC 61672-1-2013 (R202x), Electroacoustics - Sound Level Meters - Part 1: Specifications (a nationally adopted international standard) (reaffirm a national adoption ANSI/ASA S1.4-2014/Part 1/IEC 61672-1-2013 (R2019))

This part of ANSI/ASA S1.4 / IEC 61672 gives electroacoustical performance specifications for three kinds of sound-measuring instruments: a time-weighting sound level meter that measures exponential-time-weighted, frequency-weighted sound levels; an integrating-averaging sound level meter that measures time-averaged, frequency-weighted sound levels; and an integrating sound level meter that measures frequency-weighted sound exposure levels.

Single copy price: \$269.00

Obtain an electronic copy from: [standards@acousticalsociety.org](mailto:standards@acousticalsociety.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Same

### **ASA (ASC S1) (Acoustical Society of America)**

1305 Walt Whitman Road, Suite 300, Melville, NY 11747 | [standards@acousticalsociety.org](mailto:standards@acousticalsociety.org), [www.acousticalsociety.org](http://www.acousticalsociety.org)

#### **Reaffirmation**

BSR/ASA S1.4-2014/Part 2/IEC 61672-2-2013 (R202x), Electroacoustics - Sound Level Meters - Part 2: Pattern Evaluation Tests (a nationally adopted international standard) (reaffirm a national adoption ANSI/ASA S1.4-2014/Part 2/IEC 61672-2-2013 (R2019))

This part of ANSI/ASA S1.4/IEC 61672 provides details of the tests necessary to verify conformance to all mandatory specifications given in IEC 61672-1 for time-weighting sound level meters, integrating-averaging sound level meters, and integrating sound level meters. Pattern evaluation tests apply for each channel of a multi-channel sound level meter, as necessary. Tests and test methods are applicable to class 1 and class 2 sound level meters. The aim is to ensure that all laboratories use consistent methods to perform pattern-evaluation tests.

Single copy price: \$291.00

Obtain an electronic copy from: [standards@acousticalsociety.org](mailto:standards@acousticalsociety.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Same

### **ASA (ASC S12) (Acoustical Society of America)**

1305 Walt Whitman Road, Suite 300, Melville, NY 11747 | [standards@acousticalsociety.org](mailto:standards@acousticalsociety.org), [www.acousticalsociety.org](http://www.acousticalsociety.org)

#### **Reaffirmation**

BSR/ASA S12.60-2019/Part 4 (R202x), Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools, Part 4: Acoustic Standards for Physical Education Teaching Environments (reaffirmation of ANSI/ASA S12.60-2019/Part 4)

This document is applicable to gymnasiums and other physical education learning spaces in permanent schools.

This standard includes acoustical performance criteria and design requirements for gymnasiums and other physical education learning spaces. Annex A provides procedures for optional testing to determine conformance with the source background noise requirements and the reverberation time requirements of this standard. Annex B provides commentary information on various paragraphs of this standard. Annex C provides guidelines for controlling reverberation in gymnasiums and other physical education spaces. Annex D provides guidelines for controlling background noise in gymnasiums and other physical education spaces.

Single copy price: \$169.00

Obtain an electronic copy from: [standards@acousticalsociety.org](mailto:standards@acousticalsociety.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Same

## Comment Deadline: December 18, 2023

### ASA (ASC S2) (Acoustical Society of America)

1305 Walt Whitman Road, Suite 300, Melville, NY 11747 | [standards@acousticalsociety.org](mailto:standards@acousticalsociety.org), [www.acousticalsociety.org](http://www.acousticalsociety.org)

#### Reaffirmation

BSR S2.81/Part 12 (R202x), Mechanical vibration - Rotor balancing - Part 12: Procedures and tolerances for rotors with flexible behaviour (a nationally adopted international standard) (reaffirm a national adoption ANSI/ASA S2.81-2019/Part 12/ISO 21940-12-2016)

This nationally adopted international standard presents typical configurations of rotors with flexible behaviour in accordance with their characteristics and balancing requirements, describes balancing procedures, specifies methods of assessment of the final state of balance, and establishes guidelines for balance quality criteria. Can also serve as a basis for more involved investigations, e.g. when a more exact determination of the required balance quality is necessary. If due regard is paid to the specified methods of manufacture and balance tolerances, satisfactory running conditions can be expected. Is not intended to serve as an acceptance specification for any rotor, but rather to give indications of how to avoid gross deficiencies and unnecessarily restrictive requirements. Structural resonances and modifications thereof lie outside the scope of this document. The methods and criteria given are the result of experience with general industrial machinery. It is possible that they are not directly applicable to specialized equipment or to special circumstances. Therefore, in some cases, deviations from this document are possible.

Single copy price: \$126.00

Obtain an electronic copy from: [standards@acousticalsociety.org](mailto:standards@acousticalsociety.org)

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### ASA (ASC S2) (Acoustical Society of America)

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#### Reaffirmation

BSR S2.81/Part 14 (R202x), Mechanical vibration - Rotor balancing - Part 14: Procedures for assessing balance errors (a nationally adopted international standard) (reaffirm a national adoption ANSI/ASA S2.81-2019/Part 14/ISO 21940-14-2012)

This nationally adopted international standard specifies the requirements for identifying errors in the unbalance measuring process of a rotor; assessing the identified errors; taking the errors into account. Specifies balance acceptance criteria, in terms of residual unbalance, for both directly after balancing and for a subsequent check of the balance quality by the user. For the main typical errors, this document lists methods for their reduction in an informative annex.

Single copy price: \$83.00

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#### Reaffirmation

BSR/ASA S2.81-2019/Part 2/ISO 21940-2-2017 (R202x), Mechanical vibration - Rotor balancing - Part 2: Vocabulary (a nationally adopted international standard) (reaffirm a national adoption ANSI/ASA S2.81-2019/Part 2/ISO 21940-2-2017)

This nationally adopted international standard defines terms on balancing. It complements ANSI/ASA S2.1/ISO 2041, which is a general vocabulary on mechanical vibration and shock.

Single copy price: \$38.00

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#### Reaffirmation

BSR/ASA S2.81-2019/Part 11/ISO 21940-11-2016 (R202x), Mechanical vibration - Rotor balancing - Part 11: Procedures and tolerances for rotors with rigid behaviour (a nationally adopted international standard) (reaffirm a national adoption ANSI/ASA S2.81-2019/Part 11/ISO 21940-11-2016)

This nationally adopted international standard establishes procedures and unbalance tolerances for balancing rotors with rigid behaviour. It specifies a) the magnitude of the permissible residual unbalance, b) the necessary number of correction planes, c) the allocation of the permissible residual unbalance to the tolerance planes, and d) how to account for errors in the balancing process. This document does not cover the balancing of rotors with flexible behaviour. Procedures and tolerances for rotors with flexible behaviour are dealt with in ANSI/ASA S2.81/Part 12/ISO 21940-12.

Single copy price: \$138.00

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275 West Street, Suite 107, Annapolis, MD 21401 | [Ambria.Calloway@X9.org](mailto:Ambria.Calloway@X9.org), [www.x9.org](http://www.x9.org)

#### Reaffirmation

BSR X9.100-140-2018 (R202x), Image Replacement Document (IRD) (reaffirmation of ANSI X9.100-140-2018)  
This standard provides the financial industry with a specification for an Image Replacement Document (IRD) that provides for a machine readable substitute document created from the image that is made from the front and back of the original check.

Single copy price: \$100.00

Obtain an electronic copy from: [ambria.frazier@x9.org](mailto:ambria.frazier@x9.org)

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

180 Technology Parkway, Peachtree Corners, GA 30092 | [etoto@ashrae.org](mailto:etoto@ashrae.org), [www.ashrae.org](http://www.ashrae.org)

#### Addenda

BSR/ASHRAE/IES Addendum m to ANSI/ASHRAE/IES Standard 90.1-2022, Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2022)

This proposed Independent Substantive Change to Addendum m incorporates feedback received during the first public review period. This draft identifies the AHRI rating procedures required for hydronic fan coils and better clarifies which system components are exempt from the requirements of Section 6.4.7.

Single copy price: \$35.00

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#### **Addenda**

BSR/ASHRAE/IES Addendum p to ANSI/ASHRAE/IES Standard 90.1-2022, Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2022)  
Addendum p proposes a number of changes related to outdoor air rate requirements to ensure that 90.1 is capable of supporting the various approaches to ventilation (Standards 62.1, 62.2, 170, 241, and LEED) within energy efficient limits.

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#### **Reaffirmation**

BSR/ASHRAE Standard 35-2014 (R202x), Method of Testing Refrigerant Driers and Desiccant Materials (reaffirmation of ANSI/ASHRAE Standard 35-2014)

The purpose of this standard is to prescribe test methods for measuring flow capacity and moisture capacity performance characteristics of refrigerant driers and measuring the moisture capacity characteristic of desiccant materials.

Single copy price: \$35.00

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#### **Reaffirmation**

BSR/ASHRAE Standard 40-2014 (R202x), Methods of Testing for Rating Heat Operated Unitary Air-Conditioning and Heat-Pump Equipment (reaffirmation of ANSI/ASHRAE Standard 40-2014)

This standard provides test methods for determining the heating and cooling output capacities and energy inputs of unitary air-conditioning and heat pump equipment that is heat-operated (see Section 3, "Definitions"). These test methods may be used as a basis for rating such equipment, but it is not the purpose of this standard to specify methods of establishing ratings.

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#### **Reaffirmation**

BSR/ASHRAE Standard 193-202x, Method of Test for Determining the Airtightness of HVAC Equipment (reaffirmation of ANSI/ASHRAE Standard 193-2010 (R2014))

This standard prescribes a method of test to determine the airtightness of forced-air HVAC equipment prior to field installation.

Single copy price: \$35.00

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#### **Withdrawal**

ANSI/ASHRAE Standard 152-2014, Method of Test for Determining the Design and Seasonal Efficiencies of Residential Thermal Distribution Systems (withdrawal of ANSI/ASHRAE Standard 152-2014)

This standard prescribes a method of test to determine the efficiency of space heating and/or cooling thermal distribution systems under seasonal and design conditions. The objective is to facilitate annual energy calculations and heating and cooling equipment capacity calculations.

Single copy price: \$35.00

Obtain an electronic copy from: Free download at <http://www.ashrae.org/standards-research-technology/public-review-drafts>

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#### **National Adoption**

BSR/ASTM ISO 22899 Part 1-202x, Determination of the resistance to jet fires of passive fire protection materials - Part 1: General requirements (identical national adoption of ISO 22899-1)

<https://www.astm.org/get-involved/technical-committees/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)

<https://www.astm.org/get-involved/technical-committees/ansi-review>

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#### **Reaffirmation**

BSR/ASTM E141-2010 (R202x), Practice for Acceptance of Evidence Based on the Results of Probability Sampling (reaffirmation of ANSI/ASTM E141-2010 (R2018))

<https://www.astm.org/get-involved/technical-committees/ansi-review>

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#### **Reaffirmation**

BSR/ASTM E1402-2013 (R202x), Guide for Sampling Design (reaffirmation of ANSI/ASTM E1402-2013 (R2018))

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#### **Reaffirmation**

BSR/ASTM F1075-1997 (R202x), Specification for Dehumidifier, Shipboard, Mechanically Refrigerated, Self-Contained (reaffirmation of ANSI/ASTM F1075-1997 (R2018))

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#### **Reaffirmation**

BSR/ASTM F1198-1997 (R202x), Guide for Shipboard Fire Detection Systems (reaffirmation of ANSI/ASTM F1198-1997 (R2018))

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#### **Reaffirmation**

BSR/ASTM F1835-1997 (R202x), Guide for Cable Splicing Installations (reaffirmation of ANSI/ASTM F1835-1997 (R2018))

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#### **Reaffirmation**

BSR/ASTM F1836M-2015 (R202x), Specification for Stuffing Tubes, Nylon, and Packing Assemblies (Metric) (reaffirmation of ANSI/ASTM F1836M-2015 (R2019))

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#### **Reaffirmation**

BSR/ASTM F1837M-1997 (R202x), Specification for Heat-Shrink Cable Entry Seals (Metric) (reaffirmation of ANSI/ASTM F1837M-1997 (R2018))

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#### **Revision**

BSR/ASTM D6299-202x, Practice for Applying Statistical Quality Assurance and Control Charting Techniques to Evaluate Analytical Measurement System Performance (revision of ANSI/ASTM D6299-2023)

<https://www.astm.org/get-involved/technical-committees/ansi-review>

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#### **Revision**

BSR/ASTM D6300-202x, Practice for Determination of Precision and Bias Data for Use in Test Methods for Petroleum Products, Liquid Fuels, and Lubricants (revision of ANSI/ASTM D6300-2023)

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#### **Revision**

BSR/ASTM E119-202x, Test Methods for Fire Tests of Building Construction and Materials (revision of ANSI/ASTM E119-2022)

<https://www.astm.org/get-involved/technical-committees/ansi-review>

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#### **Revision**

BSR/ASTM E136-202x, Test Method for Assessing Combustibility of Materials Using a Vertical Tube Furnace at 750C (revision of ANSI/ASTM E136-2022)

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#### **Revision**

BSR/ASTM E230-202x, Specification for Temperature-Electromotive Force (emf) Tables for Standardized Thermocouples (revision of ANSI/ASTM E230/E230M-2023)

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#### **Revision**

BSR/ASTM E648-202x, Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source (revision of ANSI/ASTM E648-2020)

<https://www.astm.org/get-involved/technical-committees/ansi-review>

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#### **Revision**

BSR/ASTM E839-202x, Test Methods for Sheathed Thermocouples and Sheathed Thermocouple Cable (revision of ANSI/ASTM E839-2017)

<https://www.astm.org/get-involved/technical-committees/ansi-review>

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#### **Revision**

BSR/ASTM E970-202x, Test Method for Critical Radiant Flux of Exposed Attic Floor Insulation Using a Radiant Heat Energy Source (revision of ANSI/ASTM E970-2017)

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#### **Revision**

BSR/ASTM E1488-202x, Guide for Statistical Procedures to Use in Developing and Applying Test Methods (revision of ANSI/ASTM E1488-2012 (R2018))

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#### **Revision**

BSR/ASTM E2226-202x, Practice for Application of Hose Stream (revision of ANSI/ASTM E2226-2015 (R2019))

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#### **Revision**

BSR/ASTM E2282-202x, Guide for Defining the Test Result of a Test Method (revision of ANSI/ASTM E2282-2014 (R2019))

<https://www.astm.org/get-involved/technical-committees/ansi-review>

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#### **Revision**

BSR/ASTM E2709-202x, Practice for Demonstrating Capability to Comply with an Acceptance Procedure (revision of ANSI/ASTM E2709-2019)

<https://www.astm.org/get-involved/technical-committees/ansi-review>

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#### **Revision**

BSR/ASTM E2749-202x, Practice for Measuring the Uniformity of Furnace Exposure on Test Specimens (revision of ANSI/ASTM E2749-2010 (R2019))

<https://www.astm.org/get-involved/technical-committees/ansi-review>

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#### **Revision**

BSR/ASTM E2837-202x, Test Method for Determining the Fire Resistance of Continuity Head-of-Wall Joint Systems Installed Between Rated Wall Assemblies and Nonrated Horizontal Assemblies (revision of ANSI/ASTM E2837-2023)

<https://www.astm.org/get-involved/technical-committees/ansi-review>

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100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 | [accreditation@astm.org](mailto:accreditation@astm.org), [www.astm.org](http://www.astm.org)

#### **Revision**

BSR/ASTM E2889-202x, Practice for Control of Respiratory Hazards in the Metal Removal Fluid Environment (revision of ANSI/ASTM E2889-2012 (R2017))

<https://www.astm.org/get-involved/technical-committees/ansi-review>

Single copy price: Free

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#### **Revision**

BSR/ASTM E3080-202x, Practice for Regression Analysis with a Single Predictor Variable (revision of ANSI/ASTM E3080-2019)

<https://www.astm.org/get-involved/technical-committees/ansi-review>

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#### **Revision**

BSR/ASTM F355-202x, Test Method for Impact Attenuation of Playing Surface Systems, Other Protective Sport Systems, and Materials Used for Athletics, Recreation and Play (revision of ANSI/ASTM F355-2016)

<https://www.astm.org/get-involved/technical-committees/ansi-review>

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#### **Revision**

BSR/ASTM F683-202x, Practice for Selection and Application of Thermal Insulation for Piping and Machinery (revision of ANSI/ASTM F683-2023)

<https://www.astm.org/get-involved/technical-committees/ansi-review>

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### **ATIS (Alliance for Telecommunications Industry Solutions)**

1200 G Street NW, Suite 500, Washington, DC 20005 | [akarditzas@atis.org](mailto:akarditzas@atis.org), [www.atis.org](http://www.atis.org)

#### **Stabilized Maintenance**

BSR ATIS 1000025-2013 (S202x), User-to-Network Interface (UNI) Standard for Signaling and Control Security Requirements for Evolving VoP/Multimedia Networks (stabilized maintenance of ANSI ATIS 1000025-2013 (R2018))

This standard specifies Voice over Packet and Multimedia signaling and control plane security requirements for evolving networks. This standard is part of a suite of signaling and control security standards as shown in Figure 1. This standard provides security requirements for VoP and Multimedia signaling and control services that cross the User to Network Interfaces (UNI).

Single copy price: \$60.00

Obtain an electronic copy from: [akarditzas@atis.org](mailto:akarditzas@atis.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Same

### **AWWA (American Water Works Association)**

6666 W. Quincy Avenue, Denver, CO 80235 | [polson@awwa.org](mailto:polson@awwa.org), [www.awwa.org](http://www.awwa.org)

#### **Revision**

BSR/AWWA B403-202x, Aluminum Sulfate - Liquid, Ground, or Lump (revision of ANSI/AWWA B403-2016)

This standard describes purified aluminum sulfate in liquid, ground, or lump form for use in the treatment of potable water, wastewater, or reclaimed water.

Single copy price: Free

Obtain an electronic copy from: [ETSsupport@awwa.org](mailto:ETSsupport@awwa.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: AWWA, Paul J. Olson

### **AWWA (American Water Works Association)**

6666 W. Quincy Avenue, Denver, CO 80235 | [polson@awwa.org](mailto:polson@awwa.org), [www.awwa.org](http://www.awwa.org)

#### **Revision**

BSR/AWWA B405-202x, Sodium Aluminate (revision of ANSI/AWWA B405-2016)

This standard describes sodium aluminate in both liquid and solid form for use in the treatment of potable water, wastewater, or reclaimed water.

Single copy price: Free

Obtain an electronic copy from: [ETSsupport@awwa.org](mailto:ETSsupport@awwa.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: AWWA, Paul J. Olson



## Comment Deadline: December 18, 2023

### CPLSO

The Marchioness Building, Commercial Road, Bristol BS16TG, UK BS1 6TG | [pratt.hugh@cplso.org](mailto:pratt.hugh@cplso.org)

#### ***New Standard***

BSR/CPLSO 19-202x, Electrical Characteristics of ECDs and CEWs with more than 2 probes (new standard)

This standard is applicable for high-voltage Electronic Control Devices, (ECD), or Conductive Electrical Weapons, (CEW). This standard specifies the characteristic electrical requirements for effective and safe performance with more than 2 probes. [CPLSO 17 deals with 2 probes or less.]

Single copy price: \$1000.00

Obtain an electronic copy from: [pratt.hugh@cplso.org](mailto:pratt.hugh@cplso.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: [pratt.hugh@cplso.org](mailto:pratt.hugh@cplso.org)

### CSA (CSA America Standards Inc.)

8501 East Pleasant Valley Road, Cleveland, OH 44131-5575 | [ansi.contact@csagroup.org](mailto:ansi.contact@csagroup.org), [www.csagroup.org](http://www.csagroup.org)

#### ***New Standard***

BSR Z21.42-202x, Gas-fired domestic illuminating appliances (same as CSA 2.15-202x) (new standard)

This Standard applies to newly produced illuminating appliances constructed entirely of new, unused parts and materials: (a) for use with natural gas; (b) for use with liquefied petroleum gases; (c) for use with butane gas; and (d) for use with LP gas-air mixtures. The construction of illuminating appliances for use with the above-mentioned gases is covered under Clause 4. The performance of illuminating appliances for use with the above-mentioned gases is covered under Clause 5. This Standard also covers gas-fired illuminating appliances for either outdoor or indoor installation, or both, for attachment to fixed gas piping systems.

Single copy price: Free

Obtain an electronic copy from: [ansi.contact@csagroup.org](mailto:ansi.contact@csagroup.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Same

### CSA (CSA America Standards Inc.)

8501 East Pleasant Valley Road, Cleveland, OH 44131-5575 | [ansi.contact@csagroup.org](mailto:ansi.contact@csagroup.org), [www.csagroup.org](http://www.csagroup.org)

#### ***Reaffirmation***

BSR Z21.18 (R202x), Gas appliance pressure regulators (same as CSA 6.3) (reaffirmation of ANSI Z21.18-2019)

This Standard applies to individual gas appliance pressure regulators, which are not a part of a combination control, constructed entirely of new, unused parts and materials, intended for application on individual gas appliances. This Standard also applies to negative gas appliance pressure regulators. This Standard applies to regulators for operations with natural, manufactured and mixed gases, liquefied petroleum gases, and LP gas-air mixtures. This standard applies to regulators classified in accordance with their intended application with reference to inlet pressures as follows: Rated inlet pressure ½ psi (3.5 kPa) 2 psi (13.8 kPa) 5 psi (34.5 kPa) This Standard applies to regulators for the following general types of application: (a) main burner load application; (b) pilot burner load application; (c) main burner and pilot burner load application to control a minimum pilot flow rate of: (i) 0.15 ft<sup>3</sup>/hr (1.18 cm<sup>3</sup>/s); or (ii) 0.50 ft<sup>3</sup>/hr (3.93 cm<sup>3</sup>/s); or (d) domestic range application (see Clause 5.11, Regulators for use on domestic gas ranges).

Single copy price: Free

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Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: [ansi.contact@csagroup.org](mailto:ansi.contact@csagroup.org)

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### CSA (CSA America Standards Inc.)

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#### **Reaffirmation**

BSR Z21.54 (R202x), Gas hose connectors for portable outdoor gas-fired appliances (same as CSA 8.4a) (reaffirmation of ANSI Z21.54-2019)

This Standard applies to gas hose connectors (See Clause 3, Definitions), hereinafter referred to as connectors. They are conduits for conveying gas and depend for gas-tightness on the wall structure of the hose material. Such connectors are: (a) newly produced and constructed entirely of new, unused parts and materials; and (b) equipped with a fitting at each end provided with standard taper pipe threads. Connectors covered by this Standard are intended for: (a) connection of portable outdoor gas-fired appliances to the gas supply piping; (b) use in unconcealed outdoor locations; (c) use only in locations where they will not be likely to be subject to excessive temperatures [above 200 °F (93.5 °C)]; (d) use with natural gas, manufactured gas, mixed gases, propane and LP gas-air mixtures; and (e) use on gas piping systems having fuel gas pressures not in excess of 1/2 psi (3.45 kPa).

Single copy price: Free

Obtain an electronic copy from: [ansi.contact@csagroup.org](mailto:ansi.contact@csagroup.org)

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### CSA (CSA America Standards Inc.)

8501 East Pleasant Valley Road, Cleveland, OH 44131-5575 | [ansi.contact@csagroup.org](mailto:ansi.contact@csagroup.org), [www.csagroup.org](http://www.csagroup.org)

#### **Reaffirmation**

BSR Z21.80-2019 (R202x), Line pressure regulators (same as CSA 6.22) (reaffirmation of ANSI Z21.80-2019)

This Standard applies to line pressure regulators, constructed entirely of new, unused parts and materials, hereinafter referred to as regulator(s), either individual or in combination with overpressure protection devices, hereinafter referred to as device(s), intended for application in gas piping systems between the service regulator, or LP-gas 2 psi (13.8 kPa) service regulator, and the gas utilization equipment. This Standard applies to regulators for operation with natural, manufactured and mixed gases, liquefied petroleum gases, and LP gas-air mixtures. The tests specified herein are conducted at a room temperature of 77 ± 10 °F (25 ± 5.5 °C). Regulators and vent limiters complying with the provisions of this Standard are considered as having an operating temperature range of 32 °F (0 °C) to 125 °F (51.5 °C). At the option of the manufacturer, a greater operating temperature range may be specified, in which case additional tests as outlined in Clause 5.4, Leakage, and Clause 5.10, Continued operation, will be conducted.

Single copy price: Free

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## Comment Deadline: December 18, 2023

### FM (FM Approvals)

1151 Boston-Providence Turnpike, Norwood, MA 02062 | [josephine.mahnken@fmaprovals.com](mailto:josephine.mahnken@fmaprovals.com), [www.fmglobal.com](http://www.fmglobal.com)

#### Revision

BSR/FM 6020-202x, Evaluating Fire Performance of Intermediate Bulk Containers (IBCs) (revision of ANSI/FM 6020-2015)

This revision adds a new section with performance requirements for liquids with flash point equal or greater than 100°F (38°C).

Single copy price: Free

Obtain an electronic copy from: [josephine.mahnken@fmaprovals.com](mailto:josephine.mahnken@fmaprovals.com)

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### HI (Hydraulic Institute)

300 Interpace Parkway, Building A, 3rd Floor, #280, Parsippany, NJ 07054 | [asisto@pumps.org](mailto:asisto@pumps.org), [www.pumps.org](http://www.pumps.org)

#### Revision

BSR/HI 7.6-202x, Controlled-Volume Metering Pumps for Tests (revision of ANSI/HI 7.6-2018)

The ANSI/HI 7.6 Committee has reviewed the existing standard and made edits to align with ANSI/HI 7.1-7.5 and ANSI/HI 10.1-10.5.

Single copy price: \$80.00

Obtain an electronic copy from: [asisto@pumps.org](mailto:asisto@pumps.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: [HITechnical@pumps.org](mailto:HITechnical@pumps.org)

### IES (Illuminating Engineering Society)

120 Wall Street, Floor 17, New York, NY 10005-4001 | [pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org), [www.ies.org](http://www.ies.org)

#### New Standard

BSR/IES TM-41-202x, Technical Memorandum: Standard Format for the Electronic Data Transfer of Light Output Maintenance Characteristics of Solid-State Light Sources (new standard)

This document provides a standard format for the electronic transfer of LM-80 test data in XML format. All required LM-80 report data items are included, as well as optional data items such as the spectral power distribution (SPD). The ordering of data elements does not follow the LM-80 report format; rather, the ordering is more data-centric, with administrative elements first, followed by device-under-test (DUT) items, test conditions, and then results. Where important, the precision required for a particular data element is specified; this helps to reduce uncertainty when the data is used for calculations. The format is described first in human-readable text, and then computer-readable XML and JSON schemas are provided.

Single copy price: \$25.00

Obtain an electronic copy from: [pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Patricia McGillicuddy <[pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org)>

## Comment Deadline: December 18, 2023

### **IES (Illuminating Engineering Society)**

120 Wall Street, Floor 17, New York, NY 10005-4001 | [pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org), [www.ies.org](http://www.ies.org)

#### ***Reaffirmation***

BSR/IES LS-2-2020 (R202x), Lighting Science: Concepts and Language of Lighting (reaffirmation of ANSI/IES LS-2-2020)

Lighting's language fulfills the need to describe, specify, and evaluate luminous environments. Like any language, it is based on concepts and vocabulary. The concepts result from a consideration of the nature of light, vision, and architecture. The vocabulary results from the need for clarity, specificity, and precision. The structure of lighting's concepts is an inverted pyramid: a very few fundamental ideas are identified and described, and from these more-complex concepts are constructed. Simpler concepts form the constituents of the more complex ones required to unambiguously specify luminous quantities or the photometric behavior of materials.

Single copy price: Free

Obtain an electronic copy from: [pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org)

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#### ***Revision***

BSR/IES/NALMCO RP-36-202x, Recommended Practice: Lighting Maintenance (revision of ANSI/IES/NALMCO RP-36-2020)

This draft contains updated information about LED exit signs. Lighting designers and specifiers can use this Recommended Practice to design lighting systems that will be easy to maintain and will optimize energy efficiency and maintenance based on good maintenance practices and careful product selection. They will also be able to recommend good maintenance practices. Facility owners and managers can use it to develop a maintenance plan and properly maintain their lighting systems to ensure that their investment in light performs in accordance with requirements far into the future. Other electrical and lighting professionals can use the Recommended Practice in the roles they play in recommending, specifying, installing, commissioning, and maintaining lighting systems.

Single copy price: \$25.00

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## Comment Deadline: December 18, 2023

### MHI (Material Handling Industry)

8720 Red Oak Boulevard, Suite 201, Charlotte, NC 28217 | [pdavison@mhi.org](mailto:pdavison@mhi.org), [www.mhi.org](http://www.mhi.org)

#### ***New Standard***

BSR MH28.1-202X, Design, Testing, and Utilization of Industrial Steel Bin Shelving (new standard)

This standard applies to industrial steel bin shelving; bin shelving placed on mobile carriages; multi-level bin shelving systems such as pick modules, catwalks, and deck covers; and for bin shelving used in conjunction with an automated storage and retrieval system (AS/RS). The structural framing components for these systems are made of cold-formed or hot-rolled steel structural members. This standard does not apply to the following: industrial steel pallet racks (addressed by ANSI MH16.1), industrial cantilever racks (addressed by ANSI MH16.3), or bin shelving structures not fabricated from steel. Bin shelving is typically a hand-loaded, prefabricated, free-standing, building-like non-building structure that utilizes a designed framing system, which is generally located within an industrial or warehouse environment. Personnel working within the confines of the bin shelving structure are presumed to be properly trained, physically able, and appropriately attired to work in the intended working environment.

Single copy price: Free

Obtain an electronic copy from: [pdavison@mhi.org](mailto:pdavison@mhi.org)

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### MHI (Material Handling Industry)

8720 Red Oak Boulevard, Suite 201, Charlotte, NC 28217 | [pdavison@mhi.org](mailto:pdavison@mhi.org), [www.mhi.org](http://www.mhi.org)

#### ***New Standard***

BSR MH28.4-202X, Design, Testing, and Utilization of Retail/Consumer Boltless Steel Shelving (new standard)

This standard applies to retail/consumer steel boltless shelving. The framing components for these systems are made of steel members. This standard does not apply to the following: industrial steel pallet racks (addressed by ANSI MH16.1), industrial cantilever racks (addressed by ANSI MH16.3), industrial steel boltless shelving (addressed by ANSI MH28.2), products greater than 96 in. (2.4 m) in height, boltless shelving structures not fabricated from steel, industrial steel bin shelving (addressed by ANSI MH28.1), or shelving systems built with slotted metal angles. Retail/consumer shelving is a hand-loaded, prefabricated, freestanding, building-like non-building structure that utilizes a designed framing system. It is primarily designed and intended for homes and small-scale businesses (as opposed to large-scale warehousing or business applications requiring industrial product storage in accordance with ANSI MH28.2) and generally located indoors within a home, shop or garage environment not designed to withstand wind or earthquake loading. This standard does not provide guidance for design requirements that need to be addressed for supported equipment that would subject a shelving system to significant dynamic loading or harmonic vibration that has the potential to cause damage or metal fatigue.

Single copy price: Free

Obtain an electronic copy from: [pdavison@mhi.org](mailto:pdavison@mhi.org)

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8720 Red Oak Boulevard, Suite 201, Charlotte, NC 28217 | [pdavison@mhi.org](mailto:pdavison@mhi.org), [www.mhi.org](http://www.mhi.org)

#### **Revision**

BSR MH31.2-202X, Test Method for Crash Testing Industrial Guardrail Barriers and Barrier Posts (revision of ANSI MH31.2-2021)

This standard provides a test method of evaluating performance characteristics for industrial guardrail barriers and barrier posts. Industrial guardrail barriers and barrier posts are commonly utilized within industrial and warehouse environments to safeguard against unwanted interactions with, or provide added protection against potential impacts from, passing industrial vehicle traffic. These devices are typically mounted directly to the ground-level concrete floor slab at a safe distance away from pedestrian aisleways, vital equipment, or critical infrastructure.

Single copy price: Free

Obtain an electronic copy from: [pdavison@mhi.org](mailto:pdavison@mhi.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Same

### **NETA (InterNational Electrical Testing Association)**

3050 Old Centre Rd, Suite 101, Portage, MI 49024 | [ldanzy@netaworld.org](mailto:ldanzy@netaworld.org), [www.netaworld.org](http://www.netaworld.org)

#### **Revision**

BSR/NETA ECS-2024-202x, NETA Standard for Electrical Commissioning Specifications for Electrical Power Equipment and Systems (revision of ANSI/NETA ECS-2020)

Scope Summary: These specifications describe the systematic process of documenting, and placing into service newly-installed, or retrofitted electrical power equipment and systems. This document shall be used in conjunction with the most recent edition of the ANSI/NETA ATS Standard for Acceptance Testing Specifications for Electrical Power Equipment and Systems. The individual electrical components shall be subjected to factory and field tests, as required, to validate the individual components.

Single copy price: \$495.00

Obtain an electronic copy from: [ldanzy@netaworld.org](mailto:ldanzy@netaworld.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Same

### **TIA (Telecommunications Industry Association)**

1320 North Courthouse Road, Suite 200, Arlington, VA 22201-2598 | [standards-process@tiaonline.org](mailto:standards-process@tiaonline.org), [www.tiaonline.org](http://www.tiaonline.org)

#### **New Standard**

BSR/TIA 455-37-B-202x, Low or High Temperature Bend Test for Fiber Optic Cable (new standard)

Update the test standard, i.e. updating of obsolete references, improvement of some descriptions, restructuring of some (sub)clauses, updating of the comparison with the IEC bend test method, etc.

Single copy price: \$99.00

Obtain an electronic copy from: [standards-process@tiaonline.org](mailto:standards-process@tiaonline.org)

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## Comment Deadline: December 18, 2023

### ULSE (UL Standards & Engagement)

333 Pfingsten Road, Northbrook, IL 60062-2096 | [christina.riemer@ul.org](mailto:christina.riemer@ul.org), <https://ulse.org/>

#### ***National Adoption***

BSR/UL 60034-1-202x, Standard for Safety for Rotating Electrical Machines - Part 1: Rating and Performance (identical national adoption of IEC 60034-1 and revision of ANSI/UL 60034-1-2018 (R2023))

UL proposes a new edition of UL 60034-1 which is an identical adoption of IEC 60034-1, 14th Edition, which covers rating and performance criteria applicable to all rotating electrical machines.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/ProposalAvailable>

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/ProposalAvailable>

### ULSE (UL Standards & Engagement)

333 Pfingsten Road, Northbrook, IL 60062-2096 | [christina.riemer@ul.org](mailto:christina.riemer@ul.org), <https://ulse.org/>

#### ***National Adoption***

BSR/UL 60034-5-202x, Standard for Safety for Rotating Electrical Machines - Part 5: Degrees of Protection Provided by the Integral Design of Rotating Electrical Machines (IP Code) - Classification (identical national adoption of IEC 60034-5 and revision of ANSI/UL 60034-5-2019)

UL proposes a new edition of UL 60034-5 which is an identical adoption of IEC 60034-5, 5th Edition, which covers the classification of degrees of protection provided by enclosures for rotating electrical machines.

Single copy price: Free

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### ULSE (UL Standards & Engagement)

12 Laboratory Drive, Research Triangle Park, NC 27709-3995 | [tomas.pindur@ul.org](mailto:tomas.pindur@ul.org), <https://ulse.org/>

#### ***Reaffirmation***

BSR/UL 1971-2018 (R202x), Standard for Signaling Devices for the Hearing Impaired (reaffirmation of ANSI/UL 1971-2018)

Reaffirmation of UL 1971

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333 Pfingsten Road, Northbrook, IL 60062-2096 | [alan.t.mcgrath@ul.org](mailto:alan.t.mcgrath@ul.org), <https://ulse.org/>

#### Reaffirmation

BSR/UL 60730-2-13-2019 (R202x), Standard for Automatic Electrical Controls - Part 2-13: Particular Requirements for Humidity Sensing Controls (reaffirmation of ANSI/UL 60730-2-13-2019)

This part of IEC 60730 applies to automatic electrical humidity sensing controls for use in, on or in association with equipment, including controls for heating, air-conditioning and similar applications. The equipment may use electricity, gas, oil, solid fuel, solar thermal energy, etc. or a combination thereof. This International Standard is applicable to automatic electrical humidity sensing controls forming part of a building automation control system within the scope of ISO 16484. This standard also applies to automatic electrical humidity sensing controls for equipment that may be used by the public, such as equipment intended to be used in shops, offices, hospitals, farms and commercial and industrial applications.

Single copy price: Free

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### ULSE (UL Standards & Engagement)

12 Laboratory Drive, Research Triangle Park, NC 27709-3995 | [Julio.Morales@UL.org](mailto:Julio.Morales@UL.org), <https://ulse.org/>

#### Revision

BSR/UL 153-202x, Standard for Safety for Portable Electric Luminaires (revision of ANSI/UL 153-2023)

This proposal for UL 153 covers: (1) Clarification on Power Supply for Portable Luminaires with USB/POE Connections; (2) Removal of maximum number of convenience receptacle used in portable luminaires; (3) Portable Luminaires use with LED Light source only; (4) Clarification of Power Supply Cord Size, Maximum Receptacle Load and Marking for Portable Work Lights and Portable Hand Lights; (5) Editorial Revisions.

Single copy price: Free

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Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/ProposalAvailable>

### ULSE (UL Standards & Engagement)

100 Queen Street, Suite 1040, Ottawa, ON K1P 1J9 Canada | [celine.eid@ul.org](mailto:celine.eid@ul.org), <https://ulse.org/>

#### Revision

BSR/UL 651A-202x, Standard for Safety for High Density Polyethylene (HDPE) Conduit (revision of ANSI/UL 651A-2023)

(1) Referenced Publication Corrections; (2) IGEPAL Trademark Statement; (3) Move Tensile Strength Section.

Single copy price: Free

Obtain an electronic copy from: [celine.eid@ul.org](mailto:celine.eid@ul.org)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/ProposalAvailable>

## Comment Deadline: December 18, 2023

### ULSE (UL Standards & Engagement)

333 Pfingsten Road, Northbrook, IL 60062-2096 | [Megan.M.VanHeirseele@ul.org](mailto:Megan.M.VanHeirseele@ul.org), <https://ulse.org/>

#### Revision

BSR/UL 2272-202x, Standard for Safety for Electrical Systems for Personal E-Mobility Devices (revision of ANSI/UL 2272-2019)

(1) Updating battery pack compartment requirements, (2) Addition of more specific investigation requirements of gaskets and seals, (3) Clarification of flammability requirements for nonmetallic materials, (4) Updating charger requirements, (5) Addition of external output terminal marking requirement, (6) Updating temperature requirements, (7) Adding reference to UL 2054 and UL 62133-2 / CSA C22.2 No. 62133-2 for rechargeable batteries providing power other than drivetrain unit, (8) Revision of post-test cycle for non-operational condition, (9) Revision of the Vibration Test, (10) Revisions to allow the DUT to drain after partial immersion test, (11) Exclusion of motorized wheelchairs including mobility scooters for medical purposes, (12) Updating the Component Section and Appendix A, (13) Updating the component cell requirements, (14) Revisions to add UL 62368-1 as the alternative electrical spacing requirement, (15) Alignment of the dielectric strength test condition.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/ProposalAvailable>

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/ProposalAvailable>

## Comment Deadline: January 2, 2024

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

700 K Street NW, Suite 600, Washington, DC 20001 | [comments@standards.incits.org](mailto:comments@standards.incits.org), [www.incits.org](http://www.incits.org)

#### New Standard

BSR/INCITS 562-202x, Information technology - Fibre Channel - Framing and Signaling - 6 (FC-FS-6) (new standard)

Specifies development of a set of technical additions and clarifications to INCITS 545, Fibre Channel - Framing and Signaling (FC-FS-5). Included within this scope are: (a) Additions as needed for development of FC-NVMe-2; (b) Clarifications of any existing ambiguities; (c) Any items deemed necessary to support higher data rates; and (d) Any other item as deemed necessary during the development.

Single copy price: Free

Obtain an electronic copy from: [https://standards.incits.org/apps/group\\_public/document.php?document\\_id=157553&wg\\_abbrev=eb](https://standards.incits.org/apps/group_public/document.php?document_id=157553&wg_abbrev=eb)

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Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Barbara Bennett <[comments@standards.incits.org](mailto:comments@standards.incits.org)>

## Comment Deadline: January 2, 2024

### ULSE (UL Standards & Engagement)

12 Laboratory Drive, Research Triangle Park, NC 27709-3995 | [Grayson.Flake@ul.org](mailto:Grayson.Flake@ul.org), <https://ulse.org/>

#### **New Standard**

BSR/UL 2684-202x, Standard for Safety for Video and Thermal Image Detectors for Fire Alarm Systems (new standard)

This Standard sets forth requirements for video and thermal image fire detectors and accessories for non-dwelling units, including mechanical guards to be employed in indoor locations (for video and thermal) and outdoor (for thermal) in accordance with the following: (a) In the United States: (1) National Fire Alarm and Signaling Code, NFPA 72; (2) National Electrical Code, NFPA 70. (b) In Canada: (1) Standard for the Installation of Fire Alarm Systems, CAN/ULC-S524; (2) National Building Code of Canada; and (3) National Fire Code of Canada.

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Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/ProposalAvailable>

### ULSE (UL Standards & Engagement)

12 Laboratory Drive, Research Triangle Park, NC 27709-3995 | [Grayson.Flake@ul.org](mailto:Grayson.Flake@ul.org), <https://ulse.org/>

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## Withdrawal of an ANS by ANSI-Accredited Standards Developer

In accordance with clause 4.2.1.3.2 Withdrawal by ANSI-Accredited Standards Developer of the ANSI Essential Requirements, the following American National Standards have been withdrawn as an ANS.

### ACI (American Concrete Institute)

38800 Country Club Drive, Farmington Hills, MI 48331 | [shannon.banchero@concrete.org](mailto:shannon.banchero@concrete.org), [www.concrete.org](http://www.concrete.org)

ANSI/ACI 318-2019, Building Code Requirements for Structural Concrete and Commentary (new standard)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Questions may be directed to: Shannon Banchero <[shannon.banchero@concrete.org](mailto:shannon.banchero@concrete.org)>

### ACI (American Concrete Institute)

38800 Country Club Drive, Farmington Hills, MI 48331 | [shannon.banchero@concrete.org](mailto:shannon.banchero@concrete.org), [www.concrete.org](http://www.concrete.org)

ANSI/ACI CODE-562-2021, Assessment, Repair, and Rehabilitation of Existing Concrete Buildings - Code Requirements and Commentary (revision and redesignation of ANSI/ACI 562-2020)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Questions may be directed to: Shannon Banchero <[shannon.banchero@concrete.org](mailto:shannon.banchero@concrete.org)>

## Withdrawal of an ANS by ANSI-Accredited Standards Developer

### **NCPDP (National Council for Prescription Drug Programs)**

9240 East Raintree Drive, Scottsdale, AZ 85260 | [mweiker@ncdpd.org](mailto:mweiker@ncdpd.org), [www.ncdpd.org](http://www.ncdpd.org)

ANSI/NCPDP Benefit Integration Standard v13-2018, NCPDP Benefit Integration Standard v13 (revision and redesignation of ANSI/NCPDP Benefit Integration Standard v12-2017)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Questions may be directed to: Margaret Weiker <[mweiker@ncdpd.org](mailto:mweiker@ncdpd.org)>

### **NCPDP (National Council for Prescription Drug Programs)**

9240 East Raintree Drive, Scottsdale, AZ 85260 | [mweiker@ncdpd.org](mailto:mweiker@ncdpd.org), [www.ncdpd.org](http://www.ncdpd.org)

ANSI/NCPDP Post Adj v48-2018, NCPDP Post Adjudication Standard v48 (revision and redesignation of ANSI/NCPDP Post Adj v47-2017)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Questions may be directed to: Margaret Weiker <[mweiker@ncdpd.org](mailto:mweiker@ncdpd.org)>

### **NCPDP (National Council for Prescription Drug Programs)**

9240 East Raintree Drive, Scottsdale, AZ 85260 | [mweiker@ncdpd.org](mailto:mweiker@ncdpd.org), [www.ncdpd.org](http://www.ncdpd.org)

ANSI/NCPDP RDS Standard v21-2018, NCPDP Retiree Drug Subsidy Standard Implementation Guide v21 (revision and redesignation of ANSI/NCPDP RDS Standard v2.0-2013)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Questions may be directed to: Margaret Weiker <[mweiker@ncdpd.org](mailto:mweiker@ncdpd.org)>

### **NCPDP (National Council for Prescription Drug Programs)**

9240 East Raintree Drive, Scottsdale, AZ 85260 | [mweiker@ncdpd.org](mailto:mweiker@ncdpd.org), [www.ncdpd.org](http://www.ncdpd.org)

ANSI/NCPDP SC Standard 2018071-2018, NCPDP SCRIPT Standard 2018071 (revision and redesignation of BSR/NCPDP SC WG110077201xxx-201x)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Questions may be directed to: Margaret Weiker <[mweiker@ncdpd.org](mailto:mweiker@ncdpd.org)>

### **NCPDP (National Council for Prescription Drug Programs)**

9240 East Raintree Drive, Scottsdale, AZ 85260 | [mweiker@ncdpd.org](mailto:mweiker@ncdpd.org), [www.ncdpd.org](http://www.ncdpd.org)

ANSI/NCPDP Specialized Standard 2018071-2018, NCPDP Specialized Standard 2018071 (revision and redesignation of BSR/NCPDP Specialized Standard WG110077201xxx-201x)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Questions may be directed to: Margaret Weiker <[mweiker@ncdpd.org](mailto:mweiker@ncdpd.org)>

### **NCPDP (National Council for Prescription Drug Programs)**

9240 East Raintree Drive, Scottsdale, AZ 85260 | [mweiker@ncdpd.org](mailto:mweiker@ncdpd.org), [www.ncdpd.org](http://www.ncdpd.org)

ANSI/NCPDP TC vF3-2018, NCPDP Telecommunication Standard vF3 (revision and redesignation of ANSI/NCPDP TC vF2-2017)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Questions may be directed to: Margaret Weiker <[mweiker@ncdpd.org](mailto:mweiker@ncdpd.org)>

### **NCPDP (National Council for Prescription Drug Programs)**

9240 East Raintree Drive, Scottsdale, AZ 85260 | [mweiker@ncdpd.org](mailto:mweiker@ncdpd.org), [www.ncdpd.org](http://www.ncdpd.org)

ANSI/NCPDP Uniform Healthcare Payer Data Standard v25-2018, NCPDP Uniform Healthcare Payer Data Standard v25 (revision and redesignation of ANSI/NCPDP Uniform Healthcare Payer Data Standard v24-2017)

Send comments (copy [psa@ansi.org](mailto:psa@ansi.org)) to: Questions may be directed to: Margaret Weiker <[mweiker@ncdpd.org](mailto:mweiker@ncdpd.org)>

# 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.

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## **ASABE (American Society of Agricultural and Biological Engineers)**

2590 Niles Road, Saint Joseph, MI 49085 | [stell@asabe.org](mailto:stell@asabe.org), <https://www.asabe.org/>

ANSI/ASABE AD26322-1:2008 NOV16 (R2023), Tractors for agriculture and forestry - Safety - Part 1: Standard tractors (reaffirmation of ANSI/ASABE AD26322-1:2008 NOV16 (R2020)) Final Action Date: 10/24/2023 | *Reaffirmation*

## **ASC X9 (Accredited Standards Committee X9, Incorporated)**

275 West Street, Suite 107, Annapolis, MD 21401 | [Ambria.Calloway@X9.org](mailto:Ambria.Calloway@X9.org), [www.x9.org](http://www.x9.org)

ANSI X9.100-188-2023, Return Reasons for Check Image Exchange and IRDs (revision of ANSI X9.100-188-2018) Final Action Date: 10/24/2023 | *Revision*

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

180 Technology Parkway, Peachtree Corners, GA 30092 | [rshanley@ashrae.org](mailto:rshanley@ashrae.org), [www.ashrae.org](http://www.ashrae.org)

ANSI/ASHRAE/ASHE Addendum e to ANSI/ASHRAE/ASHE Standard 189.3-2021, Design, Construction, and Operation of Sustainable High-Performance Health Care Facilities (addenda to ANSI/ASHRAE/ASHE Standard 189.3-2021) Final Action Date: 10/26/2023 | *Addenda*

ANSI/ASHRAE/ICC/IES/USGBC Addendum bf 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: 10/26/2023 | *Addenda*

## **ASNT (American Society for Nondestructive Testing)**

1711 Arlingate Lane, Columbus, OH 43228-0518 | [kdownton@asnt.org](mailto:kdownton@asnt.org), [www.asnt.org](http://www.asnt.org)

ANSI/ASNT CP-189-2024, ASNT Standard for Qualification and Certification of Nondestructive Testing Personnel (revision of ANSI/ASNT CP 189-2020) Final Action Date: 10/26/2023 | *Revision*

## **AWS (American Welding Society)**

8669 NW 36th Street, Suite 130, Miami, FL 33166-6672 | [kbulger@aws.org](mailto:kbulger@aws.org), [www.aws.org](http://www.aws.org)

ANSI/AWS A5.12M/A5.12 (ISO 6848-2023 MOD), Specification for Tungsten and Oxide Dispersed Tungsten Electrodes for Arc Welding and Cutting (national adoption with modifications of ISO 6848) Final Action Date: 10/26/2023 | *National Adoption*

## **AWWA (American Water Works Association)**

6666 W. Quincy Avenue, Denver, CO 80235 | [polson@awwa.org](mailto:polson@awwa.org), [www.awwa.org](http://www.awwa.org)

ANSI/AWWA C200-2023, Steel Water Pipe, 6 In. (150 mm) and Larger (revision of ANSI/AWWA C200-2017) Final Action Date: 10/24/2023 | *Revision*

## **IEST (Institute of Environmental Sciences and Technology)**

1827 Walden Office Square, Suite 400, Schaumburg, IL 60173 | [jsklena@iest.org](mailto:jsklena@iest.org), [www.iest.org](http://www.iest.org)

ANSI/IEST/ISO 14644-18-2023, Cleanrooms and associated controlled environments - Part 18: Assessment of suitability of consumables (identical national adoption of ISO 14644-18) Final Action Date: 10/24/2023 | *National Adoption*

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

700 K Street NW, Suite 600, Washington, DC 20001 | [comments@standards.incits.org](mailto:comments@standards.incits.org), [www.incits.org](http://www.incits.org)

INCITS/ISO/IEC 9075-1:2023 [2023], Information technology - Database languages SQL - Part 1: Framework (SQL/Framework) (identical national adoption of ISO/IEC 9075-1:2023 and revision of INCITS/ISO/IEC 9075-1:2016 [R2022]) Final Action Date: 10/24/2023 | *National Adoption*

INCITS/ISO/IEC 9075-2:2023 [2023], Information technology - Database languages SQL - Part 2: Foundation (SQL/Foundation) (identical national adoption of ISO/IEC 9075-2:2023 and revision of INCITS/ISO/IEC 9075-2:2016 [R2022]) Final Action Date: 10/24/2023 | *National Adoption*

INCITS/ISO/IEC 9075-3:2023 [2023], Information technology - Database languages SQL - Part 3: Call-Level Interface (SQL/CLI) (identical national adoption of ISO/IEC 9075-3:2023 and revision of INCITS/ISO/IEC 9075-3:2016 [2018]) Final Action Date: 10/24/2023 | *National Adoption*

INCITS/ISO/IEC 9075-4:2023 [2023], Information technology - Database languages SQL - Part 4: Persistent stored modules (SQL/PSM) (identical national adoption of ISO/IEC 9075-4:2023 and revision of INCITS/ISO/IEC 9075-4:2016 [R2022]) Final Action Date: 10/24/2023 | *National Adoption*

INCITS/ISO/IEC 9075-9:2023 [2023], Information technology - Database languages SQL - Part 9: Management of External Data (SQL/MED) (identical national adoption of ISO/IEC 9075-9:2023 and revision of INCITS/ISO/IEC 9075-9:2016 [R2022]) Final Action Date: 10/24/2023 | *National Adoption*

INCITS/ISO/IEC 9075-10:2023 [2023], Information technology - Database languages SQL - Part 10: Object language bindings (SQL/OLB) (identical national adoption of ISO/IEC 9075-10:2023 and revision of INCITS/ISO/IEC 9075-10:2016 [R2022]) Final Action Date: 10/24/2023 | *National Adoption*

INCITS/ISO/IEC 9075-11:2023 [2023], Information technology - Database languages SQL - Part 11: Information and definition schemas (SQL/Schemata) (identical national adoption of ISO/IEC 9075-11:2023 and revision of INCITS/ISO/IEC 9075-11:2016 [R2022]) Final Action Date: 10/24/2023 | *National Adoption*

INCITS/ISO/IEC 9075-13:2023 [2023], Information technology - Database languages SQL - Part 13: SQL Routines and types using the Java TM programming language (SQL/JRT) (identical national adoption of ISO/IEC 9075-13:2023 and revision of INCITS/ISO/IEC 9075-13:2016 [R2022]) Final Action Date: 10/24/2023 | *National Adoption*

INCITS/ISO/IEC 9075-14:2023 [2023], Information technology - Database languages SQL - Part 14: XML-Related Specifications (SQL/XML) (identical national adoption of ISO/IEC 9075-14:2023 and revision of INCITS/ISO/IEC 9075-14:2016 [R2022]) Final Action Date: 10/24/2023 | *National Adoption*

INCITS/ISO/IEC 9075-15:2023 [2023], Information technology - Database languages SQL - Part 15: Multidimensional arrays (SQL/MDA) (identical national adoption of ISO/IEC 9075-15:2023) Final Action Date: 10/24/2023 | *National Adoption*

INCITS/ISO/IEC 9075-16:2023 [2023], Information technology - Database languages SQL - Part 16: Property Graph Queries (SQL/PGQ) (identical national adoption of ISO/IEC 9075-16:2023) Final Action Date: 10/24/2023 | *National Adoption*

INCITS/ISO/IEC 11179-1:2023 [2023], Information technology - Metadata registries (MDR) - Part 1: Framework (identical national adoption of ISO/IEC 11179-1:2023 and revision of INCITS/ISO/IEC 11179-1:2015 [2020]) Final Action Date: 10/24/2023 | *National Adoption*

INCITS/ISO/IEC 11179-3:2023 [2023], Information technology - Metadata registries (MDR) - Part 3: Metamodel for registry common facilities (identical national adoption of ISO/IEC 11179-3:2023 and revision of INCITS/ISO/IEC 11179-3:2013 [R2019]) Final Action Date: 10/24/2023 | *National Adoption*



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

700 K Street NW, Suite 600, Washington, DC 20001 | [comments@standards.incits.org](mailto:comments@standards.incits.org), [www.incits.org](http://www.incits.org)

INCITS/ISO/IEC 11179-6:2023 [2023], Information technology - Metadata registries (MDR) - Part 6: Registration (identical national adoption of ISO/IEC 11179-6:2023 and revision of INCITS/ISO/IEC 11179-6:2015 [2020]) Final Action Date: 10/24/2023 | *National Adoption*

INCITS/ISO/IEC 14776-253:2023 [2023], Information technology - USB Attached SCSI - 3 (UAS-3) (identical national adoption of ISO/IEC 14776-253:2023) Final Action Date: 10/24/2023 | *National Adoption*

INCITS/ISO/IEC 19794-7:2021 [2023], Information technology - Biometric data interchange formats - Part 7: Signature/sign time series data (identical national adoption of ISO/IEC 19794-7:2021 and revision of INCITS/ISO/IEC 19794-7:2014 [R2019]) Final Action Date: 10/24/2023 | *National Adoption*

INCITS/ISO/IEC 27036-3:2023 [2023], Cybersecurity - Supplier relationships - Part 3: Guidelines for hardware, software, and services supply chain security (identical national adoption of ISO/IEC 27036-3:2013 and revision of INCITS/ISO/IEC 27036-3:2013 [2019]) Final Action Date: 10/24/2023 | *National Adoption*

INCITS/ISO/IEC 1989:2023 [2023], Information technology - Programming languages, their environments and system software interfaces - Programming language COBOL (identical national adoption of ISO/IEC 1989:2023 and revision of INCITS/ISO/IEC 1989:2014 [R2019]) Final Action Date: 10/24/2023 | *National Adoption*

**NSF (NSF International)**

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | [jsnider@nsf.org](mailto:jsnider@nsf.org), [www.nsf.org](http://www.nsf.org)

ANSI/NSF 14-2023 (i131r1), Plastics Piping System Components and Related Materials (revision of ANSI/NSF 14-2022) Final Action Date: 10/19/2023 | *Revision*

ANSI/NSF 14-2023 (i133r1), Plastics Piping System Components and Related Materials (revision of ANSI/NSF 14-2022) Final Action Date: 10/24/2023 | *Revision*

**ULSE (UL Standards & Engagement)**

333 Pflugsten Road, Northbrook, IL 60062-2096 | [Susan.P.Malohn@ul.org](mailto:Susan.P.Malohn@ul.org), <https://ulse.org/>

ANSI/UL 61215-1-3-2023, Terrestrial Photovoltaic (PV) Modules - Design Qualification and Type Approval - Part 1-3: Special Requirements for Testing of Thin-Film Amorphous Silicon Based Photovoltaic (PV) Modules (identical national adoption of IEC 61215-1-3 and revision of ANSI/UL 61215-1-3-2021) Final Action Date: 10/19/2023 | *National Adoption*

ANSI/UL 2560-2018 (R2023), Standard for Safety for Emergency Call Systems for Assisted Living and Independent Living Facilities (reaffirmation of ANSI/UL 2560-2018) Final Action Date: 10/26/2023 | *Reaffirmation*

ANSI/UL 60745-2-6-2009 (R2023), Hand-Held Motor-Operated Electric Tools - Safety - Part 2-6: Particular Requirements for Hammers (reaffirmation of ANSI/UL 60745-2-6-2009 (R2018)) Final Action Date: 10/25/2023 | *Reaffirmation*

ANSI/UL 1323-2023a, Standard for Scaffold Hoists (revision of ANSI/UL 1323-2023) Final Action Date: 10/26/2023 | *Revision*



# 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.

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## ANSI Accredited Standards Developer

### INCITS Executive Board – ANSI Accredited SDO and US TAG to ISO/IEC JTC 1, Information Technology

The InterNational Committee for Information Technology Standards (INCITS), an ANSI accredited SDO, is the forum of choice for information technology developers, producers and users for the creation and maintenance of formal de jure IT standards. INCITS' mission is to promote the effective use of Information and Communication Technology through standardization in a way that balances the interests of all stakeholders and increases the global competitiveness of the member organizations.

The INCITS Executive Board serves as the consensus body with oversight of its 40+ Technical Committees. Additionally, the INCITS Executive Board has the international leadership role as the US Technical Advisory Group (TAG) to ISO/IEC JTC 1, Information Technology.

Membership in the INCITS Executive Board is open to all directly and materially interested parties in accordance with INCITS membership rules. To find out more about participating on the INCITS Executive Board, contact Jennifer Garner at [jgarner@itic.org](mailto:jgarner@itic.org) or visit <http://www.incits.org/participation/membership-info> for more information.

Membership in all interest categories is always welcome; however, the INCITS Executive Board seeks to broaden its membership base in the following underrepresented categories:

- Producer-Software
- Producer-Hardware
- Distributor
- Service Provider
- Users
- Consultants
- Government
- SDO and Consortia Groups
- Academia
- General Interest

## 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](http://www.scte.org) or by e-mail from [standards@scte.org](mailto:standards@scte.org).

## **ANSI Accredited Standards Developer**

### **AWS - American Welding Society**

#### **A5 Committee on Filler Metals and Allied Materials**

The American Welding Society (AWS) A5 Committee on Filler Metals and Allied Materials is actively seeking participation from the interest categories of user, general interest, educator, and distributor. To apply or obtain additional information please contact Kevin Bulger at [kbulger@aws.org](mailto:kbulger@aws.org) by July 1, 2024. For more information, see [www.aws.org](http://www.aws.org).

### **AAMI (Association for the Advancement of Medical Instrumentation)**

901 N. Glebe Road, Arlington, VA 22203 | [mmiskell@aami.org](mailto:mmiskell@aami.org), [www.aami.org](http://www.aami.org)

BSR/AAMI/ISO 11137-2 (R202x), Sterilization of health care products-Radiation-Part 2: Establishing the sterilization dose (reaffirmation of ANSI/AAMI/ISO 11137-2, third edition-2013 (R2019))

### **ABYC (American Boat and Yacht Council)**

613 Third Street, Suite 10, Annapolis, MD 21403 | [eparks@abycinc.org](mailto:eparks@abycinc.org), [www.abycinc.org](http://www.abycinc.org)

BSR/ABYC A-16-202x, Installation of Electric Navigation Lights (revision of ANSI/ABYC A-16-2021)

Interest Categories: Soliciting for Categories: Manufacturer - Engines, Insurance/Survey, Specialist Service

### **ABYC (American Boat and Yacht Council)**

613 Third Street, Suite 10, Annapolis, MD 21403 | [eparks@abycinc.org](mailto:eparks@abycinc.org), [www.abycinc.org](http://www.abycinc.org)

BSR/ABYC C-5-202x, Construction and Testing of Electric Navigation Lights (revision of ANSI/ABYC C-5-2021)

Interest Categories: Soliciting for Categories: Manufacturer - Engines, Insurance/Survey, Specialist Service

### **ACP (American Clean Power Association)**

1501 M Street NW, Suite 1000, Washington, DC 22205 | [dbrown@cleanpower.org](mailto:dbrown@cleanpower.org), [www.cleanpower.org](http://www.cleanpower.org)

BSR/ACP OCRP-4-202x, U.S. Recommended Practices for Geotechnical and Geophysical Investigations and Design (new standard)

### **AHRI (Air-Conditioning, Heating, and Refrigeration Institute)**

2311 Wilson Boulevard, Suite 400, Arlington, VA 22201-3001 | [kbest@ahrinet.org](mailto:kbest@ahrinet.org), [www.ahrinet.org](http://www.ahrinet.org)

BSR/AHRI Standard 600 (I-P)-202x, Standard for Performance Rating of Water/Brine to Air Heat Pump Equipment (revision of ANSI/AHRI Standard 600-2023 (I-P))

### **AHRI (Air-Conditioning, Heating, and Refrigeration Institute)**

2311 Wilson Boulevard, Suite 400, Arlington, VA 22201-3001 | [kbest@ahrinet.org](mailto:kbest@ahrinet.org), [www.ahrinet.org](http://www.ahrinet.org)

BSR/AHRI Standard 660 (SI/I-P)-202x, Standard for Performance Rating of Water/Brine to Water Heat Pump Equipment (new standard)

### **ASA (ASC S1) (Acoustical Society of America)**

1305 Walt Whitman Road, Suite 300, Melville, NY 11747 | [standards@acousticalsociety.org](mailto:standards@acousticalsociety.org), [www.acousticalsociety.org](http://www.acousticalsociety.org)

BSR S1.4/Part 3 (R202x), Electroacoustics - Sound Level Meters - Part 3: Periodic Tests (a nationally adopted international standard) (reaffirm a national adoption ANSI/ASA S1.4-2014/Part 3/IEC 61672-3-2013 (R2019))

**ASA (ASC S1) (Acoustical Society of America)**

1305 Walt Whitman Road, Suite 300, Melville, NY 11747 | [standards@acousticalsociety.org](mailto:standards@acousticalsociety.org), [www.acousticalsociety.org](http://www.acousticalsociety.org)

BSR/ASA S1.4-2014/Part 1/IEC 61672-1-2013 (R202x), Electroacoustics - Sound Level Meters - Part 1: Specifications (a nationally adopted international standard) (reaffirm a national adoption ANSI/ASA S1.4-2014/Part 1/IEC 61672-1-2013 (R2019))

**ASA (ASC S1) (Acoustical Society of America)**

1305 Walt Whitman Road, Suite 300, Melville, NY 11747 | [standards@acousticalsociety.org](mailto:standards@acousticalsociety.org), [www.acousticalsociety.org](http://www.acousticalsociety.org)

BSR/ASA S1.4-2014/Part 2/IEC 61672-2-2013 (R202x), Electroacoustics - Sound Level Meters - Part 2: Pattern Evaluation Tests (a nationally adopted international standard) (reaffirm a national adoption ANSI/ASA S1.4-2014/Part 2/IEC 61672-2-2013 (R2019))

**ASA (ASC S12) (Acoustical Society of America)**

1305 Walt Whitman Road, Suite 300, Melville, NY 11747 | [standards@acousticalsociety.org](mailto:standards@acousticalsociety.org), [www.acousticalsociety.org](http://www.acousticalsociety.org)

BSR S12.1-202x, Guidelines for the Preparation of Standard Procedures to Determine the Noise Emission from Sources (revision of ANSI ASA S12.1 (R2023))

**ASA (ASC S12) (Acoustical Society of America)**

1305 Walt Whitman Road, Suite 300, Melville, NY 11747 | [standards@acousticalsociety.org](mailto:standards@acousticalsociety.org), [www.acousticalsociety.org](http://www.acousticalsociety.org)

BSR/ASA S12.60-2019/Part 4 (R202x), Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools, Part 4: Acoustic Standards for Physical Education Teaching Environments (reaffirmation of ANSI/ASA S12.60-2019/Part 4)

**ASA (ASC S2) (Acoustical Society of America)**

1305 Walt Whitman Road, Suite 300, Melville, NY 11747 | [standards@acousticalsociety.org](mailto:standards@acousticalsociety.org), [www.acousticalsociety.org](http://www.acousticalsociety.org)

BSR S2.81/Part 12 (R202x), Mechanical vibration - Rotor balancing - Part 12: Procedures and tolerances for rotors with flexible behaviour (a nationally adopted international standard) (reaffirm a national adoption ANSI/ASA S2.81-2019/Part 12/ISO 21940-12-2016)

**ASA (ASC S2) (Acoustical Society of America)**

1305 Walt Whitman Road, Suite 300, Melville, NY 11747 | [standards@acousticalsociety.org](mailto:standards@acousticalsociety.org), [www.acousticalsociety.org](http://www.acousticalsociety.org)

BSR S2.81/Part 14 (R202x), Mechanical vibration - Rotor balancing - Part 14: Procedures for assessing balance errors (a nationally adopted international standard) (reaffirm a national adoption ANSI/ASA S2.81-2019/Part 14/ISO 21940-14-2012)

**ASA (ASC S2) (Acoustical Society of America)**

1305 Walt Whitman Road, Suite 300, Melville, NY 11747 | [standards@acousticalsociety.org](mailto:standards@acousticalsociety.org), [www.acousticalsociety.org](http://www.acousticalsociety.org)

BSR/ASA S2.81-2019/Part 2/ISO 21940-2-2017 (R202x), Mechanical vibration - Rotor balancing - Part 2: Vocabulary (a nationally adopted international standard) (reaffirm a national adoption ANSI/ASA S2.81-2019/Part 2/ISO 21940-2-2017)

**ASA (ASC S2) (Acoustical Society of America)**

1305 Walt Whitman Road, Suite 300, Melville, NY 11747 | [standards@acousticalsociety.org](mailto:standards@acousticalsociety.org), [www.acousticalsociety.org](http://www.acousticalsociety.org)

BSR/ASA S2.81-2019/Part 11/ISO 21940-11-2016 (R202x), Mechanical vibration - Rotor balancing - Part 11: Procedures and tolerances for rotors with rigid behaviour (a nationally adopted international standard) (reaffirm a national adoption ANSI/ASA S2.81-2019/Part 11/ISO 21940-11-2016)

**ATIS (Alliance for Telecommunications Industry Solutions)**

1200 G Street NW, Suite 500, Washington, DC 20005 | [akarditzas@atis.org](mailto:akarditzas@atis.org), [www.atis.org](http://www.atis.org)

BSR ATIS 1000025-2013 (S202x), User-to-Network Interface (UNI) Standard for Signaling and Control Security Requirements for Evolving VoP/Multimedia Networks (stabilized maintenance of ANSI ATIS 1000025-2013 (R2018))

**CPLSO**

The Marchioness Building, Commercial Road, Bristol BS16TG, UK BS1 6TG | [pratt.hugh@cplso.org](mailto:pratt.hugh@cplso.org)

BSR/CPLSO 19-202x, Electrical Characteristics of ECDs and CEWs with more than 2 probes (new standard)

**ECIA (Electronic Components Industry Association)**

13873 Park Center Road, Suite 315, Herndon, VA 20171 | [ldonohoe@ecianow.org](mailto:ldonohoe@ecianow.org), [www.ecianow.org](http://www.ecianow.org)

BSR/EIA 198-2-F-202x, Ceramic Dielectric Capacitors Classes I, II, III, and IV - Part II: Test Methods (revision and redesignation of ANSI/EIA 198-2-E-2014)

**EOS/ESD (ESD Association, Inc.)**

218 W. Court Street, Rome, NY 13440 | [jkirk@esda.org](mailto:jkirk@esda.org), <https://www.esda.org>

BSR/EOS ESD SP5.0-202x, ESD Association Standard Practice for Electrostatic Discharge Sensitivity Testing - Reporting ESD Withstand Levels on Datasheets (revision of ANSI/ESD SP5.0-2018)

**FM (FM Approvals)**

1151 Boston-Providence Turnpike, Norwood, MA 02062 | [josephine.mahnken@fmapprovals.com](mailto:josephine.mahnken@fmapprovals.com), [www.fmglobal.com](http://www.fmglobal.com)

BSR/FM 6020-202x, Evaluating Fire Performance of Intermediate Bulk Containers (IBCs) (revision of ANSI/FM 6020-2015)

**IES (Illuminating Engineering Society)**

120 Wall Street, Floor 17, New York, NY 10005-4001 | [pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org), [www.ies.org](http://www.ies.org)

BSR/IES LS-X-202x, Lighting Science: Vision, Perception + Acuity (revision, redesignation and consolidation of ANSI/IES LS-7-2020 and ANSI/IES LS-8-2020)

**IES (Illuminating Engineering Society)**

120 Wall Street, Floor 17, New York, NY 10005-4001 | [pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org), [www.ies.org](http://www.ies.org)

BSR/IES LP-1-202x, Lighting Practice: Design and Process Quality Lighting for People and Buildings (revision, redesignation and consolidation of ANSI/IES LP-1-2020 and ANSI/IES LP-7-2020)

**IES (Illuminating Engineering Society)**

120 Wall Street, Floor 17, New York, NY 10005-4001 | [pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org), [www.ies.org](http://www.ies.org)

BSR/IES LM-73S-202x, IES Approved Method for Distribution Photometry of Entertainment Lighting Luminaires Using Solid State Light Sources (new standard)

**IES (Illuminating Engineering Society)**

120 Wall Street, Floor 17, New York, NY 10005-4001 | [pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org), [www.ies.org](http://www.ies.org)

BSR/IES LS-2-2020 (R202x), Lighting Science: Concepts and Language of Lighting (reaffirmation of ANSI/IES LS-2-2020)

**IES (Illuminating Engineering Society)**

120 Wall Street, Floor 17, New York, NY 10005-4001 | [pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org), [www.ies.org](http://www.ies.org)

BSR/IES LM-63-2020 (R202x), Technical Memorandum: Ray File Format for the Description of the Emission Properties of Light Sources (reaffirmation of ANSI/IES LM-63-2020)

**IES (Illuminating Engineering Society)**

120 Wall Street, Floor 17, New York, NY 10005-4001 | [pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org), [www.ies.org](http://www.ies.org)

BSR/IES RP- (Transport)-202x, Recommended Practice: Lighting Transportation Facilities (new standard)

**IES (Illuminating Engineering Society)**

120 Wall Street, Floor 17, New York, NY 10005-4001 | [pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org), [www.ies.org](http://www.ies.org)

BSR/IES RP-43-202x, Recommended Practice: Outdoor Lighting Design for People and the Environment (revision, redesignation and consolidation of ANSI/IES RP-43-2022, ANSI/IES LP-2-2020 and ANSI/IES LP-11-2020)

**IES (Illuminating Engineering Society)**

120 Wall Street, Floor 17, New York, NY 10005-4001 | [pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org), [www.ies.org](http://www.ies.org)

BSR/IES TM-41-202x, Technical Memorandum: Standard Format for the Electronic Data Transfer of Light Output Maintenance Characteristics of Solid-State Light Sources (new standard)

**IES (Illuminating Engineering Society)**

120 Wall Street, Floor 17, New York, NY 10005-4001 | [pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org), [www.ies.org](http://www.ies.org)

BSR/IES TM-25-2020 (R202x), Technical Memorandum: Ray File Format for the Description of the Emission Properties of Light Sources (reaffirmation of ANSI/IES TM-25-2020)

**IES (Illuminating Engineering Society)**

120 Wall Street, Floor 17, New York, NY 10005-4001 | [pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org), [www.ies.org](http://www.ies.org)

BSR/IES TM-27-2020 (R202x), Technical Memorandum: IES Standard Format for the Electronic Transfer of Spectral Data (reaffirmation of ANSI/IES TM-27-2020)

**IES (Illuminating Engineering Society)**

120 Wall Street, Floor 17, New York, NY 10005-4001 | [pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org), [www.ies.org](http://www.ies.org)

BSR/IES/NALMCO RP-36-202x, Recommended Practice: Lighting Maintenance (revision of ANSI/IES/NALMCO RP-36-2020)

### **ISA (International Society of Automation)**

3252 S. Miami Blvd, Suite 102, Durham, NC 27703 | [crobinson@isa.org](mailto:crobinson@isa.org), [www.isa.org](http://www.isa.org)

BSR/ISA 96.08.01-202x, Guidelines for the Specification of Linear and Rotary Gas Over Oil Valve Actuators (revision of ANSI/ISA 96.08.01-2017)

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

700 K Street NW, Suite 600, Washington, DC 20001 | [comments@standards.incits.org](mailto:comments@standards.incits.org), [www.incits.org](http://www.incits.org)

BSR/INCITS 562-202x, Information technology - Fibre Channel - Framing and Signaling - 6 (FC-FS-6) (new standard)

### **NETA (InterNational Electrical Testing Association)**

3050 Old Centre Rd, Suite 101, Portage, MI 49024 | [ldanz@netaworld.org](mailto:ldanz@netaworld.org), [www.netaworld.org](http://www.netaworld.org)

BSR/NETA ECS-2024-202x, NETA Standard for Electrical Commissioning Specifications for Electrical Power Equipment and Systems (revision of ANSI/NETA ECS-2020)

### **NSF (NSF International)**

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | [arose@nsf.org](mailto:arose@nsf.org), [www.nsf.org](http://www.nsf.org)

BSR/NSF 49-202x (i172r2), Biosafety Cabinetry: Design, Construction, Performance, and Field Certification (revision of ANSI/NSF 49-2022)

### **NSF (NSF International)**

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | [arose@nsf.org](mailto:arose@nsf.org), [www.nsf.org](http://www.nsf.org)

BSR/NSF 49-202x (i194r2), Biosafety Cabinetry: Design, Construction, Performance, and Field Certification (revision of ANSI/NSF 49-2022)

### **TIA (Telecommunications Industry Association)**

1320 North Courthouse Road, Suite 200, Arlington, VA 22201-2598 | [standards-process@tiaonline.org](mailto:standards-process@tiaonline.org), [www.tiaonline.org](http://www.tiaonline.org)

BSR/TIA 455-37-B-202x, Low or High Temperature Bend Test for Fiber Optic Cable (new standard)

# Call for Comment of ANS Limited Substantive Changes

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## ANSI Accredited Standards Developers

### ACMA - American Composites Manufacturers Association

#### ANSI/ACMA/UCSC-FRP Composite Utility Poles-1-2018 - 30-Day Comment Deadline By November 27, 2023

This Call for Comment of Limited Substantive Changes to the Approved American National Standard is available for review & comment until **November 27, 2023**

### ANSI/ACMA/UCSC-FRP Composite Utility Poles-1-2018

#### Abstract:

*Due to the recent ANSI audit, ACMA is including limited substantive changes to a previously approved American National Standard, ANSI/ACMA/UCSC-FRP Composite Utility Poles-1-2018: Standard Specification for FRP Composite Utility Poles for public review as per the ANSI Essential Requirements.*

#### Scope:

*This specification encompasses the design, materials, properties, manufacturing, quality control, assembly and installation, and inspection of directly embedded FRP utility poles. Applications include cantilevered, framed and combined structures. This specification does not cover crossarms, lattice structures, conductors, insulators, stand-offs or other FRP components used in the electrical grid.*

[Click here to view these changes in full](#)

Send comments to: [standards@acmanet.org](mailto:standards@acmanet.org) or submit comments via the online form at <https://www.surveymonkey.com/r/72FLXKY>

#### ACMA Contact:

La'kia Phillips

Senior Manager, Standards Development

American Composites Manufacturers Association (ACMA)

2000 N. 15th Street, Suite 250

Arlington, VA 22201

p: (703) 682-1671

e: [Lphillips@acmanet.org](mailto:Lphillips@acmanet.org)



# American National Standards (ANS) Announcements

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Approval announced in error

## **Rescind ANS Approval**

**TCNA (ASC A108) - Tile Council of North America Accredited Standards Committee on Ceramic and Glass Tile**

**A118.4-2023 Specifications for Modified Dry-Set Cement Mortar**

A118.4-2023 Specifications for Modified Dry-Set Cement Mortar

The approval of this standard was announced in error. Please direct any questions to: [psa@ansi.org](mailto:psa@ansi.org).

# American National Standards (ANS) Process

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Please visit ANSI's website ([www.ansi.org](http://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 link is [www.ansi.org/asd](http://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](http://www.ansi.org))

- ANSI Essential Requirements: Due process requirements for American National Standards (always current edition):  
[www.ansi.org/essentialrequirements](http://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](http://www.ansi.org/standardsaction)
- Accreditation information – for potential developers of American National Standards (ANS):  
[www.ansi.org/sdoaccreditation](http://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](http://www.ansi.org/asd)
- Lists of ANSI-Accredited Standards Developers (ASDs), Proposed ANS and Approved ANS:  
[www.ansi.org/asd](http://www.ansi.org/asd)
- American National Standards Key Steps:  
[www.ansi.org/anskeysteps](http://www.ansi.org/anskeysteps)
- American National Standards Value:  
[www.ansi.org/ansvalue](http://www.ansi.org/ansvalue)
- ANS Web Forms for ANSI-Accredited Standards Developers:  
<https://www.ansi.org/portal/psawebforms/>
- Information about standards Incorporated by Reference (IBR):  
<https://ibr.ansi.org/>
- ANSI - Education and Training:  
[www.standardstolearn.org](http://www.standardstolearn.org)

# American National Standards Under Continuous Maintenance

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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)  
TMA (The Monitoring Association)  
ULSE (UL Standards & Engagement)

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](http://www.ansi.org/asd), select “American National Standards Maintained Under Continuous Maintenance.” Questions? [psa@ansi.org](mailto: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](mailto:psa@ansi.org).

## AAMI

Association for the Advancement of  
Medical Instrumentation  
901 N. Glebe Road  
Arlington, VA 22203  
[www.aami.org](http://www.aami.org)  
Mike Miskell  
[mmiskell@aami.org](mailto:mmiskell@aami.org)

## ABYC

American Boat and Yacht Council  
613 Third Street, Suite 10  
Annapolis, MD 21403  
[www.abycinc.org](http://www.abycinc.org)  
Emily Parks  
[eparks@abycinc.org](mailto:eparks@abycinc.org)

## ACMA

American Composites Manufacturers  
Association  
2000 N. 15th Street, Suite 250  
Arlington, VA 22201  
[www.acmanet.org](http://www.acmanet.org)  
La'kia Phillips  
[Lphillips@acmanet.org](mailto:Lphillips@acmanet.org)

## ACP

American Clean Power Association  
1501 M Street NW, Suite 1000  
Washington, DC 22205  
[www.cleanpower.org](http://www.cleanpower.org)  
Duane Brown  
[dbrown@cleanpower.org](mailto:dbrown@cleanpower.org)

## ADA (Organization)

American Dental Association  
211 East Chicago Avenue  
Chicago, IL 60611  
[www.ada.org](http://www.ada.org)  
Paul Bralower  
[bralowerp@ada.org](mailto:bralowerp@ada.org)

## AHRI

Air-Conditioning, Heating, and Refrigeration  
Institute  
2311 Wilson Boulevard, Suite 400  
Arlington, VA 22201  
[www.ahrinet.org](http://www.ahrinet.org)  
Karl Best  
[kbest@ahrinet.org](mailto:kbest@ahrinet.org)

## ANS

American Nuclear Society  
5200 Thatcher Road, Suite 142  
Downers Grove, IL 60515  
[www.ans.org](http://www.ans.org)  
Kathryn Murdoch  
[kmurdoch@ans.org](mailto:kmurdoch@ans.org)

## ASA (ASC S1)

Acoustical Society of America  
1305 Walt Whitman Road, Suite 300  
Melville, NY 11747  
[www.acousticalsociety.org](http://www.acousticalsociety.org)  
Raegan Ripley  
[standards@acousticalsociety.org](mailto:standards@acousticalsociety.org)

## ASA (ASC S12)

Acoustical Society of America  
1305 Walt Whitman Road, Suite 300  
Melville, NY 11747  
[www.acousticalsociety.org](http://www.acousticalsociety.org)  
Raegan Ripley  
[standards@acousticalsociety.org](mailto:standards@acousticalsociety.org)

## ASA (ASC S2)

Acoustical Society of America  
1305 Walt Whitman Road, Suite 300  
Melville, NY 11747  
[www.acousticalsociety.org](http://www.acousticalsociety.org)  
Raegan Ripley  
[standards@acousticalsociety.org](mailto:standards@acousticalsociety.org)

## ASABE

American Society of Agricultural and  
Biological Engineers  
2590 Niles Road  
Saint Joseph, MI 49085  
<https://www.asabe.org/>  
Sadie Stell  
[stell@asabe.org](mailto:stell@asabe.org)

## ASC X9

Accredited Standards Committee X9,  
Incorporated  
275 West Street, Suite 107  
Annapolis, MD 21401  
[www.x9.org](http://www.x9.org)  
Ambria Calloway  
[Ambria.Calloway@X9.org](mailto:Ambria.Calloway@X9.org)

## ASHRAE

American Society of Heating, Refrigerating  
and Air-Conditioning Engineers, Inc.  
180 Technology Parkway  
Peachtree Corners, GA 30092  
[www.ashrae.org](http://www.ashrae.org)  
Carmen King  
[cking@ashrae.org](mailto:cking@ashrae.org)  
Emily Toto  
[etoto@ashrae.org](mailto:etoto@ashrae.org)  
Ryan Shanley  
[rshanley@ashrae.org](mailto:rshanley@ashrae.org)  
Tanisha Meyers-Lisle  
[tmlisle@ashrae.org](mailto:tmlisle@ashrae.org)  
Thomas Loxley  
[tloxley@ashrae.org](mailto:tloxley@ashrae.org)

## ASME

American Society of Mechanical Engineers  
Two Park Avenue, M/S 6-2B  
New York, NY 10016  
[www.asme.org](http://www.asme.org)  
Terrell Henry  
[ansibox@asme.org](mailto:ansibox@asme.org)

## ASNT

American Society for Nondestructive  
Testing  
1711 Arlingate Lane  
Columbus, OH 43228  
[www.asnt.org](http://www.asnt.org)  
Katie Downton  
[kdownton@asnt.org](mailto:kdownton@asnt.org)

## ASTM

ASTM International  
100 Barr Harbor Drive  
West Conshohocken, PA 19428  
[www.astm.org](http://www.astm.org)

Laura Klineburger  
[accreditation@astm.org](mailto:accreditation@astm.org)

Lauren Daly  
[accreditation@astm.org](mailto:accreditation@astm.org)

## ATIS

Alliance for Telecommunications Industry  
Solutions  
1200 G Street NW, Suite 500  
Washington, DC 20005  
[www.atis.org](http://www.atis.org)

Anna Karditzas  
akarditzas@atis.org

**AWS**

American Welding Society  
8669 NW 36th Street, Suite 130  
Miami, FL 33166  
www.aws.org

Kevin Bulger  
kbulger@aws.org

**AWWA**

American Water Works Association  
6666 W. Quincy Avenue  
Denver, CO 80235  
www.awwa.org

Paul Olson  
polson@awwa.org

**CPLSO**

CPLSO  
The Marchioness Building, Commercial  
Road  
Bristol BS16TG, UK BS1 6

Hugh Pratt  
pratt.hugh@cplso.org

**CSA**

CSA America Standards Inc.  
8501 East Pleasant Valley Road  
Cleveland, OH 44131  
www.csagroup.org

Debbie Chesnik  
ansi.contact@csagroup.org

**ECIA**

Electronic Components Industry  
Association  
13873 Park Center Road, Suite 315  
Herndon, VA 20171  
www.ecianow.org

Laura Donohoe  
ldonohoe@ecianow.org

**EOS/ESD**

ESD Association, Inc.  
218 W. Court Street  
Rome, NY 13440  
https://www.esda.org

Jennifer Kirk  
jkirk@esda.org

**ESTA**

Entertainment Services and Technology  
Association  
271 Cadman Plaza, P.O. Box 23200  
Brooklyn, NY 11202  
www.esta.org

Richard Nix  
standards@esta.org

**FM**

FM Approvals  
1151 Boston-Providence Turnpike  
Norwood, MA 02062  
www.fmglobal.com

Josephine Mahnken  
josephine.mahnken@fmapprovals.com

**HI**

Hydraulic Institute  
300 Interpace Parkway, Building A, 3rd  
Floor, #280  
Parsippany, NJ 07054  
www.pumps.org

Amy Sisto  
asisto@pumps.org

**IEEE**

Institute of Electrical and Electronics  
Engineers  
445 Hoes Lane  
Piscataway, NJ 08854  
www.ieee.org

Suzanne Merten  
s.merten@ieee.org

**IES**

Illuminating Engineering Society  
120 Wall Street, Floor 17  
New York, NY 10005  
www.ies.org

Patricia McGillicuddy  
pmcgillicuddy@ies.org

**IEST**

Institute of Environmental Sciences and  
Technology  
1827 Walden Office Square, Suite 400  
Schaumburg, IL 60173  
www.iest.org

Jennifer Sklena  
jsklena@iest.org

**ISA (Organization)**

International Society of Automation  
3252 S. Miami Blvd, Suite 102  
Durham, NC 27703  
www.isa.org

Charley Robinson  
crobinson@isa.org

**ITI (INCITS)**

InterNational Committee for Information  
Technology Standards  
700 K Street NW, Suite 600  
Washington, DC 20001  
www.incits.org

Deborah Spittle  
comments@standards.incits.org

Lynn Barra  
comments@standards.incits.org

**MHI**

Material Handling Industry  
8720 Red Oak Boulevard, Suite 201  
Charlotte, NC 28217  
www.mhi.org

Patrick Davison  
pdavison@mhi.org

**NETA**

InterNational Electrical Testing Association  
3050 Old Centre Rd, Suite 101  
Portage, MI 49024  
www.netaworld.org

Lamar Danzy  
ldanzy@netaworld.org

**NSF**

NSF International  
789 N. Dixboro Road  
Ann Arbor, MI 48105  
www.nsf.org

Allan Rose  
arose@nsf.org

Jason Snider  
jsnider@nsf.org

**TIA**

Telecommunications Industry Association  
1320 North Courthouse Road, Suite 200  
Arlington, VA 22201  
www.tiaonline.org

Teesha Jenkins  
standards-process@tiaonline.org

**ULSE**

UL Standards & Engagement  
100 Queen Street, Suite 1040  
Ottawa, ON K1P 1  
https://ulse.org/

Celine Eid  
celine.eid@ul.org

**ULSE**

UL Standards & Engagement  
12 Laboratory Drive  
Research Triangle Park, NC 27709  
<https://ulse.org/>

Anna Roessing-Zewe  
[anna.roessing-zewe@ul.org](mailto:anna.roessing-zewe@ul.org)

Ashley Seward  
[ashley.seward@ul.org](mailto:ashley.seward@ul.org)

Grayson Flake  
[Grayson.Flake@ul.org](mailto:Grayson.Flake@ul.org)

Julio Morales  
[Julio.Morales@UL.org](mailto:Julio.Morales@UL.org)

Tomas Pindur  
[tomas.pindur@ul.org](mailto:tomas.pindur@ul.org)

**ULSE**

UL Standards & Engagement  
333 Pflingsten Road  
Northbrook, IL 60062  
<https://ulse.org/>

Alan McGrath  
[alan.t.mcgrath@ul.org](mailto:alan.t.mcgrath@ul.org)

Christina Riemer  
[christina.riemer@ul.org](mailto:christina.riemer@ul.org)

Heather Sakellariou  
[Heather.Sakellariou@ul.org](mailto:Heather.Sakellariou@ul.org)

Lisette Delgado  
[Lisette.delgado@ul.org](mailto:Lisette.delgado@ul.org)

Megan Van Heirseele  
[Megan.M.VanHeirseele@ul.org](mailto:Megan.M.VanHeirseele@ul.org)

Susan Malohn  
[Susan.P.Malohn@ul.org](mailto:Susan.P.Malohn@ul.org)

# 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](mailto: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](mailto: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](mailto: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

### Agricultural food products (TC 34)

ISO/DIS 6579-4, Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of Salmonella - Part 4: Identification of monophasic Salmonella Typhimurium (1,4,[5],12:i:-) by polymerase chain reaction (PCR) - 1/15/2024, \$98.00

### Aircraft and space vehicles (TC 20)

ISO/DIS 16363, Space data and information transfer systems - Audit and certification of trustworthy digital repositories - 1/12/2024, \$146.00

ISO/DIS 16919, Space data and information transfer systems - Requirements for bodies providing audit and certification of candidate trustworthy digital repositories - 1/12/2024, \$107.00

### Building environment design (TC 205)

ISO/DIS 16484-4, Building automation and control systems (BACS) - Part 4: Control applications - 1/13/2024, \$185.00

### Fine Bubble Technology (TC 281)

ISO/DIS 7383-2, Fine bubble technology - Evaluation method for determining gas content in fine bubble dispersions in water - Part 2: Hydrogen content - 1/15/2024, \$82.00

### Hydrogen energy technologies (TC 197)

ISO/DIS 19880-8, Gaseous hydrogen - Fuelling stations - Part 8: Fuel quality control - 1/14/2024, \$107.00

### Indirect, temperature-controlled refrigerated delivery services – land transport of parcels with intermediate transfer (TC 315)

ISO/DIS 31511, Requirements for contactless delivery services in cold chain logistics - 1/15/2024, \$58.00

### Industrial automation systems and integration (TC 184)

ISO/DIS 14306-2, Industrial automation systems and integration - JT file format specification for 3D visualization - Part 2: Vocabulary - 1/18/2024, \$46.00

### Nuclear energy (TC 85)

ISO/DIS 22765, Nuclear fuel technology - Sintered (U,Pu)O<sub>2</sub> pellets - Guidance for ceramographic preparation for microstructure examination - 1/12/2024, \$40.00

ISO/DIS 4917-5, Design of Nuclear Power Plants against Seismic Events - Part 5: Seismic Instrumentation - 1/18/2024, \$46.00

### Optics and optical instruments (TC 172)

ISO/DIS 16671, Ophthalmic implants - Irrigating solutions for ophthalmic surgery - 1/14/2024, \$88.00

### Ships and marine technology (TC 8)

ISO/DIS 20650, Inland navigation vessels - Small floating working machines - Requirements and test methods - 1/12/2024, \$112.00

### Soil quality (TC 190)

ISO/DIS 15192, Soil and waste - Determination of Chromium(VI) in solid material by alkaline digestion and ion chromatography with spectrometric detection - 1/18/2024, \$88.00



**Welding and allied processes (TC 44)**

ISO 9013:2017/DAMd 1, - Amendment 1: Thermal cutting - Classification of thermal cuts - Geometrical product specification and quality tolerances - Amendment 1 - 1/15/2024, \$29.00

**IEC Standards****All-or-nothing electrical relays (TC 94)**

94/969/NP, PNW 94-969 ED1: Electrical Relays - Tests and measurements - Part 55: Maximum DC load breaking capacity, 12/22/2023

**Audio, video and multimedia systems and equipment (TC 100)**

100/4049(F)/FDIS, IEC 63296-2 ED1: Portable multimedia equipment - Determination of battery duration - Part 2: Headphones and earphones with active noise-cancelling functions, 11/17/2023

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

46C/1272/CDV, IEC 61156-15 ED1: Multicore and symmetrical pair/quad cables for digital communications - Part 15: Symmetrical pair/quad cables for horizontal floor wiring with transmission characteristics up to 1 000 MHz and resistance to fire performance characteristics - Sectional specification, 01/19/2024

**Capacitors and resistors for electronic equipment (TC 40)**

40/3093/DTS, IEC TS 63337 ED1: Basic qualification of DC-link film capacitors for automotive use - General requirements, test conditions and tests, 12/22/2023

**Electric road vehicles and electric industrial trucks (TC 69)**

69/920/CD, IEC 63381 ED1: ELECTRIC VEHICLE WIRELESS POWER TRANSFER (WPT) SYSTEMS - Part 6: Specific requirements for magnetic field dynamic power transfer (MF-D-WPT) system communication and activities, 01/19/2024

69/921/NP, PNW TS 69-921 ED1: Electric vehicle conductive charging system - Part X: AC Vehicle-to-Load Adapter and Interface to the electric vehicle, 12/22/2023

**Electric welding (TC 26)**

26/753/CD, IEC 60974-4 ED4: Arc welding equipment - Part 4: Periodic inspection and testing, 01/19/2024

**Electrical accessories (TC 23)**

23B/1477/CDV, IEC 61995-1 ED2: Devices for the connection of luminaires for household and similar purposes - Part 1: General requirements, 01/19/2024

23B/1478/CDV, IEC 61995-2 ED2: Devices for the connection of luminaires for household and similar purposes - Part 2: Standard sheets for DCL, 01/19/2024

**Electromechanical components and mechanical structures for electronic equipments (TC 48)**

48B/3072/CD, IEC 60512-99-002/AMD1 ED2: Amendment 1 - Connectors for electrical and electronic equipment - Tests and measurements - Part 99-002: Endurance test schedules - Test 99b: Test schedule for unmating under electrical load, 01/19/2024

48B/3076/CD, IEC 61076-8-110 ED1: Connectors for electrical and electronic equipment - Product requirements- Part 61076 -8-110: Power connectors Detail specification for 2P power plus 2P signal plastic housing rectangular shielded connectors with 300A rated current and IP68/IPXXB degree of protection, 01/19/2024

**Flat Panel Display Devices (TC 110)**

110/1582/CD, IEC 62906-5-8 ED1: LASER DISPLAYS - Part 5-8: Measurement of scanning characteristics for raster-scanning laser display, 12/22/2023

110/1581/CD, IEC 63145-20-10 ED2: Eyewear display - Part 20 -10: Fundamental measurement methods - Optical properties, 12/22/2023

110/1580/FDIS, IEC 63145-22-20 ED1: Eyewear display - Part 22-20: Specific measurement methods for AR type - Image quality, 12/08/2023

**Fuel Cell Technologies (TC 105)**

105/1010(F)/FDIS, IEC 62282-6-101 ED1: Fuel cell technologies - Part 6-101: Micro fuel cell power systems - Safety - General requirements, 11/10/2023

**Fuses (TC 32)**

32C/626/CD, IEC 60127-9/Ed.1: Miniature fuses - Part 9: Miniature fuse-links for special applications with partial-range breaking capacity, 01/19/2024

**Methods for the Assessment of Electric, Magnetic and Electromagnetic Fields Associated with Human Exposure (TC 106)**

106/623/CD, IEC TR 62669 ED3: Case studies supporting IEC 62232 - Determination of RF field strength, power density and SAR in the vicinity of radiocommunication base stations for the purpose of evaluating human exposure, 12/22/2023

### **Nanotechnology standardization for electrical and electronic products and systems (TC 113)**

113/804/NP, PNW TS 113-804 ED1: Nanomanufacturing - Key control characteristics - Part xx: Single-wall carbon nanotubes - Electromagnetic shielding effectiveness: Far-field measurement, 01/19/2024

113/805/NP, PNW TS 113-805 ED1: Nanomanufacturing - Key control characteristics - Silver nanoparticles - Electromagnetic shielding effectiveness: far-field measurement, 01/19/2024

### **Performance of household electrical appliances (TC 59)**

59N/44(F)/FDIS, IEC 63086-2-1 ED1: Household and similar electrical air cleaning appliances - Methods for measuring the performance - Part 2-1: Particular requirements for determination of reduction of particles, 11/10/2023

### **Rotating machinery (TC 2)**

2/2165/FDIS, IEC 60034-2-1 ED3: Rotating electrical machines - Part 2-1: Standard methods for determining losses and efficiency from tests (excluding machines for traction vehicles), 12/08/2023

2/2157/FDIS, IEC 60034-2-2 ED2: Rotating electrical machines - Part 2-2: Specific methods for determining separate losses of large machines from tests - Supplement to IEC 60034-2-1, 12/08/2023

2/2164/FDIS, IEC 60034-2-3 ED2: Rotating electrical machines - Part 2-3: Specific test methods for determining losses and efficiency of converter-fed AC motors, 12/08/2023

### **Safety of hand-held motor-operated electric tools (TC 116)**

116/692(F)/FDIS, IEC 62841-2-12 ED1: Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 2-12: Particular requirements for hand-held concrete vibrators, 11/17/2023

### **Safety of household and similar electrical appliances (TC 61)**

61/7072/FDIS, IEC 60335-2-11 ED9: Household and similar electrical appliances - Safety - Part 2-11: Particular requirements for tumble dryers, 12/08/2023

61J/780/FDIS, IEC 60335-2-124 ED1: Household and similar electrical appliances - Safety - Part 2-124: Particular requirements for commercial dry ice blasting machines, 12/08/2023

61/7018(F)/FDIS, IEC 60335-2-7 ED9: Household and similar electrical appliances - Safety - Part 2-7: Particular requirements for washing machines, 11/10/2023

### **Secondary cells and batteries (TC 21)**

21/1177(F)/FDIS, IEC 63118-1 ED1: 12 V lithium-ion secondary batteries for automotive starting, lighting, ignition (SLI) applications and auxiliary purposes - Part 1: General requirements and methods of test, 11/17/2023

### **Semiconductor devices (TC 47)**

47/2820(F)/FDIS, IEC 60749-5 ED3: Semiconductor devices - Mechanical and climatic test methods - Part 5: Steady-state temperature humidity bias life test, 11/10/2023

### **Surface mounting technology (TC 91)**

91/1906/CDV, IEC 60194-2 ED2: Electronic assembly, design and circuit boards - Vocabulary - Part 2: Common usage in electronic technologies as well as electronic assembly technologies, 01/19/2024

91/1915/DTR, IEC TR 61760-5-1 ED1: Surface mounting technology - Part 5-1: Surface strain on circuit boards - Strain gauge measurement applied to chip components, 12/22/2023

### **(TC )**

SMB/8020/QP, Draft IEC Guide 123 Ed 1.0, Assignment and management of horizontal functions within the area of environment, 11/24/2023

### **(TC 125)**

125/88/CD, IEC 63281-2-2 ED1: E-Transporters - Part 2-2: Safety requirements and test methods for autonomous cargo e-Transporters, 01/19/2024

### **Ultrasonics (TC 87)**

87/839(F)/FDIS, IEC 63305 ED1: Underwater acoustics - Calibration of acoustic wave vector receivers in the frequency range 5 Hz to 10 kHz, 11/10/2023

### **Wearable electronic devices and technologies (TC 124)**

124/249/FDIS, IEC 63203-402-2 ED1: Wearable electronic devices and technologies - Part 402-2: Performance measurement of fitness wearables - Step counting, 12/08/2023

124/247(F)/FDIS, IEC 63203-402-3 ED1: Wearable electronic devices and technologies - Part 402-3: Performance measurement of fitness wearables - Test methods for the determination of the accuracy of heart rate, 11/17/2023

## **ISO/IEC JTC 1, Information Technology**

### **(TC )**

JTC1-SC41/382/CD, ISO/IEC TR 30195 ED1: Internet of Things (IoT) - IoT Applications for Long-distance Oil and Gas Pipeline, 12/22/2023



# 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](http://www.ansi.org). All paper copies are available from Standards resellers (<http://webstore.ansi.org/faq.aspx#resellers>).

## ISO Standards

### Biotechnology (TC 276)

[ISO/DIS 18162](#), Biotechnology - Biobanking - Requirements for human neural stem cells derived from pluripotent stem cells, FREE

### Building construction machinery and equipment (TC 195)

[ISO 13105-2:2023](#), Building construction machinery and equipment - Machinery for concrete surface floating and finishing - Part 2: Safety requirements and verification, \$116.00

[ISO 19711-2:2023](#), Building construction machinery and equipment - Truck mixers - Part 2: Safety requirements, \$210.00

### Clinical laboratory testing and in vitro diagnostic test systems (TC 212)

[ISO/DIS 5649](#), Medical laboratories - Concepts and specifications for the design, development, implementation, and use of laboratory-developed tests, FREE

### Ergonomics (TC 159)

[ISO 24227:2023](#), Validation protocol for walking speed as extracted from various sensor systems that measure human body motion for the healthcare sector, \$77.00

### Freight containers (TC 104)

[ISO 1496-4:2023](#), Series 1 freight containers - Specification and testing - Part 4: Non-pressurized containers for dry bulk, \$157.00

### Healthcare organization management (TC 304)

[ISO 23447:2023](#), Healthcare organization management - Hand hygiene performance, \$183.00

### Materials, equipment and offshore structures for petroleum and natural gas industries (TC 67)

[ISO 19905-1:2023](#), Oil and gas industries including lower carbon energy - Site-specific assessment of mobile offshore units - Part 1: Jack-ups: elevated at a site, \$263.00

### Paints and varnishes (TC 35)

[ISO 2811-3:2023](#), Paints and varnishes - Determination of density - Part 3: Oscillation method, \$77.00

### Petroleum products and lubricants (TC 28)

[ISO 15380:2023](#), Lubricants, industrial oils and related products (class L) - Family H (Hydraulic systems) - Specifications for hydraulic fluids in categories HETG, HEPG, HEES and HEPR, \$157.00

### Ships and marine technology (TC 8)

[ISO 3796:2023](#), Ships and marine technology - Clear openings for external single-leaf doors, \$51.00

### Traditional Chinese medicine (TC 249)

[ISO 4904:2023](#), Traditional Chinese medicine - Inner pack of decoction pieces, \$77.00

## ISO Technical Reports

### Dimensional and Geometrical Product Specifications and Verification (TC 213)

[ISO/TR 16610-32:2023](#), Geometrical product specifications (GPS) - Filtration - Part 32: Robust profile filters: Spline filters, \$116.00

### Ergonomics (TC 159)

[ISO/TR 7250-4:2023](#), Basic human body measurements for technological design - Part 4: Expected performance of skilled anthropometrists, \$116.00

## ISO Technical Specifications

### Health Informatics (TC 215)

[ISO/TS 5569:2023](#), Health informatics - Conceptual data model for Chinese medicinal herbs, \$77.00

### Nanotechnologies (TC 229)

[ISO/TS 5387:2023](#), Nanotechnologies - Lung burden mass measurement of nanomaterials for inhalation toxicity tests, \$157.00

### Risk management (TC 262)

[ISO/TS 31050:2023](#), Risk management - Guidelines for managing an emerging risk to enhance resilience, \$183.00

## ISO/IEC JTC 1, Information Technology

[ISO/IEC 30108-2:2023](#), Biometrics - Identity attributes verification services - Part 2: RESTful specification, \$263.00

[ISO/IEC 14496-15:2022/Amd 1:2023](#), - Amendment 1:

Information technology - Coding of audio-visual objects - Part 15: Carriage of network abstraction layer (NAL) unit structured video in the ISO base media file format - Amendment 1: Support for LCEVC, \$22.00

[ISO/IEC/IEEE 15026-3:2023](#), Systems and software engineering -

Systems and software assurance - Part 3: System integrity levels, \$157.00

## IEC Standards

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

[IEC 60966-3 Ed. 4.0 b:2023](#), Radio frequency and coaxial cable assemblies - Part 3: Sectional specification for semi-flexible coaxial cable assemblies, \$190.00

[IEC 60966-3-1 Ed. 4.0 b:2023](#), Radio frequency and coaxial cable assemblies - Part 3-1: Blank detail specification for semi-flexible coaxial cable assemblies, \$51.00

### Electrical equipment in medical practice (TC 62)

[IEC 60601-2-50 Amd.1 Ed. 3.0 b:2023](#), Amendment 1 - Medical electrical equipment - Part 2-50: Particular requirements for the basic safety and essential performance of infant phototherapy equipment, \$25.00

[IEC 60601-2-50 Ed. 3.1 b:2023](#), Medical electrical equipment - Part 2-50: Particular requirements for the basic safety and essential performance of infant phototherapy equipment, \$405.00

### Fibre optics (TC 86)

[S+ IEC/TR 62285 Ed. 3.0 en:2023 \(Redline version\)](#), Application guidelines for nonlinear coefficient measuring methods, \$247.00

### Fuses (TC 32)

[IEC 60127-1 Ed. 3.0 b:2023](#), Miniature fuses - Part 1: Definitions for miniature fuses and general requirements for miniature fuse-links, \$278.00

[IEC 60127-6 Ed. 3.0 b:2023](#), Miniature fuses - Part 6: Fuse-holders for miniature fuse-links, \$367.00

[S+ IEC 60127-1 Ed. 3.0 en:2023 \(Redline version\)](#), Miniature fuses - Part 1: Definitions for miniature fuses and general requirements for miniature fuse-links, \$362.00

[S+ IEC 60127-6 Ed. 3.0 en:2023 \(Redline version\)](#), Miniature fuses - Part 6: Fuse-holders for miniature fuse-links, \$477.00

## IEC Technical Reports

### Fibre optics (TC 86)

[IEC/TR 62285 Ed. 3.0 en:2023](#), Application guidelines for nonlinear coefficient measuring methods, \$190.00

## IEC Technical Specifications

### Safety of machinery - Electrotechnical aspects (TC 44)

[IEC/TS 61496-5 Ed. 1.0 en Cor.1:2023](#), Corrigendum 1 - Safety of machinery - Electro-sensitive protective equipment - Part 5: Particular requirements for radar-based protective devices, \$0.00

### Standard voltages, current ratings and frequencies (TC 8)

[IEC/TS 63189-2 Ed. 1.0 en:2023](#), Virtual Power Plants - Part 2: Use Cases, \$417.00

# International Organization for Standardization (ISO)

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## Call for International (ISO) Secretariat

### ISO/TC 22/SC 34 – Road vehicles - Propulsion, powertrain and powertrain fluids

**Reply Deadline: November 28, 2023**

Currently, the U.S. holds a leadership position as Secretariat of ISO/TC 22/SC 34 – *Road vehicles - Propulsion, powertrain and powertrain fluids*. ANSI has delegated the responsibility for the administration of the Secretariat for ISO/TC 22/SC 34 to the SAE International. SAE International has advised ANSI of its intent to relinquish its role as delegated Secretariat for this committee.

ISO/TC 22/SC 34 operates under the following scope:

*Systems and components for combustion based propulsion (such as; coolant, engines, filters, piston pins/rings, powertrain, testing methods, testing procedures, measurement testing apparatus, fuel injection equipment, as well as characteristics and additive fluids definitions (e.g. (AUS32), except lubricants, brake fluids, and fuels.*

ANSI is seeking organizations in the U.S. that may be interested in assuming the role of delegated Secretariat for ISO/TC 22/SC 34. Alternatively, ANSI may be assigned the responsibility for administering an ISO Secretariat. Any request that ANSI accept the direct administration of an ISO Secretariat shall demonstrate that:

1. The affected interests have made a financial commitment for not less than three years covering all defined costs incurred by ANSI associated with holding the Secretariat;
2. the affected technical sector, organizations or companies desiring that the U.S. hold the Secretariat request that ANSI perform this function;
3. the relevant U.S. TAG has been consulted with regard to ANSI's potential role as Secretariat; and
4. ANSI is able to fulfill the requirements of a Secretariat.

If no U.S. organization steps forward to assume the ISO/TC 22/SC 34 Secretariat, or if there is insufficient support for ANSI to assume direct administration of this activity by November 28, 2023, then ANSI will inform the ISO Central Secretariat that the U.S. will relinquish its leadership of the committee. This will allow ISO to solicit offers from other countries interested in assuming the Secretariat role.

Information concerning the United States retaining the role of international Secretariat may be obtained by contacting ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)).

## International Organization for Standardization (ISO)

### Call for U.S. TAG Administrator

#### ISO/TC 241 – Road traffic safety management systems

**Response Deadline: November 24, 2023**

ANSI has been informed that the SAE International, the ANSI-accredited U.S. TAG Administrator for ISO/TC 241, wishes to relinquish their role as U.S. TAG Administrator.

ISO/TC 241 operates under the following scope:

*Standardization in the field of RTS, Road traffic safety, management standards, needs, to be effective, to consist of:*

- *a requirement standard (which ISO 39001 will be)*
- *RTS specific auditing requirements in third party certification, and*
- *implementation and guidance documents.*

Organizations interested in serving as the U.S. TAG Administrator or participating on a U.S. TAG should contact ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)).

### Establishment of ISO Technical Committee

#### ISO/TC 59/SC 20 – Resilience of buildings and civil engineering works

ISO/TC 59 – Buildings and civil engineering works has created a new ISO Subcommittee on Resilience of buildings and civil engineering works (ISO/TC 292/SC 1). The Secretariat has been assigned to China (SAC).

ISO/TC 59/SC 20 operates under the following scope:

Standardization in addressing resilience in design of built environment to reduce risks induced by hazards, whether natural or man-made, and changing environment. Excluded:

- resilience of cities and communities (in ISO/TC 268 Sustainable cities and communities)
- emergency management (in ISO/TC 292 Security and resilience)

Organizations interested in serving as the U.S. TAG Administrator or participating on a U.S. TAG should contact ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)).

### ISO Proposal for a New Field of ISO Technical Activity

#### Consumer protection – privacy by design for consumer goods and services

**Comment Deadline: November 17, 2023**

ISO Project Committee 317 (Consumer protection – privacy by design for consumer goods and services) has submitted a proposal to expand its work program and convert the PC into a new ISO technical committee, with the following scope statement:

Standardization of consumer protection in the field of privacy by design for products, including goods, services, and data lifecycles enabled by such products.

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, November 17, 2023.

# Meeting Notices (International)

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## **ANSI Accredited U.S. Technical Advisory Group**

### **U.S. TAG to ISO/TC 292 – Security and Resilience (NASPO International)**

**Meeting Date: November 28, 2023 1:00 PM - 2:00 PM Central Time**

In preparation for the ISO/TC 292 “Security and Resilience” Plenary Meeting the U.S. TAG to ISO/TC 292 has announced a virtual meeting on November 28 from 1:00 PM to 2:00 PM Central time.

For more information or to participate, please contact the U.S. TAG Administrator, Mr. Michael O’Neil, [mikeo@naspo.info](mailto:mikeo@naspo.info).

# Registration of Organization Names in the United States

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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

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## Call for Comment

U.S. manufacturers, exporters, trade associations, U.S. domiciled standards development organizations and conformity assessment bodies, consumers, or U.S. government agencies 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 to the WTO Secretariat in Geneva, Switzerland proposed technical regulations that may significantly affect trade. In turn, the Secretariat circulates the notifications along with the full texts. 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 Enquiry Point for the WTO TBT Agreement is located at the National Institute of Standards and Technology (NIST) in the Standards Coordination Office (SCO). The Enquiry Point relies on the WTO's ePing SPS&TBT platform to distribute the notified proposed foreign technical regulations (notifications) and their full texts available to U.S. stakeholders. Interested U.S. parties can register with ePing to receive e-mail alerts when notifications are added from countries and industry sectors of interest to them. The USA WTO TBT Enquiry 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 prior to submitting comments. For non-notified foreign technical barriers to trade for non-agricultural products, stakeholders are encouraged to reach out as early as possible to the Office of Trade Agreements Negotiations and Compliance (TANC) in the International Trade Administration (ITA) at the Department of Commerce (DOC), which specializes in working with U.S. stakeholders to remove unfair foreign government-imposed trade barriers. The U.S. Department of Agriculture's Foreign Agricultural Service actively represents the interests of U.S. agriculture in the WTO committees on Agriculture, Sanitary and Phytosanitary (SPS) measures and Technical Barriers to Trade (TBT). FAS alerts exporters to expected changes in foreign regulations concerning food and beverage and nutrition labeling requirements, food packaging requirements, and various other agriculture and food related trade matters. Working with other Federal agencies and the private sector, FAS coordinates the development and finalization of comments on measures proposed by foreign governments to influence their development and minimize the impact on U.S. agriculture exports. FAS also contributes to the negotiation and enforcement of free trade agreements and provides information about tracking regulatory changes by WTO Members. The Office of the United States Trade Representative (USTR) WTO & Multilateral Affairs (WAMA) office has responsibility for trade discussions and negotiations, as well as policy coordination, on issues related technical barriers to trade and standards-related activities.

### Online Resources:

WTO's ePing SPS&TBT platform: <https://epingalert.org/>

Register for ePing: <https://epingalert.org/en/Account/Registration>

WTO committee on Agriculture, Sanitary and Phytosanitary (SPS) measures:

[https://www.wto.org/english/tratop\\_e/sps\\_e/sps\\_e.htm](https://www.wto.org/english/tratop_e/sps_e/sps_e.htm)

WTO Committee on Technical Barriers to Trade (TBT): [https://www.wto.org/english/tratop\\_e/tbt\\_e/tbt\\_e.htm](https://www.wto.org/english/tratop_e/tbt_e/tbt_e.htm)

USA TBT Enquiry Point: <https://www.nist.gov/standardsgov/usa-wto-tbt-enquiry-point>

Comment guidance:

<https://www.nist.gov/standardsgov/guidance-us-stakeholders-commenting-notifications-made-wto-members-tbt-committee>

NIST: <https://www.nist.gov/>

TANC: <https://www.trade.gov/office-trade-agreements-negotiation-and-compliance-tanc>

Examples of TBTs: [https://tcc.export.gov/report\\_a\\_barrier/trade\\_barrier\\_examples/index.asp](https://tcc.export.gov/report_a_barrier/trade_barrier_examples/index.asp).

Report Trade Barriers: [https://tcc.export.gov/Report\\_a\\_Barrier/index.asp](https://tcc.export.gov/Report_a_Barrier/index.asp).

USDA FAS: <https://www.fas.usda.gov/about-fas>

FAS contribution to free trade agreements: <https://www.fas.usda.gov/topics/trade-policy/trade-agreements>

Tracking regulatory changes: <https://www.fas.usda.gov/tracking-regulatory-changes-wto-members>

USTR WAMA: <https://ustr.gov/trade-agreements/wto-multilateral-affairs/wto-issues/technical-barriers-trade>

Contact the USA TBT Enquiry Point at (301) 975-2918; E [usatbtep@nist.gov](mailto:usatbtep@nist.gov) or [notifyus@nist.gov](mailto:notifyus@nist.gov).

## Standard Specification for FRP Composite Utility Poles (version: Nov. 10, 2017)

### 6. Testing

#### 6.1. Environmental Service

##### 6.1.1. Exposure to Ultraviolet Light (UV) and Atmospheric Moisture

Pole wall samples shall show no indication of fiber blooming after exposure to a minimum of ~~2,500~~10,000 hours of accelerated weather testing per ASTM G154 Cycle 1. The duration of accelerated exposure time shall be correlated to real world UV data to substantiate service life claims- (De Jong, B. 1973).

##### 6.1.3. Exposure to Fire

Although FRP utility poles can have self-extinguishing properties, the poles may be susceptible to brush fires, arson, and flash-over fire exposure. To date, an industry-wide, approved fire test method to simulate pole exposure due to forest fires does not exist.

Depending on the material composition and manufacturing method for a particular FRP utility pole, there are two fire test options: Coupon level and custom-designed full-scale test. Consult the FRP utility pole manufacturer for the applicable test options.

##### **Option 1: Coupon Level Tests**

##### **(a) UL 94**

The FRP utility poles shall be manufactured to meet or exceed UL 94 vertical burn test with a V0 or “self-extinguishing” rating. Consult the FRP utility pole manufacturer for additional information.

##### **(b) Option 2: ASTM D635 with Horizontal Burn Classification**

The test coupons shall receive the horizontal burn (HB) category designation if the behavior of the specimens adheres to the following when tested per ASTM D635:-

- a)1. There are no visible signs of combustion after the source is removed; or-
- b)2. The flame front does not pass the 1 in. [25 mm] reference mark; or-
- c)3. The flame front passes the 1 in. [25 mm] reference mark but does not reach the [100 mm] reference mark; or-
- d)4. The flame front reaches the 4 in. [100 mm] reference mark and the linear burning rate does not exceed 1.5 in. [40 mm/min] for specimens having a thickness between 0.1 in. and 0.5 in. [3 and 13 mm] or 3 in/min [75 mm/min] for specimens having a thickness less than [3 mm].-

**Standard Specification for FRP Composite Utility Poles (version: Nov. 10, 2017)**

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**Option 2: Custom Designed Full Scale Tests**

An FRP pole manufacturer may hire an independent fire consultant to design and execute a full scale test protocol that simulates a severe to extreme forest fire moving through a utility line right of way. As an additional element of the fire test, post fire exposure the pole may be full scale strength tested per ASTM D1036 to quantify any strength loss as a result of the fire exposure. Alternatively, post fire exposure coupon level testing can be completed to quantify any change in material properties if full scale bend testing cannot be completed.

Figure 6.1.1 below shows an FRP pole exposed to a 2 minute (severe) fire exposure test.

Regardless of which fire test method is used, a coupon level test, utilizing UL 94 or ASTM D635, or a custom designed full scale fire test, the end user shall determine if the fire test results are adequate for their project requirements.

For Internal Use Only



## Addendum d to ANSI/ASHRAE Standard 30-2019

# Public Review Draft

# Method of Testing Liquid Chillers

### Second Public Review (November 2023) (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](http://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](http://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 GA 30092**

Addendum d to ANSI/ASHRAE Standard 30-2019, *Method of Testing Liquid Chillers*  
Second Public Review Draft

## ***Standard 30-2019 Addendum d. Standard Method of Testing Liquid Chillers***

***(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**

*The purpose of Standard 30-2019 Addendum d is to align the stability requirements in the standard with the measurements supporting the purpose of the test. The purposes of the test include measurement of thermal capacity and energy efficiency. The current standard requires stability on flow rate as well as the entering and leaving temperatures which do not ensure stability of the capacity. This addendum would replace the stability criteria that is on the entering liquid with a stability of the temperature difference used to calculate capacity. This addendum will also allow for a greater tolerance on stability at capacities lower than the rated capacity of the unit.*

*The Entering Air Mean Wet Bulb Temperature requirements that were published in Addendum b have been relaxed to those of the 2017 version.*

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

### ***Addendum d to Standard 30-2019***

*In Section 6 Table 6-6, delete the portion of Table 6-6 on page 4 & 5 of Addendum b and replace with the following.*

**Table 6-6 Definition of Operating Condition Tolerances and Stability Criteria<sup>a</sup>**

Measurement or Calculation Result		Applicable Operating Mode(s)	Values Calculated from Data Samples		Operating Condition Tolerance Limits	Stability Criteria
			Mean	Std Dev		
Net Capacity (Cooling or Heating)		Cooling, Heating, Heat Recovery	$\bar{Q}$	-	Unit with Continuous Unloading: Part Load test capacity shall be within 2% of the target part-load capacity <sup>a</sup>  $\frac{ \bar{Q} - Q_{Target} }{Q_{100\%}} \leq 2.000\%$	No requirement
					Units with Discrete Capacity Steps: Part Load test points shall be taken as close as practical to the specified part-load rating points as stated in the test plan.	
Evaporator	Entering Liquid Temperature	Cooling	$\bar{T}$	$s_T$	No requirement	<u>No Requirement</u>
	Leaving Liquid Temperature				$ \bar{T} - T_{Target}  \leq 0.28 \Delta^{\circ}\text{C} [0.50 \Delta^{\circ}\text{F}]$	$s_T \leq 0.10 \Delta^{\circ}\text{C} [0.18 \Delta^{\circ}\text{F}]$
	Liquid Temperature Difference <sup>h</sup>		$\overline{\Delta T}$	$s_{\Delta T}$	<u>No Requirement</u>	$\frac{s_{\Delta T}}{\overline{\Delta T}} \leq 1.500\% \left( \frac{Q_{100\%}}{Q_{target}} \right)$
Condenser	Entering Liquid Temperature		$\bar{T}$	$s_T$	$ \bar{T} - T_{Target}  \leq 0.28 \Delta^{\circ}\text{C} [0.50 \Delta^{\circ}\text{F}]$	$s_T \leq 0.10 \Delta^{\circ}\text{C} [0.18 \Delta^{\circ}\text{F}]$
	Leaving Liquid Temperature				No Requirement	<u>No Requirement</u>

a. The ±2.0% tolerance shall be calculated as 2.0% of the full load rated capacity (kW). For example, a nominal 50.0% part-load point shall be tested between 48.0% and 52.0% of the full-load capacity to be used directly for IPLV, SI and NPLV, SI calculations. Outside this tolerance, interpolation shall be used.

b. The heat portion shall apply when the unit is in the heating mode, except for the first ten minutes after terminating a defrost cycle. The defrost portion shall include the defrost cycle plus the first ten minutes after terminating the defrost cycle.

c. When computing average air temperatures for heating mode tests, omit data samples collected during the defrost portion of the cycle.

d. For electrically driven machines, voltage and frequency shall be maintained at the nameplate rating values within tolerance limits and stability criteria on voltage and frequency when measured at the locations specified in Section 6.3.1.7. For dual nameplate voltage ratings, tests shall be performed at the lower of the two voltages.

e. For steam turbine and gas turbine drive machines the pressure shall be maintained at the nameplate rating values within the tolerance limits.

f. For speed-controlled compressors, the speed shall be maintained at the nameplate rating value within the tolerance limits.

g. Refer to Table 10-1 for definition of the unit symbols Δ°C and Δ°F. Refer to Section 5.2 for the definition of mean (denoted by the over bar) and sample standard deviation (denoted by s).

h. The  $\overline{\Delta T}$  represents the average of the liquid temperature difference of each data sample. The  $s_{\Delta T}$  represents the sample standard deviation of the liquid temperature difference of each data sample.

**Table 6-6 Definition of Operating Condition Tolerances and Stability Criteria<sup>a</sup>**

Measurement or Calculation Result		Applicable Operating Mode(s)	Values Calculated from Data Samples		Operating Condition Tolerance Limits	Stability Criteria
			Mean	Std Dev		
Evaporator	Entering Liquid Temperature <sup>b</sup>	Heating, Heat Recovery	$\bar{T}$	$s_T$	Heating Portion: No requirement Defrost Portion: $ \bar{T} - T_{Target}  \leq 1.11 \Delta^\circ\text{C}[2.00 \Delta^\circ\text{F}]$	Heating portion: $s_T \leq 0.10 \Delta^\circ\text{C} [0.18 \Delta^\circ\text{F}]$ Defrost portion: $s_T \leq 0.28 \Delta^\circ\text{C} [0.50 \Delta^\circ\text{F}]$
	Leaving Liquid Temperature <sup>b</sup>				Heating portion: $ \bar{T} - T_{Target}  \leq 0.28 \Delta^\circ\text{C}[0.50 \Delta^\circ\text{F}]$ Defrost portion: No requirement	Heating portion: <u>No Requirement</u> Defrost portion: No Requirement
Condenser	Leaving Liquid Temperature		$\bar{T}$	$s_T$	$ \bar{T} - T_{Target}  \leq 0.28 \Delta^\circ\text{C}[0.50 \Delta^\circ\text{F}]$	$s_T \leq 0.10 \Delta^\circ\text{C}[0.18 \Delta^\circ\text{F}]$
	Entering Liquid Temperature				No Requirement	<u>No Requirement</u>
	Liquid Temperature Difference <sup>h</sup>				$\overline{\Delta T}$	$s_{\Delta T}$
Evaporator or Condenser	Entering Air Mean Dry Bulb Temperature <sup>b</sup>	Cooling, Heating (nonfrosting)	$\bar{T}$	$s_T$	$ \bar{T} - T_{Target}  \leq 0.56 \Delta^\circ\text{C}[1.00 \Delta^\circ\text{F}]$	$s_T \leq 0.42 \Delta^\circ\text{C}[0.75 \Delta^\circ\text{F}]$
		Heating (frosting) <sup>c</sup>			Heating Portion: $ \bar{T} - T_{Target}  \leq 1.1 \Delta^\circ\text{C}[2.00 \Delta^\circ\text{F}]$	Heating Portion: $s_T \leq 0.56 \Delta^\circ\text{C}[1.00 \Delta^\circ\text{F}]$
					Defrost Portion: No Requirement for $\bar{T}$	Defrost Portion: $s_T \leq 1.39 \Delta^\circ\text{C}[2.50 \Delta^\circ\text{F}]$
	Entering Air Mean Wet Bulb Temperature <sup>b</sup>	Cooling, Heating (nonfrosting)			$ \bar{T} - T_{Target}  \leq 0.56 \Delta^\circ\text{C}[1.00 \Delta^\circ\text{F}]$	$s_T \leq 0.28 \Delta^\circ\text{C} [0.50 \Delta^\circ\text{F}]$
		Heating (frosting) <sup>c</sup>			Heating Portion: $ \bar{T} - T_{Target}  \leq 0.83 \Delta^\circ\text{C}[1.50 \Delta^\circ\text{F}]$	Heating Portion: $s_T \leq 0.42 \Delta^\circ\text{C} [0.75 \Delta^\circ\text{F}]$
					Defrost Portion: No Requirement for $\bar{T}$	Defrost Portion: <u>No Requirement</u>

- 
- a. The  $\pm 2.0\%$  tolerance shall be calculated as 2.0% of the full load rated capacity (~~kW~~). For example, a nominal 50.0% part-load point shall be tested between 48.0% and 52.0% of the full-load capacity ~~to be used directly for IPLV-SI and NPLV-SI calculations~~. Outside this tolerance, interpolation shall be used.
  - b. The heat portion shall apply when the unit is in the heating mode, except for the first ten minutes after terminating a defrost cycle. The defrost portion shall include the defrost cycle plus the first ten minutes after terminating the defrost cycle.
  - c. When computing average air temperatures for heating mode tests, omit data samples collected during the defrost portion of the cycle.
  - d. For electrically driven machines, voltage and frequency shall be maintained at the nameplate rating values within tolerance limits and stability criteria on voltage and frequency when measured at the locations specified in Section 6.3.1.7. For dual nameplate voltage ratings, tests shall be performed at the lower of the two voltages.
  - e. For steam turbine and gas turbine drive machines the pressure shall be maintained at the nameplate rating values within the tolerance limits.
  - f. For speed-controlled compressors, the speed shall be maintained at the nameplate rating value within the tolerance limits.
  - g. Refer to Table 10-1 for definition of the unit symbols  $\Delta^{\circ}\text{C}$  and  $\Delta^{\circ}\text{F}$ . Refer to Section 5.2 for the definition of mean (denoted by the over bar) and sample standard deviation (denoted by s).
  - h. The  $\overline{\Delta T}$  represents the average of the liquid temperature difference of each data sample. The  $s_{\Delta T}$  represents the sample standard deviation of the liquid temperature difference of each data sample.





**BSR/ASHRAE Addendum i  
to ANSI/ASHRAE Standard 15-2022**

**First Public Review Draft**

**Proposed Addendum i to  
Standard 15-2022, Safety Standard  
for Refrigeration Systems**

**First Public Review (November 2023)  
(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 <https://www.ashrae.org/technical-resources/standards-and-guidelines/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](http://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](http://www.ashrae.org).

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**(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

*A continuous maintenance proposal was submitted to address the relative pressures (vacuum) of Section 9.2.1 for system design pressure and of Section 9.13.6.1 (leak test during evacuation). Because a refrigeration system would by necessity be subjected to sub-atmospheric pressures during evacuation, the proposal is to modify Section 9.2.1.*

**Note:** This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striethrough~~ (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 Standard 15-2022

***Modify Section 9 as follows. The remainder of Section 9 remains unchanged.***

## 9. DESIGN AND CONSTRUCTION OF EQUIPMENT AND SYSTEMS

[ ... ]

### 9.2 System Design Pressure

[ ... ]

#### 9.2.1\*

[ ... ]

Refrigerating equipment *shall* be designed for a vacuum of ~~29.0 in. Hg (32°F)~~ 0.00967 psia (66.7 Pa) or lower. Design pressure for lithium bromide absorption systems shall not be less than gage pressure 5.00 psi (34.5 kPa). ...

***Modify Informative Appendix A as follows. The remainder of Informative Appendix A remains unchanged.***

## INFORMATIVE APPENDIX A—EXPLANATORY MATERIAL

Sections of the standard with associated explanatory information in this appendix are marked with an asterisk “\*” after the section number.

[ ... ]

### Section 9.2.1

A vacuum of 0.00967 psia (66.7 Pa) is equivalent to an absolute pressure of 500 μm Hg [0°C] liquid column.

[ ... ]



**BSR/ASHRAE/IES Addendum i  
to ANSI/ASHRAE/IES Standard 90.2-2018**

**Public Review Draft**

**Proposed Addendum i to  
Standard 90.2-2018, High Performance  
Energy Design of Residential Buildings**

**Second Public Review (October 2023)  
(Draft Shows 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](http://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](http://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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## FOREWORD

The proposed changes revise definitions and standard language for improved clarity in response to comments received in response to the first public review draft. Specifically, are revision to the definition of the new term “common area”, and revisions to Section 7.1.3 for clarity.

Common area provisions for HVAC and lighting systems have been in the standard since its publication in 2018 (sections 7.4.7 and 7.5.4, respectively). Addendum i adds common area provisions for building envelope systems to parallel these existing provisions for other systems.

This proposed definition is consistent with other definitions in the standard. Common areas can be found in any residential building that has a shared basement, gym, kitchen, lobby, etc. The only thing excluded is the actual dwelling or sleeping unit space.

Additionally, revisions have been made to the SHGC requirements for in climate zones 6 through 8. Specifically “NR” was replaced by 0.35 for these climate zones. This revision was in consideration of additional data provided on the cooling loads and peak power considerations.

*[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (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 90.2-2018

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*Modify Section 3.1 as follows (IP and SI units)*

***Common area.*** ~~Conditioned or lighted, residential space~~ Lighted or conditioned space in a ~~building~~ building which is not part of a sleeping or ~~dwelling unit~~ dwelling unit.

*Modify Section 7 as follows (IP and SI units)*

...  
***7.1.3 Common Areas*** ~~***Common Areas of Multifamily Buildings***~~ ***Multifamily Buildings***. In multifamily buildings, the components of common areas that provide ancillary functions in the multifamily building ~~The building envelope components of common areas of multifamily buildings~~ shall comply with Table 7-3.

Revise Table 7-3 and renumber remaining tables (IP Units)

**Table 7-3 ~~Common Area Building Envelope~~ Common Area Component Requirements**

Maximum SHGC		Maximum U-Factors									
Climate Zone	Glazed Fenestration	Skylights	Fenestration	Skylights	Interior Ceiling <sup>a</sup>	Exterior Ceiling <sup>b</sup>	Interior Framed Walls <sup>a</sup>	Exterior Framed Walls <sup>b</sup>	Exterior Mass Walls <sup>b</sup>	Interior Floor <sup>a</sup>	Exterior Floor <sup>b</sup>
0	0.23	0.23	0.32	0.50	0.080	0.032	0.080	0.076	0.177	0.080	0.058
1	0.23	0.23	0.32	0.50	0.080	0.032	0.080	0.076	0.177	0.080	0.058
2	0.23	0.23	0.32	0.50	0.080	0.027	0.080	0.076	0.149	0.080	0.058
3	0.23	0.23	0.28	0.40	0.080	0.027	0.080	0.054	0.088	0.080	0.042
4 except Marine	0.25	0.25	0.25	0.40	0.080	0.023	0.080	0.054	0.088	0.080	0.042
Marine 4 and 5	0.30	0.30	0.22	0.40	0.080	0.023	0.080	0.054	0.074	0.080	0.030
6	<del>NR</del> <u>0.35</u>	<del>NR</del> <u>0.35</u>	0.22	0.40	0.080	0.023	0.080	0.041	0.054	0.080	0.030
7	<del>NR</del> <u>0.35</u>	<del>NR</del> <u>0.35</u>	0.22	0.40	0.080	0.023	0.080	0.041	0.051	0.080	0.025
8	<del>NR</del> <u>0.35</u>	<del>NR</del> <u>0.35</u>	0.22	0.40	0.080	0.023	0.080	0.041	0.051	0.080	0.025

<sup>a</sup> Interior components are those that separate a *common area* from a *sleeping or dwelling unit*.

<sup>b</sup> Exterior components are those that are part of the *building thermal envelope*.

Revise Table 7-3 and renumber remaining tables (SI Units)

**Table 7-3 Common Area Building Envelope Common Area Component Requirements**

Climate Zone	Maximum SHGC		Maximum U-Factors								
	Glazed Fenestration	Skylights	Fenestration	Skylights	Interior Ceiling <sup>a</sup>	Exterior Ceiling <sup>b</sup>	Interior Framed Walls <sup>a</sup>	Exterior Framed Walls <sup>b</sup>	Exterior Mass Walls <sup>b</sup>	Interior Floor <sup>a</sup>	Exterior Floor <sup>b</sup>
0	0.23	0.23	1.82	2.84	0.45	0.18	0.45	0.43	1.01	0.45	0.33
1	0.23	0.23	1.82	2.84	0.45	0.18	0.45	0.43	1.01	0.45	0.33
2	0.23	0.23	1.82	2.84	0.45	0.15	0.45	0.43	0.85	0.45	0.33
3	0.23	0.23	1.59	2.27	0.45	0.15	0.45	0.31	0.50	0.45	0.24
4 except Marine	0.25	0.25	1.42	2.27	0.45	0.13	0.45	0.31	0.50	0.45	0.24
Marine 4 and 5	0.30	0.30	1.25	2.27	0.45	0.13	0.45	0.31	0.42	0.45	0.17
6	<del>NR</del> 0.35	<del>NR</del> 0.35	1.25	2.27	0.45	0.13	0.45	0.23	0.31	0.45	0.17
7	<del>NR</del> 0.35	<del>NR</del> 0.35	1.25	2.27	0.45	0.13	0.45	0.23	0.29	0.45	0.14
8	<del>NR</del> 0.35	<del>NR</del> 0.35	1.25	2.27	0.45	0.13	0.45	0.23	0.29	0.45	0.14

<sup>a</sup> Interior components are those that separate a *common area* from a sleeping or dwelling unit.

<sup>b</sup> Exterior components are those that are part of the *building thermal envelope*.



**BSR/ASHRAE/IES Addendum j  
to ANSI/ASHRAE/IES Standard 90.1-2022**

**Public Review Draft**

# **Proposed Addendum j to Standard 90.1-2022, Energy Standard for Sites and Buildings Except Low- Rise Residential Buildings**

**Second Public Review (Month 20XX)  
(Draft Shows Proposed Independent  
Substantive Changes to Prevoius 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](http://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](http://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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## FOREWORD

*In response to comments from the first public review of addendum j, three changes are proposed. First, the term  $TSPR_{sav}$  is added to simplify the formulas for adjusting credit points for the case where  $TSPR$  is higher than the reference  $TSPR$  that the tabulated credit points are based on. The new formula also corrects an error that was overstating the points.*

*The second change is the introduction of a new term,  $AREA_{TSPR}$ , which enables the adjustment of credits for a project where only a portion of the building or project is included in the  $TSPR$  calculation.*

*The third change is a correction of the subscript in the formula for  $TSPR_p$  in equation L-1 of Normative Appendix L.*

*This change clarifies that credits for  $TSPR$  are only given for the area of the building that is calculated using  $TSPR$ . It does not change the cost of construction.*

*Note: In this addendum, changes to the previous public review draft are indicated in the text by underlining (for additions) and ~~##~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes.*

## Addendum j to 90.1-2022

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*Modify the standard as follows (IP and SI Units)*

### 11.5.2.2.1 H01: HVAC System Performance Improvement

For systems allowed to use Section 6.6.2, Mechanical System Performance Path, the savings ( $TSPR_{sav}$ ) from the proposed  $TSPR$  compared to the  $TSPR_r/MPF$  calculated in accordance with Normative Appendix L and Section 6.6.2.2 shall ~~exceed the minimum requirement by~~ be 5% or more. ~~If~~ Where the improvement is ~~greater~~ more than 5%, base energy credits from Tables 11.5.3-1 through 11.5.3-9 are permitted to be prorated up to a 20 percent improvement as follows:

$$EC_{H01\_adj} = EC_{H01\_base} \times \frac{TSPR_{sav}}{0.05} \times \underline{AREA_{TSPR}}$$



The range of allowed credit adjustment shall be limited as follows:

$$0.05 \leq \underline{TSPR_{sav}} \leq 0.20$$

Where:

$EC_{H01\_adj}$  = energy credits achieved for improved mechanical system performance  
 $EC_{H01\_base}$  = H01 base energy credit from Section 11.5.3

$$TSPR_{sav} = \frac{\left( \frac{TSPR_p - TSPR_r}{MPF} \right)}{\frac{TSPR_r}{MPF}} \cdot \frac{1 - \frac{TSPR_r/MPF}{TSPR_p}}$$

Where:

$TSPR_p$  = proposed *TSPR* calculated in accordance with Normative Appendix L  
 $TSPR_r$  = reference *TSPR* calculated in accordance with Normative Appendix L  
 MPF = mechanical performance factor from Table 6.6.2.2 based on climate zone and *building* use type. Where a *building* has multiple *building* use types, MPF shall be area weighted as described in Section 6.6.2.2.

$$\underline{AREA_{TSPR}} = \frac{[\text{floor area in TSPR calculation}]}{[\text{total conditioned building floor area}]}$$

...

**L2.1.5 Calculating TSPR.**  $TSPR_p$  shall be calculated according to Equation L-1:

$$TSPR_{p \neq} = \frac{Loads_r}{HVACinput_p}$$

(L-1)

where  
 $Loads_r$  = sum of the annual heating and cooling loads for the *TSPR reference building design* met by the *building HVAC system*, thousand Btu.

$HVACinput_p$  = sum of the annual HVAC *energy* input for heating, cooling, fans, *energy* recovery, *pumps*, and heat rejection for the *proposed design*. The HVAC *energy* input units shall be in accordance with Section L5.



**BSR/ASHRAE/IES Addendum j  
to ANSI/ASHRAE/IES Standard 90.2-2018**

**Public Review Draft**

# **Proposed Addendum j to Standard 90.2-2018, High-Performance Energy Design of Residential Buildings**

**Second Public Review (October 2023)  
(Draft Shows 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](http://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](http://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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## FOREWORD

*This proposal includes three modifications to the current Standard. First, it allows for the use of offsite power, owned by the building owner, to be counted toward the ERI score. Second, it includes requirements for energy storage when on-site or off-site power are being used to meet the ERI score. Third, it lowers the ERI and CRI requirements when using on-site or off-site power while establishing an efficiency backstop. This new language expands access to renewable power systems when on-site power is not possible. It also ensures that the building incorporating the renewable power is best able to capture the benefits from it.*

*ERI scores were based on an analysis conducted by PNNL where 4 kW of solar PV were installed on reference housing in each climate zones. CRI scores were lowered by 10 points where renewable power systems are utilized based on the additional carbon free energy and the required energy storage provisions. Both ERI and CRI were separately validated for accuracy and determined to be achievable in each climate zone. Energy storage factors were taken from a 2021 analysis by the U.S. Energy Information Administration (EIA) that found that utility-scale batteries and pumped storage generally return about 80% of the electricity they store. A distance loss factor of 0.0008 was taken from a 2015 Oak Ridge National Laboratory study (ORNL/TM-2015/5) which found that a 345 kV utility line loses 160 MW per 100 miles for 2000 MW transmitted.*

*This proposal is motivated by the desire of both ASHRAE as an institution and SSPC 90.2, as well as numerous other stakeholders, to approach net zero energy and carbon within the 5 year publication schedule for ASHRAE 90.2. An approach to net zero clearly depends on incorporating more renewable energy into the requirements, and this goal may not be practical with on-site generation alone in many cases. Two examples are where the site is constrained by offsite shading or is small in comparison to the floor area of the building, such as for a 40-story condominium building in a large downtown.*

*The provisions in this Addendum are needed to support a move to encourage renewables more strongly in the Standard. The 2018 version assumed some modest amount of renewable energy in developing the ERI requirements, but the targets are feasible to achieve with efficiency alone, and are required to do so in this Addendum. But the lower ERI and CRI requirements all but require some renewables, and evidently the net zero goals cannot be met by efficiency alone.*

*We noted in developing this Addendum that the goal of an adoptable net zero standard requires these considerations. On the other hand, we observe, and seek comment on the observation, that a net zero Appendix can be extremely simple when the rules in this Addendum are added to the normative portion of the standard: the net zero requirements are simply to meet the rest of the standard and achieve ERI or CRI ratings of Zero.*

*[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 j to 90.2-2018

---

*Modify the standard as follows*

~~**Community Renewables:** an off-site power production system for which the owner has purchased or leased renewable energy capacity along with other subscribers~~

**Community Renewable Energy Facility:** a facility that produces energy from a renewable energy system and is qualified as a community renewable energy facility under applicable regulations.

~~**off-site power production:** energy that is legally bound to a dwelling unit owner that is generated by one of the following entities: from a *renewable energy system* that is *Community Renewables*, a *Renewable Energy Investment Fund*, or a self-owned site that is legally bound to a *dwelling unit* owner either through an *Up-Front Payment* or a *Subscription*.~~

- a. Community Renewable Energy Facility,
- b. a Renewable Energy Investment Fund, or
- c. an off-site renewable energy system owned by the dwelling unit owner.

**Renewable Energy Certificate (REC):** A market-based instrument that represents and conveys the environmental, social, and other non-power attributes of one megawatt hour of renewable electricity generation and could be sold separately from the underlying physical electricity associated with *renewable energy systems*.

**Renewable Energy Investment Fund:** an entity that installs renewable energy capacity on behalf of the owner.

**Renewable energy system:** photovoltaic, geothermal energy (not including ground source heat pumps), and wind systems used to generate energy.

~~**Subscription:** The building owner contributes to the program with monthly or annual payments~~

~~**Up-Front Payment:** the building owner pays an up-front fee for program participation and retains full or partial ownership rights to the renewable energy system~~

[...]

## 6. PERFORMANCE REQUIREMENTS

6.1 The *dwelling unit* shall be planned, designed, and constructed to achieve the *Energy Rating Index (ERI)* and *CO<sub>2</sub>e Rating Index (CRI)* by climate zone shown in Table 6-1.

**6.1.1** The ERI of the proposed design shall be determined using the energy simulation program conducted in accordance with ANSI/RESNET/ICC Standard 301-2022, as modified by the modeling requirements included in Normative Appendices A and B.

**6.1.2** The  $CRIC_{CO_2e}$  Index of the proposed design shall be determined using the energy simulation program conducted in accordance with the provisions of ANSI/RESNET/ICC Standard 301-2022, including Addendum B-2022.

[...]

**6.3 Off-Site Power Utilization** When off-site power production is used, ERI shall be calculated in accordance with BSR/RESNET/ICC 301 with the OPP in Equation 4.1.2 of BSR/RESNET/ICC 301 replaced with  $OPP_{Adj}$  as calculated in accordance with Equation 6-1. Off-site power production shall meet the requirements of Section 6.3.1. RECs generated in conjunction with off-site power shall be retired on behalf of the dwelling unit owner.

~~6.3.1 Off-site power production equipment that is used to meet ERI or CRI requirements shall be owned by the building owner in one of the following ways:~~

~~6.4.1.1 Through a *subscription*. A contract shall be in place with a duration of not less than 15 years and shall be structured to survive a full or partial transfer of ownership of the dwelling unit~~

~~6.4.1.2 Through an *Up-Front Payment*.~~

[...]

**8.7 Renewable Energy Systems and Storage Verification.** When on-site power production, ~~or~~ off-site power production or storage is ~~present and~~ used for compliance, the following shall be verified:

- a. All minimum requirements of Section 6.3.
- b. The on-site power production system and/or energy storage system is installed in accordance with the configuration and performance characteristics modeled in the proposed design.
- c. A report is available for the off-site power production system and energy storage system demonstrating that it is operational, has the stated capacity installed, and has the stated energy storage system installed (if applicable).
- d. Documentation that shall demonstrate that not less than 15 years of annual renewable energy production capacity and storage capacity used to comply with this standard is legally bound to the dwelling unit owner and is structured to survive a full or partial transfer of ownership of the dwelling unit.



**BSR/ASHRAE/IES Addendum o  
to ANSI/ASHRAE/IES Standard 90.2-2018**

**Public Review Draft**

# **Proposed Addendum o to Standard 90.2-2018, High Performance Energy Design of Residential Buildings**

**First Public Review (October 2023)  
(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](http://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](http://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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## FOREWORD

Under the new 90.2 scope, the current definition for “residential buildings” is no longer comprehensive of the buildings covered by 90.2. This addendum removes the three-story limitation from the current definition to align with the latest approved Title, Purpose, and Scope of 90.2, which includes all residential buildings. It also includes some modification to multifamily structures (buildings) to align with pending Addendum i.

***[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (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 o to 90.2-2018

*Modify Section 3.1 as follows (IP and SI Units)*

*(Note: the change in the multifamily structure definition has also been proposed via pending Addendum i)*

***residential building:*** buildings ~~three stories above grade or fewer in height~~ whose primary function is nontransient occupancy, including one- and two-family dwellings, multiple single-family dwellings (townhouses), and nontransient multifamily buildings (such as apartment houses, convents, and monasteries).

***multifamily ~~structure~~-building:*** building ~~of three stories or fewer above grade~~ containing three or more *dwelling units* other than *townhouses*, including a manufactured building (modular).

*Modify the Standard as follows (IP and SI Units)*

**7.2.4 Common Areas of Multifamily ~~Residential~~ Buildings.** In common spaces of ~~multifamily residential buildings~~ multifamily buildings, the HVAC systems shall meet the requirements of ASHRAE/IES Standard 90.1, Section 6.4.

...

**7.3.2 Dwelling units** shall be mechanically ventilated in accordance with ANSI/ASHRAE Standard 62.2. Common spaces of ~~multifamily residential buildings~~ multifamily buildings shall be mechanically ventilated in accordance with ANSI/ASHRAE Standard 62.1.

...

**7.4.7 Common Areas of Multifamily ~~Residential~~ Buildings.** In common spaces of ~~multifamily residential buildings~~ multifamily buildings, the *service water heating (SWH)* systems shall meet the requirements of ASHRAE/IES Standard 90.1, Section 7.4.

...

## 8.3 Mechanical Systems Verification

...

**8.3.7 Common Areas of Multifamily Residential Buildings.** In common spaces of ~~multifamily residential buildings~~ *multifamily buildings*, the HVAC systems shall meet the requirements of ASHRAE/IES Standard 90.1, Section 6.7.

---

**For Reference Only –TPS of 90.2 after incorporating this addendum and pending Addendum i**

**High-Performance Energy Design of Residential Buildings**

**1. Purpose:** The purpose of this standard is to establish whole-building design requirements that enable high levels of *energy performance* and *greenhouse gas emission performance* for *residential buildings*.

**2. Scope:** This standard provides requirements for achieving high levels of *energy performance* and *greenhouse gas emission performance* of *residential buildings* and their systems.

**2.1. Building and portions of buildings covered:**

- a. *Dwelling units* in which the occupants are nontransient
- b. *Common areas* associated with residential occupancies
- c. *Outbuildings* associated with residential occupancies

**2.2 Systems covered:**

- a. Building envelope
- b. HVAC and mechanical systems
- c. Service hot-water systems
- d. Major appliances
- e. Interior and exterior lighting systems
- f. Snow and ice melt systems
- g. *Pools* and spas
- h. *Renewable energy* systems
- i. Energy storage systems
- j. Connected controls

**2.3. Exemptions. This standard does not apply to the following:**

- a. Transient housing, such as hotels, motels, nursing homes, jails, dormitories, and barracks.

**2.4. Health, Safety and Welfare.** This standard shall not be used to abridge any safety, health, or environmental requirements.





**BSR/ASHRAE/IES Addendum q  
to ANSI/ASHRAE/IES Standard 90.1-2022**

**Public Review Draft**

# **Proposed Addendum q to Standard 90.1-2022, Energy Standard for Sites and Buildings Except Low- Rise Residential Buildings**

**First Public Review (October 2023)  
(Draft Shows Proposed Changes to Current Standard)**

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**(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

*This Addendum proposes to add pad-type (wetted media) adiabatic fluid coolers along with a minimum efficiency and the recently published CTI acceptance test code to Table 6.8.1-7 Heat Rejection Equipment. A definition for pad-type adiabatic fluid coolers is also being added to Section 3 for clarity and the new Acceptance Test Code for adiabatic fluid coolers, CTI ATC-105 Adiabatic, is being added to Section 13, Normative References. This proposal was developed and submitted by the ASHRAE TC8.6 Subcommittee on Codes and Standards, who unanimously supports this addition to the Standard.*

*Adiabatic fluid coolers consist of a heat exchanger typically in the form of a coil comprised of tubes creating a closed fluid circuit, an air moving device, an integral adiabatic air-pre-cooling system (such as wet media or pads) and a structure. In adiabatic operation, heat flows from the hot process fluid in the closed circuit(s) through the tube wall of the heat exchanger to the airstream that has been pre-cooled by the adiabatic system. Note that both the wet bulb and dry bulb of the entering air must be specified to define the performance of the unit operating in adiabatic mode (unlike cooling towers, which are only dependent on the wet bulb of the entering air or dry coolers which are only dependent on the dry bulb of the entering air). Footnote “e” was modified to clarify when minimum efficiency requirements are applicable to hybrid wet/dry cooling towers.*

*The unit airstream is circulated by an air moving device, in this case, an axial or propeller fan. The heat exchanger may include internal enhancements and / or external fins that are in direct contact with the tube wall, to improve heat transfer rates. While the air is adiabatically pre-cooled with water running over the wet media, the entire external surface of the heat exchanger remains dry and as such the heat transfer process for adiabatic coolers is strictly sensible cooling. The acceptance test standard does not cover adiabatic systems attached to a dry fluid cooler after purchase or supplied by anyone other than the original equipment manufacturer.*

*As there currently are no performance requirements for adiabatic fluid coolers, this Addendum will provide a minimum efficiency along with a test code to confirm the thermal performance of pad-type adiabatic fluid coolers. Based on this, no cost impact is anticipated at this time but compliance with industry performance expectations will improve relative to adiabatic fluid coolers. Note that the Cooling Technology Institute is currently working on extending its thermal certification program to include adiabatic fluid coolers. Finally, adiabatic systems that result in a wetted heat exchange surface are outside of the scope of this test code and should be evaluated as closed-circuit fluid coolers.*

***[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 q to 90.1-2022

Update Section 3.2 as shown (IP and SI):

**Adiabatic Fluid Coolers, integral pad-type:** A heat rejection device consisting of a heat exchanger, an air moving device, integral pad-type adiabatic air-cooling system, and a structure. Water to the pads can be supplied as once through or recirculated by a spray pump. Adiabatic heat rejection devices with spray systems and no wetted media are not included in this definition, nor are adiabatic cooling systems field installed on the unit and supplied by anyone other than the manufacturer of the unit.

Update Section 6.5.5 (IP and SI)

### 6.5.5 Heat-Rejection Equipment

**6.5.5.1 General.** Section 6.5.5 applies to heat-rejection *equipment* used in comfort cooling systems, such as air-cooled condensers, dry coolers, adiabatic fluid coolers, open-circuit cooling towers, closed-circuit cooling towers, and evaporative condensers.

...

Update Table 6.8.1-7 as shown (all other rows and footnotes are unchanged) (I-P):

**Table 6.8.1-7 Performance Requirements for Heat Rejection Equipment—Minimum Efficiency Requirements**

Equipment Type	Total System Heat-Rejection Capacity at Rated Conditions	Subcategory or Rating Condition <sup>h</sup>	Performance Required <sup>a,b,c,f,g,i</sup>	Test Procedure <sup>d,e</sup>
Propeller or axial fan <u>adiabatic fluid coolers</u> , <u>integral pad type</u>	All	110°F entering water 100°F leaving water 95°F entering db 75°F entering wb	≥6.2 gpm/hp	CTI ATC-105 <u>Adiabatic</u>

e. The efficiencies and test procedures for both open- and closed-circuit cooling towers are not applicable to hybrid cooling towers that contain a combination of separate wet and dry heat exchange sections that operate simultaneously. The certification requirements do not apply to field-erected cooling towers.

...

i. For purposes of this table, the adiabatic performance of an integral pad-type adiabatic fluid cooler with a once-through pad wetting system is defined as the process water flow rating of the unit at the thermal rating condition listed in Table 6.8.1-7 divided by the fan motor nameplate power. The adiabatic performance of a pad-type adiabatic fluid cooler equipped with a recirculating spray water pump is defined as the process water flow rating of the unit at the thermal rating condition listed in Table 6.8.1-7 divided by the sum of the fan motor nameplate power and the integral spray pump motor nameplate power.

Update Table 6.8.1-7 as shown (all other rows and footnotes are unchanged) (SI):

**Table 6.8.1-7 Performance Requirements for Heat Rejection Equipment—Minimum Efficiency Requirements**

Equipment Type	Total System Heat-Rejection Capacity at Rated Conditions	Subcategory or Rating Condition <sup>h</sup>	Performance Required <sup>a,b,c,f,g,i</sup>	Test Procedure <sup>d,e</sup>
Propeller or axial fan <u>adiabatic fluid coolers</u> , <u>integral pad type</u>	All	43.3°C entering water 37.8°C leaving water 35.0°C entering db 23.9°F entering wb	≥0.52 L/(s·kW)	CTI ATC-105 <u>Adiabatic</u>

e. The efficiencies and test procedures for both open- and closed-circuit cooling towers are not applicable to hybrid cooling towers that contain a combination of separate wet and dry heat exchange sections that operate simultaneously. The certification requirements do not apply to field-erected cooling towers.

...

- i. For purposes of this table, the adiabatic performance of an integral pad-type adiabatic fluid cooler with a once through pad wetting system is defined as the process water flow rating of the unit at the thermal rating condition listed in Table 6.8.1-7 divided by the fan motor nameplate power. The adiabatic performance of a pad-type adiabatic fluid cooler equipped with a recirculating spray water pump is defined as the process water flow rating of the unit at the thermal rating condition listed in Table 6.8.1-7 divided by the sum of the fan motor nameplate power and the integral spray pump motor nameplate power.

*Update Section 13, Normative References to add the Adiabatic Supplement to CTI ATC-105 (IP and SI):*

**Cooling Technology Institute (CTI)**  
**3845 Cypress Creek Parkway, Suite 420, Houston, TX 77068; P.O. Box 681807, Houston, TX 77268**

<b>Reference</b>	<b>Section</b>
<u>CTI ATC-105 Adiabatic (23)</u>	<u>Acceptance Test Code for Adiabatic Fluid Coolers</u>
	<u>Table 6.8.1-7</u>

**BSR/EOS ESD SP5.0-202x****5.0 GENERAL CONSIDERATIONS**

There are several important points to consider when using this document, either to develop datasheets or when reading datasheets.

- The standard test methods used, including version, should be cited. In most cases, these will be ANSI/ESDA/JEDEC JS-001-20xx (HBM) and ANSI/ESDA/JEDEC JS-002-20yy (CDM). Other standards from accredited standards bodies may also be used.
- Complete ESD handling characterization of devices requires BOTH HBM and CDM as specified in JEDEC JESD47.
- It is not sufficient to report data as “ESD” without the specific ESD standard designations for both models.
- The current version of a standard should be followed at the time a device is qualified. It is strongly recommended to avoid the use of rescinded or decommissioned ESD test standards.
- The HBM and CDM data provided by the test methods are intended to provide relative, standardized figures of merit for sensitivity to these types of ESD during manufacturing, test, repair, and any process where sensitive devices are subject to handling by people or production equipment in an ESD protected area.
- HBM and CDM withstand levels are relevant only to device handling. These ratings do not predict and are not relevant to performance in system-level tests such as IEC 61000-4-2.
- Performance levels determined using methods intended to simulate system-level performance (for example, IEC 61000-4-2) are not relevant to handling and should not be listed as “HBM” levels in datasheets. Reporting system-level test data is outside the scope of this document since it does not address handling in an ESD protected area (EPA).
- Using the ANSI/ESDA/JEDEC JS-001 HBM network values (C = 100 pF, R = 1500 ohms) in a system-level ESD simulator is not sufficient to produce a valid device-level HBM test.

**6.3 Device Classification**

Some device manufacturers prefer to use a device classification designation that represents a threshold voltage range. These ranges are defined in the cited HBCDM and CDHBM test method standards, ~~the classification levels for~~ ANSI/ESDA/JEDEC JS-001 and ANSI/ESDA/JEDEC JS-002 ~~respectively are shown in Annex A.~~ If the user is testing using a different HBM or CDM test standard, the classification levels for those documents should be used. It is strongly recommended to report the actual ESD withstand level when reporting the device classification designation.

**7.0 ADDITIONAL INFORMATION OPTIONS AND EXAMPLES**

The manufacturer may want to provide clarifying data and stressing information that will give the device user better insight into how to handle the device. This information may include the identification of the most sensitive pins or information about relative ESD risk. Suggested ways of presenting this information are:

- List results pin-by-pin. (May only be practical for a low-pin-count device)
- List results by pin groups. (For example, I/O, and Power/Ground)
- List exceptions – Useful when a small number of pins cause a low threshold. An indication of the percentage of pins that do not meet the desired level may also be useful.
- List as an exception to a “target” performance – Similar to above, except the baseline is a “target” level which is an expected level of performance for a device family, technology, or application. (See Table 5)
- Any other relevant data to indicate risk (or lack of risk) in an EPA.

Annex AB provides some examples.

(This annex is not part of ESD Association Standard Practice ESD-DSP5.0-2023)

### **ANNEX A (INFORMATIVE) – HBM AND CDM CLASSIFICATION LEVELS**

These tables are from the current document versions at the time of publication of this document. For the most recent information, the user should consult the latest versions of ANSI/ESDA/JEDEC JS-001 and ANSI/ESDA/JEDEC JS-002.

**Table 2. HBM Classification Levels (ANSI/ESDA/JEDEC JS-001)**

<b>Classification</b>	<b>Voltage Range (in volts)*</b>
0Z	<50
0A	50 to <125
0B	125 to <250
1A	250 to <500
1B	500 to <1000
1C	1000 to <2000
2	2000 to <4000
3A	4000 to <8000
3B	≥8000

\*See JEDEC JEP155 for recommended target levels for safe ESD handling. Higher thresholds and classifications do not result in a significant increase in ESD handling safety.

**Table 3. CDM Classification Levels (ANSI/ESDA/JEDEC JS-002)**

<b>Classification Level</b>	<b>Classification Test Condition (in volts)**</b>
C0a	<125
C0b	125 to <250
C1	250 to <500
C2a	500 to <750
C2b	750 to <1000
C3	≥1000

\*\*See JEDEC JEP157 for recommended target levels for safe ESD handling. Higher thresholds and classifications do not result in a significant increase in ESD handling safety.

(This annex is not part of ESD Association Standard Practice ESD DSP5.0-2023)

## ANNEX **AB** (INFORMATIVE) – EXAMPLES OF ENTRY OF EXCEPTION DATA

In most cases, the ESD data sheet entries will be simple, as indicated in Table 1. However, in some cases, the supplier may want to include additional information, such as when a device has a lower than expected or desired threshold due to a few “exception” pins. The description of exception pins may be done in any manner which accurately reflects the pins’ ESD performance. Tables 4 and 5 below give examples of how this information might be presented concisely in a data sheet. These examples are not intended to exclude other ways of providing information. In some cases, suppliers and users may collaborate on the best way to present this additional data.

Tables 4 and 5 present two possible ways of expressing the same hypothetical situation: A 20-pin device has been evaluated using ANSI/ESDA/JEDEC JS-002 and ANSI/ESDA/JEDEC JS-001. 18 of the 20 pins pass CDM at 500 volts, while two high-speed pins (here designated as pins 3 and 4) only pass 250 volts. Similarly, 18 of the pins pass HBM at 1000 volts, while the same high-speed pins (3 and 4) only pass 500 volts. Table 4 describes one way of conveying these results on a datasheet.

**Table 4. ~~Inclusion of Example Showing~~ Lower ESD Level Data for High-Speed Pins Data**

ESD Information for Handling of ESDS in an ESD Protected Area (Required)
<p><b>CDM (ANSI/ESDA/JEDEC JS-002-2022):</b> CDM Withstand Level 250 volts; CDM Class C1  <b>Note:</b> The CDM withstand level is determined by two high-speed pins (3 and 4) which pass 250 volts. All other pins pass 500 volts.</p>
<p><b>HBM (ANSI/ESDA/JEDEC JS-001-2023):</b> HBM Withstand Level 500 volts; HBM Class 1B  <b>Note:</b> The HBM withstand level is determined by two high-speed pins (3 and 4) which pass 500 volts. All other pins pass 1000 volts.</p>

In some cases, suppliers and users prefer the information to be expressed in terms of “target levels” for a given family of devices or a given technology. In these cases, Table 5 illustrates a description of low-threshold, high-speed pins.

**Table 5. Expressing Exceptions in Terms of Targets**

ESD Information for Handling of ESDS in an ESD Protected Area (Required)
<p><b>CDM (ANSI/ESDA/JEDEC JS-002-2022):</b> CDM Withstand Level 250 volts; CDM Class C1  <b>Note:</b> The target CDM level for this device family is 500 volts and 18 out of 20 pins pass this level. The 250-volt CDM level of pins 3 and 4 determines the overall device threshold. This lower level is required to meet the functional performance requirements of these high-speed pins.</p>
<p><b>HBM (ANSI/ESDA/JEDEC JS-001-2023):</b> HBM Withstand Level 500 volts; HBM Class 1B  <b>Note:</b> The target HBM level for this device family is 1000 volts and 18 out of 20 pins pass this level. The 500-volt HBM level of pins 3 and 4 determines the overall device threshold. This lower level is required to meet the functional performance requirements of these high-speed pins.</p>

(This annex is not part of ESD Association Standard Practice ESD DSP5.0-2023)

## **ANNEX ~~BC~~ (INFORMATIVE) – REVISION HISTORY FOR ESD DSP5.0-2023**

### **~~BC.1~~ 2018 Version**

The document is new, with no previous versions published.

### **~~BC.2~~ 2023 Version**

- Minor editorial changes to clarify/reflect current terminology made throughout.
- References current versions of ANSI/ESDA/JEDEC JS-001 and ANSI/ESDA/JEDEC JS-002 in examples.
- Clarified guidance on using decommissioned versions of HBM/CDM test procedures.
- Annex A removed and references to classification tables directed to ANSI/ESDA/JEDEC JS-001 and ANSI/ESDA/JEDEC JS-002 directly.



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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 **grey highlighting**. Rationale Statements are in *red italics* and only used to add clarity; these statements will NOT be in the finished publication.]

## NSF/ANSI Standard for Biosafety Cabinetry —

# Biosafety Cabinetry: Design, Construction, Performance, and Field Certification

### Normative Annex 1 (formerly Annex A)

#### Performance tests

#### N-1.2 HEPA/ULPA filter leak test

##### N-1.2.3.1 Filters that can be scanned

a) Turn on the cabinet blower and lights (Types A1, A2 and B2 – downflow filter test). Remove filter diffusers and protective covers if they are present. Place the generator output so the aerosol is introduced into the cabinet, as specified by the manufacturer, to provide uniform distribution upstream of the HEPA/ULPA filter. ~~When the manufacturer has not identified the aerosol introduction point(s), introduce the aerosol in such a manner as to ensure thorough mixing in the cabinet airflow. For example, a T-connection can be fitted to the aerosol generator output to enable distribution of challenge into both entrances of a single blower, or entrances of multiple blowers.~~ The manufacturer shall determine the aerosol introduction location and method point that provides the most uniform distribution (reference IEST-RP-CC-034).<sup>1</sup> ~~The location of the aerosol introduction point shall be clearly described or indicated in a manner readily viewable available to the certifier. The location should be described either on the cabinet data plate or with the electrical schematic if the schematic is affixed to the cabinet. The location and method of distribution shall be readily viewable.~~

##### N-1.2.3.2 Filters that cannot be scanned

~~When a cabinet is ducted so that the exhaust filter cannot be scanned, it may be leak tested by drilling a hole approximately 0.3 inch (8 mm) in diameter in the duct at a downstream location that will produce a well-mixed aerosol, and inserting the photometer sampling probe with rigid extension tubing through the hole.~~

<sup>1</sup> HEPA/ULPA and ULPA Filter Leak Tests, Institute of Environmental Sciences and Technology. 940 East Northwest Highway, Mount Prospect, IL 60056. <www.iest.org>

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When an exhaust filter cannot be scanned, the manufacturer shall determine the aerosol introduction point that provides the most uniform distribution (reference IEST-RP-CC-034).<sup>25</sup> The location of the aerosol introduction point shall be clearly described or indicated in a manner readily viewable to the certifier. If a downstream sampling probe location is not provided by the manufacturer, a hole approximately 0.3 inch (8 mm) in diameter can be drilled in the exhaust ductwork that will produce a well-mixed aerosol. Insert the photometer sampling probe with rigid extension tubing through the hole to identify filter leaks.

## Normative Annex 5 (formerly Annex F)

### Field tests

#### N-5.5 HEPA/ULPA filter leak test

##### N-5.5.3.1 Filters that can be scanned

a) Turn on the cabinet blower and lights (Types A1 and A2 and B2 downflow filter test). Remove the filter diffusers and protective covers if any are present. Place the generator output as described by the manufacturer so the aerosol is introduced into each cabinet fan upstream of the HEPA/ULPA filter(s). When the manufacturer has not identified the aerosol introduction point(s), introduce the aerosol in a manner to ensure thorough mixing in the cabinet airflow. For example, a T-connection can be fitted to the aerosol generator output to enable distribution of challenge into both entrances of a single blower or entrances of multiple blowers. The manufacturer shall determine the aerosol introduction location and method point that provides the most uniform distribution. For cabinets listed prior to NSF/ANSI 49-2022, a T-connection can be fitted to the aerosol generator output to enable distribution of challenge into both entrances of a single blower, or entrances of multiple blowers.

##### N-5.5.3.2 Filters that cannot be scanned

~~a) When a cabinet is ducted so that the exhaust filter cannot be scanned, it may be leak tested by drilling a hole approximately 0.3 in (8 mm) in diameter in the duct at a downstream location that will produce a well-mixed aerosol and inserting the photometer sampling probe with rigid extension tubing through the hole.~~

When an exhaust filter cannot be scanned, the manufacturer shall determine the aerosol introduction point that provides the most uniform distribution (reference IEST-RP-CC-034).<sup>25</sup> The location of the aerosol introduction point shall be clearly described or indicated in a manner readily viewable to the certifier. If a downstream sampling probe location is not provided by the manufacturer, a hole appropriately sized to the sampling tube diameter can be drilled in the exhaust ductwork at a location that will produce a well-mixed aerosol. Insert the photometer sampling probe with rigid extension tubing through the hole to identify filter leaks.

*Rationale: This revised language clarifies the importance creating a uniform aerosol distribution during the HEPA filter integrity testing.*

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## NSF/ANSI International Standard for Biosafety Cabinetry —

### Biosafety Cabinetry: Design, Construction, Performance, and Field Certification

- 

#### 3 Definitions

- 

**3.20 leak tight:** Free of leaks at  $\geq 0.5$  in w.g. ( $500/125$  Pa) of air pressure as described in Annex N-1.

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#### 6.2 Pressure decay / soap bubble / tracer gas leak

The periphery and penetrations of all plenums shall be leak tight when tested by the pressure decay or soap bubble test (see Section N-1.1).

**6.2.1** The cabinet shall hold  $\geq 0.5$  in w.g. ( $500/125$  Pa) ~~within  $\pm 10\%$~~  for 10 min, ~~with decay not exceeding 10%.~~

**6.2.2** For manufacturer testing only, the soap bubble method may be used when pressure plates fail: all welds, gaskets, penetrations, or seals on exterior surfaces of air plenums shall be free of soap bubbles when at  $\geq 0.5$  in w.g. ( $500/125$  Pa)  $\pm 10\%$  pressure above atmospheric.

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### Normative Annex 1 (formerly Annex A)

#### Performance tests

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#### N-1.1 Pressure decay / soap bubble

##### N-1.1.1 Pressure decay or soap bubble test

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#### **N-1.1.1.1 Purpose**

This test determines the overall seal integrity of the cabinet outer hull, including exterior surfaces of all plenums, welds, gaskets, plenum penetrations, and seals.

#### **N-1.1.1.2 Apparatus**

- manometer, pressure gauge, or pressure transducer system with a minimum range of 0 to 2 in w.g. (0 to 500 Pa) and accurate to  $\pm 2\%$  of reading  $\pm 0.001$  in w.g. (0.2 Pa);
- manufacturer-provided pressure plates constructed of steel, aluminum, plastic or other nonpermeable material as needed to seal exhaust, fan inlet, and access openings; and
- liquid leak detector.

#### **N-1.1.1.3 Method (pressure decay)**

The pressure decay test may be used during manufacturing to demonstrate compliance with Section N-1.1. It shall always be used during cabinet design certification testing.

- a) Prepare the cabinet as a sealed system; i.e., seal the front access opening and exhaust port, if this step has not already been completed by the manufacturer.
- b) Remove decorative panels and other access obstructions, where necessary, to allow proper sealing of openings.
- c) Attach a manometer, pressure gauge, or pressure transducer system to the test area to indicate the interior pressure.
- d) Pressurize the cabinet with air to a reading of  $\geq 0.5$  in w.g. (500 125 Pa), turn off the pressurizing air, and measure the pressure after 10 min.
- e) If the cabinet ~~does not hold pressure within~~ loses more than 10% of the initial pressure after 10 min, use the liquid leak detector to check for leaks in the pressure plates used to seal the access opening, exhaust, and fan inlet (where applicable). If leaks are found, make needed repairs if possible and repeat step d.

#### **N-1.1.1.4 Method (soap bubble)**

The soap bubble test may be used during manufacturing to demonstrate compliance with Section N-1.1 in place of the pressure decay test. The soap bubble test shall not be used for cabinet design certification testing.

- a) Prepare the cabinet as a sealed system; i.e., seal the front sash and exhaust port.
- b) Remove decorative panels and other access obstructions, where necessary, to expose plenums to be tested.
- c) Attach a manometer, pressure gauge, or pressure transducer system to the test area to indicate the interior pressure.

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- d) Pressurize the cabinet with air to ensure a continuous reading of  $\pm 0.5$  in w.g. ( $500-125$  Pa)  $\pm 10\%$ .
- e) Spray or brush the liquid leak detector along all welds, gaskets, penetrations, and seals on exterior surfaces of cabinet plenums. Small leaks will be indicated by bubbles. Large leaks will occur that blow the detection fluid from the hole without forming bubbles and may be detected by slight feel of airflow or sound.

**N-1.1.1.5 Acceptance**

**N-1.1.1.5.1 Pressure decay**

The cabinet shall not lose more than 10% of the initial pressure after 10 min, when starting at hold  $\pm 0.5$  in w.g. ( $500-125$  Pa)  $\pm 10\%$  for 10 min. This requirement shall be met for all cabinet design certification testing.

**N-1.1.1.5.2 Soap bubble**

All welds, gaskets, penetrations, and seals on exterior surfaces of air plenums shall be free of soap bubbles when at  $\pm 0.5$  in w.g. ( $500-125$  Pa)  $\pm 10\%$  pressure above atmospheric. This requirement may be met during manufacturing as an alternative to the pressure decay test.

*Rationale: revised language to improve the value of the pressure decay test in Standard 49.*

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## NSF/ANSI International Standard for Biosafety Cabinetry —

### Biosafety Cabinetry: Design, Construction, Performance, and Field Certification Normative Annex 5 (formerly Annex F)

#### Field tests

#### N-5.11 Noise level tests

##### N-5.11.4 Acceptance

~~The net noise level in front of the cabinet shall not exceed 70 dbA.~~

Overall noise level in front of the cabinet shall not exceed 70 dbA when measured where the maximum ambient sound level is no greater than 60 dbA. When the ambient sound level is greater than 60 dbA, the reading obtained in Section N-5.11.3.c) shall be corrected in accordance with curves or tables provided in the instrument operator's manual. If this information is not available, standard correction curves or tables shall be used (see following table).

**Correction chart for sound level readings**

Difference between total and background sound readings in dbA	Number to subtract from total to yield corrected noise level
0 to 2	reduce background levels
3	3
4 to 5	2
6 to 10	1
> 10	0

*Rationale: upon discussions in unrelated task groups and the 2023 Face-to-Face, all groups decided that this recently removed conversion table still had value and should be balloted back into Standard 49.*

**BSR/UL 62093, Standard for Photovoltaic System Power Conversion Equipment – Design Qualification and Type Approval**

**1. Revisions to Proposed Second Edition of the UL IEC-Based Standard for Photovoltaic System Power Conversion Equipment – Design Qualification and Type Approval, UL 62093**

**PROPOSAL**

**DV.1 DE Add the following at the end of the IEC Foreword:**

**– UL 62093 is intended to be used as a validation document. It is not required for safety evaluations.**

**– IEC 62109-3, which has not yet been adopted in the U.S., can be referenced for additional environmental tests pertinent to module integrated electronics such as AC modules.**

**1DV DE Addition of the following to clarify the Scope:**

**This document is intended to be independent of safety standards such as UL 1741 and UL 62109-1. It is intended to be used in conjunction with those safety standards and should not replace them.**

**2DV DE Addition of the following Normative References:**

**UL 1741, *Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources***

**UL 62109-1, *Power Converters for use in Photovoltaic Power Systems - Part 1: General Requirements***

**3.1DV DE Add the following example to Note 1:**

**DC-DC converter**

**6.5.3.1 DV D2 Modification of (f) by adding the following option:**

**Operation of 16 h is not required when temperatures used to determine compliance are stable. A temperature is stable when three successive readings taken at intervals of 10 percent of the previously elapsed duration of the test, and not less than 15 minutes apart, indicate no further increase in temperature.**

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**BSR 108/UL 1682, Standard for Safety for Plugs, Receptacles, and Cable Connectors, of the Pin and Sleeve Type**

**1. This revision of ANSI/UL 1682 expands requirements for Weather-Resistant Receptacles**

**PROPOSAL**

SC6.3 Six receptacles are to be mounted on a steel plate at least 12.7 mm (1/2 inch) thick before placement into the conditioning chamber.

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## **BSR/UL 1990, Standard for Safety for Nonmetallic Underground HDPE Conduit with Conductors**

### **1. Referenced Publication Correction**

#### **PROPOSAL**

##### **2 Undated References**

~~2.1 Where reference is made to other publications, such reference shall be considered to refer to the latest edition and all amendments published to that edition up to the time when this standard was published.~~

##### 2A Referenced Publications

2A.1 Any undated reference to a code or standard appearing in the requirements of this Standard shall be interpreted as referring to the latest edition of that code or standard.

2A.2 The following publications are referenced in this Standard:

ASTM D2412, Standard Test Method for Determination of External Loading Characteristics of Plastic Pipe by Parallel Plate Loading

IEEE Standard 1210, Standard Tests for Determining Compatibility of Cable-Pulling Lubricants with Wire and Cable

NFPA 70, National Electrical Code

UL 651A, High Density Polyethylene (HDPE) Conduit

### **2. Unit Conversion Error**

9.1 Finished conduit shall have a minimum pipe stiffness of 120 psi (827 kPa) at 10 percent deflection when determined in accordance with the Standard Test Method for Determination of External Loading Characteristics of Plastic Pipe by Parallel-Plate Loading, ASTM D2412.

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