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Project Initiation Notification System (PINS)

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

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

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

ACCA (Air Conditioning Contractors of America)
1330 Braddock Place, Suite 350, Alexandria, VA 22314   www.acca.org
Contact: David Bixby; david.bixby@acca.org

Revision
Stakeholders: Contractors, HVAC Engineers, Manufacturers, Utilities, HVAC Trainers, and Code Officials.
Project Need: To improve accuracy in establishing loads required for the selection of HVAC equipment that will provide maximum operating efficiency to residential structures.
Scope: Manual J is intended for producing HVAC equipment sizing loads for single-family detached homes, small multi-unit structures, condominiums, town houses, and manufactured homes. A proper load calculation, performed in accordance with the Manual J procedure, is required by national building codes and most state and local jurisdictions.

AGA (ASC Z380) (American Gas Association)
400 North Capitol Street, NW, Suite 450, Washington, DC 20001   www.agaus.org
Contact: Betsy Tansey; btansey@aga.org

Addenda
Stakeholders: Natural and LP gas transmission, distribution, and gathering piping system operators; federal and state regulatory agencies involved in enforcement activities; manufacturers and suppliers of material and equipment to the industry.
Project Need: Update guidance material to reflect current and new regulations and industry practice, issue addenda as necessary to update the 2018 version of the standard and mid-year create a new 2021 version. The secretary recalibrates page numbers, etc. every 3 years publishing a new version. We want to publish 2021 version this year.
Scope: The standard provides guidance to operators of natural gas and LP pipeline systems regulated under U.S. CFR 49, Parts 191 and 192.
ASABE (American Society of Agricultural and Biological Engineers)
2950 Niles Road, Saint Joseph, MI 49085 https://www.asabe.org/
Contact: Carla VanGilder; vangilder@asabe.org

New National Adoption
BSR/ASABE AD24347:202x, Agricultural Vehicles - Mechanical connections between towed and towing vehicles -
Dimensions of ball-type coupling device (80mm) (national adoption of ISO 24347:2019 with modifications and
revision of ANSI/ASABE AD24347:2014 (R2018))
Stakeholders: Agricultural equipment manufacturers
Project Need: Align ASABE adoption with 2019 version of ISO 24347.
Scope: This document specifies the dimensional requirements and location for a ball coupling device of 80 mm
nominal diameter, whose male part is fitted to an agricultural towing vehicle and female part is fitted to a towed, non-
balanced vehicle which provides mechanical connection between the two vehicles. It defines vertical loading for
different positions. This document specifies a ball coupling device with either a horizontal adjustable version or a
close position version.

ASC X9 (Accredited Standards Committee X9, Incorporated)
275 West Street, Suite 107, Annapolis, MD 21401 www.x9.org
Contact: Ambria Frazier; Ambria.frazier@x9.org

Revision
Stakeholders: Financial services industry
Project Need: X9.82 Part 2 describes the properties that an entropy source must have to make it suitable for use by
cryptographic random bit generators. Included in X9.82-2 are: • An entropy source model • Criteria and requirements
for entropy source components, and • Tests for ensuring that the implementation continues to perform as expected
(health tests) This part of the Standard is an attempt to provide design guidance for the development of entropy
sources.
Scope: X9.82 is concerned with the generation of random bits, primarily for use in cryptographic applications. As Part
1 of this standard establishes, the only way for this seed value to provide real security is for it to be obtained from a
source that provides sufficient entropy.

ASSP (ASC A10) (American Society of Safety Professionals)
520 N. Northwest Highway, Park Ridge, IL 60068 www.assp.org
Contact: Tim Fisher; TFisher@ASSP.org

Revision
BSR/ASSP A10.4-202X, Personnel Hoists & Employee Elevators for Use on Construction and Demolition Sites (revision
and redesignation of ANSI/ASSE A10.4-2016)
Stakeholders: Occupational Safety and Health Professionals working in the construction and demolition industry
Project Need: Based upon the consensus of the A10 Committee and Occupational Safety and Health Professionals
working in the construction and demolition industry
Scope: This standard applies to the design, construction, installation, operation, inspection, testing, maintenance,
alterations, and repair of hoists and elevators that (1) are not an integral part of buildings; (2) are installed inside or
outside buildings or structures during construction, alteration, or demolition operations; and (3) are used to raise and
lower workers and other personnel connected with or related to the structure.
ASSP (ASC A10) (American Society of Safety Professionals)
520 N. Northwest Highway, Park Ridge, IL 60068  www.assp.org
Contact: Tim Fisher; TFisher@ASSP.org

Reaffirmation
Stakeholders: Occupational Safety and Health Professionals working in the construction and demolition industry
Project Need: Based upon the consensus of the A10 Committee and Occupational Safety and Health Professionals working in the construction and demolition industry
Scope: This standard provides minimum safety requirements for the selection, installation, operation, and maintenance of space heating devices and equipment of temporary and portable design. It covers the heater unit and its integral parts through to their connection for fuel, but does not cover separate supply tanks or valving.

ASSP (Safety) (American Society of Safety Professionals)
520 N. Northwest Highway, Park Ridge, IL 60068  www.assp.org
Contact: Lauren Bauerschmidt; LBauerschmidt@assp.org

Revision
BSR/ASSP Z9.11-202x, Laboratory Decommissioning (revision and redesignation of ANSI/ASSE Z9.11-2016)
Stakeholders: OSH professionals
Project Need: Based upon the consensus of the Z9 committee and the leadership of ASSP
Scope: (1) Provide guidance for the decommissioning of all or parts of laboratory facilities; (2) Provide guidance to determine the extent of acceptable risk given the future use of the facility; (3) Provide methodologies to document, monitor, and verify the decommissioning process; (4) Identify stakeholders, their roles, responsibilities, and relationships; and (5) Provide criteria for development of a decommissioning plan for laboratories that addresses human health, safety, and environmental protection and meets the goals of the overall decommissioning process.

ASTM (ASTM International)
100 Barr Harbor Drive, West Conshohocken, PA 19428-2959  www.astm.org
Contact: Laura Klineburger; accreditation@astm.org

New Standard
BSR/ASTM WK75231-202x, Assessment of Fourier Transform Infrared (FTIR) Spectroscopy Data during the Qualitative Analysis of Seized Drugs (new standard)
Stakeholders: Criminalistics Industry
Project Need: This standard will describe to the end user the approach to conduct an assessment and evaluation of Fourier Transform Infrared Spectroscopy (FTIR) spectra data obtained when conducting qualitative analysis of seized drugs. When FTIR is used for qualitative comparison purposes for identification, the practitioner (end user) determines whether any exclusionary differences exist between the reference spectrum and the sample spectrum. This guide will raise awareness on the framework for differentiating between the technique’s presumptive and identification capabilities.
Scope: This standard describes an approach to evaluate standalone benchtop Fourier Transform Infrared (FTIR) spectroscopy data generated during the qualitative analysis of seized drugs. This standard also includes a framework for differentiating between the technique’s presumptive and identification capabilities. The identification of seized drugs using FTIR spectroscopy shall occur within the context of an appropriate analytical scheme using validated methods.
ATIS (Alliance for Telecommunications Industry Solutions)
1200 G Street NW, Suite 500, Washington, DC 20005  www.atis.org
Contact: Anna Karditzas; akarditzas@atis.org

**Supplement**

Stakeholders: Telecom
Project Need: Several errors were found in ATIS-1000678.v4.2020 after publication that need to be addressed.

BIFMA (Business and Institutional Furniture Manufacturers Association)
678 Front Avenue NW, Grand Rapids, MI 49504  www.bifma.org
Contact: David Panning; dpanning@bifma.org

**Reaffirmation**
BSR/BIFMA X5.6-2016 (R202x), Panel Systems (reaffirmation of ANSI/BIFMA X5.6-2016)

Stakeholders: This standard is intended to provide manufacturers, specifiers, and users with a common basis for evaluating the safety, durability, and structural adequacy of panel systems.
Project Need: This standard provides guidance to the furniture industry regarding Panel Systems.
Scope: This standard is intended to provide a common basis for evaluating the safety, durability, and structural performance of panel systems products, such as panels, screens, panel-supported systems, access doors, and various hang-on components used in conjunction with panel systems products.

HI (Hydraulic Institute)
6 Campus Drive, Suite 104, Parsippany, NJ 07054-4406  www.pumps.org
Contact: Edgar Suarez; esuarez@pumps.org

**Revision**
BSR/HI 11.6-202x, Rotodynamic Submersible Pumps for Hydraulic Performance, Hydrostatic Pressure, Mechanical, and Electrical Acceptance Tests (revision of ANSI/HI 11.6-2017)

Stakeholders: Manufacturers, specifiers, purchasers, and users of submersible pumps.
Project Need: There is a need to update requirements in the standard.
Scope: This standard is intended to provide uniform procedures for performance, hydrostatic, net positive suction head required (NPSHR), submersible motor integrity, and vibration testing of submersible pumps; and data recording and reporting of the test results. It is intended to define test procedures that may be invoked by contractual agreement between a purchaser and manufacturer. It is not intended to define a manufacturer’s standard practice.
HPVA (Hardwood Plywood Veneer Association)
42777 Trade West Drive, Sterling, VA 20166 www.DecorativeHardwoods.org
Contact: Brian Sause; standards@decorativehardwoods.org

Revision
BSR/HPVA HP-1-202x, Standard for Hardwood and Decorative Plywood (revision of ANSI/HPVA HP-1-2020)
Stakeholders: Manufacturers, Users, Distributers, And Retailers Of Hardwood Plywood
Project Need: Revise Current Ans To Reflect Industry Practices, Resources, Technology, And Regulations On Hardwood And Decorative Plywood.
Scope: Details the specific requirements for all face, back, and inner ply grades as well as provisions for formaldehyde emissions, moisture content, manufacturing tolerances, sanding, and grade marking.

IEEE (Institute of Electrical and Electronics Engineers)
445 Hoes Lane, Piscataway, NJ 08854-4141 www.ieee.org
Contact: Lisa Weisser; l.weisser@ieee.org

New Standard
BSR/IEEE 303-202x, Recommended Practice for Auxiliary Devices for Rotating Electrical Machines in Class I, Division 2 and Zone 2 Locations and Class II, Division 2 and Zone 22 Locations (new standard)
Stakeholders: The stakeholders for this standard are motor manufacturers, testing agencies, consultants and users.
Project Need: IEEE 303 is listed as a reference document for other IEEE and NFPA standards and there is no other U.S.-based standard that covers this material.
Scope: This recommended practice is limited to auxiliary devices associated with rotating electrical machines operating in Class I Division 2 and Zone 2 or Class II Division 2 and Zone 22 areas, as classified under the practice of the National Fire Protections Association (NFPA) standard NFPA 70, National Electrical Code(R) (NEC(R)), and the Canadian Standards Association (CSA) standard CSA C22.1, Canadian Electrical Code (CE Code). This recommended practice is not an attempt to rewrite or otherwise supersede applicable sections or clauses of these noted documents or any other codes or ordinances. Rather, it is intended to serve as a supplement to existing codes that in this area may not be sufficiently specific to serve as a guide to good engineering practice.

IEEE (Institute of Electrical and Electronics Engineers)
445 Hoes Lane, Piscataway, NJ 08854-4141 www.ieee.org
Contact: Lisa Weisser; l.weisser@ieee.org

New Standard
BSR/IEEE 841-202x, Standard for Petroleum and Chemical Industry - Premium-Efficiency, Severe-Duty, Totally Encloseed Squirrel Cage Induction Motors - 0.75-370 kW (1-500 hp) (new standard)
Stakeholders: The stakeholders for this standard are the refining, chemical and other heavy industrial facilities.
Project Need: The reason for the project is to update the existing IEEE 841 standard in order to bring it current with companion standards, codes and references, and present technology. The stakeholders are the users in the Petroleum and Chemical industries, and the Pulp and Paper industry using this standard, and motor manufacturers supplying products to these industries.
Scope: This standard applies to premium-efficiency totally enclosed fan-cooled (TEFC) and totally enclosed non-ventilated (TENV), horizontal and vertical, single-speed, squirrel-cage polyphase induction motors, 0.75-370 kW (1-500 hp), and up to 4000 V nominal, in National Electrical Manufacturers Association (NEMA) frame sizes 143T and larger, for petroleum, chemical, and other severe-duty applications (commonly referred to as premium-efficiency severe-duty motors). Excluded from the scope of this standard are motors with sleeve bearings and additional specific features required for explosion-proof motors.
IEEE (Institute of Electrical and Electronics Engineers)
445 Hoes Lane, Piscataway, NJ 08854-4141  www.ieee.org
Contact: Lisa Weisser; l.weisser@ieee.org

Revision
BSR/IEEE 1349-202x, Guide for the Application of Electric Machines in Zone 2 and Class I, Division 2 Hazardous (Classified) Locations (revision of ANSI/IEEE 1349-2011)

Stakeholders: petrochemical industry
Project Need: The existing Guide should be updated in general which will include up-to-date application practices, update reference standards, expand the information on adjustable speed drive applications, include new motor data, and bring the entire document up to current standards. This information will mainly be used in the petrochemical industry by users, manufacturers, and designers for applying electric machines in hazardous locations.
Scope: Three-phase and single-phase AC synchronous and induction electric machines in ratings 0.18 kW (1/4 hp) and larger are covered in this guide. Primary emphasis is on the use of open or nonexplosionproof or nonflameproof enclosed machines in Zone 2 and Class I, Division 2 locations as covered in National Electrical Code(R) (NEC(R)) (NFPA 70-2020) and Canadian Electrical Code(R) (CE code(R)) (CSA C22.1-2018 Safety Standard for Electrical Installations) as applicable. Surface temperature test methods and sine wave and non-sine wave applications are covered. Precautions against excessive surface temperatures and sparking are included. To mitigate hot surface temperatures and sparking, this document provides guidance for selecting, operating, and maintaining machines in Zone 2 and Class I, Division 2 locations. This guide does not cover ac wound rotor machines and dc electric machines. Machines installed in locations other than Zone 2 and Class I, Division 2 as covered in NFPA 70-2020 or CSA C22.1 - 2018 are not covered in this guide. This document is not a specification and is not intended to be used as a specification for purchasing electric machines. The voltage breaks in this document are 1000 V and less, and over 1000 V.

IEEE (Institute of Electrical and Electronics Engineers)
445 Hoes Lane, Piscataway, NJ 08854-4141  www.ieee.org
Contact: Lisa Weisser; l.weisser@ieee.org

New Standard
BSR/IEEE 24774-202x, Systems and software engineering - Life cycle management - Specification for process description (new standard)

Stakeholders: Process modelers, systems and software engineers, developers, system owners, service providers and users.
Project Need: Since 2007, ISO/IEC TR 24774 has been the foundation of process description in systems and software engineering, and has been widely applied in other engineering fields. This revision will change 24774 to a normative standard with some optional elements. It will further expand the concepts of process description to more clearly distinguish between outcomes and outputs. The revisions will increase its usability in situations where engineering processes need to interoperate within various life cycle models. It will also improve its applicability when processes are being reformulated, such as agile development or DevOps.
Scope: This standard provides requirements for the description of systems and software engineering processes with a model of process elements and rules for their formulation.
IEEE (Institute of Electrical and Electronics Engineers)
445 Hoes Lane, Piscataway, NJ 08854-4141   www.ieee.org
Contact: Lisa Weisser; l.weisser@ieee.org

New Standard
BSR/IEEE 63195-2-202x, The assessment of power density of human exposure to radio frequency fields from wireless
devices in close proximity to the head and body - Part 2: Computational procedure (frequency range of 6 GHz to 300
GHz) (new standard)

Stakeholders: Telecommunication industry, manufacturers, regulatory agencies, software developers
Project Need: New wireless technologies operate at significantly enhanced frequency ranges (up to 300 GHz) where
exposure limits are no longer defined in terms of SAR but in terms of incident power density. No computational
procedures are currently defined for determining the peak and spatially averaged power density at these frequencies
for purposes of compliance assessment.
Scope: This standard specifies computational procedures for conservative, repeatable and reproducible computations
of power density (PD) from radio-frequency (RF) transmitting devices incident to a human head or body, using Finite-
Difference Time-Domain (FDTD) and Finite Element Methods (FEM) with a specified computational uncertainty. These
procedures apply for exposure assessments of a significant majority of the population including children during the
use of hand-held and body-worn RF transmitting devices. These devices may feature single or multiple transmitters or
antennas, and may be operated with their radiating part(s) at distances up to 200 mm from a human head or body.
This document can be employed to determine compliance with applicable maximum PD requirements of different
types of RF transmitting devices used in close proximity to the head and body, including if combined with other RF-
transmitting or non-transmitting devices or accessories (e.g., belt-clip), or embedded in garments. The overall
applicable frequency range of these protocols is from 6 GHz to 300 GHz. The RF transmitting device categories
covered in this document include but are not limited to mobile telephones, radio transmitters in personal computers,
desktop and laptop devices, and multi-band and multi-antenna devices.

NFPA (National Fire Protection Association)
One Batterymarch Park, Quincy, MA 02169   www.nfpa.org
Contact: Dawn Michele Bellis; dbellis@nfpa.org

New Standard

Stakeholders: Authorities Having Jurisdiction, Architects and Engineers, Cannabis Growers, Cannabis extractors,
cannabis testing labs, installing contractors, and cannabis processing facility operators/facility managers.
Project Need: As the legalized cannabis industry continues to rapidly expand in the United States and globally, there is
a need for clear guidance on fire safety considerations for the facilities in which cannabis growing and processing
occurs.
Scope: This standard will address the protection of facilities from fire and related hazards where cannabis is being
grown, processed, and tested. It will address the unique fire- and life-safety challenges of these facilities and how to
protect the people, property, and first responders from fire and related hazards of cannabis growing and processing.
TAPPI (Technical Association of the Pulp and Paper Industry)
15 Technology Parkway South, Suite 115, Peachtree Corners, GA 30092   www.tappi.org
Contact: Deborah Dodson; standards@tappi.org

Revision
BSR/TAPPI T 400 sp-202x, Sampling and accepting a single lot of paper, paperboard, containerboard, or related product (revision of ANSI/TAPPI T 400 sp-2011)

Stakeholders: Manufacturers of pulp, paper, packaging, or related products, consumers or converters of such products, and suppliers of equipment, supplies, or raw materials for the manufacture of such products.

Project Need: To conduct required five-year review of an existing TAPPI Standard.

Scope: This method describes procedures for obtaining a representative sample for testing. It should be recognized that in an ideal situation the samples selected should represent a lot of paper or paperboard, container board, or related product, including converted paper products (all referred to as “paper” in this standard). However, in some situations, the sample may be as small as a single sheet of paper that has been provided to the laboratory for testing and may not represent the lot from which it is obtained.
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

Comment Deadline: February 21, 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

BSR/ASME BPVC Section XII-202x, Rules for Construction and Continued Service of Transport Tanks (revision of ANSI/ASME BPVC Section XII-2019)

The rules of this Section constitute requirements for construction and continued service of pressure vessels for the transportation of dangerous goods via highway, rail, air, or water. Construction is an all-inclusive term comprising materials, design, fabrication, examination, inspection, testing, certification, and over-pressure protection. Continued service is an all-inclusive term referring to inspection, testing, repair, alteration, and recertification of a transport tank that has been in service.

Click here to view these changes in full
Send comments (with optional copy to psa@ansi.org) to: Jihoon Oh; ohj@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

Revision

BSR/ASME NUM-1-202x, Rules for Construction of Cranes, Monorails, and Hoists (with Bridge or Trolley or Hoist of the Underhung Type) (revision of ANSI/ASME NUM-1-2016)

This Standard covers underhung cranes, top-running bridge and gantry cranes with underhung trolleys, traveling wall cranes, jib cranes, monorail systems, overhead hoists, and hoists with integral trolleys used in nuclear facilities.

Click here to view these changes in full
Send comments (with optional copy to psa@ansi.org) to: Jihoon Oh; ohj@asme.org
Comment Deadline: February 21, 2021

SAIA (ASC A92) (Scaffold & Access Industry Association)
400 Admiral Boulevard, Kansas City, MO 64106  p: (816) 595-4860 w: www.saiaonline.org

Revision


This Standard is intended to be used in conjunction with BSR/SAIA A92.22, Safe Use of MEWPs and ANSI/SAIA A92.24-2018, Training Requirements for Operators of MEWPs. This standard specifies safety requirements and preventive measures, and the means for their verification, for certain types and sizes of mobile elevating work platforms (MEWPs) intended to position personnel, along with their necessary tools and materials, at work locations. It contains the structural design calculations and stability criteria, construction, and safety examinations and tests that shall be applied before a MEWP is first put into service.

Click here to view these changes in full
Send comments (with optional copy to psa@ansi.org) to: DeAnna Martin, deanna@saiaonline.org

SAIA (ASC A92) (Scaffold & Access Industry Association)
400 Admiral Boulevard, Kansas City, MO 64106  p: (816) 595-4860 w: www.saiaonline.org

Revision

BSR/SAIA A92.22-202x, Safe Use of Mobile Elevating Work Platforms (MEWPs) (revision of ANSI/SAIA A92.22-2020)

This Standard is intended to be used in conjunction with BSR/SAIA A92.20, Design calculations, safety requirements and test methods for Mobile Elevating Work Platforms (MEWPs) and ANSI/SAIA A92.24-2018, Training Requirements for Operators of Mobile Elevating Work Platforms (MEWPs). This Standard specifies requirements for application, inspection, training, maintenance, repair and safe operation of Mobile Elevating Work Platforms (hereafter known as MEWPs). It applies to all types and sizes of MEWPs as specified in BSR/SAIA A92.20 that are intended to position personnel, along with their necessary tools and materials, at work locations.

Click here to view these changes in full
Send comments (with optional copy to psa@ansi.org) to: DeAnna Martin, deanna@saiaonline.org

UL (Underwriters Laboratories)
333 Pfingsten Road, Northbrook, IL 60062  p: (847) 664-3198 w: https://ul.org/

New National Adoption


Click here to view these changes in full
Send comments (with optional copy to psa@ansi.org) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: https://csds.ul.com/Home/ProposalsDefault.aspx

UL (Underwriters Laboratories)
47173 Benicia Street, Fremont, CA 94538  p: (510) 319-4271 w: https://ul.org/

Revision


This proposal covers the following topics: (1) Revision of Requirements for Afterflame Time in Tables 8.1 and 11.1 and (2) Editorial revision of the term “Flaming Particles” in Sections 8, 9, 11, and 12.

Click here to view these changes in full
Send comments (with optional copy to psa@ansi.org) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: https://csds.ul.com/Home/ProposalsDefault.aspx
UL (Underwriters Laboratories)
47173 Benicia Street, Fremont, CA  94538  p: (510) 319-4269 w: https://ul.org/

Revision
Recirculation of revision to clause 72.2 (c) of UL 268/ULC-S529 that was proposed on July 24, 2020.
Click here to view these changes in full
Send comments (with optional copy to psa@ansi.org) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: https://csds.ul.com/Home/ProposalsDefault.aspx

UL (Underwriters Laboratories)
333 Pfingsten Road, Northbrook, IL  60062-2096  p: (847) 664-2850 w: https://ul.org/

Revision
BSR/UL 486C-202x, Standard for Safety for Splicing Wire Connectors (revision of ANSI/UL 486C-2019)
Recirculation to withdraw Topic 5 - Flash Over Test for Push-In Wire Connectors.
Click here to view these changes in full
Send comments (with optional copy to psa@ansi.org) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: https://csds.ul.com/Home/ProposalsDefault.aspx

UL (Underwriters Laboratories)
333 Pfingsten Road, Northbrook, IL  60062-2096  p: (847) 664-2850 w: https://ul.org/

Revision
Recirculation of Topic #5) - Testing with Metric and Non-Standard Size Conductors.
Click here to view these changes in full
Send comments (with optional copy to psa@ansi.org) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: https://csds.ul.com/Home/ProposalsDefault.aspx

UL (Underwriters Laboratories)
47173 Benicia Street, Fremont, CA  94538  p: (510) 319-4269 w: https://ul.org/

Revision
Document proposes changes to the Stability Test with a new section to address mechanical heat detectors. A second proposal specifies a minimum height for the programmable heat detector symbol in paragraph 53.8.
Click here to view these changes in full
Send comments (with optional copy to psa@ansi.org) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: https://csds.ul.com/Home/ProposalsDefault.aspx

UL (Underwriters Laboratories)
47173 Benicia Street, Fremont, CA  94538  p: (510) 319-4297 w: https://ul.org/

Revision
Proposed change to Shielded FFC Products; Shielded Withstand Voltage Test, Addition of New Exception.
Click here to view these changes in full
Send comments (with optional copy to 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: February 21, 2021**

**UL (Underwriters Laboratories)**
47173 Benicia Street, Fremont, CA  94538  p: (510) 319-4297 w: https://ul.org/

**Revision**

BSR/UL 1277-202x, Standard for Safety for Electrical Power and Control Tray Cables with Optional Optical-Fiber Members (revision of ANSI/UL 1277-2020)

This proposal covers the following topic: Add Type XHH to the Table in 9.2.1.

Click here to view these changes in full

Send comments (with optional copy to 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

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**UL (Underwriters Laboratories)**
12 Laboratory Drive, P.O. Box 13995, Research Triangle Park, NC  27709-3995  p: (919) 549-1391 w: https://ul.org/

**Revision**


This proposal for UL 1963 covers: The following topics are being recirculated for your review: (14) Miscellaneous clarifications

Click here to view these changes in full

Send comments (with optional copy to 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

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**UL (Underwriters Laboratories)**
333 Pfingsten Road, Northbrook, IL  60062-2096  p: (847) 664-1725 w: https://ul.org/

**Revision**


This proposal for UL 2703 covers: (1) Addition of New Appendix D, Non-Uniform Mechanical Testing.

Click here to view these changes in full

Send comments (with optional copy to 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

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**Comment Deadline: March 8, 2021**

**AAFS (American Academy of Forensic Sciences)**
410 North 21st Street, Colorado Springs, CO  80904  p: (719) 453-1036 w: www.aafs.org

**New Standard**

BSR/ASB Std 145-202x, Standard for Consultation during Friction Ridge Examination (new standard)

This standard sets documentation, quality, and consultant requirements for consultations during Friction Ridge examinations. This document does not apply to conflict resolution.

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: Document will be provided electronically on AAFS Standards Board website (www.asbstandardsboard.org) free of charge.

Send comments (with optional copy to psa@ansi.org) to: asb@aafs.org
Comment Deadline: March 8, 2021

AAMI (Association for the Advancement of Medical Instrumentation)
901 N. Glebe Road, Suite 300, Arlington, VA 22203 p: (703) 253-8284 w: www.aami.org

Reaffirmation

BSR/AAMI/ISO 13408-5-2012 (R202x), Aseptic processing of health care products - Part 5: Sterilization in place (reaffirm a national adoption ANSI/AAMI/ISO 13408-5-2012 (R2015))

Specifies the general requirements for sterilization in place (SIP) applied to product contact surfaces of the equipment used in the manufacture of sterile health care products by aseptic processing and offers guidance on qualification, validation, operation and control. This document applies to processes where sterilizing agents are delivered to the internal surfaces of the equipment that can come in contact with the product.

Single copy price: $1.00
Obtain an electronic copy from: https://store.aami.org/s/store#/store/browse/detail/a152E000006j5s1QAA
Send comments (with optional copy to psa@ansi.org) to: abenedict@aami.org

AHRI (Air-Conditioning, Heating, and Refrigeration Institute)
2311 Wilson Boulevard, Suite 400, Arlington, VA 22201-3001 p: (703) 293-4887 w: www.ahrinet.org

New Standard

BSR/AHRI Standard 430 (I-P)-202x, Performance Rating of Central Station Air-handling Unit Supply Fans (new standard)

This standard applies to supply fan ratings for plenum fans in a cabinet with a full-face opening axial discharge, housed centrifugal fans, and axial fans.
Single copy price: Free
Obtain an electronic copy from: AHRI_Standards@ahrinet.org
Send comments (with optional copy to psa@ansi.org) to: AHRI_Standards@ahrinet.org

AHRI (Air-Conditioning, Heating, and Refrigeration Institute)
2311 Wilson Boulevard, Suite 400, Arlington, VA 22201-3001 p: (703) 293-4887 w: www.ahrinet.org

New Standard

BSR/AHRI Standard 431 (SI)-202x, Performance Rating of Central Station Air-handling Unit Supply Fans (new standard)

This standard applies to supply fan ratings for plenum fans in a cabinet with a full-face opening axial discharge, housed centrifugal fans, and axial fans.
Single copy price: Free
Obtain an electronic copy from: AHRI_Standards@ahrinet.org
Send comments (with optional copy to psa@ansi.org) to: AHRI_Standards@ahrinet.org

AHRI (Air-Conditioning, Heating, and Refrigeration Institute)
2311 Wilson Boulevard, Suite 400, Arlington, VA 22201-3001 p: (703) 293-4887 w: www.ahrinet.org

Revision


This standard applies to Refrigerant Pressure Regulating Valves controlling volatile refrigerant flow that primarily respond to pressure. The types of Refrigerant Pressure Regulating Valves are those that are responsive to inlet, to outlet, or to differential pressures sensed locally or remotely.
Single copy price: Free
Obtain an electronic copy from: AHRI_Standards@ahrinet.org
Send comments (with optional copy to psa@ansi.org) to: AHRI_Standards@ahrinet.org
Comment Deadline: March 8, 2021

AHRI (Air-Conditioning, Heating, and Refrigeration Institute)
2311 Wilson Boulevard, Suite 400, Arlington, VA 22201-3001  p: (703) 293-4887 w: www.ahrinet.org

Revision
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Single copy price: Free
Obtain an electronic copy from: AHRI_Standards@ahrinet.org
Send comments (with optional copy to psa@ansi.org) to: AHRI_Standards@ahrinet.org

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

Revision
This standard applies to factory-made vapor compression refrigeration Water-Chilling and Water-Heating Packages including one or more compressors. These Water-chilling and Water-heating Packages include: Water-cooled, air-cooled, or evaporatively-cooled condensers; water-cooled heat-recovery condensers; air-to-water heat pumps; and water-to-water heat pumps with a capacity greater or equal to 135,000 Btu/h. Water-to-water heat pumps with a capacity less than 135,000 Btu/h are covered by the latest edition of ASHRAE/AHRI/ISO Standard 13256.
Single copy price: Free
Obtain an electronic copy from: AHRI_Standards@ahrinet.org
Send comments (with optional copy to psa@ansi.org) to: AHRI_Standards@ahrinet.org

Revision
This standard applies to factory-made vapor compression refrigeration Water-Chilling and Water-Heating Packages including one or more compressors. These Water-chilling and Water-heating Packages include: Water-cooled, air-cooled, or evaporatively-cooled condensers; water-cooled heat-recovery condensers; air-to-water heat pumps; and water-to-water heat pumps with a capacity greater or equal to 135,000 Btu/h. Water-to-water heat pumps with a capacity less than 135,000 Btu/h are covered by the latest edition of ASHRAE/AHRI/ISO Standard 13256.
Single copy price: Free
Obtain an electronic copy from: AHRI_Standards@ahrinet.org
Send comments (with optional copy to psa@ansi.org) to: AHRI_Standards@ahrinet.org

Revision
This standard specifies the location and background design of essential check data fields and is intended for all business-size and personal-size checks.
Single copy price: $60.00
Obtain an electronic copy from: ambria.frazier@x9.org
Send comments (with optional copy to psa@ansi.org) to: ambria.frazier@x9.org
Comment Deadline: March 8, 2021

ASC X9 (Accredited Standards Committee X9, Incorporated)

ASC X9 (Accredited Standards Committee X9, Incorporated)
275 West Street, Suite 107, Annapolis, MD 21401 p: (410) 267-7707 w: www.x9.org

Revision

The purpose of this standard is to provide the financial industry with a format necessary to perform electronic check exchange (ECE), with or without images. The format supports forward presentment, posting, return notification, and return requests, as well as existing customer information reporting products. The standard also supports multiple check clearing alternatives, e.g., bank-to-bank, bank-to-switch.

Single copy price: $100.00
Obtain an electronic copy from: ambria.frazier@x9.org
Send comments (with optional copy to psa@ansi.org) to: ambria.frazier@x9.org

ASME (American Society of Mechanical Engineers)

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

BSR/ASME A17.8-2016/CSA B44.8-202x, Standard for wind turbine tower elevators (revision of ANSI/ASME A17.8-2016/CSA B44.8-2016)
ASME A17.8/CSA B44.8 applies to elevators permanently installed in a wind turbine tower to provide vertical transportation of authorized personnel and their tools and equipment only.

Single copy price: Free
Obtain an electronic copy from: http://cstools.asme.org/publicreview
Send comments (with optional copy to psa@ansi.org) to: Riad Mohamed; MohamedR@asme.org

ASTM (ASTM International)

ASTM (ASTM International)
100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 p: (610) 832-9744 w: www.astm.org

Revision

BSR/ASTM D7082-202x, Specification for Polyethylene Stay In Place Form System for End Walls for Drainage Pipe (revision of ANSI/ASTM D7082-2015)
https://www.astm.org/ANSI_SA

Single copy price: Free
Obtain an electronic copy from: cleonard@astm.org
Order from: Laura Klineburger; accreditation@astm.org
Send comments (with optional copy to psa@ansi.org) to: Same

AWWA (American Water Works Association)

AWWA (American Water Works Association)
6666 W. Quincy Avenue, Denver, CO 80235 p: (303) 347-6178 w: www.awwa.org

Revision

This standard describes liquid oxygen (LOX) for the generation of ozone for use in the treatment of potable water, wastewater, or reclaimed water.

Single copy price: Free
Obtain an electronic copy from: ETSSupport@awwa.org
Order from: AWWA, Attn: Vicki David; v david@awwa.org
Send comments (with optional copy to psa@ansi.org) to: AWWA, Attn: Paul J. Olson; polson@awwa.org
Comment Deadline: March 8, 2021

CSA (CSA America Standards Inc.)
8501 E. Pleasant Valley Road, Cleveland, OH 44131  p: (216) 524-4990 w: www.csagroup.org

Addenda

BSR Z21.90a-202x, Gas Convenience Outlets and Optional Enclosures (same as CSA 6.24a) (addenda to ANSI Z21.90-2019)
This Standard applies to gas convenience outlets, hereinafter referred to as gas outlets and optional enclosures, not to exceed 1-1/2 in (38.1 mm) and pressures not to exceed 5 psi (34.5 kPa), capable of operation at temperatures between 32°F and 200°F (0°C and 93.3°C) if intended for indoor use only, or between −20°F and 200°F (−28.8°C and 93.3°C) if intended for indoor/outdoor use. Indoor/outdoor use is also to be capable of operation at −40°F (−40°C) when so specified by the manufacturer.
Single copy price: Free
Obtain an electronic copy from: ansi.contact@csagroup.org
Send comments (with optional copy to psa@ansi.org) to: David Zimmerman; ansi.contact@csagroup.org

CSA (CSA America Standards Inc.)
8501 E. Pleasant Valley Road, Cleveland, OH 44131  p: (216) 524-4990 w: www.csagroup.org

Addenda

BSR/CSA PRD 1-202x, Pressure relief devices for natural gas vehicle (NGV) fuel containers (addenda to ANSI/PRD 1-2020)
This standard contains requirements for newly produced compressed natural gas fuel system components, intended for use on natural gas powered vehicles. This standard applies to devices which have a service pressure of either 16 500 kPa (2,400 psi), 20 700 kPa (3,000 psi), or 24 800 kPa (3,600 psi). Components included in this standard include: check valve; manual valve, manual container valve, automatic valve, gas injector, pressure indicator, pressure regulator, gas flow adjustor, gas/air mixer, pressure relief valve, pressure relief device, excess flow valve, gas-tight housing and ventilation hose, rigid fuel line, flexible fuel line, filter, fittings, and relief line closures. A revision is needed based on a safety issue and a change in formula.
Single copy price: Free
Obtain an electronic copy from: david.zimmerman@csagroup.org
Order from: David Zimmerman; ansi.contact@csagroup.org
Send comments (with optional copy to psa@ansi.org) to: Same

CSA (CSA America Standards Inc.)
8501 E. Pleasant Valley Road, Cleveland, OH 44131  p: (216) 524-4990 w: www.csagroup.org

Revision

BSR/CSA HPRD 1-202x, Thermally activated pressure relief devices for compressed hydrogen vehicle fuel containers (revision of ANSI/CSA HPRD 1-2013 (R2018))
This Standard establishes minimum requirements for pressure relief devices intended for use on fuel containers that comply with CSA B51, Part 2: Boiler, Pressure Vessel and Pressure Piping Code or SAE J2579, Technical Information Report for Fuel Systems in Fuel Cell and Other Hydrogen Vehicles. Pressure relief devices designed to comply with this standard are intended to be used with hydrogen fuel complying with SAE J2719, Hydrogen Fuel Quality for Fuel Cell Vehicles, or ISO 14687, Hydrogen Fuel-Product Specification. This project includes additional definitions, requirements for pilot-activated pressure relief devices, and design qualification tests.
Single copy price: Free
Obtain an electronic copy from: david.zimmerman@csagroup.org
Order from: David Zimmerman; ansi.contact@csagroup.org
Send comments (with optional copy to psa@ansi.org) to: Same
Comment Deadline: March 8, 2021

ICC (International Code Council)
4051 Flossmoor Road, Country Club Hills, IL 60478 p: (888) 422-7233 4205 w: www.iccsafe.org

Reaffirmation


The purpose of the effort is the development of appropriate, reasonable and enforceable model health and safety provisions for new and existing installations of all types of bleachers and bleacher-type seating, including fixed and folding bleachers for indoor, outdoor, temporary, and permanent installations. Such provisions would serve as a model for adoption and use by enforcement agencies at all levels of government in the interest of national uniformity.

Single copy price: Free
Obtain an electronic copy from: https://codes.iccsafe.org/codes/icc-standards
Send comments (with optional copy to psa@ansi.org) to: kpaarlberg@iccsafe.org

ISEA (International Safety Equipment Association)
1901 North Moore Street, Suite 808, Arlington, VA 22209 p: (703) 525-1695 w: www.safetyequipment.org

Revision

BSR/ISEA 125-202x, Conformity Assessment of Safety and Personal Protective Equipment (revision of ANSI/ISEA 125-2014)

This standard establishes criteria for conformity assessment of safety and personal protective equipment which is sold with claims of compliance with product performance standards. Specific provisions are described for qualification performance testing data collection and maintenance; periodic verification; substantiation of processes to maintain manufacturing quality; and roles and responsibilities of suppliers, testing organizations, and certification organizations who participate in the process.

Single copy price: Free
Obtain an electronic copy from: cfargo@safetyequipment.org
Send comments (with optional copy to psa@ansi.org) to: cfargo@safetyequipment.org

ITSDF (Industrial Truck Standards Development Foundation, Inc.)

Revision

BSR/ITSDF B56.6-202X, Safety Standard for Rough Terrain Forklift Trucks (revision of ANSI/ITSDF B56.6-2016)

This Standard defines the safety requirements relating to the elements of design, operation, and maintenance of rough terrain forklift trucks (referred to as RTFL trucks in this standard). RTFL trucks are intended for operation on unimproved natural terrain as well as the disturbed terrain of construction sites.

Single copy price: Free
Obtain an electronic copy from: info@itsdf.org
Send comments (with optional copy to psa@ansi.org) to: info@itsdf.org
Comment Deadline: March 8, 2021

NFPA (National Fire Protection Association)
One Batterymarch Park, Quincy, MA 02269-9101 p: (617) 984-7248 w: www.nfpa.org

NFPA FIRE PROTECTION STANDARDS DOCUMENTATION
The National Fire Protection Association announces the availability of the NFPA Second Draft Report for concurrent review and comment by NFPA and ANSI. These Second Draft Reports contain the disposition of public comment(s) that were received for standards in the 2021 Annual Revision Cycle (available for review on the next edition tab for each standard). All Notices of Intent to Make A Motion on the 2021 Annual Revision Cycle Second Draft Report must be received by the following date: February 17, 2021.

For more information on the rules and deadlines for NFPA standards in cycle, please check the NFPA website (www.nfpa.org) or contact Standards Administration at NFPA. Those who submit comments to NFPA's online submission system on the 2021 Annual Revision Cycle Standards are invited to copy ANSI's Board of Standards Review.

New Standard
BSR/NFPA 1877-202x, Standard on Selection, Care, and Maintenance of Wildland Fire Fighting Clothing and Equipment (new standard)
This standard shall specify the minimum requirements used for selection, care, and maintenance of wildland fire-fighting protective clothing and equipment that are compliant with NFPA 1977, including garments, helmets, gloves, footwear, face/neck shrouds, goggles, chain-saw protection, and load-carrying equipment. This standard shall not specify requirements for other organizational programs, such as appropriate use of wildland fire-fighting protective clothing and equipment for training, for operations, or for infection control, because such programs are under the jurisdiction of other NFPA standards. This standard shall not apply to protective ensembles or protective clothing that are compliant with NFPA 1951, NFPA 1971, NFPA 1991, NFPA 1992, NFPA 1994, and NFPA 1999.
Obtain an electronic copy from: www.nfpa.org/1877Next
Send comments (with optional copy to psa@ansi.org) to: Same

NFPA (National Fire Protection Association)
One Batterymarch Park, Quincy, MA 02269-9101 p: (617) 984-7248 w: www.nfpa.org

Revision
BSR/NFPA 10-202x, Standard for Portable Fire Extinguishers (revision of ANSI/NFPA 10-2018)
The provisions of this standard apply to the selection, installation, inspection, maintenance, recharging, and testing of portable fire extinguishers and Class D extinguishing agents. Many fires are small at origin and can be extinguished by the use of portable fire extinguishers. Notification of the fire department as soon as a fire is discovered is strongly recommended. This alarm should not be delayed by awaiting results of the application of portable fire extinguishers. Fire extinguishers can represent an important segment of any overall fire protection program. However, their successful functioning depends upon the following conditions having been met: (1) The fire extinguisher is located in accordance with the requirements of Chapter 6 and is in working order; (2) The fire extinguisher is of the correct type for a fire that can occur; (3) The fire is discovered while still small enough for the fire extinguisher to be effective; and (4) The fire is discovered by a person ready, willing, and able to use the fire extinguisher. Fixed systems are covered by the following NFPA standards: (1) NFPA 11, Standard for Low-, Medium-, and High-Expansion Foam; (2) NFPA 12, Standard on Carbon Dioxide Extinguishing Systems; (3) NFPA 12A, Standard... 
Obtain an electronic copy from: www.nfpa.org/10Next
Send comments (with optional copy to psa@ansi.org) to: Same
Comment Deadline: March 8, 2021

NFPA (National Fire Protection Association)
One Batterymarch Park, Quincy, MA 02269-9101 p: (617) 984-7248 w: www.nfpa.org

Revision

BSR/NFPA 40-202x, Standard for the Storage and Handling of Cellulose Nitrate Film (revision of ANSI/NFPA 40-2019)
Although the storage and handling of cellulose nitrate film have a good safety record, fire tests conducted prior to 1967 indicated the desirability of a modification of existing standards. The requirements of this standard, therefore, apply strictly to long-term storage of cellulose nitrate film. This standard shall apply to all facilities that are involved with the storage and handling of cellulose nitrate—based film. Cellulose nitrate—based film includes, but is not limited to, original negative, duplicate negative, interpositive (fine grain), color separation master (YCM), successive exposure master (SEN), optical soundtrack negative or master, mattes, title bands, and release prints. This standard shall not apply to the storage and handling of film having a base other than cellulose nitrate.

Obtain an electronic copy from: www.nfpa.org/40

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

NFPA (National Fire Protection Association)
One Batterymarch Park, Quincy, MA 02269-9101 p: (617) 984-7248 w: www.nfpa.org

Revision

BSR/NFPA 72*-202x, National Fire Alarm and Signaling Code® (revision of ANSI/NFPA 72-2019)
NFPA 72 covers the application, installation, location, performance, inspection, testing, and maintenance of fire alarm systems, supervising station alarm systems, public emergency alarm reporting systems, fire warning equipment, and emergency communications systems (ECS), and their components. The provisions of this chapter apply throughout the Code unless otherwise noted.

Obtain an electronic copy from: www.nfpa.org/72

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

NFPA (National Fire Protection Association)
One Batterymarch Park, Quincy, MA 02269-9101 p: (617) 984-7248 w: www.nfpa.org

Revision

BSR/NFPA 105-202x, Standard for Smoke Door Assemblies and Other Opening Protectives (revision of ANSI/NFPA 105-2019)
This standard shall prescribe minimum requirements for smoke door assemblies for use in providing safety to life and protection of property from smoke.

Obtain an electronic copy from: www.nfpa.org/105

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

NFPA (National Fire Protection Association)
One Batterymarch Park, Quincy, MA 02269-9101 p: (617) 984-7248 w: www.nfpa.org

Revision

This standard contains requirements covering the performance of emergency and standby power systems providing an alternate source of electrical power to loads in buildings and facilities in the event that the primary power source fails. Power systems covered in this standard include power sources, transfer equipment, controls, supervisory equipment, and all related electrical and mechanical auxiliary and accessory equipment needed to supply electrical power to the load terminals of the transfer equipment. This standard covers installation, maintenance, operation, and testing requirements as they pertain to the performance of the emergency power supply system (EPSS). This standard does not cover the following: (1) Application of the EPSS; (2) Emergency lighting unit equipment; (3) Distribution wiring; (4) Utility service when such service is permitted as the EPSS; (5) Parameters for stored energy devices; and (6) The equipment of systems that are not classed as Level 1 or Level 2 systems in accordance with Chapter 4 of this standard. This standard does not establish criteria for stored energy systems. The selection of any of the following is not within the scope of this standard: (1) Specific buildings or facilities, or both, requiring an EPSS; (2)...
Comment Deadline: March 8, 2021

NFPA (National Fire Protection Association)
One Batterymarch Park, Quincy, MA  02269-9101  p: (617) 984-7248 w: www.nfpa.org

Revision

This code shall apply to the storage, use, and handling of the following hazardous materials in all occupancies and facilities: (1) Ammonium nitrate solids and liquids; (2) Corrosive solids and liquids; (3) Flammable solids; (4) Organic peroxide formulations; (5) Oxidizer — solids and liquids; (6) Pyrophoric solids and liquids; (7) Toxic and highly toxic solids and liquids; (8) Unstable (reactive) solids and liquids; (9) Water-reactive solids and liquids; and (10)*Compressed gases and cryogenic fluids as included within the context of NFPA 55, Compressed Gases and Cryogenic Fluids Code. It is not intended that NFPA 400 regulate compressed gases or cryogenic fluids outside of the scope of NFPA 55, Compressed Gases and Cryogenic Fluids Code, including LPG as regulated by NFPA 58, Liquefied Petroleum Gas Code, fuel gas as regulated by NFPA 54, National Fuel Gas Code, vehicular fuels as regulated by NFPA 52, Vehicular Gaseous Fuel Systems Code, or LNG as regulated by NFPA 59, Utility LP-Gas Plant Code. Refer to the specific exemptions referred to in 21.1.1.2. Manufacturing operations are covered by this code when the manufacturing operation involves the storage or use of hazardous materials regulated by this code. When quantities exceed...

Obtain an electronic copy from: www.nfpa.org/400
Send comments (with optional copy to psa@ansi.org) to: Same

NFPA (National Fire Protection Association)
One Batterymarch Park, Quincy, MA  02269-9101  p: (617) 984-7248 w: www.nfpa.org

Revision

BSR/NFPA 484-202x, Standard for Combustible Metals (revision of ANSI/NFPA 484-2019)
This standard shall apply to the production, processing, finishing, handling, recycling, storage, and use of all metals and alloys that are in a form that is capable of combustion or explosion. Under proper conditions, most metals in the elemental form will react with oxygen to form an oxide. These reactions are exothermic. The conditions of the exposure are affected by the temperature of the metal (whether it is in large pieces or in the form of small particles), the ratio of its surface area to its total weight, the extent or presence of an oxide coating, the temperature of the surrounding atmosphere, the oxygen content of the atmosphere, the moisture content of the atmosphere, and the presence of flammable vapors. The procedures in Chapter 4 shall be used to determine whether a metal is in a noncombustible form. Combustible Metal Powder or Dust. This standard also shall apply to operations where metal or metal alloys are subjected to processing or finishing operations that produce combustible powder or dust. Operations where metal or metal alloys are subjected to processing or finishing operations that produce combustible powder or dust shall include, but shall not be...

Obtain an electronic copy from: www.nfpa.org/484
Send comments (with optional copy to psa@ansi.org) to: Same

NFPA (National Fire Protection Association)
One Batterymarch Park, Quincy, MA  02269-9101  p: (617) 984-7248 w: www.nfpa.org

Revision

BSR/NFPA 1581-202x, Standard on Fire Department Infection Control Program (revision of ANSI/NFPA 1581-2015)
This standard contains minimum requirements for a fire department infection control program.

Obtain an electronic copy from: www.nfpa.org/1581
Send comments (with optional copy to psa@ansi.org) to: Same
Comment Deadline: March 8, 2021

NFPA (National Fire Protection Association)
One Batterymarch Park, Quincy, MA  02269-9101  p: (617) 984-7248 w: www.nfpa.org

Revision

BSR/NFPA 1582-202x, Standard on Comprehensive Occupational Medical Program for Fire Departments (revision of ANSI/NFPA 1582-2018)

This standard contains descriptive requirements for a comprehensive occupational medical program for fire departments. The medical requirements in this standard are applicable to fire department candidates and members whose job descriptions as defined by the authority having jurisdiction (AHJ) are outlined in NFPA 1001, Standard for Fire Fighter Professional Qualifications; NFPA 1002, Standard for Fire Apparatus Driver/Operator Professional Qualifications; NFPA 1003, Standard for Airport Fire Fighter Professional Qualifications; NFPA 1006, Standard for Technical Rescuer Professional Qualifications; NFPA 1021, Standard for Fire Officer Professional Qualifications; and NFPA 1051, Standard for Wildland Fire Fighter Professional Qualifications. Some of the medical requirements in this standard are not applicable to candidates and members whose essential job tasks within the fire department are not described in NFPA 1001, NFPA 1002, NFPA 1003, NFPA 1006, NFPA 1021, and NFPA 1051. However, particular attention must be paid to the essential job tasks of individual candidates or members when applying this standard (for example, administrative staff personnel, some EMS personnel, fire/police, and others who do not have responsibility for structural fire fighting and are not required to wear personal protective ensembles and use SCBA). Medical requirements should reflect essential job...

Obtain an electronic copy from: www.nfpa.org/1582
Send comments (with optional copy to psa@ansi.org) to: Same

NFPA (National Fire Protection Association)
One Batterymarch Park, Quincy, MA  02269-9101  p: (617) 984-7248 w: www.nfpa.org

Revision

BSR/NFPA 1583-202x, Standard on Health-Related Fitness Programs for Fire Department Members (revision of ANSI/NFPA 1583-2015)

This standard establishes the minimum requirements for the development, implementation, and management of a health-related fitness program (HRFP) for members of the fire department involved in emergency operations. Although this standard is intended primarily for members involved in emergency operations, fire departments are encouraged to apply the components of the health-related fitness program to all employees.

Obtain an electronic copy from: www.nfpa.org/1583
Send comments (with optional copy to psa@ansi.org) to: Same

NFPA (National Fire Protection Association)
One Batterymarch Park, Quincy, MA  02269-9101  p: (617) 984-7248 w: www.nfpa.org

Revision


This standard establishes the minimum criteria for developing and implementing a rehabilitation process for fire department members at incident scene operations and training exercises.

Obtain an electronic copy from: www.nfpa.org/1584
Send comments (with optional copy to psa@ansi.org) to: Same
Comment Deadline: March 8, 2021

NFPA (National Fire Protection Association)
One Batterymarch Park, Quincy, MA 02269-9101 p: (617) 984-7248 w: www.nfpa.org

Revision


This standard shall specify the minimum design, performance, testing, and certification requirements for items of wildland fire fighting protective clothing and equipment, including protective garments, protective helmets, protective gloves, protective footwear, protective goggles, and protective chain saw protectors; and for load-carrying equipment. This standard shall specify requirements for any accessories or enhancements built into, attached to, or sold with the certified wildland fire fighting protective clothing and equipment and for load-carrying equipment by the product manufacturer for later attachment and shall be tested with the wildland fire fighting protective clothing and equipment and for load-carrying equipment with those accessories and enhancements installed or attached, as specified in 4.3.13. This standard shall not be interpreted as providing criteria for respiratory protection for wildland fire fighting operations as wildland fire fighting respiratory protection equipment is specified in NFPA 1984. The responsibility for developing requirements for respiratory protection for wildland fire fighting operations belongs to the NFPA Technical Committee on Respiratory Protection Equipment. This standard alone shall not be interpreted as providing criteria for protective clothing or equipment for structural fire fighting operations. This standard shall not be interpreted as providing criteria for fire...

Obtain an electronic copy from: www.nfpa.org/1977

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

NFPA (National Fire Protection Association)
One Batterymarch Park, Quincy, MA 02269-9101 p: (617) 984-7248 w: www.nfpa.org

Revision


This standard shall specify the minimum design, performance, testing, and certification requirements for respirators to provide protection from inhalation hazards for personnel conducting wildland fire-fighting operations. 1.1.2 This standard shall specify only respirator requirements for use in non-IDLH (immediately dangerous to life and health) wildland environments during wildland fire-fighting operations. 1.1.3 This standard shall specify requirements for any accessories or enhancements built into, attached to, or sold with the certified wildland fire-fighting respirator by the respirator manufacturer for later attachment and which shall be tested with the wildland fire-fighting respirator and with those accessories and enhancements installed or attached, as specified in 4.3.11 and 4.3.11.1. 1.1.4 This standard shall not specify requirements for any wildland fire-fighting protective clothing and protective equipment other than that identified in 1.1.1 through 1.1.3. 1.1.5 This standard shall not specify requirements for respirators for any other fire-fighting operations other than those identified in 1.1.1 and 1.1.2, any technical rescue operation, any hazardous materials emergencies, or any CBRN incident operations. 1.1.6 Certification of respirators for wildland fire-fighting operations to the requirements of this standard shall not preclude certification to additional appropriate standards where the respirator meets all the applicable requirements of each standard...

Obtain an electronic copy from: www.nfpa.org/1984

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

NSF (NSF International)
789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-3817 w: www.nsf.org

Revision

BSR/NSF 4-202x (i31r1), 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.

Single copy price: Free


Send comments (with optional copy to psa@ansi.org) to: arose@nsf.org
Comment Deadline: March 8, 2021

NSF (NSF International)
789 N. Dixboro Road, Ann Arbor, MI 48105-9723  p: (734) 827-3817 w: www.nsf.org

Revision

BSR/NSF 4-202x (i32r1), 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.

Single copy price: Free
Send comments (with optional copy to psa@ansi.org) to: arose@nsf.org

NSF (NSF International)
789 N. Dixboro Road, Ann Arbor, MI 48105-9723  p: (734) 827-3817 w: www.nsf.org

Revision

BSR/NSF 6-202x (i18r1), Dispensing Freezers (revision of ANSI/NSF 6-2018)

This Standard contains requirements for the following equipment: dispensing freezers that process and freeze previously pasteurized product (e.g., soft ice cream, ice milk, yogurt, malts, custards) and dispense it directly into the consumer’s container; dispensing freezers that dispense premanufactured frozen product (e.g., ice cream) directly into the consumer’s container; and batch dispensing freezers. The materials, design, and construction requirements of this Standard may also apply to items that are manufactured as a component of a dispensing freezer.

Single copy price: Free
Send comments (with optional copy to psa@ansi.org) to: arose@nsf.org

NSF (NSF International)
789 N. Dixboro Road, Ann Arbor, MI 48105-9723  p: (734) 827-3817 w: www.nsf.org

Revision

BSR/NSF 6-202x (i19r1), Dispensing Freezers (revision of ANSI/NSF 6-2018)

This Standard contains requirements for the following equipment: dispensing freezers that process and freeze previously pasteurized product (e.g., soft ice cream, ice milk, yogurt, malts, custards) and dispense it directly into the consumer’s container; dispensing freezers that dispense premanufactured frozen product (e.g., ice cream) directly into the consumer’s container; and batch dispensing freezers. The materials, design, and construction requirements of this Standard may also apply to items that are manufactured as a component of a dispensing freezer.

Single copy price: Free
Send comments (with optional copy to psa@ansi.org) to: arose@nsf.org
Comment Deadline: March 8, 2021

NSF (NSF International)
789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-3817 w: www.nsf.org

Revision

BSR/NSF 7-202x (i24r1), Commercial Refrigerators and Freezers (revision of ANSI/NSF 7-2019)
This Standard contains requirements for refrigerators and freezers used to store and/or display cold food. The types of refrigerators and freezers covered by this Standard include, but are not limited to: storage refrigerators (e.g., reach-in, under counter, walk-in, roll-in); storage freezers (e.g., reach-in, under counter, walk-in, roll-in); rapid pull-down refrigerators and freezers; refrigerated food transport cabinets; refrigerated buffet units; refrigerated food preparation units; display refrigerators; beverage coolers; and ice cream cabinets.

Single copy price: Free
Send comments (with optional copy to psa@ansi.org) to: arose@nsf.org

NSF (NSF International)
789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-3817 w: www.nsf.org

Revision

BSR/NSF 8-202x (i19r1), Commercial Powered Food Preparation Equipment (revision of ANSI/NSF 8-2018)
Equipment covered by this Standard includes, but is not limited to, coffee grinders, grinders, mixers, pasta makers, peelers, saws, slicers, tenderizers, and similar equipment.

Single copy price: Free
Send comments (with optional copy to psa@ansi.org) to: arose@nsf.org

NSF (NSF International)
789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-3817 w: www.nsf.org

Revision

BSR/NSF 12-202x (i14r1), Automatic Ice Making Equipment (revision of ANSI/NSF 12-2018)
This Standard contains requirements for automatic ice-making equipment and devices used in the manufacturing, processing, storing, dispensing, packaging, and transportation of ice intended for human consumption.

Single copy price: Free
Send comments (with optional copy to psa@ansi.org) to: arose@nsf.org

NSF (NSF International)
789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-3817 w: www.nsf.org

Revision

BSR/NSF 18-202x (i19r1), 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.

Single copy price: Free
Send comments (with optional copy to psa@ansi.org) to: arose@nsf.org
Comment Deadline: March 8, 2021

NSF (NSF International)
789 N. Dixboro Road, Ann Arbor, MI 48105-9723  p: (734) 827-3817 w: www.nsf.org

Revision
BSR/NSF 20-202x (i8r1), Commercial Bulk Milk Dispensing Equipment (revision of ANSI/NSF 20-2020)
This Standard contains requirements for bulk milk dispensers designed to dispense servings of milk or milk products by manual or machine actuation. This Standard does not apply to dispensing freezers (soft-serve machines), vending machines, or manual food- and beverage-dispensing equipment covered by the scope of other NSF standards. Commercial bulk milk and milk product dispensing equipment materials and components covered under other NSF or NSF/ANSI Standards or Criteria shall also comply with the requirements therein. This Standard is not intended to restrict new design, provided that such design meets the minimum specifications described in the standard.

Single copy price: Free
Send comments (with optional copy to psa@ansi.org) to: arose@nsf.org

NSF (NSF International)
789 N. Dixboro Road, Ann Arbor, MI 48105-9723  p: (734) 827-3817 w: www.nsf.org

Revision
BSR/NSF 25-202x (i15r1), Vending Machines for Food and Beverages (revision of ANSI/NSF 25-2017)
This Standard contains requirements for food- and beverage-vending machines, including those that vend packaged food and beverages and those that vend food and beverages in bulk.

Single copy price: Free
Send comments (with optional copy to psa@ansi.org) to: arose@nsf.org

NSF (NSF International)
789 N. Dixboro Road, Ann Arbor, MI 48105-9723  p: (734) 827-3817 w: www.nsf.org

Revision
BSR/NSF 25-202x (i19r1), Vending Machines for Food and Beverages (revision of ANSI/NSF 25-2017)
This Standard contains requirements for food- and beverage-vending machines, including those that vend packaged food and beverages and those that vend food and beverages in bulk.

Single copy price: Free
Send comments (with optional copy to psa@ansi.org) to: arose@nsf.org

UL (Underwriters Laboratories)
12 Laboratory Drive, Research Triangle Park, NC 27709-3995  p: (919) 549-1479 w: https://ul.org/

Reaffirmation
BSR/UL 1012-2012 (R2016), Standard for Safety for Power Units Other Than Class 2 (reaffirmation of ANSI/UL 1012-2012 (R2016))
Reaffirmation of UL 1012 which covers portable, stationary, and fixed power units having an input rating of 600 volts or less, direct- and alternating-current, with at least one output not marked Class 2, and that are intended to be employed in ordinary locations in accordance with the National Electrical Code, ANSI/NFPA 70.

Single copy price: Free
Order from: http://www.shopulstandards.com
Send comments (with optional copy to 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: March 8, 2021**

**UL (Underwriters Laboratories)**
333 Pfingsten Road, Northbrook, IL 60062  p: (847) 664-3198 w: https://ul.org/

**Revision**


The following items are subject to comments:

(2) Revision of flammability requirement for surfaces;
(3) Addition of sub-assemblies and structural requirements and revisions to clarify channel and raceways requirements;
(4) Revisions to cord-connected system requirements to allow for 14 AWG cord and 15 A plug configurations under specific conditions;
(6) Revision to marking requirements to clarify office furnishing type designation requirements;
(7) Revisions to construction and test requirements applicable to raceways to specify compliance with UL 5, Surface Metal Raceways and Fittings, and UL 5A, Nonmetallic Surface Raceways and Fittings;
(9) Addition of electrical enclosure requirements;
(12) Addition of component requirement to specify compliance with UL 746D to address traceability for molded parts;
(13) Revision to Paragraph 19.7.1 to allow for standard European-size glass thickness of 3.0 mm;
(16) Clarification of the Spill Test to include testing of a line-voltage outlet or low-voltage outlet such as a USB port;
(17) Revisions to Section 33, Functional and Proof Load Tests, to clarify the required tests from ANSI/BIFMA X5.6 that are to be applied in the evaluation of furnishings;
(18) Revision to the Glass Panel Test – Retention to specify the correct metric unit of impact for the test;
(19) Addition to installation and operating instruction requirements to specify system components evaluated as part of the complete furnishing;
(21) Revisions to Section 19.9, Flammability of Materials to clarify the requirement;
(22) Revisions and additions to Supplement SA, Modular Pre-Wired Office Furnishing Floor Raceway Systems to Allow for Under-Carpet Applications.

Single copy price: Free
Order from: http://www.shopulstandards.com
Send comments (with optional copy to 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

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**Comment Deadline: March 23, 2021**

**UL (Underwriters Laboratories)**
333 Pfingsten Road, Northbrook, IL 60062  p: (847) 664-1292 w: https://ul.org/

**Revision**

Reaffirmations and withdrawals available electronically may be accessed at: webstore.ansi.org

BSR/UL 5085-2-202x, Standard for Safety for Low Voltage Transformers (revision of ANSI/UL 5085-2-2012 (R2017))

This proposed Second Edition of the Standard for Low Voltage Transformers - Part 2: General Purpose Transformers, UL 5085-2 includes the following proposal: Alternate Temperature Rise Test Loading Methods.

Single copy price: Free
Order from: http://www.shopulstandards.com
Send comments (with optional copy to 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
Technical Reports Registered with ANSI

Technical Reports Registered with ANSI are not consensus documents. Rather, all material contained in Technical Reports Registered with ANSI is informational in nature. Technical reports may include, for example, reports of technical research, tutorials, factual data obtained from a survey carried out among standards developers and/or national bodies, or information on the "state of the art" in relation to standards of national or international bodies on a particular subject. Immediately following the end of a 30-day announcement period in Standards Action, the Technical Report will be registered by ANSI. Please submit any comments regarding this registration to the organization indicated, with a copy to the PSA Center, American National Standards Institute, 25 West 43rd Street, New York, NY 10036 or E-Mail to psa@ansi.org.

ASSP (Safety) (American Society of Safety Professionals)
520 N. Northwest Highway, Park Ridge, IL 60068 p: (847) 768-3411 w: www.assp.org

New Technical Report


Work-related injuries, illnesses, or fatalities are always difficult for any kind of organization, but the negative effects for small businesses can be overwhelming. This handbook, published jointly by ISO and UNIDO, aims to help smaller economic units implement the requirements of ISO 45001:2018. Readers will get simple explanations and practical examples that support their first steps into the intricacies of workplace health and safety. This is proposed to now also be registered as a technical report.

Technical Reports Registered with ANSI are not consensus documents. Rather, all material contained in Technical Reports Registered with ANSI is informational in nature. Technical reports may include, for example, reports of technical research, tutorials, factual data obtained from a survey carried out among standards developers and/or national bodies, or information on the "state of the art" in relation to standards of national or international bodies on a particular subject. Immediately following the end of a 30-day announcement period in Standards Action, the Technical Report will be registered by ANSI. Please submit any comments regarding this registration to the organization indicated, with a copy to the PSA Center, American National Standards Institute, 25 West 43rd Street, New York, NY 10036 or E-Mail to psa@ansi.org.

ASSP (Safety) (American Society of Safety Professionals)
520 N. Northwest Highway, Park Ridge, IL 60068 p: (847) 768-3411 w: www.assp.org

New Technical Report


This document gives guidelines for organizations on how to manage the risks arising from COVID-19 to protect work-related health, safety, and well-being. This document also provides guidance relating to the protection of workers of all types (e.g., workers employed by the organization, workers of external providers, contractors, self-employed individuals, agency workers, older workers, workers with a disability and first responders), and other relevant interested parties (e.g., visitors to a workplace, including members of the public). This document is not intended to provide guidance on how to implement specific infection control protocols in clinical, healthcare, and other settings.
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.

ASC X9 (Accredited Standards Committee X9, Incorporated)
275 West Street, Suite 107, Annapolis, MD 21401 p: (410) 267-7707 w: www.x9.org

New Standard

ASSP (Safety) (American Society of Safety Professionals)
520 N. Northwest Highway, Park Ridge, IL 60068 p: (847) 768-3411 w: www.assp.org

New National Adoption

ASTM (ASTM International)
100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 p: (610) 832-9744 w: www.astm.org

Revision
ANSI/ASTM D4308-2013, Test Method for Electrical Conductivity of Liquid Hydrocarbons by Precision Meter (revision of ANSI/ASTM D4308-2012) Final Action Date: 06/18/2013

Revision
ANSI/ASTM D4308-2021, Test Method for Electrical Conductivity of Liquid Hydrocarbons by Precision Meter (revision of ANSI/ASTM D4308-2013) Final Action Date: 1/1/2021

CSA (CSA America Standards Inc.)
8501 E. Pleasant Valley Road, Cleveland, OH 44131 p: (216) 524-4990 w: www.csagroup.org

Reaffirmation
ANSI Z83.11-2016/CSA 1.8-2016 (R2021), Gas Food Service Equipment (same as CSA 1.8) (reaffirmation of ANSI Z83.11-2016/CSA 1.8-2016) Final Action Date: 1/14/2021

CTA (Consumer Technology Association)
1919 South Eads Street, Arlington, VA 22202 p: (703) 907-7697 w: www.cta.tech

* New Standard

FCI (Fluid Controls Institute)
1300 Sumner Avenue, Cleveland, OH 44115 p: (216) 241-7333 w: www.fluidcontrols institute.org

New Standard
ANSI/FCI 18-1-2021, Standard for Sizing and Selection of Type 1 Secondary Pressure Drainers (new standard) Final Action Date: 1/14/2021
HPS (ASC N43) (Health Physics Society)
1313 Dolley Madison Blvd #402, McLean, VA  22101  p: (703) 790-1745 w: www.hps.org

New Standard
ANSI N43.16-2021, Radiation Safety for Cargo and Vehicle Security Screening Systems Using X-Ray or Gamma Radiation, Energies Up To 10 MeV (new standard) Final Action Date: 1/14/2021

IAPMO (ASSE Chapter) (ASSE International Chapter of IAPMO)
18927 Hickory Creek Drive, Suite 220, Mokena, IL  60448  p: (909) 519-0740 w: www.asse-plumbing.org

Reaffirmation

Reaffirmation
ANSI/ASSE 1032-2011 (R2021), Performance Requirements for Dual Check Valve Type Backflow Preventers for Carbonated Beverage Dispensers, Post Mix Type (reaffirmation of ANSI/ASSE 1032-2011) Final Action Date: 1/15/2021

Reaffirmation
ANSI/ASSE 1056-2013 (R2021), Performance Requirements for Spill-Resistant Vacuum Breaker (reaffirmation of ANSI/ASSE 1056-2013) Final Action Date: 1/15/2021

Reaffirmation
ANSI/ASSE 1071-2012 (R2021), Performance Requirements for Temperature Actuated Mixing Valves for Plumbed Emergency Equipment (reaffirmation of ANSI/ASSE 1071-2012) Final Action Date: 1/15/2021

Reaffirmation
ANSI/ASSE 1079-2012 (R2021), Performance Requirements for Dielectric Pipe Unions (reaffirmation of ANSI/ASSE 1079-2012) Final Action Date: 1/15/2021

IES (Illuminating Engineering Society)
120 Wall Street, Floor 17, New York, NY  10005  p: (917) 913-0027 w: www.ies.org

New Standard
ANSI/IES LS-5-2021, Lighting Science: Color (new standard) Final Action Date: 1/11/2021

NSF (NSF International)
789 N. Dixboro Road, Ann Arbor, MI  48105-9723  p: (734) 827-3817 w: www.nsf.org

Revision
ANSI/NSF 29-2021 (i6r1), Detergent and Chemical Feeders for Commercial Spray-Type Dishwashing Machines (revision of ANSI/NSF 29-2017) Final Action Date: 1/11/2021

Revision
ANSI/NSF 46-2021 (i37r1), Evaluation of Components and Devices Used in Wastewater Treatment Systems (revision of ANSI/NSF 46-2020) Final Action Date: 1/7/2021

Revision
ANSI/NSF 173-2021 (i93r1), Dietary Supplements (revision of ANSI/NSF 173-2020) Final Action Date: 1/11/2021
ANSI Standards Action - January 22, 2021 - Page 31 of 78 pages

**NSF (NSF International)**
789 N. Dixboro Road, Ann Arbor, MI 48105-9723  p: (734) 827-6866 w: www.nsf.org

*Revision*
ANSI/NSF 173-2021 (i94r1), Dietary Supplements (revision of ANSI/NSF 173-2020) Final Action Date: 1/13/2021

**UL (Underwriters Laboratories)**
12 Laboratory Drive, Research Triangle Park, NC 27709-3995  p: (919) 549-1479 w: https://ul.org/

*Reaffirmation*
ANSI/UL 1236-2016 (R2021), Standard for Safety for Battery Chargers for Charging Engine-Starter Batteries (reaffirmation of ANSI/UL 1236-2016) Final Action Date: 1/12/2021

*Reaffirmation*
ANSI/UL 2846-2016 (R2021), Standard for Fire Test of Plastic Water Distribution Plumbing Pipe for Visible Flame and Smoke Characteristics (reaffirmation of ANSI/UL 2846-2016) Final Action Date: 1/14/2021

*Revision*

*Revision*

*Revision*
ANSI/UL 121203-2021, Recommended Practice for Portable/Personal Electronic Products Suitable for Use in Class I, Division 2, Class I, Zone 2, Class II, Division 2, Class III, Division 1, Class III, Division 2, Zone 21 and Zone 22 Hazardous (Classified) Locations (revision of ANSI/UL 121203-2011 (R2015)) Final Action Date: 1/14/2021

**WDMA (Window and Door Manufacturers Association)**

*Revision*
ANSI/WDMA I.S.1A-2021, Industry Standard for Interior Architectural Wood Flush Doors (revision of ANSI/WDMA I.S. 1A-2013) Final Action Date: 1/15/2021

*Revision*
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.

AAMI (Association for the Advancement of Medical Instrumentation)
901 N. Glebe Road, Suite 300, Arlington, VA  22203  p: (703) 253-8284 w: www.aami.org
Amanda Benedict; abenedict@aami.org

- BSR/AAMI/ISO 13408-5-2012 (R202x), Aseptic processing of health care products - Part 5: Sterilization in place (reaffirm a national adoption ANSI/AAMI/ISO 13408-5-2012 (R2015))

AHRI (Air-Conditioning, Heating, and Refrigeration Institute)
2311 Wilson Boulevard, Suite 400, Arlington, VA  22201-3001  p: (703) 293-4887 w: www.ahrinet.org
Karl Best; kbest@ahrinet.org

- BSR/AHRI Standard 430 (I-P)-202x, Performance Rating of Central Station Air-Handling Unit Supply Fans (new standard)
- BSR/AHRI Standard 431 (SI)-202x, Performance Rating of Central Station Air-Handling Unit Supply Fans (new standard)

AHRI (Air-Conditioning, Heating, and Refrigeration Institute)
Kristin Carlson; kcarlson@ahrinet.org


ASABE (American Society of Agricultural and Biological Engineers)
2950 Niles Road, Saint Joseph, MI  49085  p: (269) 932-7015 w: https://www.asabe.org/
Carla VanGilder; vangilder@asabe.org

- BSR/ASABE AD24347:202x, Agricultural Vehicles - Mechanical connections between towed and towing vehicles - Dimensions of ball-type coupling device (80mm) (national adoption of ISO 24347:2019 with modifications and revision of ANSI/ASABE AD24347:2014 (R2018))

ASSP (ASC A10) (American Society of Safety Professionals)
520 N. Northwest Highway, Park Ridge, IL  60068  p: (847) 768-3411 w: www.assp.org
Tim Fisher; TFisher@ASSP.org

- BSR/ASSP A10.4-202X, Personnel Hoists & Employee Elevators For Use on Construction and Demolition Sites (revision and redesignation of ANSI/ASSE A10.4-2016)
BIFMA (Business and Institutional Furniture Manufacturers Association)
678 Front Avenue NW, Grand Rapids, MI  49504  p: (616) 591-9798 w: www.bifma.org
David Panning; dpanning@bifma.org

BSR/BIFMA X5.6-2016 (R202x), Panel Systems (reaffirmation of ANSI/BIFMA X5.6-2016)

HI (Hydraulic Institute)
6 Campus Drive, Suite 104, Parsippany, NJ  07054-4406  p: (973) 267-9700 1221 w: www.pumps.org
Edgar Suarez; esuarez@pumps.org

BSR/HI 11.6-202x, Rotodynamic Submersible Pumps for Hydraulic Performance, Hydrostatic Pressure, Mechanical, and Electrical Acceptance Tests (revision of ANSI/HI 11.6-2017)

HPVA (Hardwood Plywood Veneer Association)
42777 Trade West Drive, Sterling, VA  20166  p: (703) 435-2900 127 w: www.DecorativeHardwoods.org
Brian Sause; standards@decorativehardwoods.org

BSR/HPVA HP-1-202x, Standard for Hardwood and Decorative Plywood (revision of ANSI/HPVA HP-1-2020)

ISEA (International Safety Equipment Association)
1901 North Moore Street, Suite 808, Arlington, VA  22209  p: (703) 525-1695 w: www.safetyequipment.org
Cristine Fargo; cfargo@safetyequipment.org

BSR/ISEA 125-202x, Conformity Assessment of Safety and Personal Protective Equipment (revision of ANSI/ISEA 125-2014)

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

BSR/NSF 4-202x (i31r1), Commercial Cooking, Rethermalization, and Powered Hot Food Holding and Transportation Equipment (revision of ANSI/NSF 4-2019)

BSR/NSF 4-202x (i32r1), Commercial Cooking, Rethermalization, and Powered Hot Food Holding and Transportation Equipment (revision of ANSI/NSF 4-2019)

BSR/NSF 6-202x (i18r1), Dispensing Freezers (revision of ANSI/NSF 6-2018)

BSR/NSF 6-202x (i19r1), Dispensing Freezers (revision of ANSI/NSF 6-2018)

BSR/NSF 7-202x (i24r1), Commercial Refrigerators and Freezers (revision of ANSI/NSF 7-2019)

BSR/NSF 8-202x (i19r1), Commercial Powered Food Preparation Equipment (revision of ANSI/NSF 8-2018)

BSR/NSF 12-202x (i14r1), Automatic Ice Making Equipment (revision of ANSI/NSF 12-2018)

BSR/NSF 20-202x (i8r1), Commercial Bulk Milk Dispensing Equipment (revision of ANSI/NSF 20-2020)

BSR/NSF 25-202x (i15r1), Vending Machines for Food and Beverages (revision of ANSI/NSF 25-2017)

BSR/NSF 25-202x (i19r1), Vending Machines for Food and Beverages (revision of ANSI/NSF 25-2017)
TAPPI (Technical Association of the Pulp and Paper Industry)
15 Technology Parkway South, Suite 115, Peachtree Corners, GA 30092 p: (770) 209-7278 w: www.tappi.org
Deborah Dodson; standards@tappi.org

BSR/TAPPI T 400 sp-202x, Sampling and accepting a single lot of paper, paperboard, containerboard, or related product (revision of ANSI/TAPPI T 400 sp-2011)
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) is actively seeking participation in the following standards development work and in the interest categories specified:

- 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.

- 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.

- 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.

- 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

CSA America Standards Inc. (CSA)

Fuel Cell Technical Committee

CSA Group, an ANSI-accredited SDO, is seeking additional experts to serve on the bi-national Fuel Cell Technical Committee. The Fuel Cell Technical Committee develops and maintains minimum safety standards and essential requirements for the design construction and maintenance of:

a) stationary, portable, and micro fuel cells;
b) hydrogen generation technologies using all fuels (e.g., electrolysis, coal, natural gas);
c) related components and equipment for stationary, portable and micro fuel cells; and
d) related components and equipment installed for hydrogen generation technologies using all fuels.

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

The Technical Committee is seeking members in the following categories:

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

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

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

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

Call for Members (ANS Consensus Bodies)

ANSI Accredited Standards Developer

ECIA - Electronic Components Industry Association

P-2.2 Paper, Film, Mica & Wet-Electrolytic Capacitors

ECIA is seeking the following (targeted outreach) for: P-2.2 Paper, Film, Mica & Wet-Electrolytic Capacitors

Are you interested in contributing to the development and maintenance of valuable industry standards on paper, film, mica and wet-electrolytic capacitors for all AC and DC applications, except inductive heating and utility power-factor correction? Although all interest categories are welcome, the P-2.2 Committee is actively soliciting members in the following categories with the goal of achieving Committee balance:
- General Interest

If you are interested in joining P-2.2, please contact Edward F. Mikoski, Jr, ECIA Vice President of Standards and Technology atmailto:emikoski@ecianow.org
Call for Members (ANS Consensus Bodies)

ANSI Accredited Standards Developer

GBI - Green Building Initiative

Interested parties should apply by February 15, 2021

GBI is soliciting for Consensus Body members for the development of a new standard on Existing Buildings. BSR/GBI 02-202x, Green Globes Assessment Protocol for Existing Buildings (new standard)

The standard will include criteria and practices for resource-efficient, healthy, resilient, and environmentally preferable renovations, operations, maintenance, and improvement of existing commercial buildings. Up to six areas of green building design will be included: ESG management, site, energy, water, materials, and indoor environmental quality.

GBI is looking for members in the following interest categories: Producer, Users and General Interest. Interested parties should apply by February 15, 2021. For more information and to apply for the Consensus Body for Existing Buildings, please use the appropriate form located at https://www.thegbi.org/ansi. You can send completed applications to Emily Marx, Manager of Standards and Program Support, at marx@thegbi.org.

GBI (Green Building Initiative)
Office: 7805 SW 40th Ave. #80010, Portland, OR 97219
Contact: Emily Marx, Manager of Standards and Program Support
Phone: (503) 274-0448 x103
Email: marx@thegbi.org

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 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
Call for Members (ANS Consensus Bodies)

ANSI Accredited Standards Developer

SCTE (Society of Cable Telecommunications Engineers)

SCTE, an ANSI-accredited SDO, is the primary organization for the creation and maintenance of standards for the cable telecommunications industry. SCTE’s standards mission is to develop standards that meet the needs of cable system operators, content providers, network and customer premises equipment manufacturers, and all others who have an interest in the industry through a fair, balanced and transparent process.

SCTE is currently seeking to broaden the membership base of its ANS consensus bodies and is interested in new members in all membership categories to participate in new work in fiber-optic networks, advanced advertising, 3D television, and other important topics. Of particular interest is membership from the content (program and advertising) provider and user communities. Membership in the SCTE Standards Program is open to all directly and materially affected parties as defined in SCTE’s membership rules and operating procedures. More information is available at www.scte.org or by e-mail from standards@scte.org.

Membership in the SCTE Standards Program is open to all directly and materially affected parties as defined in SCTE’s membership rules and operating procedures. More information is available at www.scte.org or by e-mail from standards@scte.org.
Approval of Accreditation – ASD
American Gear Manufacturers Association (AGMA)
Effective January 19, 2021
ANSI’s Executive Standards Council has approved the reaccreditation of the American Gear Manufacturers Association (AGMA), an ANSI Member and Accredited Standards Developer, under its recently revised operating procedures for documenting consensus on AGMA-sponsored American National Standards, effective January 19, 2021. For additional information, please contact: Mr. Amir Aboutaleb, Vice President, Technical Division, American Gear Manufacturers Association, 1001 N. Fairfax Street, 5th Floor, Alexandria, VA 22314-1587; phone: 703.684.0211; email: aboutaleb@agma.org
American National Standards (ANS) Process

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

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

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

- ANSI 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
- ANS Procedures, ExSC Interpretations and Guidance (including a slide deck on how to participate in the ANS process and the BSR-9 form): www.ansi.org/asd
- Lists of ANSI-Accredited Standards Developers (ASDs), Proposed ANS and Approved ANS: www.ansi.org/asd
- American National Standards Key Steps: www.ansi.org/anskeysteps
- American National Standards Value: www.ansi.org/ansvalue
- Information about standards Incorporated by Reference (IBR): https://ibr.ansi.org/
- ANSI - Education and Training: www.standardslearn.org

If you have a question about the ANS process and cannot find the answer, please email us at: psa@ansi.org . Please also visit Standards Boost Business at 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, select “American National Standards Maintained Under Continuous Maintenance.” Questions? 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.

<table>
<thead>
<tr>
<th>Developer</th>
<th>Contact Information</th>
</tr>
</thead>
</table>
| **AAFS**  | American Academy of Forensic Sciences  
410 North 21st Street  
Colorado Springs, CO 80904  
p: (719) 453-1036  
www.aafs.org |
| **AAMI**  | Association for the Advancement of Medical Instrumentation  
901 N. Glebe Road  
Suite 300  
Arlington, VA 22203  
p: (703) 253-8284  
www.aami.org |
| **ACCA**  | Air Conditioning Contractors of America  
1330 Braddock Place  
Suite 350  
Alexandria, VA 22314  
p: (301) 525-5503  
www.acca.org |
| **AGA (ASC Z380)** | American Gas Association  
400 North Capitol Street, NW  
Suite 450  
Washington, DC 20001  
p: (202) 824-7339  
www.aga.org |
| **ASABE** | American Society of Agricultural and Biological Engineers  
2950 Niles Road  
Saint Joseph, MI 49085  
p: (269) 932-7015  
https://www.asabe.org/ |
| **ASC X9** | Accredited Standards Committee X9, Incorporated  
275 West Street  
Suite 107  
Annapolis, MD 21401  
p: (410) 267-7707  
www.x9.org |
| **ASME**  | American Society of Mechanical Engineers  
Two Park Avenue  
M/S 6-2B  
New York, NY 10016-5990  
p: (212) 591-8489  
www.asme.org |
| **ASSP (Safety)** | American Society of Safety Professionals  
520 N. Northwest Highway  
Park Ridge, IL 60068  
p: (847) 768-3411  
www.assp.org |
| **ASTM**  | ASTM International  
100 Barr Harbor Drive  
West Conshohocken, PA 19428-2959  
p: (610) 832-9744  
www.astm.org |
| **ATIS**  | Alliance for Telecommunications Industry Solutions  
1200 G Street NW  
Suite 500  
Washington, DC 20005  
p: (202) 434-8843  
www.atis.org |
| **AWWA**  | American Water Works Association  
6666 W. Quincy Avenue  
Denver, CO 80235  
p: (303) 347-6178  
www.awwa.org |
| **BIFMA** | Business and Institutional Furniture Manufacturers Association  
678 Front Avenue NW  
Grand Rapids, MI 49504  
p: (616) 591-9798  
www.bifma.org |
| **CSA**   | CSA America Standards Inc.  
8501 E. Pleasant Valley Road  
Cleveland, OH 44131  
p: (216) 524-4990  
www.csagroup.org |
| **CTA**   | Consumer Technology Association  
1919 South Eads Street  
Arlington, VA 22202  
p: (703) 907-7697  
www.cta.tech |
FCI
Fluid Controls Institute
1300 Sumner Avenue
Cleveland, OH 44115
p: (216) 241-7333
www.fluidcontrols institute.org

HI
Hydraulic Institute
6 Campus Drive
Suite 104
Parsippany, NJ 07054-4406
p: (973) 267-9700
www.pumps.org

HPS (ASC N43)
Health Physics Society
1313 Dolley Madison Blvd #402
McLean, VA 22101
p: (703) 790-1745
www.hps.org

HPVA
Hardwood Plywood Veneer Association
42777 Trade West Drive
Sterling, VA 20166
p: (703) 435-2900
www.DecorativeHardwoods.org

IAPMO (ASSE Chapter)
ASSE International Chapter of IAPMO
18927 Hickory Creek Drive
Suite 220
Mokena, IL 60448
p: (909) 519-0740
www.asse-plumbing.org

IEEE
Institute of Electrical and Electronics Engineers
445 Hoes Lane
Piscataway, NJ 08854-4141
p: (732) 981-2864
www.ieee.org

IES
Illuminating Engineering Society
120 Wall Street, Floor 17
New York, NY 10005
p: (917) 913-0027
www.ies.org

ISEA
International Safety Equipment Association
1901 North Moore Street
Suite 808
Arlington, VA 22209
p: (703) 525-1695
www.safetyequipment.org

ITSDF
Industrial Truck Standards Development Foundation, Inc.
1750 K Street NW
Suite 460
Washington, DC 20006
p: (202) 296-9880
www.indtrk.org

NFPA
National Fire Protection Association
One Batterymarch Park
Quincy, MA 02169
p: (617) 984-7246
www.nfpa.org

NSF
NSF International
789 N. Dixboro Road
Ann Arbor, MI 48105-9723
p: (734) 827-3817
www.nsf.org

SAIA (ASC A92)
Scaffold & Access Industry Association
400 Admiral Boulevard
Kansas City, MO 64106
p: (816) 595-4860
www.saiaonline.org

TAPPI
Technical Association of the Pulp and Paper Industry
15 Technology Parkway South
Suite 115
Peachtree Corners, GA 30092
p: (770) 209-7278
www.tappi.org

UL
Underwriters Laboratories
333 Pfingsten Road
Northbrook, IL 60062
p: (847) 664-3198
https://ul.org/

WDMA
Window and Door Manufacturers Association
2025 M Street NW
Suite 800
Washington, DC 20036-3309
p: (202) 367-1157
www.wdma.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

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<td>34</td>
<td>ISO/DIS 24223, Cheese - Guidance on sample preparation for physical and chemical testing</td>
<td>4/9/2021</td>
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<td>4/10/2021</td>
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<td>ISO/DIS 24366, Financial services - Natural Person Identifier (NPI)</td>
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<td>21</td>
<td>ISO/DIS 6183, Fire protection equipment - Carbon dioxide extinguishing systems for use on premises - Design and installation</td>
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<td>ISO/DIS 19461-2, Radiological protection - Measurement for the clearance of waste contaminated with radioisotopes for medical application - Part 2: Management of solid radioactive waste in nuclear medicine facilities</td>
<td>4/4/2021</td>
<td>$88.00</td>
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#### PACKAGING (TC 122)

ISO/DIS 24259, Steel strapping for packaging - 4/8/2021, $71.00

#### PALLET FOR UNIT LOAD METHOD OF MATERIALS HANDLING (TC 51)

ISO/DIS 8611-1, Pallets for materials handling - Part 1: Test methods - 11/9/2006, $71.00
ISO/DIS 8611-2, Pallets for materials handling - Flat pallets - Part 2: Performance requirements and selection of tests - 4/9/2021, $71.00

#### PETROLEUM PRODUCTS AND LUBRICANTS (TC 28)


#### PLASTICS (TC 61)

ISO/DIS 11357-7, Plastics - Differential scanning calorimetry (DSC) - Part 7: Determination of crystallization kinetics - 4/8/2021, $53.00
ISO/DIS 6721-12, Plastics - Determination of dynamic mechanical properties - Part 12: Compressive vibration - Non-resonance method - 4/8/2021, $46.00

#### SHIPS AND MARINE TECHNOLOGY (TC 8)

ISO/DIS 1704, Ships and marine technology - Stud-link anchor chains - 4/4/2021, $102.00
ISO/DIS 24061, Ships and marine technology - High holding power balance anchor - 4/4/2021, $67.00
ISO/DIS 24169, Ships and marine technology - Fireproof watertight hatch covers - 4/4/2021, $40.00

#### SMALL CRAFT (TC 188)

ISO/DIS 9650-1, Small craft - Inflatable liferafts - Part 1: Type I and II - 4/1/2021, $82.00
STERILIZATION OF HEALTH CARE PRODUCTS (TC 198)
ISO 18362/DAm1, Manufacture of cell-based health care products - Control of microbial risks during processing - Amendment 1 - 4/9/2021, $29.00

TRACTORS AND MACHINERY FOR AGRICULTURE AND FORESTRY (TC 23)
ISO 11850/DAm2.2, Machinery for forestry - General safety requirements - Amendment 2: Access to operators station and maintenance locations - 3/7/2021, $46.00
ISO/DIS 13457, Agricultural irrigation equipment - Water-driven chemical injector pumps - 4/3/2021, $58.00
ISO/DIS 16119-5, Agricultural and forestry machinery - Environmental requirements for sprayers - Part 5: Aerial spray systems - 4/3/2021, $58.00

WELDING AND ALLIED PROCESSES (TC 44)
ISO 13918/DAm1, Welding - Studs and ceramic ferrules for arc stud welding - Amendment 1 - 11/13/2006, $33.00

ISO/IEC JTC 1, Information Technology
ISO/IEC DIS 17367, Supply chain applications of RFID - Product tagging - 4/4/2021, $93.00
ISO/IEC/IEEE DIS 26514, Systems and software engineering - Design and development of information for users - 4/4/2021, $134.00

IEC Standards
8A/75/FDIS, IEC 62934 ED1: Grid integration of renewable energy generation - Terms and definitions, 02/26/2021
18/1708/CDV, IEC/IEEE DIS 26514, Systems and software engineering - Design and development of information for users - 4/4/2021, $134.00

32B/698/FDIS, IEC 60269-6/AMD1 ED1: Low-voltage fuses - Part 6: Supplementary requirements for fuse-links for the protection of solar photovoltaic energy systems, 02/26/2021
34A/2228/CDV, IEC 62868-2-3 ED1: Organic Light Emitting Diode (OLED) for general lighting - Safety - Part 2-3: Particular requirements - Flexible OLED tiles and panels, 04/09/2021
34D/1597/CD, IEC 60598-1/FRAG11 ED10: Fragment 11 - Luminaires - Part 1: General requirements and tests, 04/09/2021
46F/551/NP, PNW 46F-551 ED1: Radio-frequency connectors - Part 1 -7: Electrical test methods -Voltage standing wave ratio for a single connector by double connector method, 04/09/2021
47/2676/FDIS, IEC 62830-7 ED1: Semiconductor devices - Semiconductor devices for energy harvesting and generation - Part 7 - Linear sliding mode triboelectric energy harvesting, 01/29/2021
47/2685/NP, PNW 47-2685 ED1: Semiconductor devices - Non-destructive recognition criteria of defects in silicon carbide homoepitaxial wafer for power devices - Part 4: Procedure for identifying and evaluating defects using a combined method of optical inspection and, 04/09/2021
47F/375/NP, PNW 47F-375 ED1: Semiconductor devices - Microelectromechanical devices - Part 43: Test method of electrical characteristics after cyclic bending deformation for flexible electro-mechanical devices, 04/09/2021
57/2329/CDV, IEC 61970-456 ED3: Energy management system application program interface (EMS-API) - Part 456: Solved power system state profiles, 04/09/2021
57/2343/FDIS, IEC 61968-3 ED3: Application integration at electric utilities - System interfaces for distribution management - Part 3: Interface for network operations, 02/26/2021
64/2479/FDIS, IEC 60364-5-54/AMD1 ED3: Amendment 1 - Low-voltage electrical installations - Part 5-54: Selection and erection of electrical equipment - Earthing arrangements and protective conductors, 02/26/2021
64/2480/FDIS, IEC 60364-7-710 ED2: Low-voltage electrical installations - Part 7-710: Requirements for special installations or locations - Medical locations, 02/26/2021
66/724(F)/FDIS, IEC 61010-2-130 ED1: Safety requirements for electrical equipment for measurement, control, and laboratory use - Particular requirements for equipment intended to be used in educational establishments by children, 01/29/2021
81/643A/CD, IEC 62305-4 ED3: Protection against lightning - Part 4: Electrical and electronic systems within structures, 03/12/2021
82/1835(F)/FDIS, IEC 62920/AMD1 ED1: Amendment 1 - Photovoltaic power generating systems - EMC requirements and test methods for power conversion equipment, 02/19/2021
Newly Published ISO & IEC Standards

ISO Standards

FINE CERAMICS (TC 206)
ISO 19587:2021, Fine ceramics (advanced ceramics, advanced technical ceramics) - Mechanical properties of ceramic composites at elevated temperature in air atmospheric pressure - Determination of in-plane shear strength, $103.00

LIFTS, ESCALATORS, PASSENGER CONVEYORS (TC 178)
ISO 8102-2:2021, Electrical requirements for lifts, escalators and moving walks - Part 2: Electromagnetic compatibility with regard to immunity, $103.00

NUCLEAR ENERGY (TC 85)
ISO 16640:2021, Monitoring radioactive gases in effluents from facilities producing positron emitting radionuclides and radiopharmaceuticals, $209.00
ISO 23133:2021, Nuclear criticality safety - Nuclear criticality safety training for operations, $68.00

PERSONAL SAFETY - PROTECTIVE CLOTHING AND EQUIPMENT (TC 94)
ISO 17420-1:2021, Respiratory protective devices - Performance requirements - Part 1: General, $68.00
ISO 17420-2:2021, Respiratory protective devices - Performance requirements - Part 2: Requirements for filtering RPD, $209.00
ISO 17420-4:2021, Respiratory protective devices - Performance requirements - Part 4: Requirements for supplied breathable gas RPD, $209.00

PETROLEUM PRODUCTS AND LUBRICANTS (TC 28)
ISO 22192:2021, Bunkering of marine fuel using the Coriolis mass flow meter (MFM) system, $185.00

TERMINOLOGY (PRINCIPLES AND COORDINATION) (TC 37)
ISO 24613-4:2021, Language resource management - Lexical markup framework (LMF) - Part 4: TEI serialization, $138.00

TRANSPORT INFORMATION AND CONTROL SYSTEMS (TC 204)
ISO 24014-1:2021, Public transport - Interoperable fare management system - Part 1: Architecture, $232.00

ISO Technical Reports

ERGONOMICS (TC 159)

PHOTOGRAPHY (TC 42)
ISO/TR 17321-5:2021, Graphic technology and photography - Colour characterization of digital still cameras (DSCs) - Part 5: Colour targets including saturated colours for colour characteristic evaluation test for colorimetric image capture, $162.00

ISO Technical Specifications

PAPER, BOARD AND PULPS (TC 6)
ISO/TS 14778:2021, Paper and board - Measurement of water contact angle by optical methods, $68.00

ISO/IEC JTC 1, Information Technology

ISO/IEC 24711:2021, Information technology - Office equipment - Method for the determination of ink cartridge yield for colour inkjet printers and multi-function devices that contain printer components, $162.00
ISO/IEC/IEEE 16085:2021, Systems and software engineering - Life cycle processes - Risk management, $185.00

IEC Standards

AUDIO, VIDEO AND MULTIMEDIA SYSTEMS AND EQUIPMENT (TC 100)
IEC 62684 Ed. 2.0 b:2018, Interoperability specifications of common external power supply (EPS) for use with data-enabled mobile telephones, $47.00
IEC 60728-3 Ed. 5.0 b:2017, Cable networks for television signals, sound signals and interactive services - Part 3: Active wideband equipment for cable networks, $317.00
IEC 63005-1 Ed. 1.0 b:2017, Event video data recorder for road vehicle accidents - Part 1: Basic requirements, $117.00
CABLES, WIRES, WAVEGUIDES, R.F. CONNECTORS, AND ACCESSORIES FOR COMMUNICATION AND SIGNALLING (TC 46)

IEC 61156-12 Ed. 1.0 en:2021, Multicore and symmetrical pair/quad cables for digital communications - Part 12: Symmetrical single pair cables with transmission characteristics up to 600 MHz - Work area wiring - Sectional specification, $164.00

IEC 61169-15 Ed. 1.0 b:2021, Radio-frequency connectors - Part 15: Sectional specification - RF coaxial connectors with inner diameter of outer conductor 4.13 mm (0.163 in) with threaded coupling - Characteristic impedance 50 Ω (type SMA), $164.00

IEC 61169-65 Ed. 1.0 b:2021, Radio-frequency connectors - Part 65: Sectional specification for RF coaxial connectors, 1.35 mm inner diameter of outer conductor, with screw-coupling, characteristic impedance 50 Ω, $164.00

FIBRE OPTICS (TC 86)

IEC 60794-1-2 Ed. 5.0 b:2021, Optical fibre cables - Part 1-2: Generic specification - Basic optical cable test procedures - General guidance, $117.00

5+ IEC 60794-1-2 Ed. 5.0 en:2021 (Redline version), Optical fibre cables - Part 1-2: Generic specification - Basic optical cable test procedures - General guidance, $152.00

INDUSTRIAL-PROCESS MEASUREMENT AND CONTROL (TC 65)

IEC/PAS 63312 Ed. 1.0 en:2021, Technical specification for flame detector system of boiler, $281.00

MAGNETIC COMPONENTS AND FERRITE MATERIALS (TC 51)

IEC 60205 Ed. 4.0 b:2016, Calculation of the effective parameters of magnetic piece parts, $235.00

IEC 61332 Ed. 3.0 b:2016, Soft ferrite material classification, $47.00

PIEZOELECTRIC AND DIELECTRIC DEVICES FOR FREQUENCY CONTROL AND SELECTION (TC 49)

IEC 61837-2 Ed. 3.1 b:2020, Surface mounted piezoelectric devices for frequency control and selection - Part 2: Ceramic enclosures, $762.00

POWER ELECTRONICS (TC 22)

IEC 61800-1 Ed. 2.0 b:2021, Adjustable speed electrical power drive systems - Part 1: General requirements - Rating specifications for low voltage adjustable speed DC power drive systems, $387.00

POWER TRANSFORMERS (TC 14)

IEC 60076-22-5 Ed. 1.0 b:2021, Power transformers - Part 22-5: Power transformer and reactor fittings - Electric pumps for transformers, $164.00

IEC 60076-22-6 Ed. 1.0 b:2021, Power transformers - Part 22-6: Power transformer and reactor fittings - Electric fans for transformers, $117.00

SEMICONDUCTOR DEVICES (TC 47)

IEC 60747-17 Ed. 1.0 b cor.1:2021, Corrigendum 1 - Semiconductor devices - Part 17: Magnetic and capacitive coupler for basic and reinforced insulation, $0.00

TERMINOLOGY (TC 1)

IEC 60050-121 Amd.4 Ed. 2.0 b:2021, Amendment 4 - International Electrotechnical Vocabulary (IEV) - Part 121: Electromagnetism, $23.00

IEC Technical Reports

FUEL CELL TECHNOLOGIES (TC 105)


IEC Technical Specifications
Call for Comment on ISO Standard
ISO 26000 - Guidance on Social Responsibility Activity
Comment Deadline: January 29, 2021
ISO standard ISO 26000, Guidance on social responsibility, has been circulated to ISO members for its systematic review
to determine whether the standard should be revised, reconfirmed, or withdrawn.
ISO 26000, last confirmed in November 2010, is intended to help organizations effectively assess and address social
responsibilities that are relevant and significant to their mission and vision; operations and processes; customers,
employees, communities, and other stakeholders; and environmental impact. ISO 26000 provides detailed guidance for
organizations that are willing to implement the OECD Guidelines but is not meant for ISO certification.
ANSI is seeking U.S. Stakeholders’ input on ISO 26000 to help ANSI determine if ANSI should vote revise, reconfirm as is,
or withdraw the standard. Anyone wishing to review ISO 26000 can request a copy by contacting ANSI’s ISO Team
(isot@ansi.org), with a submission of comments to Steve Cornish (scornish@ansi.org) by close of business on Friday,

ISO New Work Item Proposal
Guidelines for Organizations to Increase Understanding of Online Terms and Conditions
Comment Deadline: January 22, 2021
ISO COPOLCO (the ISO policy development committee on consumer policy) in cooperation with BSI (the ISO member
from the United Kingdom) has submitted to ISO a proposal for a new work item proposal for the development of an ISO
standard on guidelines for organizations to increase consumer understanding of online terms and conditions, with the
following scope statement:
Specification of guidance to the providers of goods, services and digital content on the clear design and presentation of
online terms and conditions to maximize consumer understanding and reduce detriment.
Anyone wishing to review the proposal can request a copy by contacting ANSI’s ISO Team (isot@ansi.org), with a
submission of comments to Steve Cornish (scornish@ansi.org) by close of business on Friday, January 22, 2021.
ISO Proposal for a New Field of ISO Technical Activity

Assistance Dogs

Comment Deadline: February 26, 2021

NEN, the ISO member body for [Netherlands], has submitted to ISO a proposal for a new field of ISO technical activity on Assistance Dogs, with the following scope statement:

Standardization in the field of assistance dogs focused on, but not limited to:

· terminology
· health and welfare
· breeding and puppy development
· training
· client services
· assistance dog professionals
· conformity assessment, and
· accessibility

Assistance dogs are specifically trained to perform tasks to increase independence and to mitigate limitations of a person with a disability.

Excluded are:

· dogs that offer only emotional support and/or comfort (i.e. emotional support dogs)
· dog assisted interventions such as facility dogs or dog assisted therapy
· other kinds of working dogs such as herding dogs, police dogs, search & rescue dogs

Background information:

An assistance dog is permanently paired with a person with a disability to perform on a one-to-one basis tasks to mitigate the limitations of this person.

Please note that ‘assistance dog’ is the umbrella term. Examples of assistance dogs (in alphabetical order) are autism assistance dogs, developmental disorder assistance dogs, diabetes assistance dogs, guide dogs, hearing dogs, medical alert/response assistance dogs, mobility assistance dogs, PTSD assistance dogs, seizure assistance dogs.

In some countries, an assistance dog is referred to as a service dog.

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team (isot@ansi.org), with a submission of comments to Steve Cornish (scornish@ansi.org) by close of business on Friday, February 26, 2021.
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

DISH Wireless

Comments Deadline: February 12, 2021

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-program/usa-wto-tbt-inquiry-point Contact the USA TBT Inquiry Point at (301) 975-2918; F: (301) 926-1559; E: usatbtep@nist.gov or notifyus@nist.gov.
E-3 INSULATING JACkETS

(a) The insulation on the inner vessel should be completely covered by a metal jacket. The jacket or insulation should be so constructed and sealed as to prevent moisture from coming into contact with the insulation.

(b) The jacket of a vacuum-insulated tank should be designed for external pressure not less than 100 kPa (1 bar or 145 psi) gauge pressure, calculated in accordance with the requirements of this Section, or designed for critical collapsing pressure of not less than 200 kPa (2 bar or 29 psi) gauge pressure. Internal and external reinforcements may be included in calculating the ability of the jacket to resist the external pressure. Additional requirements for jacket design are given in Part TD of this Section.

(1) The critical collapsing pressure of the cylindrical portion of the vacuum jacket should be determined using the equation

$$P_c = 2.6E\left[t/D_0 \right]^{2.5} \left[ \frac{L}{D_0} - 0.45 \left( \frac{t}{D_0} \right)^{0.5} \right]$$

where

- $D_0 =$ outside diameter of vacuum jacket, mm (in.)
- $E =$ modulus of elasticity of outer jacket material, MPa or kPa (psi)
- $L =$ distance between stiffening ring centers, mm (in.).
- $t =$ thickness of outer jacket material, mm (in.)

$P_c =$ critical collapsing pressure, MPa or kPa (psi)

(2) Stiffening rings, if used in designing the cylindrical portion of the vacuum jacket, should be as specified in Part TD, except as follows:

- (a) Each stiffening ring should have a minimum moment of inertia as determined by either of the following equations:

$$I = 0.035D_0^3 P_c L/E$$

or

$$I = 0.130D_0^3 L/E$$

where

- $D_0 =$ outside diameter of the outer jacket, mm (in.)
- $E =$ modulus of elasticity of stiffener material, MPa or kPa (psi)
- $I =$ required moment of inertia of the stiffener itself about a centroidal axis parallel to the outer jacket axis, mm$^4$ (in$^4$)

(b) The nominal shell thickness, $t_{nom}$, should be used, and the width of shell contributing

$$mm^4 (in^4)$$

$P_c =$ critical collapsing pressure, MPa (psi)

If a stiffening ring consists of a closed section having two webs attached to the outer jacket, the outer jacket plate between the webs shall be included up to the limit of 1.1 $\sqrt{Do t}$ apart, where two separate members are located less than or equal to 1.1 $\sqrt{Do t}$ apart, they shall be treated as a single stiffening ring.

- (b) The length of the attachment weld segments should not be less than 50 mm (2 in.) and should have a maximum clear spacing between toes of adjacent weld segments of 12t for internal rings. Outside stiffening ring attachment welds should be continuous. The number of intermittent attachment welds on each ring shall be at least 2n, where $n =$ number of buckling lobes, is given by

$$n = 1.63 \left[ D_0^2/L^2 \right]^{0.25}$$

where

- $D_0 =$ outside diameter of vacuum jacket, mm (in.)
- $L =$ distance between stiffening ring centers, mm (in.).
- $t =$ thickness of vacuum jacket material, mm (in.)

(3) The critical collapsing pressure of vacuum jacket heads shall be determined using the equation

$$P_c = 0.25E \left[ t/R \right]^2$$

where

- $E =$ modulus of elasticity of head material, MPa or kPa (psi)
- $P_c =$ critical collapsing pressure, MPa or kPa (psi)
- $R =$ inside radius of head, mm (in.). For ellipsoidal heads, $R = K_o D_o$, where $K_o$ is established from Table TD-430, and $D_o =$ outside diameter of head.
- $t =$ thickness of head material, mm (in.)

(c) In addition to the external pressure, the vacuum jacket, its fastenings, and supports should be designed for the static forces obtained by multiplying the load
Table NUM-III-8231.1-1  Allowable Stresses (Members Not Controlled by Buckling)

<table>
<thead>
<tr>
<th>Stress Loading and Case (All Expressed in Terms of ( \alpha' ))</th>
<th>Tension</th>
<th>Compression [Note (1)]</th>
<th>Shear</th>
<th>Bearing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal — 1</td>
<td>0.60</td>
<td>0.60</td>
<td>0.35</td>
<td>0.36</td>
</tr>
<tr>
<td>Additional — 2</td>
<td>0.66</td>
<td>0.66</td>
<td>0.375</td>
<td>0.40</td>
</tr>
<tr>
<td>Extraordinary — 3</td>
<td>0.75</td>
<td>0.75</td>
<td>0.43</td>
<td>0.45</td>
</tr>
<tr>
<td>Extreme environment — 4</td>
<td>0.90</td>
<td>0.90</td>
<td>0.50</td>
<td>n/a</td>
</tr>
</tbody>
</table>

NOTE:
(1) For gross section.

Table NUM-III-8231.2-1  Modifying Coefficient, \( N \)

<table>
<thead>
<tr>
<th>Principal</th>
<th>Additional</th>
<th>Extraordinary</th>
<th>Extreme Environmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2</td>
<td>1.2</td>
<td>0.9</td>
<td>0.67</td>
</tr>
</tbody>
</table>

For compression members with an equivalent slenderness ratio

\[
\frac{kl}{r} > C_c
\]  

(16)

the allowable axial compression stress shall not exceed the value

\[
\sigma_x = \frac{12\pi^2 E}{23N(kl)^2}
\]  

(17)

**NUM-III-8231.3 Bending Stress.** The allowable bending stress shall conform to AISC Part 5, Chapter E, Beams and Other Flexural Members, divided by 1.12N for the different loading conditions.

**NUM-III-8231.4 Welds.** Basic allowable stresses in welds shall be as specified in AWS D1.1 or D14.1. Allowable stresses for all types of welds may be increased for extraordinary load combinations by a factor of 1.33 and increased for extreme environmental load combinations by a factor of 1.50.

**NUM-III-8231.5 Bolts**

(a) ASTM A 325 or A 490 Bolts. Allowable working stresses for operational or construction loads shall be in accordance with the Specification for Structural Joints Using ASTM A 325 and A 490 Bolts, as included in the AISC Manual of Steel Construction Allowable Stress Design. Allowable working stresses for other loadings shall be as follows:

1. **Bearing-Type Joints.** Allowable working stresses for bearing-type joints may be increased by a factor of 1.33 for extraordinary loadings and by a factor of 1.50 for extreme environmental loadings.

2. **Friction-Type Joints.** Allowable working stresses for friction-type joints shall not be increased for extraordinary loadings or extreme environmental loadings.

(b) **Bolts Other Than ASTM A 325 or A 490.** Allowable stresses shall be in accordance with Table NUM-III-8231.5-1.

**NUM-III-8232 Combined Stresses**

**NUM-III-8232.1 Axial Compression and Bending.** Members subjected to both compression and bending stresses shall satisfy the following requirements:

\[
\frac{\sigma}{\sigma_x} + \frac{C_{mx} \sigma_{mx}}{\left(1 - \frac{\sigma}{\sigma_x}\right) \sigma_{abs}} + \frac{C_{my} \sigma_{my}}{\left(1 - \frac{\sigma}{\sigma_x}\right) \sigma_{abf}} \leq 1.0
\]  

(18)

\[
\frac{\sigma}{\sigma_x} + \frac{\sigma_{mx}}{\sigma_{abs}} + \frac{\sigma_{my}}{\sigma_{abf}} \leq 1.0
\]  

(19)

When \( \sigma/\sigma_x \leq 0.15 \), the following equation may be used in lieu of the above equations:

\[
\frac{\sigma}{\sigma_x} + \frac{C_{mx} \sigma_{mx}}{\sigma_{abs}} + \frac{C_{my} \sigma_{my}}{\sigma_{abf}} \leq 1.0
\]  

(20)

In eqs. (18), (19), and (20), the subscripts \( x \) and \( y \), combined with subscripts \( b, m, \) and \( e \) indicate the axis.
For NUM Ballot on NUM-III-8344.1 (e)  
(snp, 04-09-16) (Recirculation Ballot snp, 05-31-16)  

ASME NUM-1-2009  

This bearing stress must not exceed 20% of the minimum yield for oscillating shafting when not limited by the bushing material.

**NUM-III-8344 Wheel Assembly**

**NUM-III-8344.1 Top-Running Bridge Wheel Design**

(a) Unless other means of restricting lateral movement are provided (such as side rollers), wheels shall be double flanged with treads accurately machined. Bridge wheels may have either straight treads or tapered treads assembled with the large diameter towards the center of the span. Drive wheels shall be machined in pairs within 0.003 in./in. of diameter with a maximum of 0.010 in. on the diameter, whichever case is smaller.

(b) **Sizing of Wheels and Rails.** Wheels shall be designed to carry the maximum wheel load under normal conditions without undue wear. The maximum wheel load is that wheel load produced with trolley handling the rated load in the position to produce the maximum reaction at the wheel, not including impact. When sizing wheels and rails, the following parameters shall be considered:

\[ D = \text{wheel diameter, in.} \]
\[ K = \text{hardness coefficient of the wheel} \]
\[ = \text{BHVN} \times 5 \text{ (for wheels with BHVN<260)} \]
\[ = 1300 \text{BHVN}/260 \times 5 \text{ (for wheels with BHVN>260)} \]
\[ W = \text{effective rail bead width, in.} \]

The bridge and trolley durability wheel loading for different wheel hardnesses and sizes in combination with different rail sizes are shown in Table NUM-III-8344.1-1. The values in the table are established by the product of \( D \times W \times K \).

(c) To use Table NUM-III-8344.1-1, first determine the equivalent durability wheel load \( P_e \):

\[ P_e = \text{maximum wheel load} \times K_{sw} \]

\[ K_{sw} = K_{sw} \times C_s \times S_m \]

(d) **Load factor \( K_{sw} \)** can be determined as follows:

\[ K_{sw} = \frac{0.75(BW) + f(LL) + 0.5(TW) - 0.5f(TW)}{0.75(BW) + 1.5f(LL)} \]  

(73)

where:

\[ BW = \text{bridge weight} \]
\[ f = \frac{X}{\text{span (see Fig. NUM-III-8344.1-1)}} \]
\[ LL = \text{trolley weight + rated load} \]
\[ TW = \text{trolley weight} \]

See Table NUM-III-8344.1-2.

(e) The speed factor, \( C_s \), depends on the rotational speed of the wheel and is listed in Table NUM-III-8344.1-3. These factors are obtained from the following formulas:

\[ C_s = 1 + \frac{\left( \text{rpm} - 31.5 \right)}{385} \]  

(74)

(f) The wheel service factor, \( S_{sw} \), is equal to 1.25 times the machinery service factor, \( C_s \), and is shown in Table NUM-III-8344.1-4. This factor recognizes that the interaction between rail and wheel is more demanding in terms of durability than well-aligned and lubricated interaction of machined parts.

(g) The wheel load service coefficient

\[ K_{sw} = K_{sw} \times C_s \times S_m \]

and \( K_{sw} \) may not be smaller than \( K_{sw} \) minimum shown in Table NUM-III-8344.1-4.

(h) The equivalent durability wheel load, \( P_r \), shall not exceed the wheel load in Table NUM-III-8344.1-1.

(i) Proper Clearance for Bridge Wheels. A total of approximately \( \frac{3}{4} \) in. to 1 in. wider than rail head. Tapered tread wheels may have a clearance over the rail head of 150% of the clearance provided for straight tread wheels.

(j) When rotating axles are used, wheels shall be mounted on the axle with press fit alone, press fit and keys, or with keys alone.

**NUM-III-8344.2 Under-Running Bridge Wheel Design**

(a) All under-running bridge truck wheels shall be designed to suit the surface on which they run. Drive wheels shall be the same diameter within a tolerance of 0.010 in.

(b) When flangeless wheels are used, they shall be provided with a side roller arrangement.

(c) Wheels shall be designed to carry the maximum wheel load under normal conditions. The wheel load shown on Table NUM-III-8344.2-1 is that load produced with the trolley handling the rated load, in a position to exert the maximum load, not including impact.

**NOTE:** A reduction in the allowable wheel load may be necessary to satisfy the runway lower flange stress requirements.

**NUM-III-8344.3 Material.** Wheels shall be cast iron or rolled, forged, or cast steel with a minimum hardness of 200 BHVN. For special applications, other materials may be used with permission of the owner and with consideration of hardness, impact strength, and brittleness.

**NUM-III-8344.4 Bearings.** Wheel bearings shall be single or double row, combination radial and thrust, anti-friction precision type. Bearings shall be prelubricated and sealed or provided with fittings and seals for pressure lubrication.

**NUM-III-8344.5 Safety Lugs.** All wheel sets shall have drop plates limiting the movement of the intermediate structure to 1 in. in the event of axle or bearing failure.
For NUM Ballot on NUM-III-8344.1 (e)
(snp, 04-09-16) (Recirculation Ballot snp, 05-31-16)

\[ C_s = \left[ 1 + \left( \frac{\text{rpm} - 31.5}{360} \right) \right]^2 \]
Fig. NUM-III-8344.1-1 Bridge Span (From CMAA 74)

Table NUM-III-8344.1-2 Bridge Load Factor, $K_{sw}$

<table>
<thead>
<tr>
<th>Bridge Span, ft</th>
<th>3</th>
<th>5</th>
<th>7.5</th>
<th>10</th>
<th>15</th>
<th>20</th>
<th>25</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>0.812</td>
<td>0.782</td>
<td>0.762</td>
<td>0.747</td>
<td>0.732</td>
<td>0.722</td>
<td>0.716</td>
<td>0.716</td>
</tr>
<tr>
<td>30</td>
<td>0.817</td>
<td>0.785</td>
<td>0.767</td>
<td>0.750</td>
<td>0.736</td>
<td>0.725</td>
<td>0.718</td>
<td>0.718</td>
</tr>
<tr>
<td>40</td>
<td>0.827</td>
<td>0.794</td>
<td>0.777</td>
<td>0.760</td>
<td>0.744</td>
<td>0.732</td>
<td>0.723</td>
<td>0.723</td>
</tr>
<tr>
<td>50</td>
<td>0.842</td>
<td>0.809</td>
<td>0.791</td>
<td>0.771</td>
<td>0.758</td>
<td>0.740</td>
<td>0.738</td>
<td>0.731</td>
</tr>
<tr>
<td>60</td>
<td>0.861</td>
<td>0.830</td>
<td>0.807</td>
<td>0.790</td>
<td>0.773</td>
<td>0.754</td>
<td>0.747</td>
<td>0.741</td>
</tr>
<tr>
<td>70</td>
<td>0.877</td>
<td>0.844</td>
<td>0.825</td>
<td>0.807</td>
<td>0.789</td>
<td>0.768</td>
<td>0.760</td>
<td>0.752</td>
</tr>
<tr>
<td>80</td>
<td>0.888</td>
<td>0.857</td>
<td>0.835</td>
<td>0.818</td>
<td>0.802</td>
<td>0.779</td>
<td>0.770</td>
<td>0.761</td>
</tr>
</tbody>
</table>

GENERAL NOTES:
(a) $K$ based on worst case with trolley against stop.
(b) Bridge load factor, $K_{sw}$, from CMAA 74.

Table NUM-III-8344.1-3 Speed Factor, $C_s$

<table>
<thead>
<tr>
<th>Wheel Diameter, in.</th>
<th>30</th>
<th>50</th>
<th>75</th>
<th>100</th>
<th>125</th>
<th>150</th>
<th>175</th>
<th>200</th>
<th>250</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>0.952</td>
<td>1.020</td>
<td>1.078</td>
<td>1.136</td>
<td>1.194</td>
<td>1.252</td>
<td>1.310</td>
<td>1.368</td>
<td>1.485</td>
</tr>
<tr>
<td>6</td>
<td>0.932</td>
<td>1.001</td>
<td>1.049</td>
<td>1.098</td>
<td>1.146</td>
<td>1.194</td>
<td>1.243</td>
<td>1.291</td>
<td>1.388</td>
</tr>
<tr>
<td>8</td>
<td>0.907</td>
<td>0.958</td>
<td>1.013</td>
<td>1.049</td>
<td>1.086</td>
<td>1.122</td>
<td>1.158</td>
<td>1.195</td>
<td>1.267</td>
</tr>
<tr>
<td>9</td>
<td>0.898</td>
<td>0.944</td>
<td>1.001</td>
<td>1.033</td>
<td>1.066</td>
<td>1.098</td>
<td>1.130</td>
<td>1.163</td>
<td>1.227</td>
</tr>
<tr>
<td>10</td>
<td>0.892</td>
<td>0.932</td>
<td>0.984</td>
<td>1.020</td>
<td>1.049</td>
<td>1.079</td>
<td>1.108</td>
<td>1.137</td>
<td>1.195</td>
</tr>
<tr>
<td>12</td>
<td>0.882</td>
<td>0.915</td>
<td>0.958</td>
<td>1.001</td>
<td>1.025</td>
<td>1.049</td>
<td>1.074</td>
<td>1.098</td>
<td>1.146</td>
</tr>
<tr>
<td>15</td>
<td>0.872</td>
<td>0.898</td>
<td>0.932</td>
<td>0.967</td>
<td>1.001</td>
<td>1.020</td>
<td>1.040</td>
<td>1.059</td>
<td>1.098</td>
</tr>
<tr>
<td>18</td>
<td>0.865</td>
<td>0.887</td>
<td>0.915</td>
<td>0.944</td>
<td>0.973</td>
<td>1.001</td>
<td>1.017</td>
<td>1.033</td>
<td>1.066</td>
</tr>
</tbody>
</table>

GENERAL NOTE: Speed factor, $C_s$, from CMAA 74.
Table 5452.3-1  Allowable Wheel Loads for Rim-Toughened Crane Wheels, $P$, lb, for Speed Factor = 1

<table>
<thead>
<tr>
<th>Wheel Diameter, in.</th>
<th>ASCE 30#</th>
<th>ASCE 40#</th>
<th>ASCE 60#</th>
<th>BETH &amp; USS 104-105#</th>
<th>BETH &amp; USS 135#</th>
<th>BETH &amp; USS 175#</th>
<th>BETH 171#</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>11,840</td>
<td>13,930</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>9</td>
<td>13,220</td>
<td>15,670</td>
<td>21,940</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>10</td>
<td>14,800</td>
<td>17,410</td>
<td>24,370</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>12</td>
<td>17,770</td>
<td>20,890</td>
<td>29,250</td>
<td>31,340</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>15</td>
<td>22,210</td>
<td>26,110</td>
<td>36,560</td>
<td>39,170</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>18</td>
<td>26,650</td>
<td>31,340</td>
<td>43,880</td>
<td>47,010</td>
<td>56,410</td>
<td>78,350</td>
<td>87,760</td>
</tr>
<tr>
<td>21</td>
<td>...</td>
<td>36,560</td>
<td>51,190</td>
<td>54,850</td>
<td>65,820</td>
<td>91,410</td>
<td>102,380</td>
</tr>
<tr>
<td>24</td>
<td>...</td>
<td>...</td>
<td>58,500</td>
<td>62,680</td>
<td>75,220</td>
<td>104,470</td>
<td>117,010</td>
</tr>
<tr>
<td>27</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>70,520</td>
<td>84,620</td>
<td>117,530</td>
<td>131,640</td>
</tr>
<tr>
<td>30</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>78,350</td>
<td>94,020</td>
<td>130,590</td>
<td>146,260</td>
</tr>
<tr>
<td>36</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>112,830</td>
<td>156,710</td>
<td>175,520</td>
</tr>
<tr>
<td>Effective rail width</td>
<td>1.063</td>
<td>1.250</td>
<td>1.750</td>
<td>1.875</td>
<td>2.250</td>
<td>3.125</td>
<td>3.500</td>
</tr>
</tbody>
</table>

GENERAL NOTES:
(a) Allowable wheel load $P = K b D$, where
   $b$ = effective width rail head
   $D$ = diameter of wheel
(b) $K = 1.300 \left( \frac{BHN}{260} \right)^{0.333} = 1.393$
(c) BHN for rim-toughened wheels = 320
(d) Allowable maximum wheel load = \frac{allowable wheel load}{speed factor}

Table 5452.3-2  Speed Factor for Determining Allowable Maximum Wheel Load

<table>
<thead>
<tr>
<th>Wheel Diameter, in.</th>
<th>50</th>
<th>75</th>
<th>100</th>
<th>125</th>
<th>150</th>
<th>175</th>
<th>200</th>
<th>250</th>
<th>300</th>
<th>350</th>
<th>400</th>
<th>450</th>
<th>500</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>0.958</td>
<td>1.010</td>
<td>1.047</td>
<td>1.086</td>
<td>1.122</td>
<td>1.158</td>
<td>1.195</td>
<td>1.267</td>
<td>1.340</td>
<td>1.413</td>
<td>1.485</td>
<td>1.558</td>
<td>1.631</td>
</tr>
<tr>
<td>9</td>
<td>0.944</td>
<td>1.001</td>
<td>1.033</td>
<td>1.066</td>
<td>1.098</td>
<td>1.130</td>
<td>1.163</td>
<td>1.227</td>
<td>1.292</td>
<td>1.356</td>
<td>1.421</td>
<td>1.485</td>
<td>1.550</td>
</tr>
<tr>
<td>10</td>
<td>0.932</td>
<td>0.984</td>
<td>1.020</td>
<td>1.049</td>
<td>1.079</td>
<td>1.108</td>
<td>1.137</td>
<td>1.195</td>
<td>1.253</td>
<td>1.312</td>
<td>1.369</td>
<td>1.427</td>
<td>1.485</td>
</tr>
<tr>
<td>12</td>
<td>0.915</td>
<td>0.958</td>
<td>1.001</td>
<td>1.025</td>
<td>1.049</td>
<td>1.074</td>
<td>1.098</td>
<td>1.146</td>
<td>1.195</td>
<td>1.243</td>
<td>1.292</td>
<td>1.340</td>
<td>1.389</td>
</tr>
<tr>
<td>15</td>
<td>0.898</td>
<td>0.932</td>
<td>0.966</td>
<td>1.000</td>
<td>1.020</td>
<td>1.040</td>
<td>1.059</td>
<td>1.098</td>
<td>1.137</td>
<td>1.175</td>
<td>1.214</td>
<td>1.253</td>
<td>1.292</td>
</tr>
<tr>
<td>18</td>
<td>0.887</td>
<td>0.915</td>
<td>0.944</td>
<td>0.973</td>
<td>1.001</td>
<td>1.017</td>
<td>1.033</td>
<td>1.066</td>
<td>1.098</td>
<td>1.130</td>
<td>1.163</td>
<td>1.195</td>
<td>1.227</td>
</tr>
<tr>
<td>21</td>
<td>0.879</td>
<td>0.903</td>
<td>0.927</td>
<td>0.952</td>
<td>0.977</td>
<td>1.001</td>
<td>1.015</td>
<td>1.043</td>
<td>1.070</td>
<td>1.098</td>
<td>1.126</td>
<td>1.153</td>
<td>1.181</td>
</tr>
<tr>
<td>24</td>
<td>0.873</td>
<td>0.894</td>
<td>0.915</td>
<td>0.937</td>
<td>0.958</td>
<td>0.980</td>
<td>1.001</td>
<td>1.025</td>
<td>1.049</td>
<td>1.074</td>
<td>1.098</td>
<td>1.122</td>
<td>1.146</td>
</tr>
<tr>
<td>27</td>
<td>0.869</td>
<td>0.887</td>
<td>0.906</td>
<td>0.925</td>
<td>0.944</td>
<td>0.963</td>
<td>0.982</td>
<td>1.011</td>
<td>1.033</td>
<td>1.055</td>
<td>1.076</td>
<td>1.098</td>
<td>1.119</td>
</tr>
<tr>
<td>30</td>
<td>0.865</td>
<td>0.882</td>
<td>0.898</td>
<td>0.915</td>
<td>0.932</td>
<td>0.949</td>
<td>0.967</td>
<td>1.001</td>
<td>1.020</td>
<td>1.040</td>
<td>1.059</td>
<td>1.079</td>
<td>1.098</td>
</tr>
<tr>
<td>36</td>
<td>0.860</td>
<td>0.873</td>
<td>0.887</td>
<td>0.901</td>
<td>0.915</td>
<td>0.929</td>
<td>0.944</td>
<td>0.973</td>
<td>1.001</td>
<td>1.017</td>
<td>1.033</td>
<td>1.049</td>
<td>1.060</td>
</tr>
</tbody>
</table>

GENERAL NOTE:
For rpm < 31.5: speed factor = \left[ 1 + \left( \frac{rpm - 31.5}{360} \right) \right]^2
For rpm ≥ 31.5: speed factor = 1 + \left( \frac{rpm - 31.5}{388.5} \right)
3. Definitions

**Manual of responsibilities**: A document containing definitions and requirements mandated in applicable A92 Standards for the following entities: Manufacturers, Dealers, Owners, Users, Supervisors, Operators, Occupants, Lessors, Lessees, and Brokers.

6.1 General
The manufacturer shall provide, at the time of delivery, operation manuals to include at a minimum an operator’s manual and a manual of responsibilities, or equivalent of, located on the MEWP in a weather-resistant storage location.

6.2 Operator’s Manual

6.2.1 Content

o) notice of the requirements of dealers, owners, users, operators, lessors, lessees, and brokers to comply with appropriate section(s) of applicable A92 standards.
2.2 Other Referenced Documents

This Standard shall be used in conjunction with the following documents:

- Manufacturer’s make and model operator’s manual
- The Manual of Responsibilities, or equivalent of, for Dealers, Owners, Users, Supervisors, Operators, Occupants, Lessors, Lessees and Brokers for the Safe Use of Mobile Elevating Work Platforms

3. Definitions

**Manual of Responsibilities**: A document containing definitions and requirements mandated in applicable A92 Standards for the following entities: Manufacturers, Dealers, Owners, Users, Supervisors, Operators, Occupants, Lessors, Lessees and Brokers.
The following topics are being recirculated for your review:


PROPOSAL

K.8.14.1.101.2  Safety instructions for all operations

Replacement of item j):

j) Hold the power tool by insulated gripping surfaces only, when performing an operation where the cutting tool may contact hidden wiring. Contact with a "live" wire will also make exposed metal parts of the power tool "live" and could give the operator an electric shock.

NOTE 101  The above warning is omitted, if polishing or sanding are the only intended operations.

Item k) is not applicable.

K.8.14.1.101.2DV D2 Modification: Replace Clause K.8.14.1.101.2 of the Part 2 with the following:

K.8.14.1.101.2  Safety instructions for all operations

Replacement of item k):

k) Hold the power tool by insulated gripping surfaces only, when performing an operation where the cutting tool may contact hidden wiring. Contact with a "live" wire will also make exposed metal parts of the power accessory "live" and could give the operator an electric shock.

NOTE 101  The above warning is omitted, if polishing or sanding are the only intended operations.

Item l) is not applicable.

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BSR/UL 94, Standard for Safety for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances

1. Revision of Requirements for Afterflame Time in Tables 8.1 and 11.1

Table 8.1
Materials classifications

<table>
<thead>
<tr>
<th>Criteria conditions</th>
<th>V-0</th>
<th>V-1</th>
<th>V-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afterflame time for each individual specimen ( t_1 ) or and ( t_2 )</td>
<td>( \leq 10 \text{s} )</td>
<td>( \leq 30 \text{s} )</td>
<td>( \leq 30 \text{s} )</td>
</tr>
<tr>
<td>Total afterflame time for any condition set (( t_1 ) plus ( t_2 ) for the 5 specimens)</td>
<td>( \leq 50 \text{s} )</td>
<td>( \leq 250 \text{s} )</td>
<td>( \leq 250 \text{s} )</td>
</tr>
<tr>
<td>Afterflame plus afterglow time for each individual specimen after the second flame application (( t_2 + t_3 ))</td>
<td>( \leq 30 \text{s} )</td>
<td>( \leq 60 \text{s} )</td>
<td>( \leq 60 \text{s} )</td>
</tr>
<tr>
<td>Afterflame or afterglow of any specimen up to the holding clamp</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Cotton indicator ignited by flaming particles or drops</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Table 11.1
Material classifications

<table>
<thead>
<tr>
<th>Criteria conditions</th>
<th>VTM-0</th>
<th>VTM-1</th>
<th>VTM-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afterflame time for each individual specimen ( t_1 ) or and ( t_2 )</td>
<td>( \leq 10 \text{s} )</td>
<td>( \leq 30 \text{s} )</td>
<td>( \leq 30 \text{s} )</td>
</tr>
<tr>
<td>Total afterflame time for any condition set (( t_1 ) plus ( t_2 ) for the 5 specimens)</td>
<td>( \leq 50 \text{s} )</td>
<td>( \leq 250 \text{s} )</td>
<td>( \leq 250 \text{s} )</td>
</tr>
<tr>
<td>Afterflame plus afterglow time for each individual specimen after the second flame application (( t_2 + t_3 ))</td>
<td>( \leq 30 \text{s} )</td>
<td>( \leq 60 \text{s} )</td>
<td>( \leq 60 \text{s} )</td>
</tr>
<tr>
<td>Did the afterflame or afterglow of any specimen progress up to the 125 mm mark?</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Was the cotton indicator ignited by flaming particles or drops?</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
2. Editorial Revision of the Term “Flaming Particles” in Sections 8, 9, 11, and 12

Table 8.1
Materials classifications

<table>
<thead>
<tr>
<th>Criteria conditions</th>
<th>V-0</th>
<th>V-1</th>
<th>V-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afterflame time for each individual specimen $t_1$ or $t_2$</td>
<td>$\leq$10s</td>
<td>$\leq$30s</td>
<td>$\leq$30s</td>
</tr>
<tr>
<td>Total afterflame time for any condition set ($t_1$ plus $t_2$ for the 5 specimens)</td>
<td>$\leq$50s</td>
<td>$\leq$250s</td>
<td>$\leq$250s</td>
</tr>
<tr>
<td>Afterflame plus afterglow time for each individual specimen after the second flame application ($t_2 + t_3$)</td>
<td>$\leq$30s</td>
<td>$\leq$60s</td>
<td>$\leq$60s</td>
</tr>
<tr>
<td>Afterflame or afterglow of any specimen up to the holding clamp</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Cotton indicator ignited by flaming/dripping particles or drops</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

8.6.1 The following are to be observed and recorded for each specimen:

a) Afterflame time after first flame application, $t_1$.

b) Afterflame time after second flame application, $t_2$.

c) Afterflame time plus afterglow time after second flame application, $t_2 + t_3$.

d) Whether or not specimens burn up to the holding clamp.

Note: Burned to the clamp – After allowing the sample to cool, use a soft, dry cloth to wipe away soot and effluent residue and examine the sample 2 mm below the clamp line for signs of combustion or pyrolysis. Any thermal damage, such as melting or distortion, on the sample below the clamp, shall be neglected.

e) Whether or not specimens drip flaming particles and whether the particles ignited the cotton indicator.
Table 9.1
5V Burning Classifications

<table>
<thead>
<tr>
<th>Criteria</th>
<th>5VA</th>
<th>5VB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afterflame time plus afterglow time after the fifth flame application (t₁+t₂) for each individual bar specimen</td>
<td>≤60s</td>
<td>≤60s</td>
</tr>
<tr>
<td>The cotton pad indicator (see 5.13) ignited by flaming dripping particles or drops from any bar test specimen?</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Classified as V-0 or V-1?</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Either</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>• burn-through occurs with any of the individual plate test specimens</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• no plate test specimens have been tested</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 11.1
Material classifications

<table>
<thead>
<tr>
<th>Criteria conditions</th>
<th>VTM-0</th>
<th>VTM-1</th>
<th>VTM-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afterflame time for each individual specimen t₁ or t₂</td>
<td>≤10s</td>
<td>≤30s</td>
<td>≤30s</td>
</tr>
<tr>
<td>Total afterflame time for any condition set (t₁ plus t₂ for the 5 specimens)</td>
<td>≤50s</td>
<td>≤250s</td>
<td>≤250s</td>
</tr>
<tr>
<td>Afterflame plus afterglow time for each individual specimen after the second flame application (t₂ + t₃)</td>
<td>≤30s</td>
<td>≤60s</td>
<td>≤60s</td>
</tr>
<tr>
<td>Did the afterflame or afterglow of any specimen progress up to the 125 mm mark?</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Was the cotton indicator ignited by flaming dripping particles or drops?</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

11.6.1 The following are to be observed and recorded:

a) Afterflame time after first flame application, t₁.

b) Afterflame time after second flame application, t₂.

c) Afterglow time after second flame application, t₃.

d) Whether or not the afterflame and/or afterglow progressed up to the 125 mm mark.
e) Whether or not specimens drip flaming particles which ignite the cotton indicator.

Table 12.1
Material classifications

<table>
<thead>
<tr>
<th>Criteria Conditions</th>
<th>HF-1</th>
<th>HF-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afterflame time, $t_1$</td>
<td>4/5 is ≤2s</td>
<td>4/5 is ≤2s</td>
</tr>
<tr>
<td>Afterflame time plus afterglow time for each individual specimen, $t_1 + t_2$</td>
<td>1/5 is ≤10s</td>
<td>1/5 is ≤10s</td>
</tr>
<tr>
<td>Cotton indicator ignited by flaming dripping particles or drops</td>
<td>&lt;30s</td>
<td>≤30s</td>
</tr>
<tr>
<td>Damaged length for each individual specimen$^a$</td>
<td>&lt; 60 mm</td>
<td>&lt; 60 mm</td>
</tr>
</tbody>
</table>

NOTES –

4/5 – Four out of a set of five specimens.

1/5 – One out of a set of five specimens.

$^a$ In cases where upper and lower side of the specimen shows different extent of damage, the side (face) with the higher extent of damaged length shall be considered for the classification rating.

12.6.2 For specimens considered for Class HF-1 or HF-2, the following are to be observed and recorded:

a) The time recorded in 12.5.8(a) ($t_1$) and 12.5.8(b) ($t_1 + t_2$).

b) The distance the specimen burned up to the 60 mm mark, or if the 60 mm mark was passed.

c) Whether or not the dry absorbent surgical cotton placed below the test specimen was ignited by flaming dripping particles.
PROPOSAL

Correction of Formula in Clause 72.2 (c)

72.2 Six samples of the battery, or sets of batteries when more than one battery is used for primary power, shall be tested under each of the following ambient conditions for a minimum of 1 year while connected to the smoke alarm or a simulated load to which the battery is to supply power:

a) A room ambient temperature of 23 ±2 °C (73.4 ±3.6°F), 30 - 50 percent relative humidity, and 760 mm Hg;

b) High temperature of \( (T_{HI} - 38°C) + 45°C \) or \( (T_{HI} - 100°F) + 113°F \);

c) Low temperature of \( 0°C (32°F) (T_{LO} - 0°C) \) or \( (T_{LO} - 32°F) \), and

d) Temperature = \( (T_{HI} - 38°C) + 30°C \) or \( (T_{HI} - 100°F) + 86°F \), and 85 ±5 percent relative humidity and;

e) Where \( T_{LO} \) and \( T_{HI} \) are the respective low and high end operating temperatures.
5. Flash Over Test for Push-In Wire Connectors – Withdrawal of Proposal

Table 7 - Dielectric-withstand test sequence
(Clause 7.5.1)

<table>
<thead>
<tr>
<th>Connector</th>
<th>Required test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A connector having insulation in the form of a tubular sleeve and intended to accommodate only one conductor in each opening(^a) and intended for use with:</td>
<td></td>
</tr>
<tr>
<td>a) 10 AWG (5.3 mm(^2)) or smaller conductors; or</td>
<td>A, C</td>
</tr>
<tr>
<td>b) 8 - 6 AWG (8.4 - 13.3 mm(^2)) conductors.</td>
<td>A</td>
</tr>
<tr>
<td>2. Connectors having insulation in other than a tubular form and for conductor size not covered in item 1(^b).</td>
<td>A, B</td>
</tr>
</tbody>
</table>

Notes:

A - Test A is described in 9.5.2.

B - Test B is described in 9.5.3.

C - Test C is described in 9.5.4.

\(^a\) These types of connectors included insulation-piercing and push-in types.

\(^b\) These types of connectors include twist-on types.
UL 486A-486B, Standard for Safety for Wire Connectors

5. Testing with Metric and Non-Standard Size Conductors

Table 26
Secureness test values
(Clauses 9.3.2.1, 9.3.2.3, and 9.3.2.4)

<table>
<thead>
<tr>
<th>Size of conductor</th>
<th>Diameter of bushing hole(^a, c)</th>
<th>Height</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>mm(^2)</strong></td>
<td><strong>mm</strong></td>
<td><strong>(in)</strong></td>
</tr>
<tr>
<td>AWG or kcmil (mm(^2))</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 (0.82)</td>
<td>6.4 (1/4)</td>
<td>260 (10-1/4)</td>
<td>0.9 (2)</td>
</tr>
<tr>
<td>1.0</td>
<td>6.4 (1/4)</td>
<td>260 (10-1/4)</td>
<td>0.9 (20)</td>
</tr>
</tbody>
</table>

The remainder of Table 26 has been truncated for clarity.
BSR/UL 521, Standard for Safety for Heat Detectors for Fire Protective Signaling Systems

PROPOSALS

1. Stability Test Revisions

40 Stability Test (Electronic Heat Detectors)

40.6 A heat detector that uses eutectic metal technology shall be subjected to the test specified below:

a) The heat detector shall operate for its intended signaling performance after being subjected for 90 days to an ambient temperature of 93 ± 5 percent relative humidity at 8.3°C (15°F) below the heat detector set point. Ten samples mounted in their intended mounting position are to be placed in a circulating air oven and energized for 90 days from a source of rated voltage and frequency. Following removal from the circulating air oven, the samples are to cool to room temperature for at least 24 hours. The samples shall then be subjected to the Operating Temperature Test, Section 22, to determine the activation temperature.

(NEW)

40A Determination of Stability Test for Mechanical Heat Detectors

40A.1 A heat detector using both eutectic solder and copper within the construction of the releasing mechanism where the two dissimilar metals are in contact with each other shall operate for its intended signaling performance after being subjected to the stability test. The releasing mechanism is defined as the components that cause the contacts to operate as the eutectic solder melts.

40A.2 A fixed-temperature detector shall operate within the general limits, according to its rating, when subjected to an Operating Temperature Test, Section 22, in heated water, oil, air bath or an equivalent method after being subjected to the procedure in 40A.3

40A.3 Ten samples shall be subjected to 30 days at an ambient temperature of 8.3°C (15°F) below its operating temperature in an environment with relative humidity of 85 ± 5%. Upon completion of the test, the samples shall remain at room temperature for a period of 24 hours, after which they shall be subjected to the Operating Temperature Test, Section 22, to determine the activation temperature.

2. Minimum Size for Programmable Heat Detector Symbol

53.8 Field programmable spot-type heat detectors shall be marked with the following or equivalent symbol on the surface of the detector in a contrasting color:
su3507

The symbol shall be at least 3/8 in (9.5 mm) high.
BSR/UL 758, Standard for Safety for Appliance Wiring Material

PROPOSAL

49.1 The dielectric test shall be performed by the manufacturer on 100 percent of production where a metallic shield is placed over insulated conductors. Where no metallic shield is present, non-shielded cables may be tested with the Production-Line Dielectric Test, Section 49, on 100 percent of production as an alternate method to Cut-Piece Dielectric Voltage Withstand Test, Section 48A.

Exception: The requirement to apply a dielectric test on the finished product is not required if (a) - (e) all apply:

a) The product is a laminated, flat cable;

b) The laminated flat cable was subjected to a dielectric test prior to application of the shield;

c) A metallic shield layer is part of the integral construction;

d) The shield material is a metal foil or film; and

e) Shields are applied before or after the cable is cut to the required length.
PROPOSAL(S)

NOTE FROM THE STP PROJECT MANAGER: For brevity, only the affected portion of the table in the clause in 9.2.1 is shown.

PROPOSAL

9.2.1 Each power and control circuit conductor that is available as a National Electrical Code type shall comply with this standard and shall be of one of the following types:

a) 14 – 4/0 AWG and 250 – 1000 kcmil branch-circuit types complying with the Standard for Thermoset-Insulated Wires and Cables, UL 44, the Standard for Thermoplastic-Insulated Wires and Cables, UL 83, or the Standard for Fluoropolymer Insulated Wire, UL 83A:

(Cont’d)

<table>
<thead>
<tr>
<th>Type(s)</th>
<th>Ratings for Type TC application</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>XHHW</td>
<td>90°C (194°F) dry</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>75°C (167°F) wet</td>
<td></td>
</tr>
<tr>
<td></td>
<td>600 V or 1000 V</td>
<td></td>
</tr>
<tr>
<td>XHH</td>
<td>90°C (194°F) dry 600 V or 1000 V</td>
<td>44</td>
</tr>
<tr>
<td>THHN</td>
<td>90°C (194°F) dry 600 V</td>
<td>83</td>
</tr>
</tbody>
</table>
Standard: UL 1963
Standard Title: Standard for Safety for Refrigerant Recovery/Recycling Equipment

Date of Proposal: January 22, 2021
Comments Due: February 22, 2021

The following topics are being recirculated for your review:

14. Miscellaneous clarifications

PROPOSAL

Table 57.1
Maximum temperature rises

<table>
<thead>
<tr>
<th>Device or material</th>
<th>Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F (C)</td>
</tr>
<tr>
<td>A. Motors</td>
<td></td>
</tr>
<tr>
<td>1. Class A insulation systems on coil windings of alternating current motor having a frame diameter of 7 in (178 mm) or less&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>a. In open motors -</td>
<td></td>
</tr>
<tr>
<td>Thermocouple or resistance method</td>
<td>135 (75)</td>
</tr>
<tr>
<td>b. In totally enclosed motors -</td>
<td></td>
</tr>
<tr>
<td>Thermocouple or resistance method</td>
<td>144 (80)</td>
</tr>
<tr>
<td>2. Class A insulation systems on coil windings of alternating current motors having a frame diameter of more than 7 in (178 mm)&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>a. In open motors -</td>
<td></td>
</tr>
<tr>
<td>Thermocouple method</td>
<td>117 (65)</td>
</tr>
<tr>
<td>Resistance method</td>
<td>135 (80)</td>
</tr>
<tr>
<td>b. In totally enclosed motors -</td>
<td></td>
</tr>
<tr>
<td>Thermocouple method</td>
<td>126 (70)</td>
</tr>
<tr>
<td>Resistance method</td>
<td>144 (80)</td>
</tr>
<tr>
<td>3. Class B insulation systems on coil windings of alternating current motors having a frame diameter of 7 in (178 mm) or less</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>a. In open motors</td>
<td></td>
</tr>
<tr>
<td>Thermocouple or resistance method</td>
<td>171 (95)</td>
</tr>
<tr>
<td>b. In totally enclosed motors -</td>
<td></td>
</tr>
<tr>
<td>Thermocouple or resistance method</td>
<td>180 (100)</td>
</tr>
<tr>
<td>4. Class B insulation systems on coil windings of alternating current motors having a frame diameter of more than 7 in (178 mm)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>a. In open motors</td>
<td></td>
</tr>
<tr>
<td>Thermocouple method</td>
<td>162 (90)</td>
</tr>
<tr>
<td>Resistance method</td>
<td>180 (100)</td>
</tr>
<tr>
<td>b. In totally enclosed motors -</td>
<td></td>
</tr>
<tr>
<td>Thermocouple method</td>
<td>162 (90)</td>
</tr>
<tr>
<td>Resistance method</td>
<td>180 (100)</td>
</tr>
</tbody>
</table>
5. Class F insulation systems on coil windings of a motor having a frame diameter of 7 in (178 mm) or less
   a. In open motors –
   Thermocouple or resistance method 216 (120)
   b. In totally enclosed motors –
   Thermocouple or resistance method 225 (125)

6. Class F insulation systems on coil windings of a motor having a frame diameter of more than 7 in (178 mm)
   a. In open motors –
   Thermocouple method 198 (110)
   Resistance method 216 (120)
   b. In totally enclosed motors –
   Thermocouple method 207 (115)
   Resistance method 225 (125)

7. Class H insulation systems on coil windings of a motor having a frame diameter of 7 in (178 mm) or less
   a. In open motors –
   Thermocouple or resistance method 243 (135)
   b. In totally enclosed motors –
   Thermocouple or resistance method 252 (140)

8. Class H insulation systems on coil windings of a motor having a frame diameter of more than 7 in (178 mm)
   a. In open motors –
   Thermocouple method 225 (125)
   Resistance method 303 (168)
   b. In totally enclosed motors –
   Thermocouple method 234 (130)
   Resistance method 252 (140)

9. Class N insulation systems on coil windings of an open or totally enclosed motor
   Thermocouple or resistance method 288 (160)

10. Class R insulation systems on coil windings of an open or totally enclosed motor
    Thermocouple or resistance method 324 (180)

B. Components
1. Capacitors
   Electrolytic type
   Other types
   2. Field wiring
   3. Fuses
   a. Class CC, G, J, L and T
      Tube
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Temperature rating</th>
<th>Insulation Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td>Compressor motor enclosure</td>
<td>302 (150)</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Relay, solenoid, and other coils (except motor coil windings)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Class 105 insulated winding insulation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thermocouple method</td>
<td>117 (65)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resistance method</td>
<td>153 (85)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Class 130 insulation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thermocouple method</td>
<td>153 (85)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resistance method</td>
<td>189 (105)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Class 155 (F) insulation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thermocouple method</td>
<td>198 (110)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resistance method</td>
<td>217 (121)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. Class 180 (H) insulation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thermocouple method</td>
<td>225 (125)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resistance method</td>
<td>243 (135)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>e. Class 200 (N) insulation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thermocouple method</td>
<td>243 (135)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resistance method</td>
<td>279 (155)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>f. Class 220 (R) insulation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thermocouple method</td>
<td>279 (155)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resistance method</td>
<td>315 (175)</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Solid contacts</td>
<td>117 (65)</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Transformer enclosure with</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Class 2 transformers</td>
<td>108 (60)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Power transformers</td>
<td>117 (65)</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Wood or other flammable materials</td>
<td>117 (65)</td>
<td></td>
</tr>
<tr>
<td>C.</td>
<td>Insulated conductors</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Flexible cords and wires with rubber, thermoplastic or neoprene insulation unless recognized as having special heat-resistance properties as follows:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Temperature rating</td>
<td>°F</td>
<td>°C</td>
</tr>
<tr>
<td></td>
<td>140</td>
<td>(60)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>167</td>
<td>(75)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>176</td>
<td>(80)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>186</td>
<td>(90)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>221</td>
<td>(105)</td>
<td></td>
</tr>
<tr>
<td>D.</td>
<td>1. Surfaces of equipment at points of zero clearance to test enclosure</td>
<td>117 (65)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Surfaces of equipment contacted by persons in operating it (control knobs, pushbuttons, levels, and the like)</td>
<td>Metal</td>
<td>81 (35)</td>
</tr>
</tbody>
</table>
### 3. Surfaces of equipment subjected to casual contact by persons (enclosure, grille, and the like)

<table>
<thead>
<tr>
<th>Material</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal</td>
<td>81</td>
<td>(45)</td>
</tr>
<tr>
<td>Nonmetallic</td>
<td>117</td>
<td>(65)</td>
</tr>
</tbody>
</table>

### 4. Surfaces of test enclosure where clearance to flammable material is specified

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>117</td>
<td>(65)</td>
</tr>
</tbody>
</table>

### E. Electrical insulation - general

1. Fiber used as electrical insulation or cord bushings

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>117</td>
<td>(65)</td>
</tr>
</tbody>
</table>

2. Phenolic composition used as electrical insulation or as parts where deterioration will result in a risk of electric shock or fire

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>225</td>
<td>(125)</td>
</tr>
</tbody>
</table>

3. Thermoplastic material. Rise based on temperature limits of material

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

- Thermocouple applied directly to the integral insulation of the coil conductor.
- Thermocouple applied as in item a or applied to conventional coil wrap.
- For an electrolytic capacitor which is physically integral with or attached to a motor, the temperature rise on insulating material integral with the capacitor enclosure may be not more than 117°F (65°C).
- A capacitor that operates at a temperature higher than 65°C (117°F) rise may be judged on the basis of its marked temperature rating.
- A temperature rise of no more than 90°F (50°C) is acceptable in the terminal box or wiring compartment of equipment that requires supply conductors with an ampacity of more than 100 amp if the equipment is clearly marked with the following statement or its equivalent: "For supply connections, use _____ AWG or larger wires acceptable for at least 167°F (75°C)." See 10.2.2.
- Maximum - not rise, see also item A in table for other than hermetic compressors.
- Includes both casing and ferrule or blade.

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BSR/UL 2703, Standard for Safety for Mounting Systems, Mounting Devices, Clamping/Retention Devices, and Ground Lugs for Use with Flat-Plate Photovoltaic Modules

1. Addition of New Appendix D, Non-Uniform Mechanical Testing

12.3 If it is determined that additional mechanical testing that encompasses the non-uniform nature of wind loading is needed, the requirements in Appendix D, Non-Uniform Mechanical Testing, shall be applied. The manufacturer is to determine the need for this testing, as the test is not required in order to comply with UL 2703.

APPENDIX D
Non-Uniform Mechanical Testing
(Informative)

D.1 As referenced in 12.3, this appendix provides a test procedure to encompass the impact of a pressure gradient on the mounting of a PV module to a rack mounting system. It has been well documented that the wind load on a solar module is not uniform over the entire surface of the module. A pressure gradient exists such that a larger pressure is applied to one side of the solar module (typically the leading side or top side depending on system configuration) than the other.

D.2 A rack mounting system shall withstand loading based upon the design pressures and area of the modules intended to be installed. The test specimen configuration shall be selected such that all critical load combinations are addressed for the elements included within the load rating.

D.3 A different load shall be applied to each third (3 sections per module) or quarter (4 sections per module) of the module as shown below. The selection of 3 vs. 4 sections shall be made by the mounting system manufacturer based on their wind tunnel testing or CFD analysis. Design pressures / loads for each section shall be specified by the mounting system manufacturer. Loads shall be applied to all sections simultaneously. See Figure D.1.

Figure D.1
Pressure Sections on PV Module
D.4 All design pressures / loads shall be multiplied by a minimum factor of safety of 1.5 to determine the “Test” pressure / load.

D.5 Different pressures may be specified for Downward and Upward Pressures. Downward and Upward pressures shall not be applied simultaneously.

D.6 Mounting locations on the module and mounting method (i.e. bolted connections, top-down clamps, etc.) shall be specified by the mounting system manufacturer.

D.7 The rack mounting system shall withstand each of these loads for a period of 30 min, without evidence of structural or mechanical failure, visual permanent deformation determined that may adversely affect system safety or compliance, and for any positive securement means including top-down clamps, there shall not be any shifting/movement relative to the PV module.

D.8 In addition to the defined “system” testing, the product listing may provide increased design values for the “mounting hardware”. “Mounting hardware” testing shall include the requirements of this Section with the exception that the “mounting hardware” tests shall incorporate support beams with a defined stiffness that results in similar (or greater) beam curvature to that experience during the system testing. The test load applied to the “mounting hardware” shall be determined by rational engineering analysis and shall account for the non-uniform nature of the loading.

Exception: When the desired load rating for the mounting hardware is identical to the “system” rating, supplemental “mounting hardware” testing is not required

D.8 When an adhesive or polymeric material is being utilized for mechanical securement of a PV module or a portion of the rack mounting system, a sample shall be subjected to the following sequence with the adhesive/polymeric material subject to the stress of the weight of the PV Module(s) and racking components, in the vertical orientation while in the chambers:

a) Humidity Test, Section 18, followed by;

b) Mechanical Loading Test, Section 21.