

## CONTENTS

### American National Standards

Project Initiation Notification System (PINS) .....	2
Call for Comment on Standards Proposals .....	20
Final Actions - (Approved ANS) .....	35
Call for Members (ANS Consensus Bodies).....	39
American National Standards (ANS) Announcements.....	45
Accreditation Announcements (Standards Developers).....	46
Meeting Notices (Standards Developers) .....	49
American National Standards (ANS) Process .....	50
ANS Under Continuous Maintenance .....	51
ANSI-Accredited Standards Developer Contact Information.....	52

### International Standards

ISO and IEC Draft Standards.....	55
ISO and IEC Newly Published Standards .....	58
International Organization for Standardization (ISO) .....	60

### Registration of Organization Names in the United States .....

62

### Proposed Foreign Government Regulations .....

63

# Project Initiation Notification System (PINS)

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

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

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

---

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

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

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

BSR/ADA Standard No. 108-202x, Amalgam Separators (national adoption of ISO 11143:2008 with modifications and revision of ANSI/ADA Standard No. 108-2009)

Stakeholders: Manufacturers, dentists.

Project Need: This revision is to incorporate the changes indicated in the approved ANSI/ADA 108 Addendum:2011 into the main document (ANSI/ADA 108) to create one cohesive document and updating references. No other changes to the document are being considered at this time during the minor revision. Upon approval of this revision, ANSI/ADA 108 Addendum:2011 will be withdrawn.

Scope: This standard specifies requirements and test methods for amalgam separators used in connection with dental equipment in the dental treatment center. It specifies the efficiency of the amalgam separators in terms of the level of retention of amalgam based on a laboratory test and the test procedure for determining this efficiency. It also includes requirements for the safe functioning of the amalgam separator; for marking; and for instructions for use, operation, and maintenance.

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

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

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

BSR/ADA Standard No. 114-202x, Portable Dental Equipment for Use in Nonpermanent Healthcare Environment - General Requirements (identical national adoption of ISO 23402-1:2020)

Stakeholders: Manufacturers, dentists.

Project Need: To provide a standard for portable dental equipment for use in non-permanent healthcare environment.

Scope: This document specifies general requirements and test methods for portable dental equipment for use in non-permanent healthcare environments. Portable dental equipment within the scope of this document includes portable dental units, portable patient chairs, portable operator's stools, portable operating lights, portable suction source equipment, portable air compressors and other portable dental equipment in instances where these devices are designed and constructed to be transported for use in non-permanent healthcare environments.

**ADA (American Dental Association)**

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

Contact: Paul Bralower; [bralowerp@ada.org](mailto:bralowerp@ada.org)

***New National Adoption***

BSR/ADA Standard No. 117-202x, Fluoride Varnishes (identical national adoption of ISO 17730:2020 and revision of ANSI/ADA Standard No. 117-2018)

Stakeholders: Manufacturers, dentists.

Project Need: The revision by identical adoption of ISO 17730:2020 adds a test method and requirement for fluoride release potential for fluoride varnishes.

Scope: This standard specifies requirements and their test methods for total digestible fluoride content in dental varnishes containing fluoride that is intended for use in the oral cavity, directly on the outer surfaces of teeth and fillings. It also specifies the requirements for their packaging and labeling, including the instructions for use. This standard covers fluoride varnishes to be applied by dental health care workers.

**ADA (American Dental Association)**

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

Contact: Paul Bralower; [bralowerp@ada.org](mailto:bralowerp@ada.org)

***New National Adoption***

BSR/ADA Standard No. 198-202x, Multifunction Handpieces (identical national adoption of ISO 22569:2020)

Stakeholders: Manufacturers, dentists.

Project Need: To provide a national standard on multifunction handpieces used in dentistry.

Scope: This document specifies requirements, test methods, instructions for use and marking for multifunction for handpieces (colloquially called "syringes") intended to be used in the oral cavity of the patient. This document does not apply to dental handpieces and motors, intraoral cameras, dental polymerisation lamps, powered scalers, powder jet handpieces, prophylaxis handpieces, suction cannulas, and saliva ejectors.

**ADA (American Dental Association)**

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

Contact: Paul Bralower; [bralowerp@ada.org](mailto:bralowerp@ada.org)

***New National Adoption***

BSR/ADA Standard No. 199-202x, Dental Osteotomes (identical national adoption of ISO 17937:2015)

Stakeholders: Manufacturers, dentists.

Project Need: The ADA working group recommends that a standard for osteotomes, which are instruments generally used in orthopaedic surgery, be developed for those instruments as used in dentistry, which would be in harmony with the international standard.

Scope: This standard specifies requirements and their test methods for osteotomes used in dentistry for bone compaction, internal sinus floor elevation, and jaw bone cleaving. It also specifies the requirements for their marking and labeling.

**ADA (American Dental Association)**

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

Contact: Paul Bralower; [bralowerp@ada.org](mailto:bralowerp@ada.org)

***New National Adoption***

BSR/ADA Standard No. 27-202x, Polymer-Based Restorative Materials (identical national adoption of ISO 4049:2019 and revision of ANSI/ADA Standard No. 27-2016)

Stakeholders: Manufacturers, dentists.

Project Need: The ADA working group recommends updating ADA Standard No. 27 by identical adoption of ISO 4049:2019 in order to maintain harmony with the current international standard.

Scope: Requirements for dental polymer-based restorative materials intended for use primarily for the direct or indirect restoration of the teeth and for luting, including for use in the cementation or fixation of restorations and appliances such as inlays, onlays, veneers, crowns, and bridges.

**ADA (American Dental Association)**

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

Contact: Paul Bralower; [bralowerp@ada.org](mailto:bralowerp@ada.org)

***New National Adoption***

BSR/ADA Standard No. 53-202x, Polymer-Based Crown and Veneering Materials (identical national adoption of ISO 10477:2020 and revision of ANSI/ADA Standard No. 53-2020)

Stakeholders: Manufacturers, dentists.

Project Need: This revision would bring the national standard in line with the updates made at the ISO level which the US TAG voted to approve. The changes to the ISO standard included corrections and clarifications that improve the standard.

Scope: This document classifies polymer-based crown and veneering materials used in dentistry and specifies their requirements. It also specifies the test methods to be used to determine conformity to these requirements. This document is applicable to polymer-based crown and veneering materials for laboratory-fabricated permanent veneers or crowns. It also applies to polymer-based dental crown and veneering materials for which the manufacturer claims adhesion to the substructure without macro-mechanical retention such as beads or wires.

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

1791 Tullie Circle NE, Atlanta, GA 30329 [www.ashrae.org](http://www.ashrae.org)

Contact: Tanisha Meyers-Lisle; [tmlisle@ashrae.org](mailto:tmlisle@ashrae.org)

***Revision***

BSR/ASHRAE Standard 41.2-202X, Standard Methods for Air Velocity and Airflow Measurement (revision of ANSI/ASHRAE Standard 41.2-2018)

Stakeholders: Consumers, heating and air-conditioning equipment manufacturers, product rating and certification agencies, and others by providing clearly written procedures for accurately measuring laboratory airflow.

Project Need: The air velocity and airflow standard is one of the core measurement standards that are referenced in many ASHRAE Method of Test standards. The major revision of this standard that was published in 2018 featured a new multiple nozzle chamber design, but failed to permit the use of the legacy multiple nozzle chambers. The planned revision corrects that oversight and features a new set of steady-state criteria methods that are now being applied to all of the core measurement standards.

Scope: This standard applies to air velocity and airflow measurement for testing heating, ventilating, air conditioning, and refrigerating systems and components at pressures within the range of –25 to +25 kPa (–100 to +100 in. of water) referenced to atmospheric pressure.

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

1791 Tullie Circle NE, Atlanta, GA 30329 [www.ashrae.org](http://www.ashrae.org)

Contact: Tanisha Meyers-Lisle; [tmlisle@ashrae.org](mailto:tmlisle@ashrae.org)

**Revision**

BSR/ASHRAE Standard 164.1-202X, Method of Test for Residential Central-System Humidifiers (revision of ANSI/ASHRAE Standard 164.1-2012 (R2016))

Stakeholders: Manufacturers, telecom, consumers, medical facilities, mechanical engineers, architectural engineers, governmental engineers, museums, HVAC manufacturers, HVAC contractors.

Project Need: Standard needs to be revised.

Scope: The scope of this standard covers a method of test for the humidification rate of central-system residential humidifiers intended for use with forced warm-air heating and/or cooling systems. This method of test describes the test apparatus, conduct of the test, and information to be recorded. Tests covered include methods for measuring electrical power input, water flow rate, water temperature, and water pressure to the test humidifier. Also included are airflow rate, static pressure, temperature, and relative humidity entering and maintained by the test apparatus. Information resulting from the application of this method of test is intended for use by manufacturers, specifiers, installers, and users of central-system residential humidifiers. This method of test does not apply to self-contained humidifiers, portable humidifiers, or humidifiers for commercial and industrial applications.

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

1791 Tullie Circle NE, Atlanta, GA 30329 [www.ashrae.org](http://www.ashrae.org)

Contact: Tanisha Meyers-Lisle; [tmlisle@ashrae.org](mailto:tmlisle@ashrae.org)

**Revision**

BSR/ASHRAE Standard 164.2-202X, Method of Test for Self-Contained Residential Humidifiers (revision of ANSI/ASHRAE Standard 164.2-2012 (R2016))

Stakeholders: Mechanical and architectural engineers, manufacturers, telecom, medical, high tech, environmental, consumers, mechanical contractors.

Project Need: Standard needs to be revised.

Scope: The scope of this standard covers a method of test for the humidification rate of residential self-contained humidifiers that do not require other mechanical devices and are not connected to the central heating/ventilation system. This method of test describes the test apparatus, conduct of the test, and information to be recorded. Tests covered include methods for measuring energy input, water flow rate, water temperature, and water pressure to the test humidifier.

**ASTM (ASTM International)**

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

Contact: Laura Klineburger; [accreditation@astm.org](mailto:accreditation@astm.org)

**New Standard**

BSR/ASTM WK75865-202x, New Test Method for Response of a deck assembly to an under-deck flame impingement exposure (new standard)

Stakeholders: External Fire Exposures industry.

Project Need: Evaluate the response of a deck assembly subjected to an under-deck flame impingement exposure.

Deck assembly will be placed in a wind field.

Scope: Recent research has demonstrated limitations in the currently approved test method. The proposed test method will address these limitations by increasing deck size, wind speed, and evaluating joist and deck boards used in the deck assembly.

**ASTM (ASTM International)**

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

Contact: Laura Klineburger; [accreditation@astm.org](mailto:accreditation@astm.org)

***New Standard***

BSR/ASTM WK75936-202x, New Terminology for Hunting Saddles (new standard)

Stakeholders: Treestands industry.

Project Need: This standard covers the terminology used in describing hunting saddles and the various elements composing a hunting saddle. The standard also defines terminology defining units of measure, application loads, and performance results. The standard will be referenced by test methods for hunting saddles.

Scope: This standard is provided to develop and maintain uniformity of terminology for the discussion and evaluation of Hunting Saddles, particularly with regard to quality assurance and safety factors.

**ASTM (ASTM International)**

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

Contact: Laura Klineburger; [accreditation@astm.org](mailto:accreditation@astm.org)

***New Standard***

BSR/ASTM WK75939-202x, New Test Method for Hunting Saddle Static Load Capacity (new standard)

Stakeholders: Treestands industry.

Project Need: This test method covers procedures for static loading of hunting saddles that are used for hunting, photographing, or general observation. Currently, there are no test methods that exist for static loading of hunting saddles. The intent is to provide unique methodology for testing a hunting saddle under static conditions.

Scope: This test method covers the determination of the static load capacity of hunting saddles in terms of a factor of safety relative to the manufacturer's rated capacity.

**ASTM (ASTM International)**

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

Contact: Laura Klineburger; [accreditation@astm.org](mailto:accreditation@astm.org)

***New Standard***

BSR/ASTM WK75942-202x, New Test Method for Hunting Saddle Dynamic Load Capacity (new standard)

Stakeholders: Treestands industry.

Project Need: This test method covers the determination of the dynamic load capacity of hunting saddles.

Scope: This test method covers procedures for dynamic loading of hunting saddles that are used for hunting, photographing, or general observation. Currently, there are no test methods that exist for dynamic loading of hunting saddles. The intent is to provide unique methodology for testing a hunting saddle under dynamic conditions.

**AWWA (American Water Works Association)**

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

Contact: Paul Olson; [polson@awwa.org](mailto:polson@awwa.org)

***Supplement***

BSR/AWWA D100a-202x, Welded Carbon Steel Tanks for Water Storage (supplement to ANSI/AWWA D100-2021)

Stakeholders: Drinking-water treatment and supply industry. Water utilities, consulting engineers, water-treatment equipment manufacturers.

Project Need: The intent of this addendum to provide updated structural design criteria as it relates to wind and seismic loading.

Scope: This standard provides the minimum requirements for the design, construction, inspection, and testing of new welded carbon steel tanks for the storage of water at atmospheric pressure.

**BHMA (Builders Hardware Manufacturers Association)**

355 Lexington Avenue, 15th Floor, New York, NY 10017-6603 [www.buildershardware.com](http://www.buildershardware.com)

Contact: Karen Bishop; [Kbishop@Kellencompany.com](mailto:Kbishop@Kellencompany.com)

**Revision**

BSR/BHMA A156.22-202x, Standard for Door Gasketing and Edge Seal Systems (revision of ANSI/BHMA A156.22-2017)

Stakeholders: Consumers, door and hardware manufacturers, building and construction.

Project Need: Adding additional product functions/ types and test methods and other information..

Scope: This Standard establishes requirements for the performance and installation of gasketing systems including intumescent applied to, or mortised to, doors, frames, or both. Included are performance tests intended to evaluate resistance to smoke and air infiltration, energy performance, acoustic properties, and the life and durability of gasketing materials.

**BIFMA (Business and Institutional Furniture Manufacturers Association)**

678 Front Avenue NW, Grand Rapids, MI 49504 [www.bifma.org](http://www.bifma.org)

Contact: Steven Kooy; [skooy@bifma.com](mailto:skooy@bifma.com)

**Reaffirmation**

BSR/BIFMA M7.1-2011 (R202x), Standard Test Method for Determining VOC Emission from Office Furniture Systems, Components, and Seating (reaffirmation of ANSI/BIFMA M7.1-2011 (R2016))

Stakeholders: Furniture manufacturers, suppliers, users, and test labs.

Project Need: Reaffirm current standard.

Scope: This standard Test Method is intended for determining volatile organic compound (VOCs including aldehydes) emissions from office furniture and seating under environmental and product usage conditions that are typical of those found in buildings.

**BIFMA (Business and Institutional Furniture Manufacturers Association)**

678 Front Avenue NW, Grand Rapids, MI 49504 [www.bifma.org](http://www.bifma.org)

Contact: Steven Kooy; [skooy@bifma.com](mailto:skooy@bifma.com)

**Reaffirmation**

BSR/BIFMA X7.1-2011 (R202x), Standard for Formaldehyde & TVOC Emissions of Low-Emitting Office Furniture and Seating (reaffirmation of ANSI/BIFMA X7.1-2011 (R2016))

Stakeholders: Furniture manufacturers, suppliers, users, and test labs.

Project Need: Reaffirm current standard.

Scope: This standard is intended to provide performance requirements for the emissions of volatile organic compounds (VOCs), including formaldehyde and aldehydes, from office furniture and seating.

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

271 Cadman Plaza, P.O. Box 23200, Brooklyn, NY 11202-3200 [www.esta.org](http://www.esta.org)

Contact: Karl Ruling; [standards@esta.org](mailto:standards@esta.org)

***New Standard***

BSR/E1.37-8-202x, Additional Message Sets for ANSI E1.20 (RDM) - IPv6 & Improved IPv4 Configuration Messages (new standard)

Stakeholders: Theatrical lighting control and network equipment manufacturers, equipment suppliers, end-users of theatrical lighting control and networking equipment.

Project Need: This document is intended to supersede ANSI E1.37-2, Additional Message Sets for ANSI E1.20 (RDM) – Part 2, IPv4 & DNS Configuration Messages. E1.37-2 did not include support for IPv6, WiFi configuration, and other common needs. There have been many deficiencies identified in the data model used in E1.37-2 that made replacement with a more comprehensive model needed that addresses both IPv4 and IPv6, especially with the advent of ANSI E1.33 (RDMnet).

Scope: Provide configuration messages for common IPv4/IPv6 and related network settings in devices that use the Remote Device Management suite of communications (ANSI E1.20 RDM and ANSI E1.33 RDMnet).

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

271 Cadman Plaza, P.O. Box 23200, Brooklyn, NY 11202-3200 [www.esta.org](http://www.esta.org)

Contact: Karl Ruling; [standards@esta.org](mailto:standards@esta.org)

***New Standard***

BSR/E1.73-202x, Next Generation Entertainment Control Model: Uniform Device Representation (UDR) (new standard)

Stakeholders: Theatrical lighting control equipment manufacturers and designers, specifiers of theatrical control equipment, and end-users of this equipment.

Project Need: There is a standardization gap related to the interoperability of entertainment control consoles and the equipment they are designed to control, which is currently solved by proprietary fixture libraries created and maintained by individual companies. End-users are beholden to these fixture library maintainers to ensure that their products work correctly together. This status quo is cumbersome and inconvenient. Additionally, existing proprietary fixture libraries have a number of limitations that impede development of new entertainment technology. One such limitation is that they are designed to be closely tied to DMX512 (ANSI E1.11) control. Given that there are ongoing efforts to supersede DMX512 with a control method that is more suited to modern network infrastructure, there is a need for a fixture library framework that can be cleanly separated from DMX512 control.

Scope: This standard provides a framework by which manufacturers of entertainment equipment can describe controllable and visualizable devices in a digital format. The framework will enable the provision of descriptive information about devices and their state, including both parameters and physical properties, and the metadata needed to describe them. This will not extend to methods for controlling in real-time or manipulating device parameters, e.g., in a networked control environment. A standard method will be provided to map controllable parameters to existing control endpoints, specifically endpoints associated with the control protocols defined in ANSI E1.11 (DMX512), ANSI E1.20 (RDM), and/or ANSI E1.31 (sACN). Future control protocols may utilize this format natively for real-time control.

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

271 Cadman Plaza, P.O. Box 23200, Brooklyn, NY 11202-3200 [www.esta.org](http://www.esta.org)

Contact: Karl Ruling; [standards@esta.org](mailto:standards@esta.org)

**Revision**

BSR E1.41-202x, Recommendations for the Measurement of Entertainment Luminaires Utilizing Solid State Light Sources (revision of ANSI E1.41-2016)

Stakeholders: Entertainment luminaire manufacturers, specifiers, buyers, sellers, and users.

Project Need: New lighting regulations, particularly in the EU, require more measurements and reporting, for example, for efficacy. The current standard does not give enough guidance on these new concerns.

Scope: This standard is intended to be used for the presentation of photometric data for luminaires employing solid-state light sources used in the entertainment and performance industries. This standard defines photometric data that may be presented on documents purporting to accurately describe the photometric performance of these luminaires when producing both white and colored light.

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

5001 East Philadelphia Street, Ontario, CA 91761 <https://www.iapmostandards.org>

Contact: Kyle Thompson; [standards@iapmostandards.org](mailto:standards@iapmostandards.org)

**Revision**

BSR/CSA B45.5/IAPMO Z124-202x, Plastic Plumbing Fixtures (revision of ANSI/CSA B45.5/IAPMO Z124-2016)

Stakeholders: Manufacturers, users, inspectors, distributors, designers, and contractors.

Project Need: Revision to expand scope to include laboratory sinks, update referenced standards, remove height requirement for shower base thresholds, clarify definitions, and add installation instructions for wall-mounted fixtures.

Scope: This Standard covers plastic plumbing fixtures and specifies requirements for materials, construction, performance, testing, and markings. This Standard covers the following plumbing fixtures: (a) bathtubs and combination tub/showers; (b) lavatories; (c) shower bases and shower stalls; (d) sinks: (i) bar sinks; (ii) kitchen sinks; (iii) laundry sinks; and (iv) service sinks; (e) urinals; and (f) water closets.

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

5001 East Philadelphia Street, Ontario, CA 91761 <https://www.iapmostandards.org>

Contact: Kyle Thompson; [standards@iapmostandards.org](mailto:standards@iapmostandards.org)

**Revision**

BSR/IAPMO Z600/CSA B125.5-202x, Flexible water connectors with excess flow shut-off devices (revision of ANSI/IAPMO Z600/CSA B125.5-2011 (R2016))

Stakeholders: Manufacturers, users, inspectors, distributors, designers, and contractors.

Project Need: Revision to update referenced standards.

Scope: This Standard specifies test methods and markings for flexible water connectors with excess flow shut-off devices. The devices covered by this Standard are intended to be used in water supply systems under (a) continuous pressure in accessible locations; or (b) intermittent pressure in recreational vehicles.

**NEMA (ASC C8) (National Electrical Manufacturers Association)**

1300 North 17th Street, Suite 900, Arlington, VA 22209 [www.nema.org](http://www.nema.org)

Contact: Khaled Masri; [Khaled.Masri@nema.org](mailto:Khaled.Masri@nema.org)

***New Standard***

BSR ICEA S-130-760-202x, ICEA Standard for Broadband Twisted Pair Cable Filled and Unfilled, Polyolefin Insulated, Copper Conductor (new standard)

Stakeholders: Wires and cables manufacturers, utility companies.

Project Need: Introduce new product requirements.

Scope: The purpose of this Standard is to establish generic technical requirements that may be referenced by individual telecommunications cable specifications covering products intended for broadband outside plant use. The parameters covered provide material, construction, and performance requirements that are applicable to filled, polyolefin-insulated and -jacketed cables of limited pair counts, including a variety of shield and jacket combinations.

**NEMA (ASC C8) (National Electrical Manufacturers Association)**

1300 North 17th Street, Suite 900, Arlington, VA 22209 [www.nema.org](http://www.nema.org)

Contact: Khaled Masri; [Khaled.Masri@nema.org](mailto:Khaled.Masri@nema.org)

***Revision***

BSR NEMA WC 71/ICEA S-96-659-202x, Standard for Non-Shielded Cables Rated 2001- 5000 Volts for Use in the Distribution of Electric Energy (revision of ANSI/NEMA WC 71-1999/ICEA S-96-659-2014)

Stakeholders: Wires and cables manufacturers, utility companies.

Project Need: Introduce new product requirements .

Scope: This standard applies to materials, constructions, and testing of 2001- through 5000-volt nonshielded power cables having insulations of crosslinked polyethylene (both XLPE and TR-XLPE) or crosslinked rubber (EPR) of the types shown in Section 4 of the standard. They are intended for use for the distribution of electrical energy in normal conditions of service in indoors, outdoors, aerial, underground, or subsea installations.

**NEMA (ASC Z535) (National Electrical Manufacturers Association)**

1300 North 17th Street, Suite 900, Rosslyn, VA 22209 [www.nema.org](http://www.nema.org)

Contact: Paul Orr; [orrpaul@aol.com](mailto:orrpaul@aol.com)

***Revision***

BSR Z535.1-202x, Standard for Safety Colors (revision of ANSI Z535.1-2017)

Stakeholders: Manufacturers of signs, labels, tools.

Project Need: Routine revision.

Scope: Safety colors are often used to supplement a word message or safety symbol. The standardization of safety colors assists with the efficient development of safety information as well as assisting viewers in recognizing information as being related to safety.

**NEMA (ASC Z535) (National Electrical Manufacturers Association)**

1300 North 17th Street, Suite 900, Rosslyn, VA 22209 [www.nema.org](http://www.nema.org)

Contact: Paul Orr; [orrpaul@aol.com](mailto:orrpaul@aol.com)

**Revision**

BSR Z535.2-202x, Standard for Environmental and Facility Safety Signs (revision of ANSI Z535.2-2011 (R2017))

Stakeholders: Producers of signage, facility planners, Government agencies.

Project Need: Routine revision.

Scope: This standard sets forth a system for presenting safety and accident prevention information through environmental and facility safety signs. It consolidates a number of previous graphic approaches into a common design direction selected to present hazard information in an orderly and visually consistent manner.

**NEMA (ASC Z535) (National Electrical Manufacturers Association)**

1300 North 17th Street, Suite 900, Rosslyn, VA 22209 [www.nema.org](http://www.nema.org)

Contact: Paul Orr; [orrpaul@aol.com](mailto:orrpaul@aol.com)

**Revision**

BSR Z535.3-202x, Criteria for Safety Symbols (revision of ANSI Z535.3-2011 (R2017))

Stakeholders: Makers of signage, labels, Instruction manuals, tool manufacturers.

Project Need: Routine revision.

Scope: This standard provides general criteria for the design, evaluation, and use of safety symbols to identify and warn against specific hazards and to provide information to avoid personal injury.

**NEMA (ASC Z535) (National Electrical Manufacturers Association)**

1300 North 17th Street, Suite 900, Rosslyn, VA 22209 [www.nema.org](http://www.nema.org)

Contact: Paul Orr; [orrpaul@aol.com](mailto:orrpaul@aol.com)

**Revision**

BSR Z535.4-202x, Product Safety Signs and Labels (revision of ANSI Z535.4-2011 (R2017))

Stakeholders: Makers of safety signs and labels, tool manufacturers, appliance manufacturers.

Project Need: Routine revision.

Scope: This standard sets forth requirements for the design, application, use, and placement of safety signs and labels on a wide variety of products.

**NEMA (ASC Z535) (National Electrical Manufacturers Association)**

1300 North 17th Street, Suite 900, Rosslyn, VA 22209 [www.nema.org](http://www.nema.org)

Contact: Paul Orr; [orrpaul@aol.com](mailto:orrpaul@aol.com)

**Revision**

BSR Z535.5-202x, Safety Tags and Barricade Tapes (for Temporary Hazards) (revision of ANSI Z535.5-2011 (R2017))

Stakeholders: Construction companies, Facility operators and designers, Sign and label makers.

Project Need: Routine revision.

Scope: This standard sets forth requirements for the design, application, and use of safety tags and barricade tapes for temporary hazards. They shall be used only until the identified hazard is eliminated, or the hazardous operation is completed. For example, a safety tag would be appropriate for use during lock-out/tag-out procedures or on a damaged tool until it can be properly removed from the work area. Barricade tape would be suitable to mark an area affected by a chemical spill or an open and temporary trench.

**NEMA (ASC Z535) (National Electrical Manufacturers Association)**

1300 North 17th Street, Suite 900, Rosslyn, VA 22209 [www.nema.org](http://www.nema.org)

Contact: Paul Orr; [orrpaul@aol.com](mailto:orrpaul@aol.com)

**Revision**

BSR Z535.6-202x, Product Safety Information in Product Manuals, Instructions and Other Collateral Materials (revision of ANSI Z535.6-2011 (R2017))

Stakeholders: Tool manufacturers, appliance manufacturers, furniture manufacturers, instruction manual developers.

Project Need: Routine revision.

Scope: This standard sets forth requirements for the design and location of product safety messages in collateral materials for a wide variety of products.

**NFPA (National Fire Protection Association)**

One Batterymarch Park, Quincy, MA 02169 [www.nfpa.org](http://www.nfpa.org)

Contact: Dawn Michele Bellis; [dbellis@nfpa.org](mailto:dbellis@nfpa.org)

**Revision**

BSR/NFPA 33-202x, Standard for Spray Application Using Flammable or Combustible Materials (revision of ANSI/NFPA 33-2021)

Stakeholders: Manufacturers, users, installers/maintainers, labor, enforcing authorities, insurance, consumers, special experts, and research and testing.

Project Need: Public interest and need.

Scope: The risk to life and property because of the fire and explosion hazards of spray application of flammable and combustible materials varies depending on the arrangement and operation of the particular process and on the nature of the material being sprayed. The principal hazards addressed in this standard are those of the materials being sprayed: flammable and combustible liquids and combustible powders, as well as their vapors, mists, and dusts, and the highly combustible deposits and residues that result from their use. Properly designed, constructed, and ventilated spray areas are able to confine and control combustible residues, dusts, or deposits and to remove vapors and mists from the spray area and discharge them to a safe location, thus reducing the likelihood of fire or explosion. Likewise, accumulations of overspray residues, some of which are not only highly combustible but also subject to spontaneous ignition, can be controlled. The control of sources of ignition in spray areas and in areas where flammable and combustible liquids or powders are handled, together with constant supervision and maintenance, is essential to safe spray application operations.

**NFPA (National Fire Protection Association)**

One Batterymarch Park, Quincy, MA 02169 [www.nfpa.org](http://www.nfpa.org)

Contact: Dawn Michele Bellis; [dbellis@nfpa.org](mailto:dbellis@nfpa.org)

**Revision**

BSR/NFPA 34-202x, Standard for Dipping, Coating, and Printing Processes Using Flammable or Combustible Liquids (revision of ANSI/NFPA 34-2021)

Stakeholders: Manufacturers, users, installers/maintainers, labor, enforcing authorities, insurance, consumers, special experts, and research and testing.

Project Need: Public interest and need.

Scope: This standard shall apply to dipping, roll coating, flow coating, curtain coating, printing, cleaning, and similar processes, referred to as “coating processes” or “processes” in this standard, in which articles or materials are passed through tanks, vats, or containers, or passed over rollers, drums, or other process equipment that contain flammable or combustible liquids. Where a requirement applies to a particular process, the name of that process will be stated. This standard shall also apply to cleaning processes that utilize a solvent vapor, such as vapor degreasing processes. This standard shall also apply to processes that use water-borne, water-based, and water-reducible materials that contain flammable or combustible liquids or that produce combustible deposits or residues. This standard shall not apply to processes that use only noncombustible liquids for processing and cleaning. This standard shall also not apply to processes that use only Class IIIB liquids for processing or cleaning, provided the liquids or mixtures thereof maintain their Class IIIB classification at their point of use.

**NFPA (National Fire Protection Association)**

One Batterymarch Park, Quincy, MA 02169 [www.nfpa.org](http://www.nfpa.org)

Contact: Dawn Michele Bellis; [dbellis@nfpa.org](mailto:dbellis@nfpa.org)

**Revision**

BSR/NFPA 35-202x, Standard for the Manufacture of Organic Coatings (revision of ANSI/NFPA 35-2021)

Stakeholders: Manufacturers, users, installers/maintainers, labor, enforcing authorities, insurance, consumers, special experts, and research and testing.

Project Need: Public interest and need.

Scope: This standard shall apply to facilities that use flammable and combustible liquids, as defined in this standard, to manufacture organic coatings for automotive, industrial, institutional, household, marine, printing, transportation, and other applications. This standard shall not apply to the following:

(1)\*Operations involving the use or application of coating materials

(1) See NFPA33, Standard for Spray Application Using Flammable or Combustible Materials; NFPA 34, Standard for Dipping, Coating, and Printing Processes Using Flammable or Combustible Liquids; and Chapter 18 of NFPA 30, Flammable and Combustible Liquids Code, for information on the use and application of these coatings.

(2)\*Storage of organic coatings in locations other than the manufacturing facility

(2) See Chapters 9 through 16 of NFPA 30, Flammable and Combustible Liquids Code, for information on storage of these coatings at other locations.

**NFPA (National Fire Protection Association)**

One Batterymarch Park, Quincy, MA 02169 [www.nfpa.org](http://www.nfpa.org)

Contact: Dawn Michele Bellis; [dbellis@nfpa.org](mailto:dbellis@nfpa.org)

**Revision**

BSR/NFPA 36-202x, Standard for Solvent Extraction Plants (revision of ANSI/NFPA 36-2021)

Stakeholders: Manufacturers, users, installers/maintainers, labor, enforcing authorities, insurance, consumers, special experts, and research and testing.

Project Need: Public interest and need.

Scope: This standard shall apply to the commercial scale extraction processing of animal and vegetable oils and fats by the use of Class I flammable hydrocarbon liquids, referred to in this standard as “solvents.” Extraction processes that use flammable liquids but are not within the scope of NFPA 36 might be within the scope of NFPA 30, Flammable and Combustible Liquids Code, and the user is referred to that document for guidance. (See Chapter 3 for definitions of terms, including “extraction process” and “solvent.”) This standard shall also apply to any equipment and buildings that are located within 30 m (100 ft) of the extraction process. This standard shall also apply to the unloading, storage and handling of solvents, regardless of distance from the extraction process. This standard shall also apply to the means by which material to be extracted is conveyed from the preparation process to the extraction process. This standard shall also apply to the means by which extracted desolventized solids and oils are conveyed from the extraction process.

**NFPA (National Fire Protection Association)**

One Batterymarch Park, Quincy, MA 02169 [www.nfpa.org](http://www.nfpa.org)

Contact: Dawn Michele Bellis; [dbellis@nfpa.org](mailto:dbellis@nfpa.org)

**Revision**

BSR/NFPA 37-202x, Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines (revision of ANSI/NFPA 37-2021)

Stakeholders: Manufacturers, users, installers/maintainers, labor, enforcing authorities, insurance, consumers, special experts, and research and testing.

Project Need: Public interest and need.

Scope: This standard establishes criteria for minimizing the hazards of fire during the installation and operation of stationary combustion engines and gas turbines.

**NFPA (National Fire Protection Association)**

One Batterymarch Park, Quincy, MA 02169 [www.nfpa.org](http://www.nfpa.org)

Contact: Dawn Michele Bellis; [dbellis@nfpa.org](mailto:dbellis@nfpa.org)

**Revision**

BSR/NFPA 53-202x, Recommended Practice on Materials, Equipment, and Systems Used in Oxygen-Enriched Atmospheres (revision of ANSI/NFPA 53-2021)

Stakeholders: Manufacturers, users, installers/maintainers, labor, enforcing authorities, insurance, consumers, special experts, and research and testing.

Project Need: Public interest and need.

Scope: This document establishes recommended minimum criteria for the safe use of oxygen (liquid/gaseous) and the design of systems for use in oxygen and oxygen-enriched atmospheres (OEAs).

**NFPA (National Fire Protection Association)**

One Batterymarch Park, Quincy, MA 02169 [www.nfpa.org](http://www.nfpa.org)

Contact: Dawn Michele Bellis; [dbellis@nfpa.org](mailto:dbellis@nfpa.org)

**Revision**

BSR/NFPA 79-202x, Electrical Standard for Industrial Machinery (revision of ANSI/NFPA 79-2021)

Stakeholders: Manufacturers, users, installers/maintainers, labor, enforcing authorities, insurance, consumers, special experts, and research and testing.

Project Need: Public interest and need.

Scope: In this standard, the term “electrical” includes both electrical and electronic equipment. Requirements that apply only to electronic equipment are so identified. The general terms “machine” and “machinery” as used throughout this standard mean “industrial machinery”. See Annex C for examples of industrial machines covered by this standard. The publications referenced throughout Annex A are listed in Annex J with their appropriate dates of issue. The provisions of this standard shall apply to the electrical/electronic equipment, apparatus, or systems of industrial machines operating from a nominal voltage of 600 volts or less, and commencing at the point of connection of the supply to the electrical equipment of the machine. This standard does not include the additional requirements for machines intended for use in hazardous (classified) locations. For additional requirements for machines intended to be used in hazardous (classified) areas, see NFPA 70, Article 500.

**NFPA (National Fire Protection Association)**

One Batterymarch Park, Quincy, MA 02169 [www.nfpa.org](http://www.nfpa.org)

Contact: Dawn Michele Bellis; [dbellis@nfpa.org](mailto:dbellis@nfpa.org)

**Revision**

BSR/NFPA 87-202x, Standard for Fluid Heaters (revision of ANSI/NFPA 87-2021)

Stakeholders: Manufacturers, users, installers/maintainers, labor, enforcing authorities, insurance, consumers, special experts, and research and testing.

Project Need: Public interest and need.

Scope: Explosions and fires in fuel-fired and electric fluid heaters constitute a loss potential in life, property, and production. This recommended practice is a compilation of guidelines, rules, and methods applicable to the safe operation of this type of equipment. Conditions and regulations that are not covered in this standard - such as toxic vapors; hazardous materials; noise levels; heat stress; and local, state, and federal regulations (EPA and OSHA) - should be considered in the design and operation of fluid heaters. Most causes of failures can be traced to human error. The most significant failures include inadequate training of operators, lack of proper maintenance, and improper application of equipment. Users and designers must utilize engineering skill to bring together that proper combination of controls and training necessary for the safe operation of equipment. This recommended practice classifies fluid heaters as Class F fluid heaters. Class F fluid heaters operate at approximately atmospheric pressure and present a potential explosion or fire hazard that could be occasioned by the overheating and/or release of flammable or combustible fluids from the tubing that carries them through the heating chamber.

**NFPA (National Fire Protection Association)**

One Batterymarch Park, Quincy, MA 02169 [www.nfpa.org](http://www.nfpa.org)

Contact: Dawn Michele Bellis; [dbellis@nfpa.org](mailto:dbellis@nfpa.org)

**Revision**

BSR/NFPA 170-202x, Standard for Fire Safety and Emergency Symbols (revision of ANSI/NFPA 170-2021)

Stakeholders: Manufacturers, users, installers/maintainers, labor, enforcing authorities, insurance, consumers, special experts, and research and testing.

Project Need: Public interest and need.

Scope: This standard presents symbols used for fire safety, emergency, and associated hazards.

**NFPA (National Fire Protection Association)**

One Batterymarch Park, Quincy, MA 02169 [www.nfpa.org](http://www.nfpa.org)

Contact: Dawn Michele Bellis; [dbellis@nfpa.org](mailto:dbellis@nfpa.org)

**Revision**

BSR/NFPA 418-202x, Standard for Heliports (revision of ANSI/NFPA 418-2021)

Stakeholders: Manufacturers, users, installers/maintainers, labor, enforcing authorities, insurance, consumers, special experts, and research and testing.

Project Need: Public interest and need.

Scope: This standard specifies the minimum requirements for fire protection for heliports and rooftop hangars. This standard does not apply to ground-level helicopter hangars. All hangars not covered by this standard are required to comply with NFPA 409, Standard on Aircraft Hangars. Temporary landing sites and emergency evacuation facilities are outside the scope of this standard.

**NFPA (National Fire Protection Association)**

One Batterymarch Park, Quincy, MA 02169 [www.nfpa.org](http://www.nfpa.org)

Contact: Dawn Michele Bellis; [dbellis@nfpa.org](mailto:dbellis@nfpa.org)

**Revision**

BSR/NFPA 520-202x, Standard on Subterranean Spaces (revision of ANSI/NFPA 520-2021)

Stakeholders: Manufacturers, users, installers/maintainers, labor, enforcing authorities, insurance, consumers, special experts, and research and testing.

Project Need: Public interest and need.

Scope: This standard's primary focus is to safeguard life and property against fire and related hazards. Other safety concerns such as structural adequacy, plumbing, and mechanical system design, including environmental conditions, are beyond the scope of this standard. These issues are considered important, and additional requirements are expected to be enforced by the authority having jurisdiction. Where no authority having jurisdiction exists, the owner or operator should include due consideration of these items. This standard addresses the safeguarding of life and property against fire, explosion, and related hazards associated with developed subterranean spaces. This standard does not cover the following types of subterranean spaces: (1) Tourist caverns, (2) Wine storage caverns, (3) Gas and oil storage reservoirs, (4) Hazardous waste repositories, (5) Utility installations such as pump stations, (6) Working mines, (7) Transportation and pedestrian tunnels, (8) Aboveground buildings with belowground stories, and (9) Cut and cover underground structures specifically addressed in the building code.

**NFPA (National Fire Protection Association)**

One Batterymarch Park, Quincy, MA 02169 [www.nfpa.org](http://www.nfpa.org)

Contact: Dawn Michele Bellis; [dbellis@nfpa.org](mailto:dbellis@nfpa.org)

**Revision**

BSR/NFPA 704-202x, Standard System for the Identification of the Hazards of Materials for Emergency Response (revision of ANSI/NFPA 704-2022)

Stakeholders: Manufacturers, users, installers/maintainers, labor, enforcing authorities, insurance, consumers, special experts, and research and testing.

Project Need: Public interest and need.

Scope: This standard shall address the health, flammability, instability, and related hazards that are presented by short-term acute exposure to a material under conditions of fire, spill, or similar emergencies.

**OIX (Open-IX Association)**

340 South Lemon Avenue #7988, Walnut, CA 91789 <http://www.open-ix.org>

Contact: Shawna Bong; [finance@open-ix.org](mailto:finance@open-ix.org)

***New Standard***

BSR/OIX 3-202x, Edge Technical Standard (new standard)

Stakeholders: Manufacturers, network operators, edge data-center operators, edge data-center customers.

Project Need: Open-IX has developed the Edge standard to help overcome inconsistencies in connectivity, resiliency, and security in the Internet, by promoting uniform specifications for data transfer and physical connectivity and reliability.

Scope: The Open-IX Edge Standard ("OIX-3" or "Edge Standard") establishes the technical criteria for Edge locations to be certified. The Edge Standard consists of both physical and operational requirements. Among the physical requirements, the Edge Standard sets forth, notably, the minimum level of resiliency and redundancy with respect to utility feeds, transformers, UPS, electrical distribution infrastructure, back-up generators and cooling capacity; criteria for fire protection, water sources, building security, and remote site management. The standard is divided into 5 sub-categories (XS, S, M, L, XL) relating to rack capacity. Edge compute enclosures can meet or fail the specific requirements for each sub-category.

**TIA (Telecommunications Industry Association)**

1320 North Courthouse Road, Suite 200, Arlington, VA 22201 [www.tiaonline.org](http://www.tiaonline.org)

Contact: Teesha Jenkins; [standards-process@tiaonline.org](mailto:standards-process@tiaonline.org)

***New National Adoption***

BSR/TIA 455-203-B-202x, FOTP-203IEC-61280-1-4 - Fibre Optic Communication Subsystem Test Procedures - Part 1-4: General Communication Subsystems - Light Source Encircled Flux Measurement Method (identical national adoption of IEC-61280-1-4 and revision of ANSI/TIA 455-203-A-2009 (R2014))

Stakeholders: Users and manufacturers of telecom, datacom.

Project Need: Adopt identical ISO or IEC Standard and revise current standard.

Scope: Adopt IEC 61280-1-4 Fibre Optic Communication Subsystem Test Procedures - Part 1-4: General Communication Subsystems - Light Source Encircled Flux Measurement Method. This FOTP is intended to characterize the encircled flux of two types of light sources: transmission light sources, which are usually coherent and substantially under-excite the mode volume of a multimode fiber, and measurement light sources, which are incoherent and must excite most of the mode volume of a multimode fiber.

**TIA (Telecommunications Industry Association)**

1320 North Courthouse Road, Suite 200, Arlington, VA 22201 [www.tiaonline.org](http://www.tiaonline.org)

Contact: Teesha Jenkins; [standards-process@tiaonline.org](mailto:standards-process@tiaonline.org)

***Reaffirmation***

BSR/TIA 455-204-A-2013 (R202x), FOTP-204 - Measurement of Bandwidth on Multimode Fiber (reaffirm a national adoption ANSI/TIA 455-204-A-2013)

Stakeholders: Users and manufacturers of telecom, datacom.

Project Need: Reaffirm standard.

Scope: Reaffirm ANSI/TIA 55-204-A-2013, which is the adoption of the current IEC 60793-1-41, rev 3.0, 2010. This FOTP is intended to characterize the encircled flux of two types of light sources: transmission light sources, which are usually coherent and substantially under-excite the mode volume of a multimode fiber, and measurement light sources, which are incoherent and must excite most of the mode volume of a multimode fiber.

**UL (Underwriters Laboratories)**

171 Nepean Street, Suite 400, Ottawa, ON K2P 0B4 Canada <https://ul.org/>

Contact: Laura Werner; [laura.werner@ul.org](mailto:laura.werner@ul.org)

***New Standard***

BSR/UL 536-202x, Standard for Safety for Flexible Metallic Hose (new standard)

Stakeholders: Manufacturers of Flexible Metallic Hoses which falls under the scope of this standard.

Project Need: UL intends to create a bi-national version of UL 536 that will become an ANS and an NSC. It will supersede UL 536 Ed. 11 and ULC/ORD-C536.

Scope: This standard covers flexible metallic hose supplied with fittings on each end that facilitate connection without twisting the hose. They have a corrugated metal core or a nonmetallic inner core which are covered with a stainless steel braid. They have a nominal inside diameter of not more than 4 in (101 mm) intended for use in piping systems carrying compressed gases, such as anhydrous ammonia, and combustible fuel gases such as natural gas, liquefied petroleum gas, propane, and butane, at pressures not exceeding 500 psig (3.45 MPa) and temperatures not greater than 450 °F (232 °C) or lower than -40 °F (-40 °C). Flexible metallic hose is intended for aboveground applications and for underground applications not involving contact with soil. This standard does not apply to hose connectors used in natural gas processing plants, refineries, petrochemical plants, marine terminals, or gas-transmission and distribution-piping systems. This standard does not include hoses covered under ANSI Z21.24, UL 569, UL 21, UL 971A, UL 2039, or UL 330.

**VITA (VMEbus International Trade Association (VITA))**

929 W. Portobello Avenue, Mesa, AZ 85210 [www.vita.com](http://www.vita.com)

Contact: Jing Kwok; [jing.kwok@vita.com](mailto:jing.kwok@vita.com)

***Revision***

BSR/VITA 48.0-202x, Mechanical Specification for Microcomputers using Ruggedized Enhanced Design Implementation (REDI) (revision of ANSI/VITA 48.0-2020)

Stakeholders: Critical embedded manufacturers, system integrators, and users

Project Need: Standardize advanced cooling implementation methods for Eurocard-style modules.

Scope: This standard defines a mechanical implementation for Plug-In Modules. Two types of Plug-In Modules are defined: Type 1 and Type 2. Both Type 1 and Type 2 Plug-In Modules take advantage of increased slot pitch to provide enhanced thermal performance and increased structural durability. Type 1 units support Two-Level Maintenance while Type 2 units do not. This revision adds a 100-mm length and a 1.2-inch pitch.

**VITA (VMEbus International Trade Association (VITA))**

929 W. Portobello Avenue, Mesa, AZ 85210 [www.vita.com](http://www.vita.com)

Contact: Jing Kwok; [jing.kwok@vita.com](mailto:jing.kwok@vita.com)

***Revision***

BSR/VITA 48.2-202x, Mechanical Specification for Microcomputers using REDI Conduction Cooling Applied to VITA 46 (revision of ANSI/VITA 48.2-2020)

Stakeholders: Manufacturers, system integrators, end users of critical embedded systems

Project Need: Develop standard implementation for advanced conduction cooling for critical embedded modules.

Scope: This Standard defines the mechanical requirements that are needed to ensure the mechanical interchangeability of conduction cooled 3U and 6U Plug-In Modules and defines the features required to achieve Two-Level Maintenance compatibility. This revision adds a 100-mm length and a 1.2-inch pitch.

**VITA (VMEbus International Trade Association (VITA))**

929 W. Portobello Avenue, Mesa, AZ 85210 [www.vita.com](http://www.vita.com)

Contact: Jing Kwok; [jing.kwok@vita.com](mailto:jing.kwok@vita.com)

**Revision**

BSR/VITA 65.0-202x, OpenVPX System Standard (revision of ANSI/VITA 65.0-2019)

Stakeholders: Manufacturers, suppliers, and users of modular embedded computers.

Project Need: Add new profiles to ANSI/VITA 65.

Scope: The OpenVPX System Standard was created to bring versatile system architectural solutions to the VPX market. Based on the extremely flexible VPX family of standards, the OpenVPX standard uses Plug-In Module mechanical, connectors, thermal, communications protocols, utility, and power definitions provided by specific VITA standards to define a series of Slot, Backplane, Module, and Standard Development Chassis Profiles. This revision adds additional Slot, Backplane, and Module Profiles; use of VITA 46.30 and VITA 46.31 connectors for higher system throughput; and additional protocols.

**VITA (VMEbus International Trade Association (VITA))**

929 W. Portobello Avenue, Mesa, AZ 85210 [www.vita.com](http://www.vita.com)

Contact: Jing Kwok; [jing.kwok@vita.com](mailto:jing.kwok@vita.com)

**Revision**

BSR/VITA 65.1-202x, OpenVPX System Standard - Profile Tables (revision of ANSI/VITA 65.1-2019)

Stakeholders: Manufacturers, suppliers, and users of modular embedded computers.

Project Need: Add new profiles to ANSI/VITA 65.1.

Scope: This standard documents variations of Slot, Backplane, and Modules Profiles. As part of the Slot Profile Description, there are also some Connector Modules defined. This document is primarily tables which are referenced by VITA 65.0. This revision adds additional Slot, Backplane, and Module Profiles; use of VITA 46.30 and VITA 46.31 connectors for higher system throughput; and additional protocols.

# 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: April 4, 2021

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

1791 Tullie Circle, NE, Atlanta, GA 30329 p: (678) 539-1214 w: [www.ashrae.org](http://www.ashrae.org)

#### Addenda

BSR/ASHRAE Addendum 55a-202x, Thermal Environmental Conditions for Human Occupancy (addenda to ANSI/ASHRAE Standard 55-2020)

Proposed Addendum a adds a new method for the assessment of the local thermal discomfort with vertical air temperature gradient between the head level and ankle level. Recent studies found that the current limits of 3°C for sitting and 4°C for standing occupants between head and feet are unnecessarily strict. These limits may impede the application of thermally stratified systems that are believed to be more energy efficient and associated with better ventilation effectiveness. The new method applies to occupants with clothing insulation less than 0.7 clo and metabolic rate less than 1.3 met, complying with the entire Section 5.3.3, "Local Thermal Discomfort." The addendum was added using mandatory language in the body of the Standard. Informative Appendix I has been updated to take into account the new method.

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

Send comments (with optional copy to [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.)

1791 Tullie Circle, NE, Atlanta, GA 30329 p: (678) 539-1214 w: [www.ashrae.org](http://www.ashrae.org)

#### Addenda

BSR/ASHRAE Addendum 55b-202x, Thermal Environmental Conditions for Human Occupancy (addenda to ANSI/ASHRAE Standard 55-2020)

Addendum b to Standard 55-2020 proposes to change the upper metabolic rate limit for the Standard from 2 to 4. The change is proposed to bring the Standard into alignment with ISO Standard 7730. The change is also motivated by consistent recent research that supports the applicability of Standard 55 at this metabolic level.

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

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

## Comment Deadline: April 4, 2021

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

1791 Tullie Circle, NE, Atlanta, GA 30329 p: (678) 539-1214 w: [www.ashrae.org](http://www.ashrae.org)

#### **Addenda**

BSR/ASHRAE Addendum 55c-202x, Thermal Environmental Conditions for Human Occupancy (addenda to ANSI/ASHRAE Standard 55-2020)

Addendum c to Standard 55-2020 proposes to change the lower limit of average air speed when using the elevated air speed comfort zone method from 0.2 m/s to 0.1 m/s. The change is proposed to avoid the step change in the comfort zone that results from changing models at 0.2 m/s, from the PMV model to the SET model.

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

Send comments (with optional copy to [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 NW, Peachtree Corners, GA 30092 p: (678) 539-2114 w: [www.ashrae.org](http://www.ashrae.org)

#### **Addenda**

BSR/ASHRAE Addendum c to ANSI/ASHRAE Standard 188-202x, Legionellosis: Risk Management for Building Water Systems (addenda to ANSI/ASHRAE Standard 188-2018)

In this second public review, Sections 7.2.1d, 7.2.1e, and 7.5.1c have been revised based on comments received during the first public review period. SSPC 188 believes that the requirement to address the level of restrictions or obstructions that would increase cooling system temperatures to a point of increased risk of Legionella growth is unenforceable. However, the committee considers it important to address external airflow restrictions or obstructions when citing equipment, so the committee is revising both Sections 7.2.1d and 7.2.1e to better clarify the requirements. To maintain consistency with the text of Section 7.2.1, the wording of Section 7.5.1d has similarly been updated.

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

Send comments (with optional copy to [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.)**

1791 Tullie Circle, NE, Atlanta, GA 30329-2305 p: (404) 636-8400 w: [www.ashrae.org](http://www.ashrae.org)

#### **Addenda**

BSR/ASHRAE/IES Addendum aa to ANSI/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)

The primary purpose of this addendum is to adjust the SI fan power values in Appendix G to the appropriate number of significant figures.

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

Send comments (with optional copy to [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.)**

1791 Tullie Circle, NE, Atlanta, GA 30329-2305 p: (404) 636-8400 w: [www.ashrae.org](http://www.ashrae.org)

#### **Addenda**

BSR/ASHRAE/IES Addendum ac to ANSI/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)

This addendum provides a variety of updates to improve the lighting power and control requirements: (1) a new exception to the power and control requirements (Table 9.2.3.1) is proposed to support the use of germicidal ultra-violet lighting for room disinfection; (2) two existing exceptions are being removed and replaced with new power and control requirements (casino gaming areas and parking garage daylight transition lighting); (3) one exception is being removed due to limited/unclear applicability (lighting for photographic processes.) Additional changes to improve language are also made throughout.

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

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

## Comment Deadline: April 4, 2021

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

1791 Tullie Circle, NE, Atlanta, GA 30329-2305 p: (404) 636-8400 w: [www.ashrae.org](http://www.ashrae.org)

#### **Addenda**

BSR/ASHRAE/IES Addendum z to ANSI/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)

This proposal would revise Section 9.1.4 requirements for interior and exterior luminaires so that track lighting equipment is subject to a lower minimum wattage (10 W/lin-ft compared to 30 W/lin-ft).

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [standards.section@ashrae.org](mailto:standards.section@ashrae.org)

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

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 p: (212) 591-8489 w: [www.asme.org](http://www.asme.org)

#### **Revision**

BSR/ASME BPVC Section VIII-202x, Rules for Construction of Pressure Vessels (revision of ANSI/ASME BPVC Section VIII-2019)

This Section contains mandatory requirements, specific prohibitions, and nonmandatory guidance for pressure vessel materials, design, fabrication, examination, inspection, testing, certification, and pressure relief. The Code does not address all aspects of these activities, and those aspects which are not specifically addressed should not be considered prohibited.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Steven Rossi; [rossis@asme.org](mailto:rossis@asme.org)

### **NEMA (ASC C8) (National Electrical Manufacturers Association)**

1300 North 17th Street, Suite 900, Arlington, VA 22209 p: (571) 426-3226 w: [www.nema.org](http://www.nema.org)

#### **Revision**

BSR ICEA S-112-718-202x, Standard for Optical Fiber Cable for Placement in Sewer Environments (revision of ANSI/ICEA S-112-718-2013)

This Standard covers optical fiber communications cables intended for installation in underground sewers, specifically storm and sanitary sewers. Materials, construction, and performance requirements are included in this Standard, together with applicable test procedures. Additional applications-based considerations are discussed as well.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [khaled.masri@nema.org](mailto:khaled.masri@nema.org)

### **NSF (NSF International)**

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-3817 w: [www.nsf.org](http://www.nsf.org)

#### **Revision**

BSR/NSF 4-202x (i32r2), Commercial Cooking, Rethermalization, and Powered Hot Food Holding and Transportation Equipment (revision of ANSI/NSF 4-2019)

Equipment covered by this Standard includes, but is not limited to, ranges, ovens, fat/oil fryers, fat/oil filters, griddles, tilting griddle skillets, broilers, steam and pressure cookers, kettles, rotisseries, toasters, coffee makers and other hot-beverage makers, component water-heating equipment, proofing boxes and cabinets, hot-food holding equipment, rethermalization equipment, and hot-food transport cabinets.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Allan Rose; [arose@nsf.org](mailto:arose@nsf.org)

## Comment Deadline: April 4, 2021

### NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-3817 w: [www.nsf.org](http://www.nsf.org)

#### Revision

BSR/NSF 18-202x (i19r2), Manual Food and Beverage Dispensing Equipment (revision of ANSI/NSF 18-2016)

This Standard contains requirements for equipment and devices that manually dispense food or beverages, in bulk or in portions. The materials, design, and construction requirements of this Standard may also be applied to an item that is manufactured as a component of food and beverage dispensing equipment. This Standard does not apply to vending machines, dispensing freezers, or bulk milk-dispensing equipment covered by the scope of other NSF Standards.

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

Send comments (with optional copy to [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 p: (734) 827-6866 w: [www.nsf.org](http://www.nsf.org)

#### Revision

BSR/NSF 455-2-202x (i11r1), Good Manufacturing Practices for Dietary Supplements (revision of ANSI/NSF 455-2-2020)

This Standard is intended to define a standardized approach for auditing to determine the level of compliance of dietary supplement products to 21 CFR 111 Current Good Manufacturing Practices (GMPs) in Manufacturing, Packaging, Labeling, or Holding Operations for Dietary Supplements as well as incorporating additional retailer requirements. It refers to the requirements for GMP applicable to all dietary supplements. It will assist in the determination of adequate facilities and controls for dietary supplement manufacture with sufficient quality to ensure suitability for intended use.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Rachel Brooker; [rbrooker@nsf.org](mailto:rbrooker@nsf.org)

### NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-6866 w: [www.nsf.org](http://www.nsf.org)

#### Revision

BSR/NSF 455-2-202x (i12r1), Good Manufacturing Practices for Dietary Supplements (revision of ANSI/NSF 455-2-2020)

This Standard is intended to define a standardized approach for auditing to determine the level of compliance of dietary supplement products to 21 CFR 111 Current Good Manufacturing Practices (GMPs) in Manufacturing, Packaging, Labeling, or Holding Operations for Dietary Supplements as well as incorporating additional retailer requirements. It refers to the requirements for GMP applicable to all dietary supplements. It will assist in the determination of adequate facilities and controls for dietary supplement manufacture with sufficient quality to ensure suitability for intended use.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Rachel Brooker; [rbrooker@nsf.org](mailto:rbrooker@nsf.org)

### NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-6866 w: [www.nsf.org](http://www.nsf.org)

#### Revision

BSR/NSF 455-2-202x (i13r1), Good Manufacturing Practices for Dietary Supplements (revision of ANSI/NSF 455-2-2020)

This Standard is intended to define a standardized approach for auditing to determine the level of compliance of dietary supplement products to 21 CFR 111 Current Good Manufacturing Practices (GMPs) in Manufacturing, Packaging, Labeling, or Holding Operations for Dietary Supplements as well as incorporating additional retailer requirements. It refers to the requirements for GMP applicable to all dietary supplements. It will assist in the determination of adequate facilities and controls for dietary supplement manufacture with sufficient quality to ensure suitability for intended use.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Rachel Brooker; [rbrooker@nsf.org](mailto:rbrooker@nsf.org)

## Comment Deadline: April 4, 2021

### NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-6866 w: [www.nsf.org](http://www.nsf.org)

#### Revision

BSR/NSF 455-2-202x (i14r1), Good Manufacturing Practices for Dietary Supplements (revision of ANSI/NSF 455-2-2020)

This Standard is intended to define a standardized approach for auditing to determine the level of compliance of dietary supplement products to 21 CFR 111 Current Good Manufacturing Practices (GMPs) in Manufacturing, Packaging, Labeling, or Holding Operations for Dietary Supplements as well as incorporating additional retailer requirements. It refers to the requirements for GMP applicable to all dietary supplements. It will assist in the determination of adequate facilities and controls for dietary supplement manufacture with sufficient quality to ensure suitability for intended use.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Rachel Brooker; [rbrooker@nsf.org](mailto:rbrooker@nsf.org)

### NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-6866 w: [www.nsf.org](http://www.nsf.org)

#### Revision

BSR/NSF 455-2-202x (i15r1), Good Manufacturing Practices for Dietary Supplements (revision of ANSI/NSF 455-2-2020)

This Standard is intended to define a standardized approach for auditing to determine the level of compliance of dietary supplement products to 21 CFR 111 Current Good Manufacturing Practices (GMPs) in Manufacturing, Packaging, Labeling, or Holding Operations for Dietary Supplements as well as incorporating additional retailer requirements. It refers to the requirements for GMP applicable to all dietary supplements. It will assist in the determination of adequate facilities and controls for dietary supplement manufacture with sufficient quality to ensure suitability for intended use.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Rachel Brooker; [rbrooker@nsf.org](mailto:rbrooker@nsf.org)

### NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-6866 w: [www.nsf.org](http://www.nsf.org)

#### Revision

BSR/NSF 455-2-202x (i16r1), Good Manufacturing Practices for Dietary Supplements (revision of ANSI/NSF 455-2-2020)

This Standard is intended to define a standardized approach for auditing to determine the level of compliance of dietary supplement products to 21 CFR 111 Current Good Manufacturing Practices (GMPs) in Manufacturing, Packaging, Labeling, or Holding Operations for Dietary Supplements as well as incorporating additional retailer requirements. It refers to the requirements for GMP applicable to all dietary supplements. It will assist in the determination of adequate facilities and controls for dietary supplement manufacture with sufficient quality to ensure suitability for intended use.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Rachel Brooker; [rbrooker@nsf.org](mailto:rbrooker@nsf.org)

### NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-6866 w: [www.nsf.org](http://www.nsf.org)

#### Revision

BSR/NSF 455-2-202x (i17r1), Good Manufacturing Practices for Dietary Supplements (revision of ANSI/NSF 455-2-2020)

This Standard is intended to define a standardized approach for auditing to determine the level of compliance of dietary supplement products to 21 CFR 111 Current Good Manufacturing Practices (GMPs) in Manufacturing, Packaging, Labeling, or Holding Operations for Dietary Supplements as well as incorporating additional retailer requirements. It refers to the requirements for GMP applicable to all dietary supplements. It will assist in the determination of adequate facilities and controls for dietary supplement manufacture with sufficient quality to ensure suitability for intended use.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Rachel Brooker; [rbrooker@nsf.org](mailto:rbrooker@nsf.org)

## Comment Deadline: April 4, 2021

### NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-6866 w: [www.nsf.org](http://www.nsf.org)

#### Revision

BSR/NSF 455-2-202x (i18r1), Good Manufacturing Practices for Dietary Supplements (revision of ANSI/NSF 455-2-2020)

This Standard is intended to define a standardized approach for auditing to determine the level of compliance of dietary supplement products to 21 CFR 111 Current Good Manufacturing Practices (GMPs) in Manufacturing, Packaging, Labeling, or Holding Operations for Dietary Supplements as well as incorporating additional retailer requirements. It refers to the requirements for GMP applicable to all dietary supplements. It will assist in the determination of adequate facilities and controls for dietary supplement manufacture with sufficient quality to ensure suitability for intended use.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Rachel Brooker; [rbrooker@nsf.org](mailto:rbrooker@nsf.org)

### NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-6866 w: [www.nsf.org](http://www.nsf.org)

#### Revision

BSR/NSF 455-2-202x (i19r1), Good Manufacturing Practices for Dietary Supplements (revision of ANSI/NSF 455-2-2020)

This Standard is intended to define a standardized approach for auditing to determine the level of compliance of dietary supplement products to 21 CFR 111 Current Good Manufacturing Practices (GMPs) in Manufacturing, Packaging, Labeling, or Holding Operations for Dietary Supplements as well as incorporating additional retailer requirements. It refers to the requirements for GMP applicable to all dietary supplements. It will assist in the determination of adequate facilities and controls for dietary supplement manufacture with sufficient quality to ensure suitability for intended use.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Rachel Brooker; [rbrooker@nsf.org](mailto:rbrooker@nsf.org)

### NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-6866 w: [www.nsf.org](http://www.nsf.org)

#### Revision

BSR/NSF 455-2-202x (i20r1), Good Manufacturing Practices for Dietary Supplements (revision of ANSI/NSF 455-2-2020)

This Standard is intended to define a standardized approach for auditing to determine the level of compliance of dietary supplement products to 21 CFR 111 Current Good Manufacturing Practices (GMPs) in Manufacturing, Packaging, Labeling, or Holding Operations for Dietary Supplements as well as incorporating additional retailer requirements. It refers to the requirements for GMP applicable to all dietary supplements. It will assist in the determination of adequate facilities and controls for dietary supplement manufacture with sufficient quality to ensure suitability for intended use.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Rachel Brooker; [rbrooker@nsf.org](mailto:rbrooker@nsf.org)

### OPEI (Outdoor Power Equipment Institute)

1605 King Street, Alexandria, VA 22314 p: (703) 549-7600 w: [www.opei.org](http://www.opei.org)

#### Revision

BSR/OPEI B175.1-202x, (Standard) for Outdoor Power Equipment - Internal Combustion Engine-Powered Hand-Held Chain Saws - Safety and Environmental Requirements (revision of ANSI/OPEI B175.1-2012, ANSI/OPEI B175.1-2012/A1-2014)

The requirements of the standard apply to internal combustion engine-powered hand-held chain saws and replacement saw chains for use primarily in cutting wood. The purpose of this standard is to establish safety and environmental requirements for internal combustion engine-powered hand-held chain saws and replacement saw chains.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Greg Knott, [gknott@opei.org](mailto:gknott@opei.org)

## Comment Deadline: April 4, 2021

### UL (Underwriters Laboratories)

47173 Benicia Street, Fremont, CA 94538 p: (510) 319-4259 w: <https://ul.org/>

#### **Revision**

BSR/UL 147-202x, Standard for Safety for Hand-Held Torches for Fuel Gases (revision of ANSI/UL 147-2019)

The following topic is being proposed: (1) Revision to the Temperature Test.

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

Send comments (with optional copy to [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/Home/ProposalsDefault.aspx>

## Comment Deadline: April 19, 2021

### AAFS (American Academy of Forensic Sciences)

410 North 21st Street, Colorado Springs, CO 80904 p: (719) 453-1036 w: [www.aafs.org](http://www.aafs.org)

#### **New Standard**

BSR/ASB Std 153-202x, Standard Practices for Proficiency Testing for Forensic Toxicology Laboratories (new standard)

This document defines the minimum scope and frequency for proficiency testing for laboratories engaged in the following sub-disciplines: Postmortem forensic toxicology; human performance toxicology (e.g., drug-facilitated crimes, driving-under-the-influence of alcohol or drugs, breath alcohol); and general forensic toxicology (non-lethal poisonings or intoxications). This document is not intended to cover employment drug testing or court-ordered toxicology (e.g., probation and parole, drug courts, child services).

Single copy price: Free

Obtain an electronic copy from: Document and comments template can be viewed on the AAFS Standards Board website at:

<http://www.asbstandardsboard.org/notice-of-standard-development-and-coordination//>

Order from: [www.asbstandardsboard.org](http://www.asbstandardsboard.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [asb@aafs.org](mailto:asb@aafs.org)

### AGMA (American Gear Manufacturers Association)

1001 N Fairfax Street, 5th Floor, Alexandria, VA 22314-1587 p: (703) 684-0211 w: [www.agma.org](http://www.agma.org)

#### **New National Adoption**

BSR/AGMA ISO 1328-2-202x, Cylindrical gears - ISO system of flank tolerance classification - Part 2: Definitions and allowable values of double flank radial composite deviations (identical national adoption of ISO 1328-2:2020)

This document establishes a gear-tooth classification system relevant to double-flank radial composite deviations of individual cylindrical involute gears and sector gears. It specifies the appropriate definitions of gear-tooth deviations, the structure of the gear-tooth-flank classification system, and the allowable values of the gear-tooth deviations. It provides formulae to calculate tolerances for individual product gears when mated in double-flank contact with a master gear. Tolerance tables are not included.

Single copy price: \$160.00

Obtain an electronic copy from: [tech@agma.org](mailto:tech@agma.org)

Order from: [tech@agma.org](mailto:tech@agma.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Amir Aboutaleb; [aboutaleb@agma.org](mailto:aboutaleb@agma.org)

## Comment Deadline: April 19, 2021

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

180 Technology Parkway NW, Peachtree Corners, GA 30092 p: (678) 539-2114 w: [www.ashrae.org](http://www.ashrae.org)

#### **Addenda**

BSR/ASHRAE Addendum e to BSR/ASHRAE Standard 15-202x, Safety Standard for Refrigeration Systems (addenda to ANSI/ASHRAE Standard 15-2019)

This addendum revises requirements related to refrigerant piping. The proposed requirements address many topics related to design, installation, location, and testing of refrigerant piping. In several cases, there is more than one compliance path to address the varying needs of different refrigerating system applications on vastly different scales (such as building type, occupancy type, and so on). Effort has been made to construct the requirements with format and terminology that is consistent with building codes.

Single copy price: \$35.00

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

Order from: [standards.section@ashrae.org](mailto:standards.section@ashrae.org)

Send comments (with optional copy to [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.)**

1791 Tullie Circle, NE, Atlanta, GA 30329-2305 p: (404) 636-8400 w: [www.ashrae.org](http://www.ashrae.org)

#### **Addenda**

BSR/ASHRAE/IES Addendum ab to ANSI/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)

This addendum proposes changes to Section G3.1.1 to help clarify the process of selecting baseline HVAC systems for different building types using the Performance Rating Method (PRM).

Single copy price: \$35.00

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

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

### **ASSP (ASC A10) (American Society of Safety Professionals)**

520 N. Northwest Highway, Park Ridge, IL 60068 p: (847) 768-3411 w: [www.assp.org](http://www.assp.org)

#### **Revision**

BSR/ASSP A10.38-202X, Basic Elements of an Employer's Program to Provide a Safe and Healthful Work Environment on Construction and Demolition Sites (revision and redesignation of ANSI/ASSE A10.38-2013)

This standard establishes the minimum elements of a program for protecting the safety and health of employees involved in construction and demolition activities.

Single copy price: \$100.00

Obtain an electronic copy from: [TFisher@ASSP.Org](mailto:TFisher@ASSP.Org)

Order from: Tim Fisher; [tfisher@assp.org](mailto:tfisher@assp.org)

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

## Comment Deadline: April 19, 2021

### ASSP (Safety) (American Society of Safety Professionals)

520 N. Northwest Highway, Park Ridge, IL 60068 p: (847) 768-3475 w: [www.assp.org](http://www.assp.org)

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

BSR/ASSP Z459.1-202x, Safety Requirements for Rope Access Systems (new standard)

This standard sets forth accepted practices for rope access work. It is applicable for use in any environment where ropes are suspended from or connected to a structure or natural feature and used as the primary means of access, egress, or support and as the primary means of secondary protection against a fall. This standard is not intended to apply to recreational use of ropes or to methods used by professional emergency response personnel, although persons engaged in such activities may benefit from the advice, principles, and practices in this standard. This is the same project as the originally proposed Z359.8 standard but the committee decided to change the numbering.

Single copy price: \$110.00

Obtain an electronic copy from: [LBauerschmidt@assp.org](mailto:LBauerschmidt@assp.org)

Order from: Lauren Bauerschmidt; [LBauerschmidt@assp.org](mailto:LBauerschmidt@assp.org)

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

### ATIS (Alliance for Telecommunications Industry Solutions)

1200 G Street NW, Suite 500, Washington, DC 20005 p: (202) 434-8843 w: [www.atis.org](http://www.atis.org)

#### ***Supplement***

BSR/ATIS 1000678.v4.a-202x, ATIS Supplement A to ATIS-1000678.v4.2020, Lawfully Authorized Electronic Surveillance (LAES) for Voice over Internet Protocol and Rich Communications Services Messaging in Wireline and Broadband Telecommunications Networks, Version 4 (supplement to ANSI/ATIS 1000678.v4-2020)

This Supplement provides modifications to ATIS-1000678.v4, Lawfully Authorized Electronic Surveillance (LAES) for Voice over Internet Protocol and Rich Communication Services Messaging in Wireline and Broadband Telecommunications Networks, Version 4.

Single copy price: \$50.00

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Anna Karditzas; [akarditzas@atis.org](mailto:akarditzas@atis.org)

### AWWA (American Water Works Association)

6666 W. Quincy Avenue, Denver, CO 80235 p: (303) 347-6178 w: [www.awwa.org](http://www.awwa.org)

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

BSR/AWWA C623-202x, Cured-In-Place (CIPP) Rehabilitation of Pressurized Potable Water Pipelines, 4 In. (100 mm) and Larger (new standard)

This standard covers materials and procedures for the rehabilitation of existing water mains 4 in (100 mm) in diameter and larger by the installation and curing of a resin-impregnated tube that is either inverted into the main using a hydrostatic head of potable water or air pressure, or pulled into the main and subsequently inflated by potable water or air.

Single copy price: Free

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

Order from: Vicki David; [vdavid@awwa.org](mailto:vdavid@awwa.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Paul Olson; [polson@awwa.org](mailto:polson@awwa.org)

### CSA (CSA America Standards Inc.)

8501 E. Pleasant Valley Road, Cleveland, OH 44131 p: (216) 524-4990 w: [www.csagroup.org](http://www.csagroup.org)

#### ***Reaffirmation***

BSR Z21.94-2005 (R202x), BSR Z21.94a-2007 (R202x), Automatic Flammable Vapor Sensor Systems and Components (same as CSA 6.31) (reaffirmation of ANSI Z21.94-2005 (R2016), ANSI Z21.94a-2007 (R2016))

Details test and examination criteria for flammable vapor sensor systems and components for use in gas-burning appliances. This standard applies to a flammable vapor sensor or system capable of operating throughout a temperature range of 32F (0C) to 125F (51.5C).

Single copy price: Free

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

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

## Comment Deadline: April 19, 2021

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

7902 Turin Road, Building 3, Rome, NY 13440-2069 p: (315) 339-6937 w: [www.esda.org](http://www.esda.org)

#### Revision

BSR/ESD SP14.5-202x, ESD Association Standard Practice for Electrostatic Discharge Sensitivity Testing - Near Field Immunity Scanning - Component/Module/PCB Level (revision of ANSI/ESD SP14.5-2015)

This document applies to the testing of powered modules, components such as ICs, circuit boards, subsystems, and systems in which system upset can be detected either by an operator performing the test or automatically.

Single copy price: HC: \$145.00 (List)/\$115.00 (ESD Members) [Hard-cover]; \$135.00 (List)/\$105.00 (ESD Members) [Soft-cover]

Obtain an electronic copy from: [cearl@esda.org](mailto:cearl@esda.org)

Order from: Christina Earl; [cearl@esda.org](mailto:cearl@esda.org)

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

### ESTA (Entertainment Services and Technology Association)

271 Cadman Plaza, P.O. Box 23200, Brooklyn, NY 11202-3200 p: (212) 244-1505 w: [www.esta.org](http://www.esta.org)

#### Reaffirmation

BSR E1.3-2001 (R202x), Entertainment Technology - Lighting Control Systems - 0 to 10V Analog Control Specification (reaffirmation of ANSI E1.3-2001 (R2016))

The standard describes a method of controlling devices and equipment by means of an analog control voltage in the nominal range from 0 to 10 volts positive. It is primarily intended for theatrical lighting controllers and controlled devices (e.g., dimmers), but any device could use this control method. E1.3 controllers are current-source devices. The working group proposes to reaffirm the existing standard, which was previously reaffirmed in 2016.

Single copy price: Free

Obtain an electronic copy from: [https://tsp.esta.org/tsp/documents/public\\_review\\_docs.php](https://tsp.esta.org/tsp/documents/public_review_docs.php)

Order from: Karl Ruling; [standards@esta.org](mailto:standards@esta.org)

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

### ESTA (Entertainment Services and Technology Association)

271 Cadman Plaza, P.O. Box 23200, Brooklyn, NY 11202-3200 p: (212) 244-1505 w: [www.esta.org](http://www.esta.org)

#### Reaffirmation

BSR E1.27-1-2006 (R202x), Entertainment Technology = Standard for Portable Control Cables for Use with ANSI E1.11 (DMX512-A) and USITT DMX512/1990 Products (reaffirmation of ANSI E1.27-1-2006 (R2016))

This standard describes the types of portable cable for the transmission of digital data among products which comply with ANSI E1.11, Entertainment Technology - USITT DMX512-A. It covers recommended cable types, connectors and their internal wiring.

Single copy price: Free

Obtain an electronic copy from: [https://tsp.esta.org/tsp/documents/public\\_review\\_docs.php](https://tsp.esta.org/tsp/documents/public_review_docs.php)

Order from: Karl Ruling; [standards@esta.org](mailto:standards@esta.org)

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

### ESTA (Entertainment Services and Technology Association)

271 Cadman Plaza, P.O. Box 23200, Brooklyn, NY 11202-3200 p: (212) 244-1505 w: [www.esta.org](http://www.esta.org)

#### Reaffirmation

BSR E1.30-1-2010 (R202x), EPI 23. Device Identification Subdevice (reaffirmation of ANSI E1.30-1-2010 (R2016))

This document is part of the E1.30, Application-level equipment interoperability for control of commonly encountered entertainment technology devices using ANSI E1.17, project. It specifies a templated device for device identification as typically used for remote hardware and software devices.

Single copy price: Free

Obtain an electronic copy from: [https://tsp.esta.org/tsp/documents/public\\_review\\_docs.php](https://tsp.esta.org/tsp/documents/public_review_docs.php)

Order from: Karl Ruling; [standards@esta.org](mailto:standards@esta.org)

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

## Comment Deadline: April 19, 2021

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

271 Cadman Plaza, P.O. Box 23200, Brooklyn, NY 11202-3200 p: (212) 244-1505 w: [www.esta.org](http://www.esta.org)

#### **Reaffirmation**

BSR E1.30-4-2010 (R202x), EPI 26. Device Description Language (DDL) Extensions for DMX512 and E1.31 Devices (reaffirmation of ANSI E1.30-4-2010 (R2015))

This document is part of the E1.30 project, Application-level equipment interoperability for control of commonly encountered entertainment technology devices using ANSI E1.17. This part defines protocol-specific extensions to ANSI E1.17's Device Description Language for describing DMX512-type devices.

Single copy price: Free

Obtain an electronic copy from: [https://tsp.esta.org/tsp/documents/public\\_review\\_docs.php](https://tsp.esta.org/tsp/documents/public_review_docs.php)

Order from: Karl Ruling; [standards@esta.org](mailto:standards@esta.org)

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

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

271 Cadman Plaza, P.O. Box 23200, Brooklyn, NY 11202-3200 p: (212) 244-1505 w: [www.esta.org](http://www.esta.org)

#### **Revision**

BSR E1.19-202x, Recommended Practice for the Use of Class A Ground-Fault Circuit Interrupters (GFCIs) Intended for Personnel Protection in the Entertainment Industry (revision of ANSI E1.19-2015)

E1.19 standard is intended to offer guidance, in accordance with existing applicable standards, on how to select, install, use, and maintain Class A ground-fault protection devices with nominal 5 mA trip settings in the entertainment industry.

Single copy price: Free

Obtain an electronic copy from: [https://tsp.esta.org/tsp/documents/public\\_review\\_docs.php](https://tsp.esta.org/tsp/documents/public_review_docs.php)

Order from: Karl Ruling; [standards@esta.org](mailto:standards@esta.org)

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

### **NAAMM (National Association of Architectural Metal Manufacturers)**

123 College Place, #1101, Norfolk, VA 23510 p: (757) 489-0787 w: [www.naamm.org](http://www.naamm.org)

#### **New Standard**

BSR/NAAMM MBG 533-202x, Welding Standards for Fabrication of Steel, Stainless Steel and Aluminum Bar Grating (new standard)

This standard contains guidance for welding of steel, stainless steel, and aluminum bar gratings during fabrication.

Single copy price: \$25.00

Obtain an electronic copy from: <https://www.naamm.org/ansi-information>

Order from: Vernon W. Lewis, Jr. 123 College Place, Unit 1101, Norfolk, Virginia 23510

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

### **NEMA (ASC C8) (National Electrical Manufacturers Association)**

1300 North 17th Street, Suite 900, Arlington, VA 22209 p: (571) 426-3226 w: [www.nema.org](http://www.nema.org)

#### **Revision**

BSR NEMA HP 5-202x, Electrical and Electronic Crosslinked, Modified Polyethylene (XLPE) Insulated 125°C Hook-Up Wire, Types L (600 V), LL (1000 V), and LX (3000 V) (revision of ANSI/NEMA HP 5-2013)

This Standards Publication covers specific requirements for crosslinked, modified polyethylene insulated solid and stranded wire, designed to the internal wiring of high reliability electrical and electronic equipment. This Standards Publication addresses 600 V (Type L), 1000 V (Type LL), and 3000 V (Type LX) wire and permits continuous conductor temperature ratings of 65°C to + 125°C with either tin-coated, or silver-coated conductors.

Single copy price: \$100.00

Obtain an electronic copy from: [KHALED.MASRI@NEMA.ORG](mailto:KHALED.MASRI@NEMA.ORG)

Order from: Khaled Masri; [Khaled.Masri@nema.org](mailto:Khaled.Masri@nema.org)

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

## Comment Deadline: April 19, 2021

### **NEMA (ASC C8) (National Electrical Manufacturers Association)**

1300 North 17th Street, Suite 900, Arlington, VA 22209 p: (571) 426-3226 w: [www.nema.org](http://www.nema.org)

#### **Revision**

BSR NEMA HP 8-202x, Electrical and Electronic Cross-Linked, Modified Low-Smoke Polyolefin (XLPO) Insulated Hook-Up Wire, Types LS (rated 105°C; 600 V), ZHDM (rated 90°C; 600 V), ZHDH (rated 90°C; 600 V), ZH (rated 125°C; 600 V), and ZHX (rated 125°C; 1000 V) (revision of ANSI/NEMA HP 8-2013)

Covers specific requirements for cross-linked, modified-polyolefin-insulated solid- and stranded-wire designed for the internal wiring of high-reliability electrical and electronic equipment. ANSI/NEMA HP 8 addresses 600 V (Types LS, ZHDM, ZHDH, and ZH) and 1000 V (Type ZHX) wire and permits continuous conductor temperature ratings of -40°C to 90°C, 105°C, or 125°C with either tin- or silver-coated conductors.

Single copy price: \$78.00

Obtain an electronic copy from: [KHALED.MASRI@NEMA.ORG](mailto:KHALED.MASRI@NEMA.ORG)

Order from: Khaled Masri; [Khaled.Masri@nema.org](mailto:Khaled.Masri@nema.org)

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

### **PLASTICS (Plastics Industry Association)**

1425 K Street, NW, Suite 500, Washington, DC 20005 p: (202) 974-5217 w: [www.plasticsindustry.org](http://www.plasticsindustry.org)

#### **Reaffirmation**

BSR/PLASTICS B151.7-2013 (R202x), Safety Requirements for Extrusion Machines (reaffirmation and redesignation of ANSI/SPI B151.7-2013)

The requirements of this standard shall apply to extrusion machines that are used in the plastics industry. Safety requirements of ancillary equipment used with extrusion machines are not covered by this standard.

Single copy price: member: \$65.00; nonmember: \$70.00

Obtain an electronic copy from: [jjones@plasticsindustry.org](mailto:jjones@plasticsindustry.org)

Order from: Jennifer Jones; [jjones@plasticsindustry.org](mailto:jjones@plasticsindustry.org)

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

### **SCTE (Society of Cable Telecommunications Engineers)**

140 Philips Rd, Exton, PA 19341 p: (800) 542-5040 w: [www.scte.org](http://www.scte.org)

#### **Revision**

BSR/SCTE 35-202x, Digital Program Insertion Cueing Message (revision of ANSI/SCTE 35-2019a)

This standard supports delivery of events, frame accurate or non-frame accurate, and associated descriptive data in MPEG-2 transport streams, MPEG-DASH and HLS. This standard supports the splicing of content (MPEG-2 transport streams, MPEG-DASH, etc.) for the purpose of Digital Program Insertion, which includes Advertisement insertion and insertion of other content types. This standard defines an in-stream messaging mechanism to signal splicing and insertion opportunities. As such, this standard does not specify the insertion method used or constraints applied to the content being inserted, nor does it address constraints placed on insertion devices.

Single copy price: \$50.00

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

Order from: Global Engineering Documents, (800) 854-7179, [www.global.ihs.com](http://www.global.ihs.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [admin@standards.scte.org](mailto:admin@standards.scte.org)

## Comment Deadline: April 19, 2021

### TIA (Telecommunications Industry Association)

1320 North Courthouse Road, Suite 200, Arlington, VA 22201 p: (703) 907-7706 w: [www.tiaonline.org](http://www.tiaonline.org)

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

BSR/TIA 568.5-202x, Single balanced twisted-pair cabling and components standard. (new standard)

A single balanced twisted-pair cabling and components standard to provide specifications for cables, connectors, cords, links and channels using 1-pair connectivity in non-industrial premises telecommunications networks. The standard will focus on MICE1 environments and will include cabling and component performance requirements and test procedures, reliability requirements and test procedures, as well as guidelines for adaptations to 4-pair cabling.

Single copy price: \$133.00

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

Order from: TIA ([standards-process@tiaonline.org](mailto:standards-process@tiaonline.org))

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [standards-process@tiaonline.org](mailto:standards-process@tiaonline.org)

### UL (Underwriters Laboratories)

12 Laboratory Drive, Research Triangle Park, NC 27709-3995 p: (919) 549-1636 w: <https://ul.org/>

#### ***Reaffirmation***

BSR/UL 489B-2016 (R202x), Standard for Safety for Molded-Case Circuit Breakers, Molded-Case Switches, and Circuit-Breaker Enclosures for Use with Photovoltaic (PV) Systems (reaffirmation of ANSI/UL 489B-2016)

These requirements cover molded-case circuit breakers, molded-case switches, and circuit-breaker enclosures rated up to 1500 V dc, intended for use with photovoltaic (PV) systems and national installation codes.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

Order from: <http://www.shopulstandards.com>

Send comments (with optional copy to [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/Home/ProposalsDefault.aspx>

### VITA (VMEbus International Trade Association (VITA))

929 W. Portobello Avenue, Mesa, AZ 85210 p: (602) 281-4497 w: [www.vita.com](http://www.vita.com)

#### ***Stabilized Maintenance***

BSR/VITA 42.6-2009 (S202x), XMC 10 Gigabit Ethernet 4-Lane Protocol Layer Standard (stabilized maintenance of ANSI/VITA 42.6-2009 (R2015))

This standard defines a method for supporting 10 Gigabit Ethernet using XAUI switched interconnect protocol on the XMC form factor.

Single copy price: \$25.00

Obtain an electronic copy from: [admin@vita.com](mailto:admin@vita.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [admin@vita.com](mailto:admin@vita.com)

### VITA (VMEbus International Trade Association (VITA))

929 W. Portobello Avenue, Mesa, AZ 85210 p: (602) 281-4497 w: [www.vita.com](http://www.vita.com)

#### ***Stabilized Maintenance***

BSR/VITA 46.10-2009 (S202x), Rear Transition Module for VPX (stabilized maintenance of ANSI/VITA 46.10-2009 (R2015))

Define a rear transition module (RTM) for VPX applications.

Single copy price: \$25.00

Obtain an electronic copy from: [admin@vita.com](mailto:admin@vita.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [admin@vita.com](mailto:admin@vita.com)

## Comment Deadline: May 4, 2021

### ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 p: (212) 591-8489 w: [www.asme.org](http://www.asme.org)

#### **Reaffirmation**

Reaffirmations and withdrawals available electronically may be accessed at: [webstore.ansi.org](http://webstore.ansi.org)

BSR/ASME B29.26-2013 (R202x), Fatigue Testing Power Transmission Roller Chain (reaffirmation of ANSI/ASME B29.26-2013)

This Standard covers fatigue testing, in axial tension, of power transmission roller chains in ASME B29.1M and ASME B29.3M, and nonstandard variants of those chains.

Single copy price: \$40.00

Obtain an electronic copy from: <https://cstools.asme.org/csconnect/PublicReviewPage.cfm>

Order from: <https://cstools.asme.org/csconnect/PublicReviewPage.cfm>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Justin Cassamassino; [cassamassinoj@asme.org](mailto:cassamassinoj@asme.org)

### ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 p: (212) 591-8489 w: [www.asme.org](http://www.asme.org)

#### **Reaffirmation**

Reaffirmations and withdrawals available electronically may be accessed at: [webstore.ansi.org](http://webstore.ansi.org)

BSR/ASME B29.27-2002 (R202x), Single-Pitch and Double-Pitch Hollow Pin Conveyor Chains And Attachments (reaffirmation of ANSI/ASME B29.27-2002 (R2016))

This standard covers the dimensional limits required for chain interchangeability on sprockets. It does not provide for interconnectability of chains or individual links from different manufacturers.

Single copy price: \$38.00

Obtain an electronic copy from: <https://cstools.asme.org/csconnect/PublicReviewPage.cfm>

Order from: <https://cstools.asme.org/csconnect/PublicReviewPage.cfm>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Justin Cassamassino; [cassamassinoj@asme.org](mailto:cassamassinoj@asme.org)

### UL (Underwriters Laboratories)

171 Nepean Street, Suite 400, Ottawa, ON K2P 0B4 Canada p: (613) 368-4417 61017 w: <https://ul.org/>

#### **New Standard**

Reaffirmations and withdrawals available electronically may be accessed at: [webstore.ansi.org](http://webstore.ansi.org)

BSR/UL 2583-202x, Standard for Safety for Fuel Tank Accessories for Flammable and Combustible Liquids (new standard)

The following is being proposed: a Bi-National standard for Fuel Tank Accessories (UL/ULC 2583) using UL 2583, Outline of Investigation for Fuel Tank Accessories, CAN/ULC-S661, Overfill Protection Devices for Flammable and Combustible Liquid Storage Tanks, and CAN/ULC-S663, Spill Containment Devices for Aboveground Flammable and Combustible Liquid Storage Tanks, as source material for this new standard. This standard will cover requirements for mechanical-type accessories that are typically intended for attachment to storage tanks or connecting pipe for flammable and combustible liquids in commercial (public) or private (fleet) automotive fueling stations and similar storage or dispensing applications and are designed to provide automatic safety or operational functions. These products are intended for use with storage tanks or fueling systems containing automotive fuels and similar fuels or liquids under the expected use conditions and exposures that have similar chemical, physical and material compatibility properties as represented in these requirements.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

Order from: <http://www.shopulstandards.com>

Send comments (with optional copy to [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/Home/ProposalsDefault.aspx>

## **Project Withdrawn**

In accordance with clause 4.2.1.3.3 Discontinuance of a standards project of the ANSI Essential Requirements, an accredited standards developer may abandon the processing of a proposed new or revised American National Standard or portion thereof if it has followed its accredited procedures. The following projects have been withdrawn accordingly:

### **HL7 (Health Level Seven)**

3300 Washtenaw Avenue, Suite 227, Ann Arbor, MI 48104 p: (313) 550-2073 104 w: [www.hl7.org](http://www.hl7.org)

BSR/HL7 ERHSFM2 RXFP, R1-202x, HL7 EHR-System Functional Model R2 Pharmacist Functional Profile, Release 1 (new standard)

Inquiries may be directed to Karen Van Hentenryck; [Karenvan@HL7.org](mailto:Karenvan@HL7.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.

---

## **AMCA (Air Movement and Control Association)**

30 West University Drive, Arlington Heights, IL 60004-1893 p: (847) 704-6285 w: [www.amca.org](http://www.amca.org)

### ***New Standard***

ANSI/AMCA 214-2021, Test Procedure for Calculating Fan Energy Index for Commercial and Industrial Fans and Blowers (new standard) Final Action Date: 3/1/2021

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

1791 Tullie Circle, NE, Atlanta, GA 30329 p: (678) 539-1214 w: [www.ashrae.org](http://www.ashrae.org)

### ***Addenda***

ANSI/ASHRAE Addendum 62.1a-2019, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2019) Final Action Date: 2/26/2021

### ***Addenda***

ANSI/ASHRAE/ASHE Addendum 170L-2017, Ventilation of Health Care Facilities (addenda to ANSI/ASHRAE/ASHE Addendum 170L-2012) Final Action Date: 2/26/2021

### ***Addenda***

ANSI/ASHRAE/IES Addendum a to ANSI/ASHRAE/IES Standard 100-2018, Energy Efficiency in Existing Buildings (addenda to ANSI/ASHRAE/IES Standard 100-2018) Final Action Date: 2/26/2021

### ***Addenda***

ANSI/ASHRAE/IES Addendum f to ANSI/ASHRAE/IES Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019) Final Action Date: 2/26/2021

### ***Addenda***

ANSI/ASHRAE/IES Addendum p to ANSI/ASHRAE/IES Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019) Final Action Date: 2/26/2021

### ***Addenda***

ANSI/ASHRAE/IES Addendum q to ANSI/ASHRAE/IES Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019) Final Action Date: 2/26/2021

### ***Addenda***

ANSI/ASHRAE/IES Addendum r to ANSI/ASHRAE/IES Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019) Final Action Date: 2/26/2021

### ***Addenda***

ANSI/ASHRAE/IES Addendum s to ANSI/ASHRAE/IES Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019) Final Action Date: 2/26/2021

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

1791 Tullie Circle, NE, Atlanta, GA 30329-2305 p: (404) 636-8400 w: www.ashrae.org

**Addenda**

ANSI/ASHRAE/IES Addendum w to ANSI/ASHRAE/IES Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019) Final Action Date: 2/26/2021

**New Standard**

ANSI/ASHRAE Standard 207-2021, Laboratory Method of Test of Fault Detection and Diagnosis for Air Economizers (new standard) Final Action Date: 2/26/2021

**New Standard**

ANSI/ASHRAE Standard 219-2021, Method of Testing the Ability of Liquid Line Filter Driers or Adsorbents to Remove Organic Acid (new standard) Final Action Date: 2/26/2021

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

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 p: (212) 591-8489 w: www.asme.org

**Revision**

ANSI/ASME BPVC Section II-2021, Part C - Specifications for Welding Rods, Electrodes, and Filler Metals (revision of ANSI/ASME BPVC Section II-2019) Final Action Date: 2/25/2021

**Revision**

ANSI/ASME BPVC Section VI-2021, Recommended Rules for the Care and Operation of Heating Boilers (revision of ANSI/ASME BPVC Section VI-2019) Final Action Date: 3/1/2021

**Revision**

ANSI/ASME BPVC Section VII-2021, Recommended Guidelines for the Care of Power Boilers (revision of ANSI/ASME BPVC Section VII-2019) Final Action Date: 2/25/2021

**Revision**

ANSI/ASME BPVC Section XII-2021, Rules for Construction and Continued Service of Transport Tanks (revision of ANSI/ASME BPVC Section XII-2019) Final Action Date: 2/25/2021

**ASPE (American Society of Plumbing Engineers)**

6400 Shafer Court, Suite 350, Rosemont, IL 60018 p: (847) 296-0002 w: www.aspe.org

**Reaffirmation**

ANSI/WQA/ASPE S-801-2015 (R2021), Sustainable Management (reaffirmation of ANSI/WQA/ASPE S-801-2015) Final Action Date: 2/25/2021

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

1200 G Street NW, Suite 500, Washington, DC 20005 p: (202) 628-6380 w: www.atis.org

**Stabilized Maintenance**

ANSI/ATIS 0600010.03-2011 (S2021), Heat Dissipation Requirements for Network Telecom Equipment (stabilized maintenance of ANSI/ATIS 0600010.03-2011 (R2016)) Final Action Date: 2/26/2021

**AWI (Architectural Woodwork Institute)**

46179 Westlake Drive, Suite 120, Potomac Falls, VA 20165-5874 p: 229-389-2539 w: [www.awinet.org](http://www.awinet.org)

***New Standard***

ANSI/AWI SMA 0643-2021, Wood Stair, Handrail, and Guard Systems (new standard) Final Action Date: 3/1/2021

**AWPA (ASC O5) (American Wood Protection Association)**

P.O. Box 361784, Birmingham, AL 35236-1784 p: (205) 733-4077 w: [www.awpa.com](http://www.awpa.com)

***Revision***

ANSI O5.3-2021, Solid Sawn Wood Crossarms, Braces, and Wood Ground Wire Moulding - Specifications & Dimensions (revision of ANSI O5.3-2015) Final Action Date: 2/26/2021

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

8501 E. Pleasant Valley Road, Cleveland, OH 44131 p: (216) 524-4990 w: [www.csagroup.org](http://www.csagroup.org)

***Reaffirmation***

ANSI/CSA/IGSHPA C448 SERIES-2016 (R2021), Design and installation of ground source heat pump systems for commercial and residential buildings (reaffirmation and redesignation of ANSI/CSA C448 -2016) Final Action Date: 2/25/2021

**CTA (Consumer Technology Association)**

1919 South Eads Street, Arlington, VA 22202 p: (703) 907-7697 w: [www.cta.tech](http://www.cta.tech)

**\* *New Standard***

ANSI/CTA 2068.1-2021, Definitions and Characteristics of Consumer Technologies for Monitoring Physical and Psychosocial Stress - Heart Rate and Related Measures (new standard) Final Action Date: 2/23/2021

**FCI (Fluid Controls Institute)**

1300 Sumner Avenue, Cleveland, OH 44115 p: (216) 241-7333 w: [www.fluidcontrolsinstitute.org](http://www.fluidcontrolsinstitute.org)

***New Standard***

ANSI/FCI 19-1-2021, Standard for Sizing & Selection of Type 2 Secondary Pressure Drainers (new standard) Final Action Date: 2/25/2021

**IICRC (The Institute of Inspection, Cleaning and Restoration Certification)**

4043 South Eastern Avenue, Las Vegas, NV 89119 p: (702) 430-9829 w: <https://www.iicrc.org>

***Revision***

ANSI/IICRC S500-2021, Standard for Professional Water Damage Restoration (revision of ANSI/IICRC S500-2015) Final Action Date: 2/25/2021

**ISA (International Society of Automation)**

67 Alexander Drive, Research Triangle Park, NC 27709 p: (919) 990-9228 w: [www.isa.org](http://www.isa.org)

***New Standard***

ANSI/ISA 96.01.01-2019, Valve Actuator Terminology (new standard) Final Action Date: 2/22/2021

**NSF (NSF International)**

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-3817 w: [www.nsf.org](http://www.nsf.org)

**Revision**

ANSI/NSF 49-2020 (i159r3), Biosafety Cabinetry: Design, Construction, Performance, and Field Certification (revision of ANSI/NSF 49-2019) Final Action Date: 2/28/2021

**SCTE (Society of Cable Telecommunications Engineers)**

140 Philips Rd, Exton, PA 19341 p: (800) 542-5040 w: [www.scte.org](http://www.scte.org)

**Revision**

ANSI/SCTE 130-2-2020, Digital Program Insertion-Advertising Systems Interfaces Part 2 Core Data Elements (revision of ANSI/SCTE 130-2 2014) Final Action Date: 3/1/2021

**Revision**

ANSI/SCTE 130-3-2020, Digital Program Insertion-Advertising Systems Interfaces Part 3 Ad Management Service (ADM) Interface (revision of ANSI/SCTE 130-3-2013) Final Action Date: 2/22/2021

**TIA (Telecommunications Industry Association)**

1320 North Courthouse Road, Suite 200, Arlington, VA 22201 p: (703) 907-7706 w: [www.tiaonline.org](http://www.tiaonline.org)

**New National Adoption**

ANSI/TIA 455-178-C-2021, FOTP-178 IEC 60793-1-32, Optical Fibres - Part 1-32: Measurement Methods and Test Procedures - Coating Strippability (identical national adoption of IEC 60793-1-32) Final Action Date: 2/25/2021

**UL (Underwriters Laboratories)**

12 Laboratory Drive, Research Triangle Park, NC 27709-3995 p: (919) 549-0922 w: <https://ul.org/>

**Revision**

ANSI/UL 746F-2021, Standard for Safety for Polymeric Materials - Flexible Dielectric Film Materials for Use in Printed-Wiring Boards and Flexible Materials Interconnect Constructions (revision of ANSI/UL 746F-2016) Final Action Date: 2/23/2021

**Revision**

ANSI/UL 796F-2021, Standard for Safety for Flexible Materials Interconnect Constructions (revision of ANSI/UL 796F-2016) Final Action Date: 2/23/2021

**Revision**

ANSI/UL 1786-2021, Standard for Safety for Direct Plug-In Nightlights (revision of ANSI/UL 1786-2014) Final Action Date: 2/22/2021

# Call for Members (ANS Consensus Bodies)

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

---

## **AGMA (American Gear Manufacturers Association)**

1001 N Fairfax Street, 5th Floor, Alexandria, VA 22314-1587 p: (703) 684-0211 w: [www.agma.org](http://www.agma.org)

Amir Aboutaleb; [tech@agma.org](mailto:tech@agma.org)

BSR/AGMA ISO 1328-2-202x, Cylindrical gears - ISO system of flank tolerance classification - Part 2: Definitions and allowable values of double flank radial composite deviations (identical national adoption of ISO 1328-2:2020)

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

1791 Tullie Circle NE, Atlanta, GA 30329 p: (678) 539-1111 w: [www.ashrae.org](http://www.ashrae.org)

Tanisha Meyers-Lisle; [tmlisle@ashrae.org](mailto:tmlisle@ashrae.org)

BSR/ASHRAE Standard 41.2-202X, Standard Methods for Air Velocity and Airflow Measurement (revision of ANSI/ASHRAE Standard 41.2-2018)

BSR/ASHRAE Standard 164.1-202X, Method of Test for Residential Central-System Humidifiers (revision of ANSI/ASHRAE Standard 164.1-2012 (R2016))

BSR/ASHRAE Standard 164.2-202X, Method of Test for Self-Contained Residential Humidifiers (revision of ANSI/ASHRAE Standard 164.2-2012 (R2016))

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

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 p: (212) 591-8489 w: [www.asme.org](http://www.asme.org)

Terrell Henry; [ansibox@asme.org](mailto:ansibox@asme.org)

BSR/ASME B29.27-2002 (R202x), Single-Pitch and Double-Pitch Hollow Pin Conveyor Chains And Attachments (reaffirmation of ANSI/ASME B29.27-2002 (R2016))

## **ASSP (ASC A10) (American Society of Safety Professionals)**

520 N. Northwest Highway, Park Ridge, IL 60068 p: (847) 768-3411 w: [www.assp.org](http://www.assp.org)

Tim Fisher; [TFisher@ASSP.org](mailto:TFisher@ASSP.org)

BSR/ASSP A10.38-202X, Basic Elements of an Employer's Program to Provide a Safe and Healthful Work Environment on Construction and Demolition Sites (revision and redesignation of ANSI/ASSE A10.38-2013)

## **BHMA (Builders Hardware Manufacturers Association)**

355 Lexington Avenue, 15th Floor, New York, NY 10017-6603 p: (513) 600-2871 w: [www.buildershardware.com](http://www.buildershardware.com)

Karen Bishop; [Kbishop@Kellencompany.com](mailto:Kbishop@Kellencompany.com)

BSR/BHMA A156.22-202x, Standard for Door Gasketing and Edge Seal Systems (revision of ANSI/BHMA A156.22-2017)

## **BIFMA (Business and Institutional Furniture Manufacturers Association)**

678 Front Avenue NW, Grand Rapids, MI 49504 p: (616) 443-5053 w: [www.bifma.org](http://www.bifma.org)

Steven Kooy; [skooy@bifma.com](mailto:skooy@bifma.com)

BSR/BIFMA M7.1-2011 (R202x), Standard Test Method for Determining VOC Emission from Office Furniture Systems, Components, and Seating (reaffirmation of ANSI/BIFMA M7.1-2011 (R2016))

BSR/BIFMA X7.1-2011 (R202x), Standard for Formaldehyde & TVOC Emissions of Low-emitting Office Furniture and Seating (reaffirmation of ANSI/BIFMA X7.1-2011 (R2016))

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

7902 Turin Road, Building 3, Rome, NY 13440-2069 p: (315) 339-6937 w: [www.esda.org](http://www.esda.org)  
 Lauren Roosevelt; [laurenradmin@esda.org](mailto:laurenradmin@esda.org)

BSR/ESD SP14.5-202x, ESD Association Standard Practice for Electrostatic Discharge Sensitivity Testing - Near Field Immunity Scanning - Component/Module/PCB Level (revision of ANSI/ESD SP14.5-2015)

**MHI (Material Handling Industry)**

8720 Red Oak Boulevard, Suite 201, Charlotte, NC 28217 p: (704) 714-8755 w: [www.mhi.org](http://www.mhi.org)  
 Patrick Davison; [pdavison@mhi.org](mailto:pdavison@mhi.org)

BSR MH16.1-202X, Design, Testing, and Utilization of Industrial Steel Storage Racks (revision of ANSI MH16.1-2012 (R2019))

MHI is seeking new members to join the canvass committee (consensus body) to revise ANSI MH16.1-2012(R2019), published in conjunction with the Rack Manufacturers Institute. MHI is particularly interested in canvass committee members who represent the following interest categories:

User: Corporate or individual end user of industrial steel storage racks.

Government: Regulatory, legislative, or judicial entities at the federal, state, or local levels.

Those interested are requested to contact Mr. Patrick Davison, MHI Director of Standards, at [pdavison@mhi.org](mailto:pdavison@mhi.org).

**NEMA (ASC C8) (National Electrical Manufacturers Association)**

1300 North 17th Street, Suite 900, Arlington, VA 22209 p: (571) 426-3226 w: [www.nema.org](http://www.nema.org)  
 Khaled Masri; [Khaled.Masri@nema.org](mailto:Khaled.Masri@nema.org)

BSR ICEA S-112-718-202x, Standard for Optical Fiber Cable for Placement in Sewer Environments (revision of ANSI/ICEA S-112-718-2013)

BSR ICEA S-130-760-202x, ICEA Standard for Broadband Twisted Pair Cable Filled and Unfilled, Polyolefin Insulated, Copper Conductor (new standard)

BSR NEMA HP 5-202x, Electrical and Electronic Crosslinked, Modified Polyethylene (XLPE) Insulated 125°C Hook-Up Wire, Types L (600 V), LL (1000 V), and LX (3000 V) (revision of ANSI/NEMA HP 5-2013)

BSR NEMA HP 8-202x, Electrical and Electronic Cross-Linked, Modified Low-Smoke Polyolefin (XLPO) Insulated Hook-Up Wire, Types LS (rated 105°C; 600 V), ZHDM (rated 90°C; 600 V), ZHDH (rated 90°C; 600 V), ZH (rated 125°C; 600 V), and ZHX (rated 125°C; 1000 V) (revision of ANSI/NEMA HP 8-2013)

BSR NEMA WC 71/ICEA S-96-659-202x, Standard for Non-Shielded Cables Rated 2001-5000Volts for Use in the Distribution of Electric Energy (revision of ANSI/NEMA WC 71-1999/ICEA S-96-659-2014)

**NEMA (ASC Z535) (National Electrical Manufacturers Association)**

1300 North 17th Street, Suite 900, Rosslyn, VA 22209 p: (703) 477-9997 w: [www.nema.org](http://www.nema.org)  
 Paul Orr; [orrrpaul@aol.com](mailto:orrrpaul@aol.com)

BSR Z535.1-202x, Standard for Safety Colors (revision of ANSI Z535.1-2017)

BSR Z535.2-202x, Standard for Environmental and Facility Safety Signs (revision of ANSI Z535.2-2011 (R2017))

BSR Z535.3-202x, Criteria for Safety Symbols (revision of ANSI Z535.3-2011 (R2017))

BSR Z535.4-202x, Product Safety Signs and Labels (revision of ANSI Z535.4-2011 (R2017))

Call for Members (ANS Consensus Bodies)

### **NEMA (ASC Z535) (National Electrical Manufacturers Association)**

1300 North 17th Street, Suite 900, Rosslyn, VA 22209 p: (703) 477-9997 w: [www.nema.org](http://www.nema.org)

BSR Z535.5-202x, Safety Tags and Barricade Tapes (for Temporary Hazards) (revision of ANSI Z535.5-2011 (R2017))

BSR Z535.6-202x, Product Safety Information in Product Manuals, Instructions and Other Collateral Materials (revision of ANSI Z535.6-2011 (R2017))

### **NSF (NSF International)**

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-3817 w: [www.nsf.org](http://www.nsf.org)  
Allan Rose; [arose@nsf.org](mailto:arose@nsf.org)

BSR/NSF 4-202x (i32r2), Commercial Cooking, Rethermalization, and Powered Hot Food Holding and Transportation Equipment (revision of ANSI/NSF 4-2019)

BSR/NSF 18-202x (i19r2), Manual Food and Beverage Dispensing Equipment (revision of ANSI/NSF 18-2016)

### **NSF (NSF International)**

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-6866 w: [www.nsf.org](http://www.nsf.org)  
Rachel Brooker; [rbrooker@nsf.org](mailto:rbrooker@nsf.org)

BSR/NSF 455-2-202x (i11r1), Good Manufacturing Practices for Dietary Supplements (revision of ANSI/NSF 455-2-2020)

BSR/NSF 455-2-202x (i12r1), Good Manufacturing Practices for Dietary Supplements (revision of ANSI/NSF 455-2-2020)

BSR/NSF 455-2-202x (i13r1), Good Manufacturing Practices for Dietary Supplements (revision of ANSI/NSF 455-2-2020)

BSR/NSF 455-2-202x (i14r1), Good Manufacturing Practices for Dietary Supplements (revision of ANSI/NSF 455-2-2020)

BSR/NSF 455-2-202x (i15r1), Good Manufacturing Practices for Dietary Supplements (revision of ANSI/NSF 455-2-2020)

BSR/NSF 455-2-202x (i16r1), Good Manufacturing Practices for Dietary Supplements (revision of ANSI/NSF 455-2-2020)

BSR/NSF 455-2-202x (i17r1), Good Manufacturing Practices for Dietary Supplements (revision of ANSI/NSF 455-2-2020)

BSR/NSF 455-2-202x (i18r1), Good Manufacturing Practices for Dietary Supplements (revision of ANSI/NSF 455-2-2020)

BSR/NSF 455-2-202x (i19r1), Good Manufacturing Practices for Dietary Supplements (revision of ANSI/NSF 455-2-2020)

BSR/NSF 455-2-202x (i20r1), Good Manufacturing Practices for Dietary Supplements (revision of ANSI/NSF 455-2-2020)

### **OIX (Open-IX Association)**

340 South Lemon Avenue #7988, Walnut, CA 91789 p: (619) 916-9417 w: <http://www.open-ix.org>  
Shawna Bong; [finance@open-ix.org](mailto:finance@open-ix.org)

BSR/OIX 3-202x, Edge Technical Standard (new standard)

Call for Members (ANS Consensus Bodies)

**PLASTICS (Plastics Industry Association)**

1425 K Street, NW, Suite 500, Washington, DC 20005 p: (202) 974-5217 w: [www.plasticsindustry.org](http://www.plasticsindustry.org)  
Jennifer Jones; [jjones@plasticsindustry.org](mailto:jjones@plasticsindustry.org)

BSR/PLASTICS B151.7-2013 (R202x), Safety Requirements for Extrusion Machines (reaffirmation and redesignation of ANSI/SPI B151.7-2013)

**TIA (Telecommunications Industry Association)**

1320 North Courthouse Road, Suite 200, Arlington, VA 22201 p: (703) 907-7706 w: [www.tiaonline.org](http://www.tiaonline.org)  
Teesha Jenkins; [standards-process@tiaonline.org](mailto:standards-process@tiaonline.org)

BSR/TIA 455-203-B-202x, FOTP-203IEC-61280-1-4, Fibre Optic Communication Subsystem Test Procedures - Part 1-4: General Communication Subsystems - Light Source Encircled Flux Measurement Method (identical national adoption of IEC-61280-1-4 and revision of ANSI/TIA 455-203-A-2009 (R2014))

BSR/TIA 455-204-A-2013 (R202x), FOTP-204 - Measurement of Bandwidth on Multimode Fiber (reaffirm a national adoption ANSI/TIA 455-204-A-2013)

BSR/TIA 568.5-202x, Single-balanced twisted-pair cabling and components standard. (new standard)

**VITA (VMEbus International Trade Association (VITA))**

929 W. Portobello Avenue, Mesa, AZ 85210 p: (602) 281-4497 w: [www.vita.com](http://www.vita.com)  
Jing Kwok; [jing.kwok@vita.com](mailto:jing.kwok@vita.com)

BSR/VITA 42.6-2009 (S202x), XMC 10 Gigabit Ethernet 4-Lane Protocol Layer Standard (stabilized maintenance of ANSI/VITA 42.6-2009 (R2015))

BSR/VITA 46.10-2009 (S202x), Rear Transition Module for VPX (stabilized maintenance of ANSI/VITA 46.10-2009 (R2015))

BSR/VITA 48.0-202x, Mechanical Specification for Microcomputers using Ruggedized Enhanced Design Implementation (REDI) (revision of ANSI/VITA 48.0-2020)

BSR/VITA 48.2-202x, Mechanical Specification for Microcomputers using REDI Conduction Cooling Applied to VITA 46 (revision of ANSI/VITA 48.2-2020)

BSR/VITA 65.0-202x, OpenVPX System Standard (revision of ANSI/VITA 65.0-2019)

BSR/VITA 65.1-202x, OpenVPX System Standard - Profile Tables (revision of ANSI/VITA 65.1-2019)

# Call for Members (ANS Consensus Bodies)

---

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

## ANSI Accredited Standards Developer

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

AAMI ([www.aami.org](http://www.aami.org)) is actively seeking participation in the following standards development work and in the interest categories specified:

BSR/AAMI/ISO 5840-1-202x, Cardiovascular implants - Cardiac valve prostheses - Part 1: General requirements (identical national adoption of ISO 5840-1:2020 and revision of ANSI/AAMI/ISO 5840-1-2015).

US adoption of AAMI/ISO 5840-1-202x, Cardiovascular implants - Cardiac valve prostheses - Part 1: General requirements. Applicable to heart valve substitutes intended for implantation and provides general requirements. Subsequent parts of the ISO 5840 series provide specific requirements. Applicable to newly developed and modified heart valve substitutes and to the accessory devices, packaging, and labelling required for their implantation and for determining the appropriate size of the heart valve substitute to be implanted. Seeking industry, user, regulator and general interest participation.

BSR/AAMI/ISO 5840-2-202x, Cardiovascular implants - Cardiac valve prostheses - Part 2: Surgically implanted heart valve substitutes (identical national adoption of ISO 5840-2:2020 and revision of ANSI/AAMI/ISO 5840-2-2015).

US adoption of AAMI/ISO 5840-2-202x, Cardiovascular implants - Cardiac valve prostheses - Part 2: Surgically implanted heart valve substitutes. Applicable to heart valve substitutes intended for implantation in human hearts, generally requiring cardiopulmonary bypass and generally with direct visualization. Applicable to both newly developed and modified surgical heart valve substitutes and to the accessory devices, packaging, and labelling required for their implantation and for determining the appropriate size of the surgical heart valve substitute to be implanted. Seeking industry, user, regulator and general interest participation.

BSR/AAMI/ISO 5840-3-202x, Cardiovascular implants - Cardiac valve prostheses - Part 3: Heart valve substitutes implanted by transcatheter techniques (national adoption of ISO 5840-3:2020 with modifications and revision of ANSI/AAMI/ISO 5840-3-2012).

US adoption of AAMI/ISO 5840-3-202x, Cardiovascular implants - Cardiac valve prostheses - Part 3: Heart valve substitutes implanted by transcatheter techniques. Applicable to all devices intended for implantation as a transcatheter heart valve substitute. Applicable to transcatheter heart valve substitutes and to the accessory devices, packaging and labelling required for their implantation and for determining the appropriate size of heart valve substitute to be implanted. Seeking industry, user, regulator and general interest participation.

BSR/AAMI/ISO 25539-2-202x, Cardiovascular implants - Endovascular devices - Part 2: Vascular stents (identical national adoption of ISO 25539-2:2020, Cardiovascular implants - Endovascular devices - Part 2: Vascular stents, and revision of ANSI/AAMI/ISO 25539-2-2012).

US adoption of AAMI/ISO 25539-2-202x, Cardiovascular implants - Endovascular devices - Part 2: Vascular stents. Specifies requirements for the evaluation of stent systems (vascular stents and delivery systems) and requirements with respect to nomenclature, design attributes and information supplied by the manufacturer, based upon current medical knowledge. Guidance for the development of in vitro test methods is included. Seeking industry, user, regulator and general interest participation.

## Call for Members (ANS Consensus Bodies)

### 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 affected 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 categories:

- Service Providers
- Users
- Standards Development Organizations and Consortia
- Academic Institutions

### 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).

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).

# American National Standards (ANS) Announcements

---

## Corrections

### ASME (American Society of Mechanical Engineers)

#### Correction to URL electronic drafts for BSR/ASME B30.9-202x & BSR/ASME B30.22-202x

There was a problem with the URL's published in the 2/19/2021 Standards Action Call for Comment notice for: BSR/ASME B30.9-202x, Slings (revision of ANSI/ASME B30.9-2018) and BSR/ASME B30.22-202x Articulating Boom Cranes (revision of ANSI/ASME B30.22-2016)

The URL has been corrected and electronic copies can be obtained from:

<https://cstools.asme.org/csconnect/PublicReviewPage.cfm>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Kathleen Peterson; [peteronk@asme.org](mailto:peteronk@asme.org)

ASME American Society of Mechanical Engineers

The comment deadline is April 5, 2021

## Corrections

### ASTM - ASTM International

#### Approval Date on Final Action of: ANSI/ASTM D2672-2020

The Final Action notice in Issue 51 Volume 44 of Standards Action, listed an incorrect Date of Final Action for: ANSI/ASTM D2672-2020, Specification for Joints for IPS PVC Pipe Using Solvent Cement (revision of ANSI/ASTM D2672-2017)

The correct Approval Date of Final Action is: 10/20/2020

Please direct inquires to Laura Klineburger, ASTM International (610) 832-9744, [accreditation@astm.org](mailto:accreditation@astm.org)

# Accreditation Announcements (Standards Developers)

---

## Change of ASD Name and Scope

### ACP - American Clean Power Association

#### Formerly accredited as American Wind Energy Association (AWEA)

On January 1, 2021, the American Wind Energy Association (AWEA), an ANSI Member and Accredited Standards Developer (ASD), officially merged with the American Clean Power Association (ACP). The ANSI ASD is now known as the American Clean Power Association (ACP), and has submitted the following revised ASD scope for informational purposes.

Development of codes or standards within a specific project scope which is in the interest of clean power. These interests may include requirements for uniform practices in technology, power systems, design criteria, performance, operations, maintenance, environmental, safety, health, construction, installation, production, siting, qualification of personnel, training, and education, and/or related programs for clean power. The standards and codes developed by committees are continually formed at the request of interested and affected parties depending on the needs of the industry, in order to meet the challenges and requirements on the international, national, and local levels.

The former scope of AWEA was:

AWEA prepares standards documents to facilitate uniform practices in the technology of Wind Energy Conversion Systems. AWEA also coordinates U.S. input and response to the international standards activities. AWEA's standards program consists of the following subcommittees: Performance, Siting, Acoustics, Operational Safety, Electrical Power Systems, Design Criteria, WECS/Diesel, Terminology, and Installation.

Any comments or questions related to the revised scope should be submitted by April 5, 2021 to: Ms. Michel Myers-Mihelic, Director, Worker Health and Safety Policy and Standards Development, American Clean Power Association, 1501 M Street, NW, Suite 1000, Washington, DC 20005; phone: 202.383.2500; email: [mmihelic@cleanpower.org](mailto:mmihelic@cleanpower.org) (please copy [psa@ansi.org](mailto:psa@ansi.org)).

## Accreditation Announcements (Standards Developers)

### Public Review of Revised ASD Operating Procedures

#### ABMA (ASC B3) - American Bearing Manufacturers Association

**Comment Deadline: April 5, 2021**

ANSI-Accredited Standards Committee B3, Ball and Roller Bearings, has submitted revisions to its currently accredited operating procedures for documenting consensus on ASC B3-sponsored American National Standards, under which it was last reaccredited in 2015. As the current revisions appear to be substantive in nature, the reaccreditation process is initiated.

To obtain a copy of the revised procedures or to offer comments, please contact the Secretariat of ASC B3: Mr. Amir Aboutaleb, Vice President, Technical Division, American Bearing Manufacturers Association, 1001 N. Fairfax Street, Suite 500, Alexandria, VA 22314; phone: 703.838.0053; email: Aboutaleb@americanbearings.org. You may view/download a copy of the revisions during the public review period at the following URL:

<https://share.ansi.org/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2FShared%20Documents%2FStandards%20Activities%2FPublic%20Review%20and%20Comment%2FANS%20Accreditation%20Actions%2FMarch%205%20%2D%20April%205%2C%202021%20Public%20Review%20Period>

Please submit any public comments on the revised procedures to ABMA by April 5, 2021, with a copy to the ExSC Recording Secretary in ANSI's New York Office (jthompso@ANSI.org)

### Public Review of Revised ASD Operating Procedures

#### AHRI - Air-Conditioning, Heating, and Refrigeration Institute

**Comment Deadline: April 5, 2021**

The Air-Conditioning, Heating and Refrigeration Institute (AHRI), an ANSI member and Accredited Standards Developer, has submitted revisions to its currently accredited operating procedures for documenting consensus on AHRI-sponsored American National Standards, under which it was last reaccredited in 2016. As the current revisions appear to be substantive in nature, the reaccreditation process is initiated.

To obtain a copy of the revised procedures or to offer comments, please contact: Mr. Karl Best, Senior Manager, Standards, Air-Conditioning, Heating and Refrigeration Institute, 2311 Wilson Boulevard, Arlington, VA 22201-3001; phone: 703.293.4887; email: [kbest@ahrinet.org](mailto:kbest@ahrinet.org). You may view/download a copy of the revisions during the public review period at the following URL: <https://share.ansi.org/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2FShared%20Documents%2FStandards%20Activities%2FPublic%20Review%20and%20Comment%2FANS%20Accreditation%20Actions%2FMarch%205%20%2D%20April%205%2C%202021%20Public%20Review%20Period&InitialTabId=Ribbon%2EDocument&VisibilityContext=WSSTabPersistence>.

Please submit any public comments on the revised procedures to AHRI by April 5, 2021, with a copy to the ExSC Recording Secretary in ANSI's New York Office ([jthompso@ANSI.org](mailto:jthompso@ANSI.org)).

## Accreditation Announcements (Standards Developers)

### Public Review of Revised ASD Operating Procedures

#### ASSP (ASC A10) - American Society of Safety Professionals

**Comment Deadline: April 5, 2021**

The American Society of Safety Professionals, an ANSI Member and Accredited Standards Developer, and its sponsored ANSI-Accredited Standards Committee A10, Safety Requirements for Construction and Demolition Operations, have submitted revisions to their currently accredited operating procedures for documenting consensus on ASSP and ASC A10-sponsored American National Standards, under which both were last reaccredited in 2015. As the current revisions appear to be substantive in nature, the reaccreditation process is initiated.

To obtain a copy of the revised procedures or to offer comments, please contact: Mr. Tim Fisher, Director, American Society of Safety Professionals, 520 N. Northwest Highway, Park Ridge, IL 60068; phone: 847.768-3411; email: [tfisher@assp.org](mailto:tfisher@assp.org). You may view/download a copy of the revisions during the public review period at the following URL: <https://share.ansi.org/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2FShared%20Documents%2FStandards%20Activities%2FPublic%20Review%20and%20Comment%2FANSI%20Accreditation%20Actions%2FMarch%205%20%2D%20April%205%2C%202021%20Public%20Review%20Period>. Please submit any public comments on the revised procedures to ASSP by April 5, 2021, with a copy to the ExSC Recording Secretary in ANSI's New York Office ([jthomps@ANSI.org](mailto:jthomps@ANSI.org)).

# Meeting Notices (Standards Developers)

---

## **ANSI Accredited Standards Developer**

### **CSA Group - CSA America Standards Inc.**

#### **Teleconference on May 14, 2021 from 1 p.m. to 4 p.m. EST**

The CSA Group will hold the Fuel Cell Technical Committee meeting by teleconference on May 14, 2021 from 1 p.m. to 4 p.m. EST. Guests planning to attend the meeting are required to notify the project manager listed below in advance of the meeting, and provide a brief explanation of interest. If you wish to present specific comments on an item of business, you are required to notify the project manager in writing no later than April 1, 2021. Notification shall include any material proposed for presentation to the Technical Committee.

For more information on the meeting and the agenda, contact Mark Duda, Project Manager at [mark.duda@csagroup.org](mailto:mark.duda@csagroup.org).

## **ANSI Accredited Standards Developer**

### **Natural Gas Transportation Technical Committee (CSA Group)**

#### **Thursday, April 22, 2021**

CSA Group will hold the Natural Gas Transportation Technical Committee meeting by WebEx on Thursday, April 22, 2021 from 1 pm to 3 pm Eastern. For more information on the meeting and the agenda, contact Julie Cairns at [julie.cairns@csagroup.org](mailto:julie.cairns@csagroup.org).

# American National Standards (ANS) Process

---

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 - PINS, BSR8|108, BSR11, Technical Report: <https://www.ansi.org/portal/psawebforms/>
- Information about standards Incorporated by Reference (IBR): <https://ibr.ansi.org/>
- ANSI - Education and Training: [www.standardslearn.org](http://www.standardslearn.org)

If you have a question about the ANS process and cannot find the answer, please email us at: [psa@ansi.org](mailto:psa@ansi.org) . Please also visit Standards Boost Business at [www.standardsboostbusiness.org](http://www.standardsboostbusiness.org) for resources about why standards matter, testimonials, case studies, FAQs and more.

If you are interested in purchasing an American National Standard, please visit <https://webstore.ansi.org>

# American National Standards Under Continuous Maintenance

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

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

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

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

To obtain additional information with regard to these standards, including contact information at the ANSI Accredited Standards Developer, please visit ANSI Online at [www.ansi.org/asd](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 Contacts

The addresses listed in this section are to be used in conjunction with standards listed in PINS, Call for Comment 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 Standards Action Editor at [standact@ansi.org](mailto:standact@ansi.org).

---

## AAFS

American Academy of Forensic Sciences  
410 North 21st Street  
Colorado Springs, CO 80904  
e: [tambrosius@aafs.org](mailto:tambrosius@aafs.org)  
p: (719) 453-1036  
[www.aafs.org](http://www.aafs.org)

## ADA (Organization)

American Dental Association  
211 East Chicago Avenue  
Chicago, IL 60611-2678  
e: [bralowerp@ada.org](mailto:bralowerp@ada.org)  
p: (312) 587-4129  
[www.ada.org](http://www.ada.org)

## AGMA

American Gear Manufacturers Association  
1001 N Fairfax Street  
5th Floor  
Alexandria, VA 22314-1587  
e: [tech@agma.org](mailto:tech@agma.org)  
p: (703) 684-0211  
[www.agma.org](http://www.agma.org)

## AMCA

Air Movement and Control Association  
30 West University Drive  
Arlington Heights, IL 60004-1893  
e: [shrutik@amca.org](mailto:shrutik@amca.org)  
p: (847) 704-6285  
[www.amca.org](http://www.amca.org)

## ASHRAE

American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.  
1791 Tullie Circle NE  
Atlanta, GA 30329  
e: [tmlisle@ashrae.org](mailto:tmlisle@ashrae.org)  
p: (678) 539-1111  
[www.ashrae.org](http://www.ashrae.org)

## ASHRAE

American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.  
180 Technology Parkway NW  
Peachtree Corners, GA 30092  
e: [rshanley@ashrae.org](mailto:rshanley@ashrae.org)  
p: (678) 539-2114  
[www.ashrae.org](http://www.ashrae.org)

## ASME

American Society of Mechanical Engineers  
Two Park Avenue  
M/S 6-2B  
New York, NY 10016-5990  
e: [ansibox@asme.org](mailto:ansibox@asme.org)  
p: (212) 591-8489  
[www.asme.org](http://www.asme.org)

## ASPE

American Society of Plumbing Engineers  
6400 Shafer Court  
Suite 350  
Rosemont, IL 60018  
e: [gpianta@aspe.org](mailto:gpianta@aspe.org)  
p: (847) 296-0002  
[www.aspe.org](http://www.aspe.org)

## ASSP (Safety)

American Society of Safety Professionals  
520 N. Northwest Highway  
Park Ridge, IL 60068  
e: [TFisher@ASSP.org](mailto:TFisher@ASSP.org)  
p: (847) 768-3411  
[www.assp.org](http://www.assp.org)

## ASTM

ASTM International  
100 Barr Harbor Drive  
West Conshohocken, PA 19428-2959  
e: [accreditation@astm.org](mailto:accreditation@astm.org)  
p: (610) 832-9744  
[www.astm.org](http://www.astm.org)

## ATIS

Alliance for Telecommunications Industry Solutions  
1200 G Street NW  
Suite 500  
Washington, DC 20005  
e: [akarditzas@atis.org](mailto:akarditzas@atis.org)  
p: (202) 434-8843  
[www.atis.org](http://www.atis.org)

## AWI

Architectural Woodwork Institute  
46179 Westlake Drive  
Suite 120  
Potomac Falls, VA 20165-5874  
e: [cdermyre@awinet.org](mailto:cdermyre@awinet.org)  
p: 229-389-2539  
[www.awinet.org](http://www.awinet.org)

**AWPA (ASC 05)**

American Wood Protection  
Association  
P.O. Box 361784  
Birmingham, AL 35236-1784  
e: email@awpa.com  
p: (205) 733-4077  
www.awpa.com

**AWWA**

American Water Works Association  
6666 W. Quincy Avenue  
Denver, CO 80235  
e: polson@awwa.org  
p: (303) 347-6178  
www.awwa.org

**BHMA**

Builders Hardware Manufacturers  
Association  
355 Lexington Avenue, 15th Floor  
New York, NY 10017-6603  
e: Kbishop@Kellencompany.com  
p: (513) 600-2871  
www.buildershardware.com

**BIFMA**

Business and Institutional Furniture  
Manufacturers Association  
678 Front Avenue NW  
Grand Rapids, MI 49504  
e: skooy@bifma.com  
p: (616) 443-5053  
www.bifma.org

**CSA**

CSA America Standards Inc.  
8501 E. Pleasant Valley Road  
Cleveland, OH 44131  
e: ansi.contact@csagroup.org  
p: (216) 524-4990  
www.csagroup.org

**CTA**

Consumer Technology Association  
1919 South Eads Street  
Arlington, VA 22202  
e: vlancaster@cta.tech  
p: (703) 907-7697  
www.cta.tech

**EOS/ESD**

ESD Association, Inc.  
7902 Turin Road  
Building 3  
Rome, NY 13440-2069  
e: laurenradmin@esda.org  
p: (315) 339-6937  
www.esda.org

**ESTA**

Entertainment Services and  
Technology Association  
271 Cadman Plaza  
P.O. Box 23200  
Brooklyn, NY 11202-3200  
e: standards@esta.org  
p: (212) 244-1505  
www.esta.org

**FCI**

Fluid Controls Institute  
1300 Sumner Avenue  
Cleveland, OH 44115  
e: fci@fluidcontrolsintitute.org  
p: (216) 241-7333  
www.fluidcontrolsintitute.org

**IAPMO (Z)**

International Association of Plumbing  
& Mechanical Officials  
5001 East Philadelphia Street  
Ontario, CA 91761  
e: standards@iapmostandards.org  
p: (909) 230-5534  
https://www.iapmostandards.org

**IICRC**

The Institute of Inspection, Cleaning  
and Restoration Certification  
4043 South Eastern Avenue  
Las Vegas, NV 89119  
e: mwashton@iicrcnet.org  
p: (702) 430-9829  
https://www.iicrc.org

**ISA (Organization)**

International Society of Automation  
67 Alexander Drive  
Research Triangle Park, NC 27709  
e: ebrazda@isa.org  
p: (919) 990-9228  
www.isa.org

**NAAMM**

National Association of Architectural  
Metal Manufacturers  
123 College Place  
#1101  
Norfolk, VA 23510  
e: wlewis7@cox.net  
p: (757) 489-0787  
www.naamm.org

**NEMA (ASC C12)**

National Electrical Manufacturers  
Association  
1300 North 17th Street  
Suite 900  
Rosslyn, VA 22209  
e: orrpaul@aol.com  
p: (703) 477-9997  
www.nema.org

**NEMA (ASC C8)**

National Electrical Manufacturers  
Association  
1300 North 17th Street  
Suite 900  
Arlington, VA 22209  
e: Khaled.Masri@nema.org  
p: (571) 426-3226  
www.nema.org

**NFPA**

National Fire Protection Association  
 One Batterymarch Park  
 Quincy, MA 02169  
 e: dbellis@nfpa.org  
 p: (617) 984-7246  
 www.nfpa.org

**NSF**

NSF International  
 789 N. Dixboro Road  
 Ann Arbor, MI 48105-9723  
 e: arose@nsf.org  
 p: (734) 827-3817  
 www.nsf.org

**NSF**

NSF International  
 789 N. Dixboro Road  
 Ann Arbor, MI 48105-9723  
 e: rbrooker@nsf.org  
 p: (734) 827-6866  
 www.nsf.org

**OIX**

Open-IX Association  
 340 South Lemon Avenue #7988  
 Walnut, CA 91789  
 e: finance@open-ix.org  
 p: (619) 916-9417  
 http://www.open-ix.org

**OPEI**

Outdoor Power Equipment Institute  
 1605 King Street  
 Alexandria, VA 22314  
 e: gknott@opei.org  
 p: (703) 549-7600  
 www.opei.org

**PLASTICS**

Plastics Industry Association  
 1425 K Street, NW  
 Suite 500  
 Washington, DC 20005  
 e: jjones@plasticsindustry.org  
 p: (202) 974-5217  
 www.plasticsindustry.org

**SCTE**

Society of Cable Telecommunications  
 Engineers  
 140 Philips Rd  
 Exton, PA 19341  
 e: kcooney@scte.org  
 p: (800) 542-5040  
 www.scte.org

**TIA**

Telecommunications Industry  
 Association  
 1320 North Courthouse Road  
 Suite 200  
 Arlington, VA 22201  
 e: standards-process@tiaonline.org  
 p: (703) 907-7706  
 www.tiaonline.org

**UL**

Underwriters Laboratories  
 12 Laboratory Drive  
 Research Triangle Park, NC 27709  
 -3995  
 e: caroline.treuthardt@ul.org  
 p: (919) 549-0922  
 https://ul.org/

**UL**

Underwriters Laboratories  
 12 Laboratory Drive  
 Research Triangle Park, NC 27709  
 -3995  
 e: Julio.Morales@UL.org  
 p: (919) 549-1097  
 https://ul.org/

**UL**

Underwriters Laboratories  
 12 Laboratory Drive  
 Research Triangle Park, NC 27709  
 -3995  
 e: patricia.a.sena@ul.org  
 p: (919) 549-1636  
 https://ul.org/

**UL**

Underwriters Laboratories  
 171 Nepean Street  
 Suite 400  
 Ottawa, ON K2P 0B4 Canada  
 e: laura.werner@ul.org  
 p: (613) 368-4417  
 https://ul.org/

**UL**

Underwriters Laboratories  
 47173 Benicia Street  
 Fremont, CA 94538  
 e: Marcia.M.Kawate@ul.org  
 p: (510) 319-4259  
 https://ul.org/

**VITA**

VMEbus International Trade  
 Association (VITA)  
 929 W. Portobello Avenue  
 Mesa, AZ 85210  
 e: jing.kwok@vita.com  
 p: (602) 281-4497  
 www.vita.com



# ISO & IEC Draft International Standards

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

## COMMENTS

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

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

## ORDERING INSTRUCTIONS

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

## ISO Standards

### BANKING AND RELATED FINANCIAL SERVICES (TC 68)

ISO/DIS 11568, Financial services - Key management (retail) - Principles, symmetric ciphers and asymmetric cryptosystems, their key management and life cycle - 5/14/2021, \$175.00

### CLEANING EQUIPMENT FOR AIR AND OTHER GASES (TC 142)

ISO/DIS 29463-5, High-efficiency filters and filter media for removing particles in air - Part 5: Test method for filter elements - 5/14/2021, \$88.00

### DENTISTRY (TC 106)

ISO/DIS 18618, Dentistry - Interoperability of CAD/CAM systems - 5/14/2021, \$134.00

### DOCUMENTS AND DATA ELEMENTS IN ADMINISTRATION, COMMERCE AND INDUSTRY (TC 154)

ISO/DIS 9735-11, Electronic data interchange for administration, commerce and transport (EDIFACT) - Application level syntax rules (Syntax version number: 4, Syntax release number: 1) - Part 11: Version 3 compatible profile for Version 4 of ISO 9735 - 5/16/2021, \$58.00

### JEWELLERY (TC 174)

ISO/DIS 11596, Jewellery and precious metals - Sampling of precious metals and precious metal alloys - 5/14/2021, \$58.00

### ROAD VEHICLES (TC 22)

ISO 6469-1/DAmD1, Electrically propelled road vehicles - Safety specifications - Part 1: Rechargeable energy storage system (RESS) - Amendment 1: Safety management of thermal propagation - 5/16/2021, \$112.00

ISO/DIS 6469-2, Electrically propelled road vehicles - Safety specifications - Part 2: Vehicle operational safety - 5/16/2021, \$46.00

### SHIPS AND MARINE TECHNOLOGY (TC 8)

ISO/DIS 7547, Ships and marine technology - Air-conditioning and ventilation of accommodation spaces and other enclosed compartments on board ships - Design conditions and basis of calculations - 5/16/2021, \$82.00

ISO/DIS 22834, Large yachts - Quality assessment of life onboard - Stabilization/sea keeping - 5/16/2021, \$62.00

### SMALL TOOLS (TC 29)

ISO/DIS 603-14, Bonded abrasive products - Dimensions - Part 14: Grinding wheels for deburring and fettling/snagging on an angle grinder - 5/16/2021, \$53.00

ISO/DIS 603-15, Bonded abrasive products - Dimensions - Part 15: Cutting-off wheels on stationary or mobile cutting-off machines - 5/16/2021, \$40.00

ISO/DIS 603-16, Bonded abrasive products - Dimensions - Part 16: Cutting-off wheels on hand held power tools - 5/16/2021, \$33.00

### SURFACE CHEMICAL ANALYSIS (TC 201)

ISO 17109/DAmD1, Surface chemical analysis - Depth profiling - Method for sputter rate determination in X-ray photoelectron spectroscopy, Auger electron spectroscopy and secondary-ion mass spectrometry sputter depth profiling using single and multi-layer thin films - Amendment 1 - 5/17/2021, \$67.00

### ISO/IEC JTC 1, Information Technology

ISO/IEC DIS 23634, Information technology - Automatic identification and data capture techniques - JAB Code polychrome bar code symbology specification - 5/13/2021, \$146.00

ISO/IEC DIS 38507, Information technology - Governance of IT - Governance implications of the use of artificial intelligence by organizations - 5/14/2021, \$88.00

ISO/IEC DIS 21122-2, Information technology - JPEG XS low-latency lightweight image coding system - Part 2: Profiles and buffer models - 5/14/2021, \$119.00

ISO/IEC DIS 23003-7, Information technology - MPEG audio technologies - Part 7: Unified speech and audio coding conformance testing - 5/14/2021, \$119.00

## IEC Standards

- 17A/1297/FDIS, IEC 62271-103 ED2: High-voltage switchgear and controlgear - Part 103: Switches for rated voltages above 1 kV up to and including 52 kV, 04/09/2021
- 17C/773/CDV, IEC 62271-209/AMD1 ED2: Amendment 1 - High-voltage switchgear and controlgear - Part 209: Cable connections for gas-insulated metal-enclosed switchgear for rated voltages above 52 kV - Fluid-filled and extruded insulation cables - Fluid-filled and dry-type cable-terminations, 05/21/2021
- 17C/782/FDIS, IEC 62271-200 ED3: High-voltage switchgear and controlgear - Part 200: AC metal-enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV, 04/09/2021
- 21/1082/CDV, IEC 62660-3 ED2: Secondary lithium-ion cells for the propulsion of electric road vehicles - Part 3: Safety requirements, 05/21/2021
- 22E/214/NP, PNW TS 22E-214 ED1: Functions of smart inverter for DER to support the power grid - Test Methods for general function requirements, 04/23/2021
- 22F/619/CD, IEC TR 60919-3/AMD2 ED2: Amendment 2 - Performance of high-voltage direct current (HVDC) systems with line-commutated converters - Part 3: Dynamic conditions, 04/23/2021
- 36/512/CD, IEC TS 60815-1 ED2: Selection and dimensioning of high-voltage insulators intended for use in polluted conditions - Part 1: Definitions, information and general principles, 05/21/2021
- 36/513/CD, IEC TS 60815-2 ED2: Selection and dimensioning of high-voltage insulators intended for use in polluted conditions - Part 2: Ceramic and glass insulators for a.c. systems, 05/21/2021
- 36/514/CD, IEC TS 60815-3 ED2: Selection and dimensioning of high-voltage insulators intended for use in polluted conditions - Part 3: Polymer insulators for a.c. systems, 05/21/2021
- 47/2679/CDV, IEC 63275-1 ED1: Semiconductor devices - Reliability test method for silicon carbide discrete metal-oxide semiconductor field effect transistors - Part 1: Test method for bias temperature instability, 05/21/2021
- 47/2680/CDV, IEC 63275-2 ED1: Semiconductor devices - Reliability test method for silicon carbide discrete metal-oxide semiconductor field effect transistors - Part 2: Test method for bipolar degradation due to body diode operation, 05/21/2021
- 47/2681/CDV, IEC 63284 ED1: Semiconductor devices - Reliability test method by inductive load switching for gallium nitride transistors, 05/21/2021
- 47D/928/DTR, IEC TR 63378-1 ED1: Thermal standardization on semiconductor packages - Part 1: Thermal resistance and thermal parameter of BGA, QFP type semiconductor packages, 04/23/2021
- 47E/743/NP, PNW 47E-743 ED1: Semiconductor devices - Part 5-16: Optoelectronic devices - Light emitting diodes - Test method of the flat-band voltage based on the photocurrent spectroscopy, 05/21/2021
- 49/1357/CDV, IEC 63041-1 ED2: Piezoelectric sensors - Part 1: Generic specifications, 05/21/2021
- 57/2361/FDIS, IEC 61970-600-2 ED1: Energy management system application program interface (EMS-API) - Part 600-2: Common Grid Model Exchange Specification (CGMES) - Exchange profiles specification, 04/09/2021
- 59F/424/CDV, IEC/ASTM 62885-7/AMD1 ED1: Amendment 1 - Surface cleaning appliances - Part 7: Dry-cleaning robots for household or similar use - Methods for measuring the performance, 05/21/2021
- 59L/201/NP, PNW 59L-201 ED1: Household and similar use electrical rice cookers - Methods for measuring the performance, 05/21/2021
- 65C/1084/FDIS, IEC 61588 ED3: Precision clock synchronization protocol for networked measurement and control systems, 04/09/2021
- 78/1330/CDV, IEC 62819 ED1: Live working - Eye, face and head protectors against the effects of electric arc - Test methods and performance requirements, 05/21/2021
- 82/1838/CDV, IEC 62788-7-3 ED1: Measurement procedures for materials used in photovoltaic modules - Part 7-3: Environmental exposures - Accelerated abrasion tests of PV module external surfaces, 05/21/2021
- 82/1876/CD, IEC 61215-1-2/AMD1 ED2: Amendment 1 - Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 1-2: Special requirements for testing of thin-film Cadmium Telluride (CdTe) based photovoltaic (PV) modules, 04/23/2021
- 88/806/Q, Proposed technical corrigendum to IEC 61400-12-1:2017 Ed.2.0, Wind energy generation systems - Part 12-1: Power performance measurements of electricity producing wind turbines , 04/09/2021
- 91/1710/NP, PNW 91-1710 ED1: Electrical test method of printed circuit board by measuring the capacitance, 05/21/2021
- 101/625/CD, IEC 61340-2-1/AMD1 ED2: Amendment 1 - Electrostatics - Part 2-1: Measurement methods - Ability of materials and products to dissipate static electric charge (Proposed horizontal standard), 05/21/2021
- 110/1287/CDV, IEC 62629-1-2 ED2: 3D display devices - Part 1-2: Generic - Terminology and letter symbols, 05/21/2021

- 110/1296/FDIS, IEC 62595-2-5 ED1: Display lighting unit - Part 2-5: Measurement method for optical quantities of non-planar light sources, 04/09/2021
- 112/525/CD, IEC TS 61934 ED3: Electrical insulating materials and systems - Electrical measurement of partial discharges (PD) under short rise time and repetitive voltage impulses, 05/21/2021
- 117/137/NP, PNW 117-137 ED1: Laboratory reflectance measurement of concentrating solar thermal reflectors, 05/21/2021
- 117/138/NP, PNW 117-138 ED1: Accelerated aging tests of silvered-glass reflectors for concentrating solar technologies, 05/21/2021
- 124/139/FDIS, IEC 63203-204-1 ED1: Wearable electronic devices and technologies - Part 204-1: Electronic textile - Test method for assessing washing durability of leisurewear and sportswear e-textile systems, 04/09/2021
- SyCSmartCities/183/CD, IEC SRD 63233-1 ED1: Systems Reference Deliverable (SRD) - Smart City Standards Inventory and Mapping- Part 1: Methodology, 05/21/2021



# 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

### AGRICULTURAL FOOD PRODUCTS (TC 34)

[ISO 21187:2021](#), Milk - Quantitative determination of microbiological quality - Guidance for establishing and verifying a conversion relationship between results of an alternative method and anchor method results, \$149.00

### DENTISTRY (TC 106)

[ISO 4823:2021](#), Dentistry - Elastomeric impression and bite registration materials, \$175.00

### FLUID POWER SYSTEMS (TC 131)

[ISO 7425-1:2021](#), Hydraulic fluid power cylinders - Dimensions and tolerances of housings for elastomer-energized, plastic-faced seals - Part 1: Piston seal housings, \$73.00

[ISO 7425-2:2021](#), Hydraulic fluid power cylinders - Dimensions and tolerances of housings for elastomer-energized, plastic-faced seals - Part 2: Rod seal housings, \$73.00

### MATERIALS, EQUIPMENT AND OFFSHORE STRUCTURES FOR PETROLEUM AND NATURAL GAS INDUSTRIES (TC 67)

[ISO 15663:2021](#), Petroleum, petrochemical and natural gas industries - Life cycle costing, \$250.00

### OTHER

[ISO 17130:2021](#), Leather - Physical and mechanical tests - Determination of dimensional change, \$48.00

### PERSONAL SAFETY - PROTECTIVE CLOTHING AND EQUIPMENT (TC 94)

[ISO 13688/Amd1:2021](#), - Amendment 1, \$20.00

[ISO 19734:2021](#), Eye and face protection - Guidance on selection, use and maintenance, \$200.00

### PLASTICS (TC 61)

[ISO 11443:2021](#), Plastics - Determination of the fluidity of plastics using capillary and slit-die rheometers, \$200.00

[ISO 1628-1:2021](#), Plastics - Determination of the viscosity of polymers in dilute solution using capillary viscometers - Part 1: General principles, \$111.00

### SECURITY (TC 292)

[ISO 22300:2021](#), Security and resilience - Vocabulary, \$48.00

### SOLID RECOVERED FUELS (TC 300)

[ISO 21656:2021](#), Solid recovered fuels - Determination of ash content, \$111.00

[ISO 21912:2021](#), Solid recovered fuels - Safe handling and storage of solid recovered fuels, \$200.00

### STEEL (TC 17)

[ISO 7989-2:2021](#), Steel wire and wire products - Non-ferrous metallic coatings on steel wire - Part 2: Zinc or zinc-alloy coating, \$111.00

### STERILIZATION OF HEALTH CARE PRODUCTS (TC 198)

[ISO 17664-2:2021](#), Processing of health care products - Information to be provided by the medical device manufacturer for the processing of medical devices - Part 2: Non-critical medical devices, \$149.00

### THERMAL INSULATION (TC 163)

[ISO 21901:2021](#), Thermal insulation - Test method for thermal diffusivity - Periodic heat method, \$111.00

### TRACTORS AND MACHINERY FOR AGRICULTURE AND FORESTRY (TC 23)

[ISO 21191:2021](#), Equipment for crop protection - Closed transfer systems (CTS) - Performance specification, \$149.00

### WELDING AND ALLIED PROCESSES (TC 44)

[ISO 17279-3:2021](#), Welding - Micro joining of second generation high temperature superconductors - Part 3: Test methods for joints, \$200.00

[ISO 17677-1:2021](#), Resistance welding - Vocabulary - Part 1: Spot, projection and seam welding, \$48.00

### ISO/IEC JTC 1, Information Technology

[ISO/IEC 10116/Amd1:2021](#), - Amendment 1: CTR-ACPKM mode of operation, \$20.00

[ISO/IEC 18033-5/Amd1:2021](#), - Amendment 1: SM9 mechanism, \$20.00

[ISO/IEC 23000-22/Amd1:2021](#), - Amendment 1: Reference software and conformance for multi-image application format, \$20.00

[ISO/IEC/IEEE 8802-3:2021](#), Telecommunications and exchange between information technology systems - Requirements for local and metropolitan area networks - Part 3: Standard for Ethernet, \$250.00

[ISO/IEC TS 27006-2:2021](#), Requirements for bodies providing audit and certification of information security management systems - Part 2: Privacy information management systems, \$73.00

[IEC 60794-2-31 Amd.1 Ed. 3.0 b:2020](#), Amendment 1 - Optical fibre cables - Part 2-31: Indoor cables - Detailed specification for optical fibre ribbon cables for use in premises cabling, \$13.00

[IEC 60794-2-31 Ed. 3.1 b:2020](#), Optical fibre cables - Part 2-31: Indoor cables - Detailed specification for optical fibre ribbon cables for use in premises cabling, \$51.00

[S+ IEC 61290-1-3 Ed. 4.0 en:2021 \(Redline version\)](#), Optical amplifiers - Test methods - Part 1-3: Power and gain parameters - Optical power meter method, \$173.00

[S+ IEC 60793-2-40 Ed. 5.0 en:2021 \(Redline version\)](#), Optical fibres - Part 2-40: Product specifications - Sectional specification for category A4 multimode fibres, \$338.00

## IEC Standards

### AUDIO, VIDEO AND MULTIMEDIA SYSTEMS AND EQUIPMENT (TC 100)

[IEC 61937-SER Ed. 1.0 b:2021](#), Digital audio - Interface for non-linear PCM encoded audio bitstreams applying IEC 60958 - ALL PARTS, \$1710.00

### ELECTRICAL APPARATUS FOR EXPLOSIVE ATMOSPHERES (TC 31)

[IEC 60079-26 Ed. 4.0 b:2021](#), Explosive atmospheres - Part 26: Equipment with Separation Elements or combined Levels of Protection, \$183.00

### FIBRE OPTICS (TC 86)

[IEC 61290-1-3 Ed. 4.0 b:2021](#), Optical amplifiers - Test methods - Part 1-3: Power and gain parameters - Optical power meter method, \$133.00

[IEC 60793-2-40 Ed. 5.0 b:2021](#), Optical fibres - Part 2-40: Product specifications - Sectional specification for category A4 multimode fibres, \$259.00

[IEC 60794-2-11 Amd.1 Ed. 3.0 b:2020](#), Amendment 1 - Optical fibre cables - Part 2-11: Indoor cables - Detailed specification for simplex and duplex cables for use in premises cabling, \$13.00

[IEC 60794-2-11 Ed. 3.1 b:2020](#), Optical fibre cables - Part 2-11: Indoor cables - Detailed specification for simplex and duplex cables for use in premises cabling, \$51.00

[IEC 60794-2-21 Amd.1 Ed. 3.0 b:2020](#), Amendment 1 - Optical fibre cables - Part 2-21: Indoor cables - Detailed specification for multi-fibre optical distribution cables for use in premises cabling, \$13.00

[IEC 60794-2-21 Ed. 3.1 b:2020](#), Optical fibre cables - Part 2-21: Indoor cables - Detailed specification for multi-fibre optical distribution cables for use in premises cabling, \$51.00

# International Organization for Standardization (ISO)

---

## ISO Proposal for a New Field of ISO Technical Activity

### Chain of Custody

**Comment Deadline: March 26, 2021**

NEN, the ISO member body for the Netherlands and secretariat of ISO Project Committee 308 (ISO/PC 308), has submitted to ISO a proposal for a new field of ISO technical activity on Chain of custody, with the following scope statement

Standardization in the field of chain of custody (CoC) for products and associated processes with specified characteristics, with the aim of ensuring that associated claims are reliable.

Please note that NEN proposed a new work item proposal on this subject in 2016 which was approved, and the standard ISO 22095:2020 (Chain of custody — General terminology and models) was developed under ISO/PC 308. This proposal is to convert ISO/PC 308 into a technical committee with an extended work program.

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team ([sot@ansi.org](mailto:sot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, March 26, 2021.

Organizations interested in participating in the U.S. TAG or obtaining additional information should contact the U.S. TAG Administrator, Grace Roh, ([Grace.Roh@ul.com](mailto:Grace.Roh@ul.com)) of Underwriters Laboratories.

## ISO Proposal for a New Field of ISO Technical Activity

### Roofing and Waterproofing Building Materials

**Comment Deadline: April 23, 2021**

GOST R, the ISO member body for Russia, has submitted to ISO a proposal for a new field of ISO technical activity on Roofing and waterproofing building materials, with the following scope statement:

Standardization of materials and components used for roofs design and construction processes, as well as materials used for waterproofing in construction.

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team ([sot@ansi.org](mailto:sot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on April 23, 2021.

# **International Organization for Standardization (ISO)**

## **New Secretariats**

### **ISO/TC 96/SC 6 - Mobile Cranes**

**Comment Deadline: March 12, 2021**

The Association of Equipment Manufacturers (AEM) has requested to delegate the responsibilities of the administration of the ISO/TC 96/SC 6 secretariat to ANSI. The secretariat was previously held by the American Society of Mechanical Engineers (ASME) and the secretariat transfer is supported by the U.S. TAG.

ISO/TC 96/SC 6 operates under the following scope:

Standardization of terminology, load rating, testing, safety, and general design principles of equipment and components used in the construction, inspection, maintenance and safe operation of mobile cranes.

Organizations wishing to comment on the delegation of the responsibilities should contact ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)).

# Registration of Organization Names in the United States

---

The Procedures for Registration of Organization Names in the United States of America (document ISSB 989) require that alphanumeric organization names be subject to a 90-day Public Review period prior to registration. For further information, please contact the Registration Coordinator at (212) 642-4975.

When organization names are submitted to ANSI for registration, they will be listed here alphanumerically. Alphanumeric names appearing for the first time are printed in bold type. Names with confidential contact information, as requested by the organization, list only public review dates.

## Public Review

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

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

# Proposed Foreign Government Regulations

---

## Call for Comment

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

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

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

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



**BSR/ASHRAE Addendum a  
to ANSI/ASHRAE Standard 55-2020**

**Public Review Draft**

**Proposed Addendum a to  
Standard 55-2020, Thermal  
Environmental Conditions  
for Human Occupancy**

**First Public Review (February 2021)  
(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).

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).

The appearance of any technical data or editorial material in this public review document does not constitute endorsement, warranty, or guaranty by ASHARE of any product, service, process, procedure, or design, and ASHRAE expressly disclaims such.

© 2021 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

**ASHRAE, 1791 Tullie Circle, NE, Atlanta GA 30329-2305**

BSR/ASHRAE Addendum a to ANSI/ASHRAE Standard 55-2020, *Thermal Environmental Conditions for Human Occupancy*  
 First Public Review Draft

**(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

*Proposed Addendum a adds a new method for the assessment of the local thermal discomfort with vertical air temperature gradient between the head level and ankle level. Recent studies found that the current limits of 3 °C for sitting and 4 °C for standing occupants between head and feet are unnecessarily strict. These limits may impede the application of thermally stratified systems that are believed to be more energy efficient and associated with better ventilation effectiveness. The new method applies to occupants with clothing insulation less than 0.7 clo and metabolic rate less than 1.3 met, complying with the entire Section 5.3.3, “Local Thermal Discomfort.” The addendum was added using mandatory language in the body of the Standard. Informative appendix I has been updated to take into account the new method. The new method is based on the work described in:*

*Liu, S., Z. Wang, S. Schiavon, Y. He, M. Luo, H. Zhang, E. Arens. 2020. Predicted percentage of dissatisfied with vertical air temperature gradient. Energy and Buildings. p.110085.*

*<https://doi.org/10.1016/j.enbuild.2020.110085>; <https://escholarship.org/uc/item/0s76t57k>*

*[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 a to 55-2020

**Modify Section 3 as shown below. The remainder of Section 3 is unchanged.**

**local thermal discomfort:** the thermal discomfort caused by locally specific conditions such as a vertical air temperature ~~difference~~ gradient between the feet and the head, by radiant temperature asymmetry, by local convective cooling (draft), or by contact with a hot or cold floor.

**Modify Section 5.3.4.4 as shown below. A new Figure 5-7 has been added, existing figures should be renumbered accordingly.**

**5.3.3.4 Vertical Air Temperature ~~Difference-Gradient~~.** Air temperature ~~difference~~ gradient between head level and ankle level shall not exceed the value resulting from the following formula or in the shaded region of Figure 5-7 3°C (5.4°F) for seated occupants or 4°C (7.2°F) for standing occupants. (see note in Section 5.3.4.1).

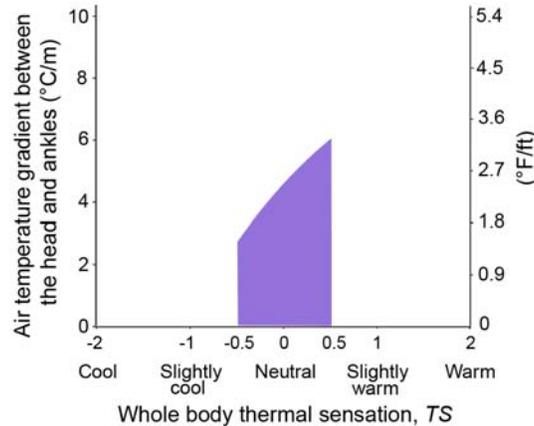
$$\nabla T < 7.82 - 0.87(TS - 1.91)^2 \quad (\nabla T \text{ in } ^\circ\text{C/m})$$

$$\nabla T < 4.29 - 0.48(TS - 1.91)^2 \quad (\nabla T \text{ in } ^\circ\text{F/ft})$$

where

$\nabla T$  = air temperature gradient between head and ankles, °C/m (°F/ft)

$TS$  = whole body thermal sensation. This is equal to PMV calculated using the input air temperatures over two heights: 0.6 m (24 in.) and 1.1 m (43 in.) for seated occupants and 1.1 m (43 in.) and 1.7 m (67 in.) for standing occupants.



**FIGURE 5-7 Vertical air temperature gradient limit as a function of whole body thermal sensation.**

**Exception to 5.3.3.4:** The requirement in this section does not apply when using elevated air speed in Section 5.3.3.

*Modify Informative Appendix, Section I4 as shown below.*

#### **I4. VERTICAL AIR TEMPERATURE DIFFERENCE GRADIENT**

Thermal stratification that results in the air temperature at the head level being warmer than that at the ankle level may cause thermal discomfort. Section 5.3.3.4 of this standard specifies allowable differences gradients of the air temperature between the air temperature at head level and the air temperature at ankle level. The maximum air temperature gradient is deduced from the predicted percentage dissatisfied with vertical air temperature gradient ( $PPD_{VT}$ ).  $PPD_{VT}$  is an index that establishes a quantitative prediction of the percentage of thermally dissatisfied people with air temperature gradient.  $PPD_{VT}$  is calculated according to the following formula deduced from Figure I4.

$$PPD_{VT} = \frac{e^{0.13(TS-1.91)^2+0.15\Delta T-1.6}}{1 + e^{0.13(TS-1.91)^2+0.15\Delta T-1.6}} - 34.5\% \quad (\Delta T \text{ in } ^\circ\text{C/m})$$

$$PPD_{VT} = \frac{0.55e^{0.13(TS-1.91)^2+0.083\Delta T-1.6}}{1 + e^{0.13(TS-1.91)^2+0.083\Delta T-1.6}} - 18.9\% \quad (\Delta T \text{ in } ^\circ\text{F/ft})$$

where

$PPD_{VT}$  = predicted percentage dissatisfied with vertical air temperature gradient for local discomfort, %.  $PPD_{VT}$  is 0% if a negative value is calculated.

$TS$  = whole body thermal sensation. This is equal to the PMV calculated using the input air temperatures over two heights: 0.6 m (24 in.) and 1.1 m (43 in.) for seated occupants and 1.1 m (43 in.) and 1.7 m (67 in.) for standing occupants.

$\Delta T$  = air temperature gradient between the head and ankles,  $^\circ\text{C/m}$  ( $^\circ\text{F/ft}$ )

The vertical air temperature gradient limits in Section 5.3.3.4. are derived by setting  $PPD_{VT}$  equal to 5%.

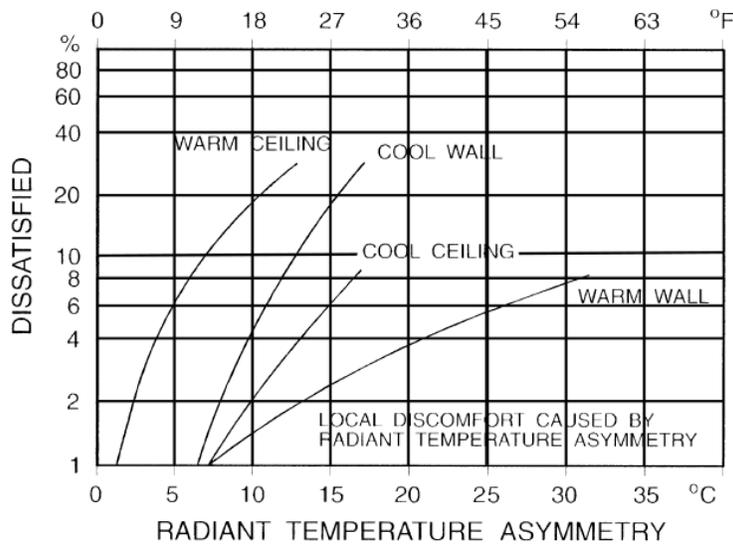
Figure I-4 shows the expected percentage of occupants who are dissatisfied due to the air temperature difference where the head level is warmer than the ankle level. Thermal stratification in the opposite direction is rare, is perceived more favorably by occupants, and is not addressed in this standard.

BSR/ASHRAE Addendum a to ANSI/ASHRAE Standard 55-2020, *Thermal Environmental Conditions for Human Occupancy*  
 First Public Review Draft

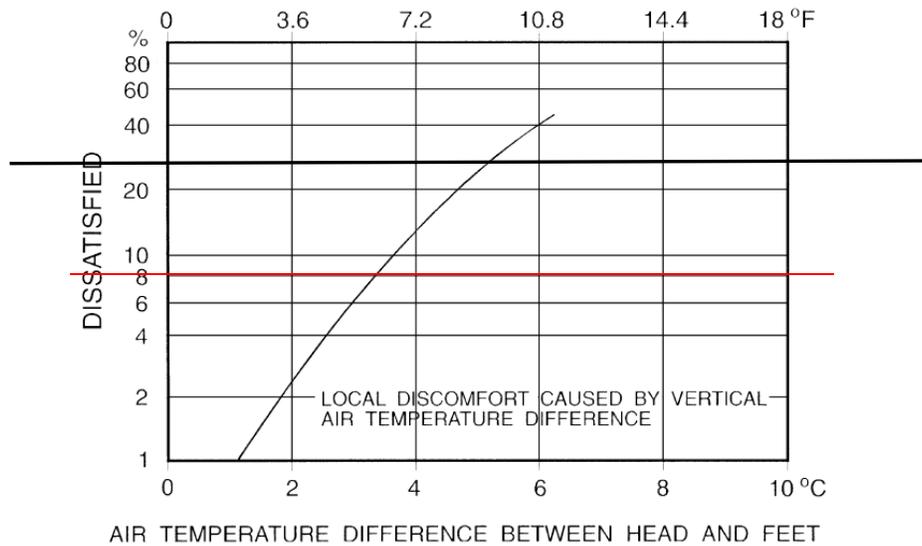
The allowable difference in air temperature from ankle level to head level is based on Figure I-4 and assumes that a maximum of 5% of occupants are dissatisfied by the vertical air stratification.

**TABLE I-1 Expected Percent Dissatisfied Due to Sources of Local Discomfort**

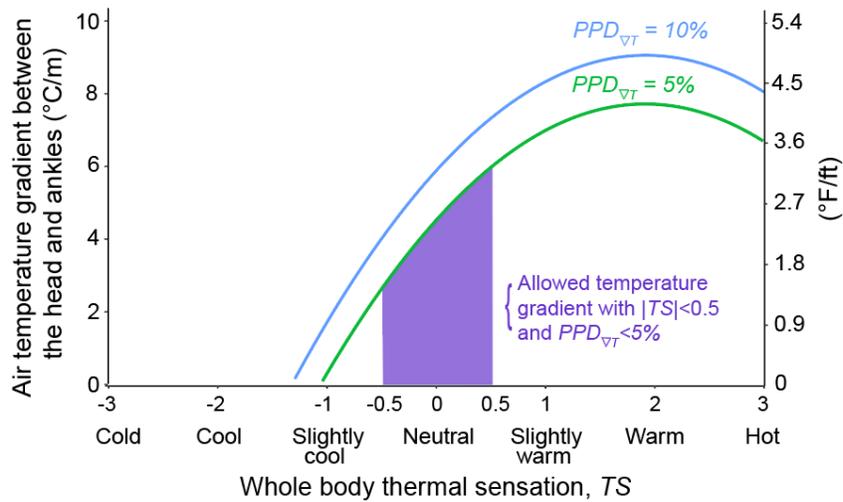
Draft	Vertical Air Temperature Difference	Warm or Cool Floors	Radiant Asymmetry
<20%	<5%	<10%	<5%



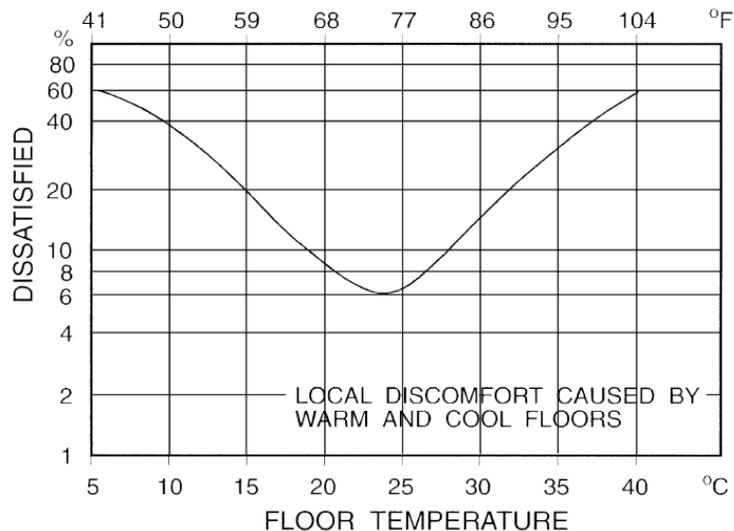
**FIGURE I-2 Local thermal discomfort caused by radiant asymmetry.**



**FIGURE I-4 Local thermal discomfort caused by vertical temperature differences.**



**FIGURE I-4 Vertical air temperature gradient limit between the head and ankles as a function of whole body thermal sensation and the predicted percentage dissatisfied with vertical air temperature gradient ( $PPD_{vT}$ ).**



**FIGURE I-5 Local discomfort caused by warm and cool floors.**

**Modify Informative Appendix M as shown below. The remainder of Appendix M is unchanged.**

[...]

Liu, S., S. Schiavon, A. Kabanshi, W. Nazaroff. 2016. Predicted percentage of dissatisfied with ankle draft. *Indoor Air*. 27 (4), 852-862. <https://doi.org/10.1111/ina.12364> <http://www.escholarship.org/uc/item/9076254n>

Liu, S., Z. Wang, S. Schiavon, Y. He, M. Luo, H. Zhang, E. Arens. 2020. Predicted percentage of dissatisfied with vertical air temperature gradient. *Energy and Buildings*. P.110085. <https://doi.org/10.1016/j.enbuild.2020.110085>; <https://escholarship.org/uc/item/0s76t57k>

McCullough, E.A., and D.P. Wyon. 1983. Insulation characteristics of winter and summer indoor clothing. *ASHRAE Transactions* 89(2b):614-33.

[...]



**BSR/ASHRAE Addendum b  
to ANSI/ASHRAE Standard 55-2020**

**Public Review Draft**

**Proposed Addendum b to  
Standard 55-2020, Thermal  
Environmental Conditions  
for Human Occupancy**

**First Public Review (February 2021)  
(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).

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).

The appearance of any technical data or editorial material in this public review document does not constitute endorsement, warranty, or guaranty by ASHARE of any product, service, process, procedure, or design, and ASHRAE expressly disclaims such.

© 2021 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

**ASHRAE, 1791 Tullie Circle, NE, Atlanta GA 30329-2305**

BSR/ASHRAE Addendum b to ANSI/ASHRAE Standard 55-2020, *Thermal Environmental Conditions for Human Occupancy*  
 First Public Review Draft

**(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

*Addendum b to Standard 55-2020 proposes to change the upper metabolic rate limit for the Standard from 2 to 4. The change is proposed to bring the Standard into alignment with ISO Standard 7730. The change is also motivated by consistent recent research that supports the applicability of Standard 55 at this metabolic level.*

*[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 b to 55-2020

---

***Modify Section 5.2.1.4 as shown below.***

**5.2.1.4 High Metabolic Rates.** This standard does not apply to occupants whose time-averaged metabolic rate exceeds 2.04.0 met.

***Modify Section 5.2.2.2 as shown below.***

**5.2.2.2 Insulation Determination.** Use one or a combination of the following methods to determine clothing insulation  $I_{cl}$ :

- a. Use the data presented in Table 5.2.2.2A for the expected ensemble of each representative occupant.
- b. Add or subtract the insulation of individual garments in Table 5.2.2.2B from the ensembles in Table 5.2.2.2A to determine the insulation of ensembles not listed.
- c. Determine a complete clothing ensemble using the sum of the individual values listed for each item of clothing in the ensemble in Table 5.2.2.2B.
- d. It is permitted, but not required, to adjust any of the previous methods for seated occupants using Table 5.2.2.2C.
- e. For moving occupants, it is permitted but not required to adjust any of the previous methods using the following formula:

$$I_{cl, active} = I_{cl} \times (0.6 + 0.4/M)$$

$$1.2 \text{ met} < M < \underline{2.04.0} \text{ met}$$

***Modify Table 5.3.1 as shown below.***

BSR/ASHRAE Addendum b to ANSI/ASHRAE Standard 55-2020, *Thermal Environmental Conditions for Human Occupancy*  
 First Public Review Draft

**TABLE 5-5 Applicability of Methods for Determining Acceptable Thermal Environments in Occupied Spaces**

Average Air Speed	Humidity Ratio	Met	clo	Comfort Zone Method
<0.20 m/s (40 fpm)	All	1.0 – <del>2.0</del> 4.0 MET	0 – 1.5 CLO	<b>5.3.1</b> Analytical Comfort Zone Method
>0.20 m/s (40 fpm)	All	1.0 – <del>2.0</del> 4.0 MET	0 – 1.5 CLO	<b>5.3.2</b> Elevated Air Speed Comfort Zone Method

**Modify Section 5.3.1.1 as shown below.**

**5.3.1.1 Applicability.** It is permissible to apply the method in this section to all spaces within the scope of this standard where the occupants have activity levels that result in average metabolic rates between 1.0 and ~~2.0~~4.0 met, clothing insulation  $I_{cl}$  between 0.0 and 1.5 clo, and average air speeds  $V_a$  greater than 0.20 m/s (40 fpm).

**Modify Section 5.3.2.1 as shown below.**

**5.3.2.1 Applicability.** It is permissible to apply the method in this section to all spaces within the scope of this standard where the occupants have activity levels that result in average metabolic rates between 1.0 and ~~2.0~~4.0 met, clothing insulation  $I_{cl}$  between 0.0 and 1.5 clo, and average air speeds  $V_a$  greater than 0.20 m/s (40 fpm).

**Modify Informative Appendix F as shown below.**

[...]

As metabolic rates increase above 1.0 met, the evaporation of sweat becomes an increasingly important factor for thermal comfort. The PMV method does not fully account for this factor, and this standard should not be applied to situations where the time-averaged metabolic rate is above ~~2.0~~4.0 met.

[...]

**Modify Informative Appendix G as shown below.**

[...]

Tables 5.2.2.2A and 5.2.2.2B are for a person that is not moving. Body motion decreases the insulation of a clothing ensemble by pumping air through clothing openings and/or causing air motion within the clothing. This effect varies considerably depending on the nature of the motion (e.g., walking versus lifting) and the nature of the clothing (stretchable and snug fitting versus stiff and loose fitting). Because of this variability, accurate estimates of clothing insulation ( $I_{cl}$ ) for an active person are not available unless measurements are made for the specific clothing under the conditions in question (e.g., with a walking manikin). An approximation of the clothing insulation for an active person is

$$I_{cl, active} = I_{cl} \times (0.6 + 0.4 / M)$$

$$1.2 \text{ met} < M < ~~2.0~~4.0 \text{ met}$$

...

BSR/ASHRAE Addendum b to ANSI/ASHRAE Standard 55-2020, *Thermal Environmental Conditions for Human Occupancy*  
First Public Review Draft

***Modify Informative Appendix H, Section H3 as shown below.***

### **H3. ANALYTICAL COMFORT ZONE METHOD**

This method applies to spaces where the occupants have activity levels that result in average metabolic rates between 1.0 and ~~2.0~~1.4 met and where clothing is worn that provides 1.5 clo or less of thermal insulation.



**BSR/ASHRAE Addendum c  
to ANSI/ASHRAE Standard 55-2020**

**Public Review Draft**

**Proposed Addendum c to  
Standard 55-2020, Thermal  
Environmental Conditions  
for Human Occupancy**

**First Public Review (February 2021)  
(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).

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).

The appearance of any technical data or editorial material in this public review document does not constitute endorsement, warranty, or guaranty by ASHARE of any product, service, process, procedure, or design, and ASHRAE expressly disclaims such.

© 2021 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

**ASHRAE, 1791 Tullie Circle, NE, Atlanta GA 30329-2305**

BSR/ASHRAE Addendum c to ANSI/ASHRAE Standard 55-2020, *Thermal Environmental Conditions for Human Occupancy*  
 First Public Review Draft

**(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

*Addendum c to Standard 55-2020 proposes to change the lower limit of average air speed when using the elevated air speed comfort zone method from 0.2 m/s to 0.1 m/s. The change is proposed to avoid the step change in the comfort zone that results from changing models at 0.2 m/s, from the PMV model to the SET model.*

*[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 c to 55-2020

---

***Modify Section 5.3.2.1 as shown below.***

**5.3.2.1 Applicability.** It is permissible to apply the method in this section to all spaces within the scope of this standard where the occupants have activity levels that result in average metabolic rates between 1.0 and 2.0 met, clothing insulation  $I_{cl}$  between 0.0 and 1.5 clo, and average air speeds  $V_a$  greater than ~~0.20 m/s (40 fpm)~~ 0.10 m/s (20 fpm).

***Modify Section D1 as shown below. The remainder of Section D1 is unchanged.***

**D1. Calculation Overview.** Section 5.3 requires that the Elevated Air Speed Comfort Zone Method be used when average air speed  $V_a$  is greater than ~~0.20 m/s (40 fpm)~~ 0.10 m/s (20 fpm). The SET model shall be used to account for the cooling effect of air speeds greater than the maximum allowed in the Analytical Comfort Zone Methods. This appendix describes the calculation procedures for the Elevated Air Speed Comfort Zone Method.

[...]



**BSR/ASHRAE Addendum c  
to ANSI/ASHRAE Standard 188-2018**

**Public Review Draft**

**Proposed Addendum c to  
Standard 188-2018, Legionellosis:  
Risk Management for Building  
Water Systems**

**Second Public Review (March 2021)  
(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).

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).

The appearance of any technical data or editorial material in this public review document does not constitute endorsement, warranty, or guaranty by ASHRAE of any product, service, process, procedure, or design, and ASHRAE expressly disclaims such.

© 2021 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 180 Technology Parkway, Peachtree Corners, GA 30092. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

ASHRAE, 180 Technology Parkway, Peachtree Corners, GA 30092

BSR/ASHRAE Addendum c to ANSI/ASHRAE Standard 188-2018, Legionellosis: Risk Management for Building Water Systems  
Second Public Review Draft

**(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

*Sections 7.2.1d, 7.2.1e, and 7.5.1c have been revised based on comments received during the first public review period. SSPC 188 believes that the requirement to address the level of restrictions or obstructions that would increase cooling system temperatures to a point of increased risk of Legionella growth is unenforceable. However, the committee considers it important to address external airflow restrictions or obstructions when siting equipment, so the committee is revising both Sections 7.2.1d and 7.2.1e to better clarify the requirements. To maintain consistency with the text of Section 7.2.1, the wording of Section 7.5.1d has similarly been updated.*

**Note:** This second public review draft makes proposed independent substantive changes to the first public review draft. These changes are indicated in the text by underlining (for additions) and ~~strike through~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the previous public review draft 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.

---

***Modify Section 7 as shown. The remainder of Section 7 is unchanged.***

## 7. REQUIREMENTS FOR BUILDING WATER SYSTEMS

[ ... ]

- 7.2.1 Equipment Siting.** Prior to the beginning of construction of new or replacement open-circuit cooling towers, closed-circuit cooling towers, or evaporative condensers, construction documents shall be reviewed and the following items shall be addressed:

[ ... ]

- d. ~~Potential for the impact of external heat from~~ sources that are not part of the cooling system design heat load, increasing on cooling system water temperature, that can increase the risk for Legionella growth, and
- e. ~~Potential for increased cooling system temperatures resulting from the impact of external airflow restrictions or obstructions that can increase the risk for Legionella growth~~ in addition to those addressed by the manufacturer's installation instructions on cooling system water temperatures.

[ ... ]

- 7.5.1 Equipment Siting. ...**

[ ... ]

- c. ~~The potential for impact of external heat sources and reduced airflow that cause on aerosol-generating mister, atomizer, air washer, or humidifier water temperatures favorable to the growth of Legionella~~



**BSR/ASHRAE/IES Addendum aa  
to ANSI/ASHRAE/IES Standard 90.1-2019**

**Public Review Draft**

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

**First Public Review (March 2021)  
(Draft Shows Proposed Changes to the 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).

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).

The appearance of any technical data or editorial material in this public review document does not constitute endorsement, warranty, or guaranty by ASHARE of any product, service, process, procedure, or design, and ASHRAE expressly disclaims such.

© 2021 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 180 Technology Parkway Peachtree Corners, GA 30092. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

**ASHRAE, 180 Technology Parkway NW, Peachtree Corners, GA 30092**

© 2021 ASHRAE

*This draft is covered under ASHRAE copyright. The appearance of any technical data or editorial material in this publication document does not constitute endorsement, warranty, or guaranty by ASHRAE of any product, service, process, procedure, design or the like and ASHRAE expressly disclaims such. Permission to republish or redistribute must be obtained from the MOS.*

**(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 proposal corrects the SI fan power values in Appendix G making them consistent with the rest of the Standard. This proposal does not suggest any changes to the IP version of Section G3.1.2.9.

The proposed changes are as follows.

1. The fan power for baseline Systems 1, 2, 9 and 10 is 0.3 W per CFM and when converted to SI units the correct formula should be  $P_{fan} = 0.64\text{W}$  per L/s. The SI units require a second significant digit to keep the change in stringency less than  $\pm 3\%$ . This is consistent with the conversion of the same value in Appendix C3.5.8(h).
2. When Baseline System 9 or 10 is applied to fans used for non-mechanical cooling the fan power allowance is 0.054W per CFM. When correctly converted to SI units the equation should be  $P_{fan} = 0.114\text{W}$  per L/s of airflow. The SI units require a third significant digit to keep the change in stringency less than  $\pm 3\%$ .
3. In Table G3.1 Part 16 Elevator cab ventilation fan power is 0.33 W/CFM and when converted to SI units it should be 0.7 W per L/s. This is consistent with Section 10.4.3. The SI conversion for elevator cab lighting power is also corrected to have the same significant units as the IP value.

This proposal also correctly italicizes the term on-site renewable energy where it was added into Appendix G Table G3.1 as part of Addendum cp. These changes apply to both the IP and SI versions of the Standard.

This change does not change the cost-effectiveness of the standard.

**[Note to Reviewers: This public review draft makes proposed independent substantive changes to the previous public review draft. 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 previous draft 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 substantive changes.]**

## Addendum aa to 90.1-2019

---

Modify Appendix G of the standard as follows (SI Units)

### G3.1.2.9 System Fan Power

System fan electrical power for supply, return, exhaust, and relief (excluding power to fan-powered VAV boxes) shall be calculated using the following formulas:

For Systems 1 and 2,

$$P_{fan} = \text{Airflow}_s \times \underline{0.64} \text{ (cubic metres per second)} \times 1.4158 \text{e-4}$$

For Systems 3 through 8, and 11, 12, and 13,

$$P_{fan} = \text{input kW} / \text{fan motor efficiency}$$

For Systems 9 and 10 (supply fan),

$$P_{fan} = \text{AirflowCFM}_s \times \underline{0.3-0.64}$$

For Systems 9 and 10 (non-mechanical cooling fan if required by Section G3.1.2.8.2),

$$P_{fan} = \text{AirflowCFM}_{nmc} \times \underline{0.054-0.114}$$

Where

$P_{fan}$	=	electric power to fan power, W
input kW	=	input kilowatts of baseline fan motor from Table G3.1.2.9
fan motor efficiency	=	the efficiency from Table G3.9.1 for the next motor size greater than the input kW
$\text{AirflowCFM}_s$	=	the baseline system maximum design supply fan airflow rate, L/s
$\text{AirflowCFM}_{nmc}$	=	the baseline non-mechanical cooling fan airflow, L/s

Modify Table G3.1(16) as follows (SI Units)

16. Elevators	[...]
	When included in the proposed design, the baseline elevator cab ventilation fan shall be <u>0.690.7</u> W/L·s and the lighting power density shall be <u>33.7933.8</u> W/m <sup>2</sup> ; both operate continuously.

*Make the following corrections to Table G3.1(18) in 90.1-2019 Addendum cp (I-P and SI Units)*

18. *On-site renewable energy*

*On-site renewable energy in the proposed building performance shall be determined as follows:* *On-site renewable energy shall not be included in the Baseline Building Performance.*

- a. Where a complete system providing ~~on-site~~*on-site* renewable energy exists, the model shall reflect the actual system type using actual component capacities and efficiencies.
- b. Where a system providing ~~on-site~~*on-site* renewable energy has been designed, the system model shall be consistent with design documents.
- c. Where no system exists or is specified to provide *on-site* renewable energy, no system shall be modeled.



**BSR/ASHRAE/IES Addendum ac  
to ANSI/ASHRAE/IES Standard 90.1-2019**

**Public Review Draft**

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

**First Public Review (March 2021)  
(Draft Shows Proposed Changes to the 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).

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).

The appearance of any technical data or editorial material in this public review document does not constitute endorsement, warranty, or guaranty by ASHARE of any product, service, process, procedure, or design, and ASHRAE expressly disclaims such.

© 2021 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 180 Technology Parkway Peachtree Corners, GA 30092. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

**ASHRAE, 180 Technology Parkway NW, Peachtree Corners, GA 30092**

© 2021 ASHRAE

*This draft is covered under ASHRAE copyright. The appearance of any technical data or editorial material in this publication document does not constitute endorsement, warranty, or guaranty by ASHRAE of any product, service, process, procedure, design or the like and ASHRAE expressly disclaims such. Permission to republish or redistribute must be obtained from the MOS.*

**(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 updates the Exceptions to Interior Lighting Power and Minimum Control Requirements found in Table 9.2.3.1 and includes a power exception for the germicidal function in luminaires and sources (sometimes referred to as “germicidal lighting” or “Germicidal Ultra-Violet Irradiation (GUVI)”). The COVID-19 pandemic has brought germicidal function for room air and room surface disinfection into the forefront as a viable, effective strategy for protecting people and keeping interior environments healthy. The power exception of the germicidal function for disinfection from 90.1-2016 was confirmed by Interpretation IC 90.1-2016-8 OF approved in January 2019. Adding the power exception for germicidal function to Table 9.2.3.1 supports the official interpretation.

Some changes clarify the exception language to improve application, and better differentiate lighting that must follow the lighting power and control requirements. The exception for lighting used in photographic processes, intended for photographic development darkrooms, was eliminated due to the limited instances of this space type and confusion in the application.

Where the allowed lighting power density allowance and control requirements can be determined for a specific lighting application, including it in the standard, and not excepting it, delivers consistent energy efficient implementation. This was accomplished for two lighting power applications, the prior Table 9.2.3.1 item nine for casino gaming areas and the prior Table 9.2.3.1 item 18 for parking garage daylight transition zone lighting. Both of these lighting applications were removed from the exceptions table and lighting power density values and control requirements were added to Table 9.6.1. Particularly in the creation of the casino gaming area lighting power density, considerable effort was taken to establish values to support the design variability and flexibility needed for these spaces. These new baseline lighting power density values take into account the additional lighting power, for the purpose of decorative appearance, remaining available for use through section 9.6.2, Additional Interior Lighting Power.

A new lighting power density value is added to Table 9.6.1 for parking garage daylight transition zone lighting. The addendum also updates the lighting power density value for parking garage lighting because of review of the model, lighting efficacy improvements, and the relationship between these two values in a parking garage area.

Energy savings is anticipated with this addendum resulting from improved compliance due to clearer language and the removal of several applications from exempted power status. These changes do not increase in the cost of construction.

*[Note to Reviewers: This public review draft makes proposed independent substantive changes to the previous public review draft. 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 previous draft 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 substantive changes.]*

## Addendum ac to 90.1-2019

Modify the standard as follows (I-P and SI Units)

### 3.2 Definitions

[...]

**parking garage daylight transition zone:** covered vehicle entrances and exits from *buildings* and parking structures not exceeding a depth of 66 ft (20 m) inside the structure and a width of 50 ft (15 m).

[...]

Table 9.2.3.1 Exceptions to Interior Lighting Power and Minimum Control Requirements

Item #	Equipment/Application	In Addition to and Controlled Separately From General Lighting	Required Controls
1	Lighting that is integral to <i>equipment</i> , <i>medical equipment</i> or instrumentation, and is installed by its <i>manufacturer</i>	YES	No control requirements
<del>2</del>	<u>Power for only the germicidal function in luminaires or sources</u>	<u>YES</u>	<u>No control requirements</u>
<del>23</del>	Lighting specifically designed for use only during medical or dental procedures	YES	9.4.1.1(a)—Local control
<del>34</del>	Lighting specifically designed for the life support of non-human life forms	YES	9.4.1.1(a)—Local control
<del>45</del>	<u>Lighting used for the function of broadcasting, theatrical purposes, including performance, stage, broadcasting, studio, and film production recording or and video production recording</u>	YES	9.4.1.1(a)—Local control
<del>5</del>	<del>Lighting in sporting activity areas for television broadcasting</del>	<del>YES</del>	<del>9.4.1.1(a)—Local control</del>
<del>6</del>	<del>Lighting for photographic processes</del>	<del>YES</del>	<del>9.4.1.1(a)—Local control</del>
<del>76</del>	Lighting that is an integral part of advertising or directional signage	YES	9.4.1.1(i)—Scheduled shutoff
<del>87</del>	Lighting integral to both open and glass-enclosed refrigerator and freezer cases	YES	9.4.1.1(h)—Automatic full OFF or 9.4.1.1(i)—Scheduled shutoff
<del>9</del>	<del>Casino gaming areas</del>	<del>NO</del>	<del>9.4.1.1(h)—Automatic full OFF or 9.4.1.1(i)—Scheduled shutoff</del>
<del>408</del>	Lighting in retail display windows, provided the display area is enclosed by ceiling-height partitions	YES	9.4.1.1(a)—Local control and 9.4.1.1(i)—Scheduled shutoff
<del>449</del>	Display or accent lighting that is an essential element for the function performed in galleries, museums, and monuments	YES	9.4.1.1(a)—Local control and either 9.4.1.1(h)—Automatic full OFF or 9.4.1.1(i)—Scheduled shutoff
<del>4210</del>	Lighting integral to food warming and food preparation <i>equipment</i>	YES	9.4.1.1(a)—Local control and either 9.4.1.1(h)—Automatic full OFF or 9.4.1.1(i)—Scheduled shutoff

4311	Lighting that is for sale or lighting educational demonstration systems	YES	9.4.1.1(a)—Local control and either 9.4.1.1(h)—Automatic full OFF or 9.4.1.1(i)—Scheduled shutoff
4412	Mirror lighting in <u>makeup or dressing rooms</u> areas used for <u>theatrical or broadcast functions</u>	YES	9.4.1.1(a)—Local control and either 9.4.1.1(h)—Automatic full OFF or 9.4.1.1(i)—Scheduled shutoff
4513	Accent lighting in religious pulpit and choir areas	YES	9.4.1.1(a)—Local control and either 9.4.1.1(h)—Automatic full OFF or 9.4.1.1(i)—Scheduled shutoff
4614	Lighting in interior spaces that have been specifically designated as a registered interior <i>historic</i> landmark	NO	9.4.1.1(a)—Local control and either 9.4.1.1(h)—Automatic full OFF or 9.4.1.1(i)—Scheduled shutoff
4715	Furniture-mounted supplemental <i>task lighting</i>	YES	<del>9.4.1.3(c)—Special Applications</del> <u>9.4.1(a) Local control and</u> <u>9.4.1.1(h) Automatic full OFF</u>
48	<del>Parking garage daylight transition lighting—lighting for covered vehicle entrances and exits from buildings and parking structures; each transition zone shall not exceed a depth of 66 ft inside the structure and a width of 50 ft.</del>	YES	<del>9.4.1.2(a) and (c)—Parking Garage Control</del>

[...]

### 9.4.1.2 Parking Garage Lighting Control

Lighting for parking garages shall comply with the following requirements:

- a. Parking garage lighting shall have *automatic* lighting shutoff per Section 9.4.1.1(i).
- b. Lighting power of each *luminaire* shall be *automatically* reduced by a minimum of 50% when there is no activity detected within a lighting zone for 10 minutes. Lighting zones for this requirement shall be no larger than 3600 ft<sup>2</sup> (334 m<sup>2</sup>).
- c. ~~Parking garage daylight transition~~ Parking garage daylight transition zone lighting ~~exempt per Section 9.2.3.1~~ shall be separately controlled to *automatically* reduce the lighting to no more than the general light level ~~at night~~ from sunset to sunrise.
- d. The power to any *luminaire* within 20 ft (6 m) of perimeter *wall* openings totaling at least 24 ft<sup>2</sup> (2.2 m<sup>2</sup>) shall be *automatically* reduced through *continuous dimming* in response to available daylight.

#### Exceptions to 9.4.1.2(d)

1. ~~Parking garage daylight transition~~ Parking garage daylight transition zone lighting ~~exempt per Section 9.2.3.1~~.
2. Where permanent screens or architectural elements obstruct more than 50% of the opening.
3. Where the top of any existing adjacent structure or natural object is at least twice as high above the openings as its horizontal distance from the opening.

[...]

**Table 9.6.1 Lighting Power Density Allowances Using the Space-by-Space Method and Minimum Control Requirements Using Either Method (Continued)**

Informative Note: This table is divided into two sections; this first section covers <i>space</i> types that can be commonly found in multiple <i>building</i> types. The second part of this table covers <i>space</i> types that are typically found in a single <i>building</i> type.			The <i>control</i> functions below shall be implemented in accordance with the descriptions found in the referenced paragraphs within Section 9.4.1.1. For each <i>space</i> type: 1) All REQs shall be implemented. 2) At least one ADD1 (when present) shall be implemented. 3) At least one ADD2 (when present) shall be implemented.								
			Local Control (See Section 9.4.1.1 [a])	Restricted to Manual ON (See Section 9.4.1.1 [b])	Restricted to Partial Automatic ON (See Section 9.4.1.1 [c])	Bilevel Lighting Control (See Section 9.4.1.1 [d])	Automatic Daylight Responsive Controls for Sidelighting (See Section 9.4.1.1 [e] <sup>6</sup> )	Automatic Daylight Responsive Controls for Toplighting (See Section 9.4.1.1 [f] <sup>6</sup> )	Automatic Partial OFF (See Section 9.4.1.1 [g]) [Full Off complies]	Automatic Full OFF (See Section 9.4.1.1 [h])	Scheduled Shutoff (See Section 9.4.1.1 [i])
Common <i>Space</i> Types <sup>1</sup>	LPD, W/ft <sup>2</sup> (W/m <sup>2</sup> )	RCR Threshold	a	b	c	d	e	f	g	h	i
Parking Area, Interior	0.15 (1.6)	4	See Section 9.4.1.2								
<b>Parking Garage</b>											
Daylight Transition Zone	1.06 (11.4)	4	See Section 9.4.1.2.								
All other parking and drive areas	0.11 (1.2)	4	See Section 9.4.1.2.								

Insert in Table 9.6.1 after Automotive and before Convention Center building type specific/space types

Informative Note: This table is divided into two sections; this first section covers <i>space</i> types that can be commonly found in multiple <i>building</i> types. The second part of this table covers <i>space</i> types that are typically found in a single <i>building</i> type.			The <i>control</i> functions below shall be implemented in accordance with the descriptions found in the referenced paragraphs within Section 9.4.1.1. For each <i>space</i> type: (1) All REQs shall be implemented. (2) At least one ADD1 (when present) shall be implemented. (3) At least one ADD2 (when present) shall be implemented.								
			Local Control (See Section 9.4.1.1 [a])	Restricted to Manual ON (See Section 9.4.1.1 [b])	Restricted to Partial Automatic ON (See Section 9.4.1.1 [c])	Bilevel Lighting Control (See Section 9.4.1.1 [d])	Automatic Daylight Responsive Controls for Sidelighting (See Section 9.4.1.1 [e] <sup>6</sup> )	Automatic Daylight Responsive Controls for Toplighting (See Section 9.4.1.1 [f] <sup>6</sup> )	Automatic Partial OFF (See Section 9.4.1.1 [g]) [Full Off complies]	Automatic Full OFF (See Section 9.4.1.1 [h])	Scheduled Shutoff (See Section 9.4.1.1 [i])
Building Type Specific/ <i>Space</i> Types <sup>1</sup>	LPD, W/ft <sup>2</sup> (W/m <sup>2</sup> )	RCR Threshold	a	b	c	d	e	f	g	h	i
<b>Casino - Gaming Area</b>											
Betting/sportsbook/keno/binco area	0.82 (8.8)	5								ADD2	ADD2
High limit game area	1.68 (18.1)	4								ADD2	ADD2
Slot machine/digital gaming area	0.54 (5.8)	5								ADD2	ADD2
Table games area	1.09 (11.7)	5								ADD2	ADD2



**BSR/ASHRAE/IES Addendum z  
to ANSI/ASHRAE/IES Standard 90.1-2019**

**Public Review Draft**

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

**First Public Review (March 2021)  
(Draft Shows Proposed Changes to the 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).

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).

The appearance of any technical data or editorial material in this public review document does not constitute endorsement, warranty, or guaranty by ASHRAE of any product, service, process, procedure, or design, and ASHRAE expressly disclaims such.

© 2021 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 180 Technology Parkway Peachtree Corners, GA 30092. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

**ASHRAE, 180 Technology Parkway NW, Peachtree Corners, GA 30092**

© 2021 ASHRAE

*This draft is covered under ASHRAE copyright. The appearance of any technical data or editorial material in this publication document does not constitute endorsement, warranty, or guaranty by ASHRAE of any product, service, process, procedure, design or the like and ASHRAE expressly disclaims such. Permission to republish or redistribute must be obtained from the MOS.*

**(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 track lighting requirement was introduced in Standard 90.1-1999 as 30 W per linear foot. This value has not been updated in subsequent versions of the Standard. Changes in lighting technology (e.g., shift from halogen to LED) in track applications allows for a revised value. Further, as lighting power allowances (or density) values have decreased, the 30 W per linear foot has represented a larger portion of the calculated load. In general, the value can be lower because LEDs are common and more efficient than halogen sources used in track lighting applications. Halogen lamp efficacy is 10-17 lm/W and halogen was the primary source when the value was developed. For context, the 2020 ENERGY STAR directional lamp specification efficacy is 61 lm/W and 70 lm/W depending on color characteristics. The ENERGY STAR Luminaires track minimum is 55 lm/W. LEDs in this application are more than 3x more efficacious than the halogen sources originally used to establish the wattage threshold more than 20 years ago.

### **Energy Savings:**

- There are no savings associated with this addendum as it refers to how the technology is rated for energy code calculations. There is no requirement in Standard 90.1 to use track lighting. The energy savings appear in other addenda in the form of lighting power density values.

### **Cost Effectiveness:**

There are no costs associated with this addendum as the technology is optional. This addendum only revises how the power is calculated for the technology.

**[Note to Reviewers: This public review draft makes proposed independent substantive changes to the previous public review draft. 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 previous draft 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 substantive changes.]**

## **Addendum z to 90.1-2019**

---

*Modify the standard as follows (IP and SI Units)*

### **9.1.4 Interior and Exterior Luminaire Wattage**

The wattage of lighting *equipment*, when used to calculate either *installed interior lighting power* or *installed exterior lighting power*, shall be determined in accordance with the following criteria:

- a. The wattage of lighting *equipment* connected to line voltage shall be the *manufacturers' labeled* maximum wattage.
- b. The wattage of line voltage lighting *equipment* with remote *ballasts/drivers* or similar devices shall be the total input wattage of all line voltage components in the *system*.

---

#### **Exception to 9.1.4(b)**

Lighting power calculations for *ballasts* with adjustable *ballast* factors shall be based on the *ballast* factor that will be used in the *space*, provided that the *ballast* factor is not user field changeable.

---

- c. The wattage of For line-voltage lighting track and plug-in busway designed to allow the addition and/or relocation of lighting *equipment* without altering the wiring of the *system*, ~~the wattage~~ shall be the lesser of:
  1. the specified wattage of the lighting *equipment* included in the *system* with a minimum of ~~30~~10 W/lin ft (~~98~~33 W/lin m), or
  2. ~~the wattage limit of the system's circuit breaker, or~~
  3. ~~the wattage limit of other~~ permanent current-limiting devices on the *system*.

Item Record - 18-1522 - 8/12/2019 - Updated post Section XIII approval to update to 2019 version of Section VIII-1

ASME BPVC.VIII.1-2019

UG-129

(4) set pressure \_\_\_\_\_ psi (kPa), and, if applicable per UG-136(d)(4)(-d)

(-a) cold differential test pressure \_\_\_\_\_ psi (kPa)

(-b) superimposed back pressure \_\_\_\_\_ psi (kPa)

(5) certified capacity (as applicable):

(-a) lb/hr (kg/hr) of saturated steam at an overpressure of 10% or 3 psi (20 kPa), whichever is greater for valves certified on steam complying with UG-131(b); or

(-b) gal/min (l/min) of water at 70°F (20°C) at an overpressure of 10% or 3 psi (20 kPa), whichever is greater for valves certified on water; or

(-c) SCFM (standard cubic feet per minute at 60°F and 14.7 psia) [ $\text{m}^3/\text{min}$  (cubic meters per minute at 20°C and 101 kPa)], or lb/min (kg/min), of air at an overpressure of 10% or 3 psi (kPa), whichever is greater. Valves that are capacity certified in accordance with UG-131(c)(2) shall be marked "at 20% overpressure."

(-d) In addition to one of the fluids specified above, the Manufacturer may indicate the capacity in other fluids (see [Mandatory Appendix 11](#)).

(6) year built, or alternatively, a coding may be marked on the valve such that the valve Manufacturer or Assembler can identify the year the valve was assembled or tested;

(7) the Certification Mark with the UV Designator placed under the Mark, as shown in [Figure UG-129.1](#). A marking method other than the stamp issued by the Society may be used, provided it is acceptable to the ASME Designated Organization. The pilot of a pilot-operated pressure relief valve shall be plainly marked by the Manufacturer or Assembler showing the name of the Manufacturer, the Manufacturer's design or type number, the set pressure in pounds per square inch (kPa), and the year built, or alternatively, a coding that the Manufacturer can use to identify the year built.

On valves smaller than NPS  $\frac{1}{2}$  (DN 15), the markings may be made on a metal plate attached by wire or adhesive meeting the requirements of [Mandatory Appendix 18](#) or other means suitable for the service conditions.

(8) restricted lift \_\_\_\_\_ in. (mm) (For restricted lift valves only)

(b) Safety and safety relief valves certified for a steam

Add - UG-129(a)(9)  
The pilot and main valve of a pilot operated pressure relief valve shall each be marked with the same unique identifier to establish association of both components.

**Figure UG-129.1**  
**Official Certification Mark to Denote the American Society of Mechanical Engineers' Standard for Pressure Relief Valves**



UG-132(b), in addition to the marking of (a) and (e) below. The marking may be placed on the pressure relief valve or rupture disk device or on a plate or plates that satisfy the requirements of UG-119. The marking shall include the following:

- (1) name of Manufacturer of valve;
- (2) design or type number of valve;
- (3) name of Manufacturer of rupture disk device;
- (4) design or type number of rupture disk device;
- (5) capacity or combination capacity factor;
- (6) name of organization responsible for this marking.

This shall be either the vessel user, vessel Manufacturer, rupture disk Manufacturer, or pressure relief valve Manufacturer.

(d) *Pressure Relief Valves in Combination With Pin Devices.* Pressure relief valves in combination with pin devices shall be marked with the capacity as established in accordance with UG-127(b)(3)(-b)(-2) (using 0.90 factor) or the combination capacity factor established by test in accordance with UG-132(a) or UG-132(b), in addition to the marking of (a) and (f) below. The marking may be placed on the pressure relief valve or pin device or on a metal plate or plates securely fastened to the device. The marking shall include the following:

- (1) name of Manufacturer of valve;

**Figure UG-129.2**  
**Official Certification Mark to Denote the American Society of Mechanical Engineers' Standard for Nonreclosing Pressure Relief**

## 4.5 DESIGN RULES FOR OPENINGS IN SHELLS AND HEADS

### 4.5.1 SCOPE

The rules in 4.5 are applicable for the design of nozzles in shells and heads subjected to internal pressure, external pressure, and external forces and moments from supplemental loads as defined in 4.1. Configurations, including dimensions and shape, and/or loading conditions that do not satisfy the rules of this 4.5 may be designed in accordance with Part 5.

### 4.5.2 DIMENSIONS AND SHAPE OF NOZZLES

**4.5.2.1** Nozzles shall be circular, elliptical, or of any other shape which results from the intersection of a circular or elliptical cylinder with vessels of the shapes for which design equations are provided in 4.3 and 4.4. The design rules in this paragraph shall be used only if the ratio of the inside diameter of the shell and the shell thickness is less than or equal to 400, except that the rules of 4.5.10 and 4.5.11 may be used without restriction on the ratio of the inside diameter to shell thickness. ~~In addition, the ratio of the diameter along the major axis to the diameter along the minor axis of the finished nozzle opening shall be less than or equal to 1.5.~~

**4.5.2.2** With the exception of studding outlet type flanges and the straight hubs of forged nozzle flanges (see 4.1.11.3), bolted flange material within the limits of reinforcement shall not be considered to have reinforcement value. With the exception of material within an integral hub, no material in a tubesheet or flat head shall be credited as reinforcement for an opening in an adjacent shell or head.

**4.5.2.3** Nozzle openings that do not satisfy the criteria of 4.5.2.1 and other geometries shall be designed in accordance with Part 5.

### 4.5.3 METHOD OF NOZZLE ATTACHMENT

**4.5.3.1** Nozzles may be attached to the shell or head of a vessel by the following methods.

(a) Welded Connections - Nozzles attachment by welding shall be in accordance with the requirements of 4.2.2. If other details not included in this paragraph are required, the nozzle detail shall be designed using Part 5.

(b) Studded Connections - Nozzles may be made by means of studded pad type connections. The vessel shall have a flat surface machined on the shell, or on a built-up pad, or on a properly attached plate or fitting. Drilled holes to be tapped shall not penetrate within one-fourth of the wall thickness from the inside surface of the vessel after deducting corrosion allowance, unless at least the minimum thickness required as above is maintained by adding metal to the inside surface of the vessel. Where tapped holes are provided for studs, the threads shall be full and clean and shall engage the stud for a length,  $L_{st}$ , defined by the following equations.

$$L_{st} = \min[L_{st1}, 1.5d_{st}] \quad (4.5.1)$$

where

$$L_{st1} = \max \left[ d_{st}, 0.75d_{st} \left( \frac{S_{st}}{S_{tp}} \right) \right] \quad (4.5.2)$$

(c) Threaded Connections - Pipes, tubes, and other threaded connections that conform to the ANSI/ASME Standard for Pipe Threads, General Purpose, Inch (ASME B1.20.1) may be screwed into a threaded hole in a vessel wall, provided the connection size is less than or equal to DN 50 (NPS 2) and the pipe engages the minimum number of threads specified in Table 4.5.1 after allowance has been made for curvature of the vessel wall. The thread shall be a standard taper pipe thread except that a straight thread of at least equal strength may be used if other sealing means to prevent leakage are provided. A built-up pad or a properly attached plate or fitting may be used to provide the metal thickness and number of threads required in Table 4.5.1, or to furnish reinforcement when required.

(d) Expanded Connections - A pipe, tube, or forging may be attached to the wall of a vessel by inserting through an unreinforced opening and expanding into the shell, provided the diameter is not greater than DN 50 (NPS 2) pipe size. A pipe, tube, or forging not exceeding 150 mm (6 in.) in outside diameter may be attached to the wall of a vessel by inserting through a reinforced opening and expanding into the shell. The expanded connection shall be made using one of the following methods:

- (1) Firmly rolled in and beaded
- (2) Rolled in, beaded, and seal-welded around the edge of the bead

**FOR INFORMATION ONLY**

ASME BPVC.VIII.2-2019

where

$$A_p = \frac{f_N + f_S + f_Y}{P} \quad (4.5.62)$$

**4.5.5.2** If the nozzle is subject to external forces and moments from supplemental loads as defined in 4.1, then the local stresses at the nozzle-to-shell intersection shall be evaluated in accordance with 4.5.15.

#### 4.5.6 HILLSIDE NOZZLE IN A CYLINDRICAL SHELL

For a hillside nozzle in a cylindrical shell (see Figure 4.5.4), the design procedure in 4.5.5 shall be used with the following substitution.

$$R_{nc} = \max\left[\left(\frac{R_{ncl}}{2}\right), R_n\right] \quad (4.5.63)$$

where

$$R_{ncl} = R_{eff}(\theta_1 - \theta_2) \quad (4.5.64)$$

$$\theta_1 = \arccos\left[\frac{DX}{R_{eff}}\right] \quad (4.5.65)$$

$$\theta_2 = \arccos\left[\frac{DX + R_n}{R_{eff}}\right] \quad (4.5.66)$$

#### 4.5.7 NOZZLE IN A CYLINDRICAL SHELL ORIENTED AT AN ANGLE FROM THE LONGITUDINAL AXIS

For a nozzle in a cylindrical shell oriented at an angle from the longitudinal axis, the design procedure in 4.5.5 shall be used with the following substitutions (see Figure 4.5.5):

$$R_{nc} = \frac{R_n}{\sin[\theta]} \quad (4.5.67)$$

$$f_s = PR_{xs}\left(L_R + \frac{t}{\tan[\theta]} + \frac{t_n}{\sin[\theta]}\right) \quad \text{for set-in nozzles} \quad (4.5.68)$$

$$f_s = PR_{xs}\left(L_R + \frac{t}{\tan[\theta]}\right) \quad \text{for set-on nozzles} \quad (4.5.69)$$

$$A_1 = t\left(L_R + \frac{t}{2\tan[\theta]}\right) \cdot \max\left[\left(\frac{\lambda}{5}\right)^{0.85}, 1.0\right] \quad (4.5.70)$$

#### 4.5.8 RADIAL NOZZLE IN A CONICAL SHELL

For a radial nozzle in a conical shell (see Figure 4.5.6), the design procedure in 4.5.5 shall be used with the following substitutions.

$$f_s = \frac{P}{\cos[\alpha]}\left(R_{eff} + R_{nc}\sin[\alpha] + \frac{L_t\sin[\alpha]}{2}\right)L_t \quad (4.5.71)$$

$$f_Y = \frac{P}{\cos[\alpha]}\left(R_{eff} + \frac{R_{nc}\sin[\alpha]}{2}\right)R_{nc} \quad (4.5.72)$$

$$L_t = L_R + t_n \quad \text{for set-in nozzles} \quad (4.5.73)$$

## ANSI/ICEA S-112-718-2020

The ribbon separability test ensures the ability to separate fibers, or groups of fibers, from a ribbon. Ribbons tested per IEC 60794-1-23, Method G5, are considered compliant with the procedure below.

## 7.14.1 Test Procedure

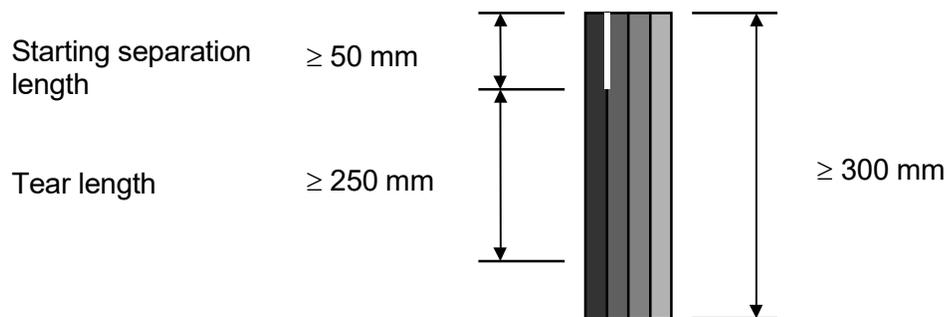
7.14.1.1 Obtain a ribbon fiber sample with a minimum length of 300 mm.

7.14.1.2 The test for separability is to be performed for the number of fibers to be separated from the ribbon in accordance with the Detail Specification.

7.14.1.3 A starting separation length of  $\geq 50$  mm is achieved with a knife, or other appropriate method, in accordance with Figure 7-2. Separation shall be accomplished without specialized tools or apparatus.

**Figure 7-2**

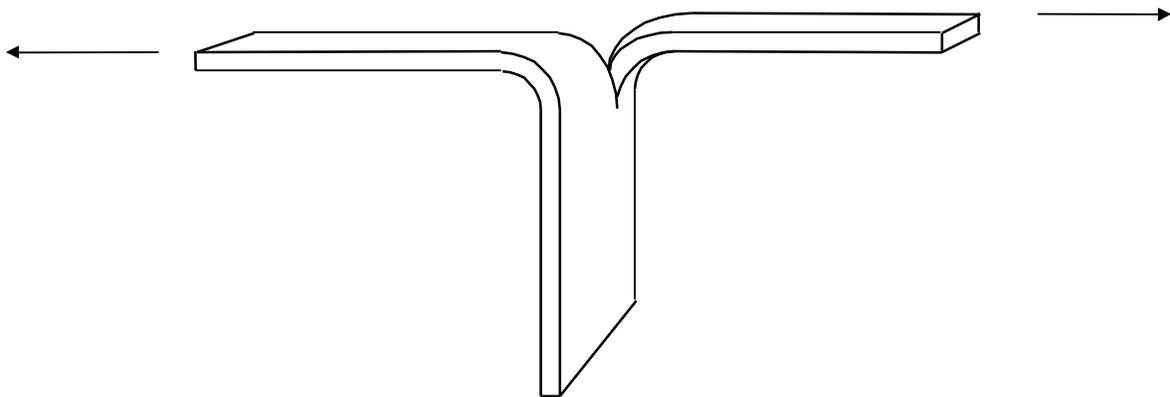
**Ribbon Preparation**



7.14.1.4 Each specimen is separated by hand as shown in Figure 7-3. The separation speed shall be approximately 500 mm/min.

**Figure 7-3**

**Ribbon Separation**



## ANSI/ICEA S-112-718-2020

## 7.14.2 Acceptance Criteria

Separation shall be readily accomplished by hand. After separation, there shall be no mechanical damage to the fibers and the color of the fibers shall still be discernible.

**7.15 Ribbon Twist Test**

The ribbon twist test, or robustness test, evaluates the ability of the ribbon to resist splitting or other damage while undergoing dynamic twisting. The ribbon is cyclically twisted while under a specified load.

## 7.15.1 Test Procedure

## 7.15.1.1 Test ribbon robustness using FOTP-141.

## 7.15.1.2 The default test conditions of the FOTP apply and are as follows:

<u>Parameter</u>	<u>Requirement</u>
Minimum number of cycles:	20 @ 10 to 20 cycles per minute
Load:	500 ± 25 g
Rotation:	180 ± 10 degrees in each direction
Ribbon gauge length:	300 ± 10 mm

## 7.15.2 Acceptance Criteria

There shall be no separation of individual fibers from the ribbon sample.

**7.16 Ribbon Residual Twist Test**

The ribbon residual twist test, or flatness test, evaluates the degree of permanent twist in a cabled optical fiber ribbon. [Partially-bonded ribbon is exempt from this test.](#)

## 7.16.1 Test Procedure

## 7.16.1.1 Test ribbon residual twist in accordance with FOTP-131.

## 7.16.1.2 The default test conditions of the FOTP apply and are as follows:

<u>Parameter</u>	<u>Requirement</u>
Ribbon gauge length:	50 ± 5 cm
Test load:	100 ± 5 g
Preconditioning requirements:	Age ribbon at 85 °C, at uncontrolled relative humidity, for 30 days, in situ in a cable or buffer tube

## 7.16.2 Acceptance Criteria

There shall be no more than 8 degrees of residual twist per linear cm exhibited by the ribbon sample.

**7.17 Buffer Strippability Test**

Tracking numbers 4i32r2 and 18i19r2  
© 2021 NSF International  
Multiple revisions for NSF/ANSI 4i32, 18i19

Revision to NSF/ANSI 4-2019  
Issue 32 Revision 2 (February 2021)  
Revision to NSF/ANSI 18-2016  
Issue 19 Revision 2 (February 2021)

Not for publication. This document is part of the NSF International standard development process. This draft text is for circulation for review and/or approval by an NSF Standards Committee and has not been published or otherwise officially adopted. All rights reserved. This document may be reproduced for informational purposes only.

[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.]

*Rationale: In the ballots for 4i32r1 and 18i19r1 the words “not” in Standard 4, section 5.48 and “hold” in Standard 18, section 5.27.2 were inadvertently removed. This ballot (4i32r2 and 18i19r2) adds these words back into Standards 4 and 18s.*

- 
- 

NSF/ANSI 4 – 2019 Standard for Food Equipment –

## Commercial Cooking, Rethermalization, and Powered Hot Food Holding and Transportation Equipment

- 

### 5 Design and construction

- 

#### 5.48 Food warming equipment

Food warming equipment intended solely for the display of foods that are **not** time/temperature control for safety foods shall have a permanently attached label that states:

*Not for the storage or display of time/temperature control for safety foods.*

The label shall be clearly visible to the user after installation of the equipment.

-

Tracking numbers 4i32r2 and 18i19r2  
© 2021 NSF International  
Multiple revisions for NSF/ANSI 4i32, 18i19

Revision to NSF/ANSI 4-2019  
Issue 32 Revision 2 (February 2021)  
Revision to NSF/ANSI 18-2016  
Issue 19 Revision 2 (February 2021)

**Not for publication. This document is part of the NSF International standard development process. This draft text is for circulation for review and/or approval by an NSF Standards Committee and has not been published or otherwise officially adopted. All rights reserved. This document may be reproduced for informational purposes only.**

NSF/ANSI 18 – 2016 Standard for Food Equipment –

## Manual Food and Beverage Dispensing Equipment

•

### 5 Design and construction

•

#### 5.27 Temperature-indicating devices for hot and cold food storage

•

**5.27.2** Product reservoirs intended to hold time/temperature control for safety food or beverage before dispensing shall have a securely mounted temperature-indicating device that clearly displays the temperature of the product. Sensors may be positioned to indirectly measure the product temperature if the temperature-indicating system is designed to display the actual product temperature. Temperature-indicating devices shall be accurate to  $\pm 2$  °F ( $\pm 1$  °C) and shall be graduated in increments no greater than 2 °F (1 °C) in the intended range of compartment temperatures. The device shall be removable and easy to read. The sensing element of the device shall be easily cleanable and located to reflect the representative temperature of the product. A temperature-indicating device is not required in product reservoirs intended only for frozen or semi-frozen food or designed to conform to the requirements of 6.4.

•

**Not for publication. This document is part of the NSF International standard development process. This draft text is for circulation for review and/or approval by a NSF Standards Committee and has not been published or otherwise officially adopted. All rights reserved. This document may be reproduced for informational purposes only.**

[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by **gray highlighting**. Rationale statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI Standard  
for GMP for Dietary Supplements –

# Good Manufacturing Practices for Dietary Supplements

- 
- 
- 

## 4 Audit requirements

- 
- 
- 

### 4.5 Operation

- 
- 
- 

**4.5.26** Receiving, sampling, testing, and release procedures shall be established to fulfill Subpart G – Production and Process Control System: Requirements for Components, Packaging, and Label. [21 CFR § 111.153]

**4.5.27** Procedures shall be established for identifying each unique lot withing each unique shipment of components received and any lot of components produced. [21 CFR § 111.155(d)]

**4.5.2728** QC operations shall review and approve components, labels and packaging materials for intended use. [21 CFR § 111.120]

- 
- 
-

Not for publication. This document is part of the NSF International standard development process. This draft text is for circulation for review and/or approval by a NSF Standards Committee and has not been published or otherwise officially adopted. All rights reserved. This document may be reproduced for informational purposes only.

[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by **gray highlighting**. Rationale statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI Standard  
for GMP for Dietary Supplements –

## Good Manufacturing Practices for Dietary Supplements

- 
- 
- 

### 4 Audit requirements

- 
- 
- 

#### 4.5 Operation

- 
- 
- 

**4.5.35** QC requirements shall be established for products that are received for packaging and labeling as a dietary supplement or as a bulk finished product. [21 CFR § 111.165]

**4.5.36** For **bulk** products that are received for packaging and labeling, visual examinations shall be performed and documentation shall be available to determine whether the product meets established specifications.  
[21 CFR § 111.75(e)]

**4.5.37** Written procedures shall be in place for retesting of materials to extend shelf life.

- 
- 
-

Not for publication. This document is part of the NSF International standard development process. This draft text is for circulation for review and/or approval by a NSF Standards Committee and has not been published or otherwise officially adopted. All rights reserved. This document may be reproduced for informational purposes only.

[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by **gray highlighting**. Rationale statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI Standard  
for GMP for Dietary Supplements –

## Good Manufacturing Practices for Dietary Supplements

- 
- 
- 

### 4 Audit requirements

- 
- 
- 

#### 4.5 Operation

- 
- 
- 

**4.5.43** The batch record shall follow the master record and each step shall be performed appropriately. [21 CFR § 111.260]

~~**4.5.44** Manufacturing operations shall be conducted using adequate sanitation principles. [21 CFR § 111.360]~~

**4.5.45** Throughout the manufacturing process precautions shall be taken to prevent contamination, including by microbes, filth, chemicals, foreign material, etc. [21 CFR § 111.365(a), (b), (c), (d), (e), (f), (g)]

- 
- 
-

Not for publication. This document is part of the NSF International standard development process. This draft text is for circulation for review and/or approval by a NSF Standards Committee and has not been published or otherwise officially adopted. All rights reserved. This document may be reproduced for informational purposes only.

[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by **gray highlighting**. Rationale statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI Standard  
for GMP for Dietary Supplements –

# Good Manufacturing Practices for Dietary Supplements

- 
- 
- 

## 4 Audit requirements

- 
- 
- 

### 4.5 Operation

- 
- 
- 

**4.5.46** A food allergen control program shall be in place as defined in 21 CFR § 117.80. [21 CFR § 117.80]

**4.5.47** ~~Manufacturing operations shall include controls to prevent contamination from foreign matter some examples of this include, but are not limited to magnets, sieves, metal detectors, X-ray or other devices as appropriate.~~ Manufacturing operations shall include controls to prevent contamination, including detection devices for foreign matter magnets, sieves, metal detectors and other devices. [21 CFR § 111.365(h), (i)]

**4.5.48** Manufacturing operations shall include the identification of all process lines and major equipment used during manufacturing to indicate their contents, including the name of the dietary supplement and the specific batch or lot number, and when necessary, the phase of manufacturing. [21 CFR § 111.365(j), (k)]

- 
- 
-

Tracking number 455-2i15r1  
© 2021 NSF International

Revision to NSF/ANSI 455-2-2020  
Issue 15 Revision 1 (February 2021)

Not for publication. This document is part of the NSF International standard development process. This draft text is for circulation for review and/or approval by a NSF Standards Committee and has not been published or otherwise officially adopted. All rights reserved. This document may be reproduced for informational purposes only.

[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by **gray highlighting**. Rationale statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI Standard  
for GMP for Dietary Supplements –

## Good Manufacturing Practices for Dietary Supplements

- 
- 
- 

### 4 Audit requirements

- 
- 
- 

#### 4.5 Operation

- 
- 
- 

**4.5.50** Records shall be established and shall be maintained to meet the requirements of Subpart K – Production and Process Control System: Requirements for Manufacturing Operations. [21 CFR § 111.375]

~~4.5.51~~ A master manufacturing record shall include instructions for filling, assembling, packaging, labeling, and other related operations. [21 CFR § 111.415]

**4.5.5251** Procedures shall be established for all packaging and labeling operations. [21 CFR § 111.403]

- 
- 
-

Not for publication. This document is part of the NSF International standard development process. This draft text is for circulation for review and/or approval by a NSF Standards Committee and has not been published or otherwise officially adopted. All rights reserved. This document may be reproduced for informational purposes only.

[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by **gray highlighting**. Rationale statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI Standard  
for GMP for Dietary Supplements –

## Good Manufacturing Practices for Dietary Supplements

- 
- 
- 

### 4 Audit requirements

- 
- 
- 

#### 4.5 Operation

- 
- 
- 

**4.5.40** The master record shall identify specifications for the control points, steps, or stages in the manufacturing process where control is necessary to ensure the quality of the dietary supplement. [21 CFR § 111.205(b1), (b2)]

**4.5.41** Master manufacturing records (including records for filling, assembling, packaging, and labeling) shall contain all the required elements as defined in 21 CFR § 111.210. [21 CFR § 111.210]

**4.5.42** For each manufactured batch of dietary supplement, the batch production record shall accurately follow the master manufacturing record with all steps being performed, and it shall contain complete information related to the production and control of the batch. Batch production records shall be maintained for at least one year after the shelf life date, if shelf life dating is being used, or at least two years beyond the date of distribution of the last batch associated with those records. [21 CFR § 111.255]

- 
- 
-

Not for publication. This document is part of the NSF International standard development process. This draft text is for circulation for review and/or approval by a NSF Standards Committee and has not been published or otherwise officially adopted. All rights reserved. This document may be reproduced for informational purposes only.

[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by **gray highlighting**. Rationale statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI Standard  
for GMP for Dietary Supplements –

## Good Manufacturing Practices for Dietary Supplements

- 
- 
- 

### 4 Audit requirements

- 
- 
- 

#### 4.6 Performance evaluation

- 
- 
- 

**4.6.4** Reserve samples shall be held under appropriate conditions (e.g., temperature, humidity, and light) and shall not lead to a mix-up, contamination, or deterioration. [21 CFR § 111.465]

~~4.6.5 A system shall be in place to determine if all established specifications have been met. [21 CFR § 111.73]~~

**4.6.65** Dietary ingredients shall be sampled, tested, and released prior to use in production. At least one appropriate test or examination shall be conducted to verify the identity of the dietary ingredient (unless the company has submitted a petition for an ID test exemption that has been approved by the US FDA). [21 CFR § 111.75(a1)]

- 
- 
-

Tracking number 455-2i18r1  
© 2021 NSF International

Revision to NSF/ANSI 455-2-2020  
Issue 18 Revision 1 (February 2021)

Not for publication. This document is part of the NSF International standard development process. This draft text is for circulation for review and/or approval by a NSF Standards Committee and has not been published or otherwise officially adopted. All rights reserved. This document may be reproduced for informational purposes only.

[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by **gray highlighting**. Rationale statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI Standard  
for GMP for Dietary Supplements –

## Good Manufacturing Practices for Dietary Supplements

- 
- 
- 

### 4 Audit requirements

- 
- 
- 

#### 4.6 Performance evaluation

- 
- 
- 

**4.6.6** Dietary ingredients shall be sampled, tested, and released prior to use in production. At least one appropriate test or examination shall be conducted to verify the identity of the dietary ingredient (unless the company has submitted a petition for an ID test exemption that has been approved by the US FDA). [21 CFR § 111.75(a1)]

**4.6.7** Other raw materials or components (i.e., those that are not dietary ingredients) shall be sampled, tested (or confirmed), and released prior to use in production. ~~Appropriate tests or examinations shall be conducted (or rely on certificate of authenticity (COA) from the qualified supplier).~~ [21 CFR § 111.75(a2i & a2ii)]

**4.6.8** Proper testing procedures or programs shall be established to determine if in-process and finished product specifications for purity, composition, and strength of the dietary supplement have been met. The basis for performing reduced testing shall be adequately documented. This shall justify how the testing procedures or program selected will help ensure that the full specification for the dietary supplement will be met. [21 CFR § 111.75(b), (c), (d)]

- 
- 
-

Not for publication. This document is part of the NSF International standard development process. This draft text is for circulation for review and/or approval by a NSF Standards Committee and has not been published or otherwise officially adopted. All rights reserved. This document may be reproduced for informational purposes only.

[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by **gray highlighting**. Rationale statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI Standard  
for GMP for Dietary Supplements –

## Good Manufacturing Practices for Dietary Supplements

- 
- 
- 

### 4 Audit requirements

- 
- 
- 

#### 4.6 Performance evaluation

- 
- 
- 

**4.6.14** Laboratory facilities used shall be adequate for testing of components, in-process materials, and dietary supplements. [21 CFR § 111.310]

**4.6.15** Laboratory controls shall be established and have been approved by QC, including criteria for establishing specifications. [21 CFR § 111.315(a)]

**4.6.16** Parameters shall be set for laboratory controls for sampling plans, criteria for examination and testing methods, and standard reference materials. [21 CFR § 111.315(b), (c), (d), (e)]

- 
- 
-

Tracking number 455-2i20r1  
© 2021 NSF International

Revision to NSF/ANSI 455-2-2020  
Issue 20 Revision 1 (February 2021)

Not for publication. This document is part of the NSF International standard development process. This draft text is for circulation for review and/or approval by a NSF Standards Committee and has not been published or otherwise officially adopted. All rights reserved. This document may be reproduced for informational purposes only.

[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by **gray highlighting**. Rationale statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI Standard  
for GMP for Dietary Supplements –

## Good Manufacturing Practices for Dietary Supplements

- 
- 
- 

### 4 Audit requirements

- 
- 
- 

#### 4.6 Performance evaluation

- 
- 
- 

**4.6.21** The investigation for a product complaint shall be appropriately extended to other batches, products, processes, etc. [21 CFR § 111.560(c)]

**4.6.22** Records for each product complaint and investigation shall be maintained. Records shall be maintained for at least one year after the shelf life date, if shelf life dating is being used, or at least two years beyond the date of distribution of the last batch associated with those records. [21 CFR § 111.570(a) & ~~21 CFR § 117.139~~]

**4.6.23** Procedures shall be established to define the recall of a product. The written recall plan shall include procedures that describe the steps to be taken, and assign responsibility for taking those steps as appropriate to the facility. [21 CFR § 117.139]

- 
- 
-

Proposed revisions to OPEI B175.1-202X. Limited Substantive Changes Recirculation draft  
2/22/2021

The standard drafting committee determined the following changes may be substantive in response to comments received to the previous proposed revision, (BSR) / OPEI B175.1-202X, (BSR) for *Outdoor Power Equipment – Internal Combustion Engine-Powered Hand-Held Chain Saws – Safety and Environmental Requirements*. Additions are in underline and deletions are in ~~strikeout~~.

This copyright in this standard is owned by OPEI. Any unauthorized use, distribution, copying, or transmission of this standard in whole or in part and in any form by any means without permission from OPEI is strictly prohibited.

### 3 Definitions

...

**3.20 guide bar effective length (without bar tip guard):** The approximate length of cut a chain saw will make when the guide bar adjustment is at the halfway point. See Figure 3. The measurement shall be made along the centerline of the guide bar (A) from the chain saw body (where no spiked bumper is provided or the spiked bumper is removable) to the tip of the guide bar or (B) from the spike root which is closest to the guide bar tip (where the spiked bumper is a permanent part of the saw not including the bar nose sprocket, if present) to the tip end of the guide bar. 6.35 mm (0.25 in) shall be added to account for the height of a cutting tooth. The length shall be expressed in terms of the nearest whole unit of measure (in/cm). See Figure 3.

#### 5.15.2.4 Replacement saw chain

The following applies to replacement saw chains:

- a) Saw chains sold as replacement equipment for a specific chain saw model ~~below 3.8 c.i.d. (62.3 cc)~~ originally certified in accordance with the criteria of 5.15.2.1(b) or 5.15.2.3(d) shall, when evaluated with that chain saw model, enable that chain saw model to meet the acceptance criteria of 5.15.2.1(b) or 5.15.2.3(d) respectively, and its packaging shall be prominently marked in accordance with 12.2.5(a); or
- b) It shall conform to the requirements for low-kickback saw chains in accordance with 5.15.2.5 and its packaging shall be prominently marked in accordance with 12.2.5(b); or
- c) If it does not conform to the requirements of 5.15.2.1(b), its packaging shall be prominently marked with ~~a yellow label~~ in accordance with 12.2.5(c).

#### 12.2.5 Labels - replacement saw chain

All saw chain packaging shall be clearly labeled in accordance with (a), (b), or (c) below, as appropriate. The labels may be suitably paraphrased or combined, or both, as appropriate. The label or labels shall be clearly visible without opening the package.

- a) *Saw chain that is sold for and tested on specific chain saw model and guide bar combinations and meets the requirements of 5.15.2.1~~(a)(b)~~ or 5.15.2.3~~(e)(d)~~ shall be marked with yellow-colored background:*

This saw chain met the kickback performance requirements of ANSI /OPEI B175.1-20XX when tested with [list specific chain saw model(s) and guide bar combinations, or refer to manufacturer's literature]

**WARNING:** It may not meet the ANSI/OPEI B175.1-20XX performance requirements when used on other chain saws or guide bars.

- b) *Saw chain that meets the requirements of 5.15.2.5 shall be marked with green-colored background:*

This saw chain met the kickback performance requirements of ANSI/OPEI B175.1-20XX when tested according to the provisions of ANSI/OPEI B175.1-20XX.

- c) *Saw chain not meeting the requirements of ~~5.15.2.4~~ 5.15.2.1(b) or 5.15.2.5 shall be marked with yellow-colored background:*

**WARNING:** This saw chain may be capable of severe kickback that could result in serious injury to the user. Do not use this saw chain unless you have experience and specialized training for dealing with kickback. Saw chains with reduced-kickback potential may be available.

## **BSR/UL 147, Standard for Safety for Hand-Held Torches for Fuel Gases**

### **1. Revision to the Temperature Test**

#### **PROPOSAL**

16.3 ~~The torch assembly is to be arranged on a wooden platform.~~ The temperatures are to be monitored as the burner valve is manipulated to determine the position at which the highest temperatures are achieved. The torch is then to be connected to a new container of fuel and operated at that flow setting until all fuel is exhausted or for 8 hours, whichever comes first, or when the operating pressure drops below that recommended by the manufacturer as stated in their instruction manual.

*UL copyrighted material. Not authorized for further reproduction without prior permission from UL.*