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. Fax: 212-840-2298; e-mail: psa@ansi.org

* Standard for consumer products
AMCi (AMC Institute)

**New Standard**
BSR/AMCI A100.1-201x, The Standard of Good Practices for Association Management Companies (new standard)
The AMC Institute Standard establishes requirements that provide a measurement for practices that can be utilized by all sizes and types of Association Management Companies (AMCs) in order to enhance the performance of the AMC and their staff.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: https://www.surveymonkey.com/r/DH286PV

NFRC (National Fenestration Rating Council)

**Revision**
BSR/NFRC 100-201x, Procedure for Determining Fenestration Product U-factors (revision of ANSI/NFRC 100-2017)
This standard specifies a method for determining fenestration product U-factor (thermal transmittance).

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: rmerrifield@nfrc.org

NFRC (National Fenestration Rating Council)

**Revision**
This standard specifies a method for calculating solar-heat gain coefficient (SHGC) and visible transmittance (VT) at normal (perpendicular) incidence for fenestration products containing glazings or glazing with applied films, with specular optical properties calculated in accordance with ISO 15099 (except where noted) or tested in accordance with NFRC 201, NFRC 202, and NFRC 203.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: rmerrifield@nfrc.org

UL (Underwriters Laboratories, Inc.)

**Revision**
Recirculation of the following topics: (1) Spacings on multi-layer PWBs; (2) Clarification of N-G testing and high-voltage probes; (3) Revision of 40.7.1 pertaining to In measurement; (4) Addition of new paragraph 1.19 to include ambient temperature range for SPDs; and (7) UL 1449 clarifications and corrections.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Mitchell Gold, (847) 664-2850, mitchell.gold@ul.com

UL (Underwriters Laboratories, Inc.)

**Revision**
BSR/UL 1691-201x, Standard for Safety for Single Pole Locking-Type Separable Connectors (revision of ANSI/UL 1691-2018)
These requirements cover single-pole locking-type separable attachment plugs; cord connectors; panel inlets; and panel outlets, adapters, and accessories, rated up to a maximum of 800 amperes and up to 600 volts ac or dc and not intended for connection or disconnection under load conditions.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Megan Monsen, (847) 664-1292, megan.monsen@ul.com

UL (Underwriters Laboratories, Inc.)

**Revision**
This proposal for UL 1993 covers: (1) Addition of Risk of Electric Shock Relamping test to Supplement SC.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Wilbert Fletcher, (919) 549-1337, Wilbert.Fletcher@ul.com

UL (Underwriters Laboratories, Inc.)

**Revision**
BSR/UL 2271-201x, Standard for Safety for Batteries for Use In Light Electric Vehicle (LEV) Applications (revision of ANSI/UL 2271-2013)
(1) Correction of cell criteria and tolerance information; (2) Vibration Endurance Test revisions; (3) Revision of marking and instruction requirements for EESAs that are not removed when charging; (4) Addition of production quality control criteria in 17.4; (5) Clarifications to the functional safety criteria; and (6) Clarification of connections to battery cells.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Megan Van Heirseele, (847) 664-2881, Megan.M.VanHeirseele@ul.com

UL (Underwriters Laboratories, Inc.)

**Revision**
BSR/UL 5500-201x, Standard for Safety for Remote Software Updates (revision of ANSI/UL 5500-201x)
This standard covers Remote software updates taking into account the manufacturer’s recommended process. It is limited to software elements having an influence on safety and on compliance with the particular end product safety standard.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Megan Monsen, (847) 664-1292, megan.monsen@ul.com
Standards Action - May 25, 2018 - Page 3 of 56 pages

**Comment Deadline: July 9, 2018**

**API (American Petroleum Institute)**

**New National Adoption**


This recommended practice provides procedures for the laboratory testing of both drilling fluid materials and drilling fluid physical, chemical and performance properties. It is applicable to both water-based and non-aqueous drilling fluids, as well as the base or “make-up” fluid. It is not applicable as a detailed manual on drilling fluid control procedures.

Recommendations regarding agitation and testing temperature are presented because the agitation history and temperature have a profound effect on drilling fluid properties. NOTE: For procedures related to testing barite for mercury, cadmium, and arsenic see API 13K.

**New National Adoption**


This specification specifies requirements and gives recommendations for six classes of well cements, including their chemical and physical requirements, and procedures for physical testing. Annex B informs about two more classes of composite cements. This specification is applicable to well cement classes A, B, C, and D, which are the products obtained by grinding Portland cement clinker and, if needed, calcium sulfate as an interground additive. Processing additives can be used in the manufacture of cement of these classes. Suitable set-modifying agents can be interground or blended during manufacture of Class D cement. Annex B describes composite well cement classes which are the products obtained by intergrinding Portland cement clinker and one or more forms of calcium sulfate with composite constituents, or by subsequent blending of separately produced Portland cement with separately processed composite constituents. Composite constituents are also specified in Annex B. This specification is also applicable to well cement classes G and H, which are the products obtained by grinding clinker with no additives other than one or more forms of calcium sulfate, water, or chemical additives as required for chromium(VI) reduction.

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

**New Standard**

BSR/ASME SRB-1-201x, Design, Installation, Maintenance and Application of Ball Slewing Ring Bearings (new standard)

This standard applies to the design, manufacture, application, inspection requirements, installation, and maintenance of slewing ring bearings, also known as slewing rings. Such bearings are used in, but not limited to, equipment such as hydraulic shovels, excavators, manlifts and aerial platforms, cranes, wind power generators and other equipment where one part of the structure must rotate with respect to another.

Single copy price: Free

Obtain an electronic copy from: http://cstools.asme.org/publicreview

Order from: Mayra Santiago, ASME; ansibox@asme.org

Send comments (with copy to psa@ansi.org) to: Angel Guzman, (212) 591-8018, guzman@asme.org

**AWWA (American Water Works Association)**

**Revision**

BSR/AWWA G410-201x, Business Practices for Operation and Management (revision of ANSI/AWWA G410-2009)

This standard describes the critical elements of effective business practices for the operation and management of water, wastewater, and reclaimed water utilities (to be referred as the water sector). It encompasses the major functions necessary to manage and sustain a successful utility.

Single copy price: Free

Obtain an electronic copy from: ETSsupport@awwa.org

Order from: AWWA; Vicki David, (303) 347-3431, v david@awwa.org

Send comments (with copy to psa@ansi.org) to: AWWA; Paul Olson, (303) 347-6178, polson@awwa.org

**InfoComm (InfoComm International)**

**New Standard**

BSR/AVIXA A103.01-201x, Sound System Spectral Balance in Listener Areas (Originally filed PINS as Equalization Optimization) (new standard)

This Standard defines the parameters for characterizing spectral balance in audiovisual sound systems. The intent is to prevent unsatisfactory listener experiences due to unacceptable variations in frequency response across the audience seating area. This Standard defines a measurement and verification process to ensure that sound systems reproduce an acceptable spectral balance, also known as a uniform frequency response. This is accomplished by documenting the frequency response from the sound system across a specified bandwidth within a low- to high-frequency range within the listening area.

Single copy price: $75.00 (USD) (non-members); Free (members)

Obtain an electronic copy from: http://www.avixa.org/standards

Order from: Michelle Truong, (703) 273-7200, mtruong@avixa.org

Send comments (with copy to psa@ansi.org) to: Same
SCTE (Society of Cable Telecommunications Engineers)

Revision
BSR/SCTE 11-201x, Test Method for Aerial Cable Corrosion Protection Flow (revision of ANSI/SCTE 11-2012)
This test is to determine that moisture-blocking material used in cables intended for indoor and aerial applications does not flow or drip out of the cable.
Single copy price: $50.00
Send comments (with copy to psa@ansi.org) to: standards@scte.org

SCTE (Society of Cable Telecommunications Engineers)

Revision
BSR/SCTE 12-201x, Test Method for Center Conductor Bond to Dielectric for Trunk Feeder and Distribution Coaxial Cables (revision of ANSI/SCTE 12-2011)
This test is to determine the bond strength between the center conductor and dielectric for specified semi-flexible coaxial cables.
Single copy price: $50.00
Send comments (with copy to psa@ansi.org) to: standards@scte.org

SCTE (Society of Cable Telecommunications Engineers)

Revision
BSR/SCTE 13-201x, Dielectric Air Leak Test Method For Trunk, Feeder and Distribution Coaxial Cable (revision of ANSI/SCTE 13-2011)
The purpose of this test is to detect voids in the dielectric and the bond between the dielectric and the center conductor.
Single copy price: $50.00
Send comments (with copy to psa@ansi.org) to: standards@scte.org

SCTE (Society of Cable Telecommunications Engineers)

Revision
BSR/SCTE 51-201x, Method for Determining Drop Cable Braid Coverage (revision of ANSI/SCTE 51-2012)
The purpose of this document is to provide instruction on the calculation of braid coverage for braided coaxial drop cables. Braid coverage is expressed as a percentage of optical coverage of the underlying core by the braid wires. It is a function of the diameter of the cable core, the diameter of the wire braid, the number of carriers (groups of wire ends), the number of individual wires in each carrier and the picks per inch (distance between each carrier crossing.)
Single copy price: $50.00
Send comments (with copy to psa@ansi.org) to: standards@scte.org

SCTE (Society of Cable Telecommunications Engineers)

Revision
BSR/SCTE 59-201x, Test Method for Drop Cable Center Conductor Bond to Dielectric (revision of ANSI/SCTE 59-2012)
This test is to determine the amount of bond between the center conductor wire to the dielectric (by measuring the force in pounds required to break the bond) for specified flexible RF coaxial drop cables at room temperature.
Single copy price: $50.00
Send comments (with copy to psa@ansi.org) to: standards@scte.org

SCTE (Society of Cable Telecommunications Engineers)

Revision
BSR/SCTE 61-201x, Test Method for Jacket Web Separation (revision of ANSI/SCTE 61-2012)
The purpose of this test procedure is to provide a test method for measuring the force required to separate webbed or “figure-eight” coaxial cable constructions. These designs are commonly referred to as messenger, dual, or Siamese cables for the two members that are joined by a web and common overall outer jacket. This procedure is for use in a lab environment to evaluate design and record forces required to remove one member from another. Also included is an industry “best practices” or recommended method for separating the co-joined members in a field application.
Single copy price: $50.00
Send comments (with copy to psa@ansi.org) to: standards@scte.org
SCTE (Society of Cable Telecommunications Engineers)

Revision

BSR/SCTE 68-201x, Drop Passives: Matching Transformers 75 Ohm to 300 Ohm (revision of ANSI/SCTE 68-2013)

The purpose of this document is to specify recommended mechanical and electrical standards for broadband radio frequency (RF) devices whose primary purpose is to provide impedance and connector match between 75Ω coaxial type F and 300Ω twin-lead open screw connectorized devices.

Single copy price: $50.00


Send comments (with copy to psa@ansi.org) to: standards@scte.org

SDI (ASC A250) (Steel Door Institute)

Reaffirmation

BSR/SDI/BHMA A250.13-2014 (R201x), Testing & Rating of Severe Windstorm Resistant Components for Swinging Door Assemblies for Protection of Building Envelopes (Not applicable for FEMA 320/361 or ICC 500 Shelters) (reaffirmation and redesignation of ANSI A250.13-2014)

This standard provides procedures for testing and establishing load ratings for components of exterior swinging door assemblies for purposes of protection of openings in building envelopes during severe windstorm conditions. It is not intended to simulate wind forces generated by tornadoes.

Single copy price: $45.00

Obtain an electronic copy from: www.steeldoor.org

Order from: sab@wherryassoc.com

Send comments (with copy to psa@ansi.org) to: leh@wherryassoc.com

UL (Underwriters Laboratories, Inc.)

New National Adoption


Single copy price: Free

Obtain an electronic copy from: http://www.shopulstandards.com

Send comments (with copy to psa@ansi.org) to: Beth Northcott, (847) 664-3198, Elizabeth.Northcott@ul.com

UL (Underwriters Laboratories, Inc.)

Reaffirmation

BSR/UL 1256-2013 (R201x), Standard for Fire Test of Roof Deck Constructions (reaffirmation of ANSI/UL 1256-2013)

UL proposes a reaffirmation for ANSI approval of UL 1256-2013.

Single copy price: Free

Obtain an electronic copy from: http://www.shopulstandards.com

Send comments (with copy to psa@ansi.org) to: Wathma Jayathilake, (613) 368-4432, Wathma.Jayathilake@ul.com

UL (Underwriters Laboratories, Inc.)

Reaffirmation

BSR/UL 1486-2003 (R201x), Standard for Quick Opening Devices for Dry Pipe Valves for Fire Protection Service (reaffirmation of ANSI/UL 1486-2003 (R2013))

UL proposes a reaffirmation for ANSI approval of UL 1486-2003 (R2013).

Single copy price: Free

Obtain an electronic copy from: http://www.shopulstandards.com

Send comments (with copy to psa@ansi.org) to: Wathma Jayathilake, (613) 368-4432, Wathma.Jayathilake@ul.com

UL (Underwriters Laboratories, Inc.)

Reaffirmation

BSR/UL 2043-2013 (R201x), Standard for Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces (reaffirmation of ANSI/UL 2043-2013)

UL proposes a reaffirmation for ANSI approval of UL 2043-2013.

Single copy price: Free

Obtain an electronic copy from: http://www.shopulstandards.com

Send comments (with copy to psa@ansi.org) to: Wathma Jayathilake, (613) 368-4432, Wathma.Jayathilake@ul.com

UL (Underwriters Laboratories, Inc.)

Revision


Single copy price: Free

Obtain an electronic copy from: http://www.shopulstandards.com

Send comments (with copy to psa@ansi.org) to: Vickie Hinton, (919) 549-1851, Vickie.T.Hinton@ul.com

UL (Underwriters Laboratories, Inc.)

Reaffirmation

BSR/UL 768-2013 (R201x), Standard for Combination Locks (reaffirmation of ANSI/UL 768-2013)

UL proposes a reaffirmation for ANSI approval of UL 768-2013.

Single copy price: Free

Obtain an electronic copy from: http://www.shopulstandards.com

Send comments (with copy to psa@ansi.org) to: Griff Edwards, 919 549-0956, griff.edwards@ul.com
Comment Deadline: July 24, 2018
Reaffirmations and withdrawals available electronically may be accessed at: webstore.ansi.org

ASME (American Society of Mechanical Engineers)

New Standard

BSR/ASME AED-1-201x, Aerospace and Advanced Engineering Drawings (new standard)
This Standard is intended to provide documentation of unique requirements that are common across multiple industries, or within segments of industries. This document standardizes requirements for industries to benefit from commonality, decreased cost, and improved quality. Unique symbologies, terminologies, and concepts are provided to further enhance the understanding and abilities of all who use this document.

Single copy price: Free
Obtain an electronic copy from: http://cstools.asme.org/publicreview
Order from: Mayra Santiago, ASME; ansibox@asme.org
Send comments (with copy to psa@ansi.org) to: Lawrence Chan, (212) 591-7052, chan4@asme.org

Projects Withdrawn from Consideration

AGA (ASC Z380) (American Gas Association)

Inquiries may be directed to Michael Bellman, (202) 824-7183, mbellman@aga.org

CTA (Consumer Technology Association)

BSR/CTA 2042.5-201x, System Requirements for Tightly-Coupled Wireless Power Transfer (new standard)

CTA (Consumer Technology Association)

BSR/CTA 2069-201x, Definitions and Characteristics of Augmented and Virtual Reality Technologies (new standard)

IEEE (Institute of Electrical and Electronics Engineers)

New Standard

BSR/IEEE 844.1-201x, Standard for Skin Effect Trace Heating of Pipelines, Vessels, Equipment, and Structures - General, Testing, Marking, and Documentation Requirements (new standard)
This standard applies to general, testing, marking, and documentation requirements for skin effect trace heating systems rated up to and including 5 kVac and 260°C maximum skin effect insulated conductor temperature. These heating systems are intended for installation in accordance with the CSA C22.1, Canadian Electrical Code, Part I (CE Code); NFPA 70, National Electrical Code® (NEC®) in the U.S.; or with any other national electrical installation code, as applicable.

Single copy price: n/a
Obtain an electronic copy from: https://www.techstreet.com/ieee/searches/19707554
Order from: https://www.techstreet.com/ieee/searches/19707554
Send comments (with copy to psa@ansi.org) to: k.evangelista@ieee.org

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

BSR INCITS 535-201x, Information technology - ATA/ATAPI Serial Transport 2 (AST-2) (new standard)
Notice of Withdrawn ANS by an ANSI-Accredited Standards Developer

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

**ECIA (Electronic Components Industry Association)**

ANSI/EIA 540CAAA-1989 (R2007), Detail Specification on Relay Socket - 10 A for Balanced Armature Relay
Questions may be directed to: Edward Mikoski, (571) 323-0294, emikoski@ecianow.org

**ECIA (Electronic Components Industry Association)**

Questions may be directed to: Edward Mikoski, (571) 323-0294, emikoski@ecianow.org

**ECIA (Electronic Components Industry Association)**

ANSI/EIA 956-2006, Aluminum Electrolytic Chip Capacitor with Polymer Cathode
Questions may be directed to: Edward Mikoski, (571) 323-0294, emikoski@ecianow.org

**ECIA (Electronic Components Industry Association)**

ANSI/EIA 540CA00-1989 (R2007), Blank Detail Specification on Relay Sockets
Questions may be directed to: Edward Mikoski, (571) 323-0294, emikoski@ecianow.org

**ECIA (Electronic Components Industry Association)**

Questions may be directed to: Edward Mikoski, (571) 323-0294, emikoski@ecianow.org

**IS&T (The Society for Imaging Science & Technology)**

ANSI/I3A IT4.206-1984 (R2007), Photography (Chemicals) - Sodium Thiocyanate
Questions may be directed to: Ann McCarthy, (703) 642-9090 ext. 102, standards@imaging.org

**IS&T (The Society for Imaging Science & Technology)**

ANSI/I3A IT4.189-1984 (R2007), Photography (Chemicals) - Ferric Ammonium Ethylenediaminetetraacetate Solution and Sodium Ferric Ethylenediaminetetraacetate Trihydrate
Questions may be directed to: Ann McCarthy, (703) 642-9090 ext. 102, standards@imaging.org

**IS&T (The Society for Imaging Science & Technology)**

ANSI/I3A IT4.201-1981 (R2007), Photography (Chemicals) - Potassium Iodide
Questions may be directed to: Ann McCarthy, (703) 642-9090 ext. 102, standards@imaging.org

**IS&T (The Society for Imaging Science & Technology)**

ANSI/I3A IT4.23-2001 (R2006), Photography (Processing) - Roll and Dental Films - Requirements for Film Clips and Hangers
Questions may be directed to: Ann McCarthy, (703) 642-9090 ext. 102, standards@imaging.org

**IS&T (The Society for Imaging Science & Technology)**

ANSI/I3A IT4.231-1982 (R2006), Photography (Chemicals) - Sodium Metaborate Octahydrate
Questions may be directed to: Ann McCarthy, (703) 642-9090 ext. 102, standards@imaging.org

**IS&T (The Society for Imaging Science & Technology)**

ANSI/I3A IT4.232-2006, Photography - Processing chemicals - Specifications for photographic grade ammonium hydroxide, NH 4 OH (aqueous ammonia
Questions may be directed to: Ann McCarthy, (703) 642-9090 ext. 102, standards@imaging.org

**NEMA (National Electrical Manufacturers Association)**

ANSI/NEMA GR 1-2007, Grounding Rod Electrodes and Grounding Rod Electrode Couplings
Questions may be directed to: Vincent Baclawski, (703) 841-3236, vin_baclawski@nema.org
Comment Deadline: July 12, 2018

The National Fire Protection Association announces the availability of NFPA 855 from the 2019 Annual Revision Cycle First Draft Reports for concurrent review and comment by NFPA and ANSI.

The disposition of all comments received will be published in the Second Draft Reports, located on the document's information page under the next edition tab. The document's specific URL, www.nfpa.org/doc#next (for example, www.nfpa.org/855next), can easily access the document's information page. All comments on NFPA 855 must be received by July 12, 2018. The First Draft Reports for documents in the 2019 Annual Revision Cycle contain the disposition of public input received for those proposed documents. Anyone wishing to review any of the First Draft Reports for the 2019 Annual Revision Cycle may do so on each document's information page under the next edition tab. The document's specific URL, for example, www.nfpa.org/doc#next (www.nfpa.org/855next), can easily access the document's information page. For more information on the rules and for up-to-date information on schedules and deadlines for processing NFPA Documents, check the NFPA website at http://www.nfpa.org or contact NFPA's Codes and Standards Administration, at NFPA, One Batterymarch Park, Quincy, MA, 02269-7471. Those who send comments to NFPA on the related documents are invited to copy ANSI's Board of Standards Review.

NFPA (National Fire Protection Association)

New Standard

BSR/NFPA 855-201x, Standard for the Installation of Stationary Energy Storage Systems (new standard)

This standard establishes criteria for minimizing the hazards associated with energy storage systems (ESS).

Comment Deadline: August 30, 2018

The National Fire Protection Association announces the availability of the Second Draft Report on NFPA 402 for concurrent review and comment by NFPA and ANSI.

The disposition of all comments received are published in the Second Draft Report, located on the document's information page under the next edition tab. The document's specific URL, www.nfpa.org/doc#next (for example, www.nfpa.org/402 next), can easily access the document's information page. All Notices of Intent to Make A Motion on the NFPA 402 Second Draft Report must be received by August 30, 2018. For more information on the rules and for up-to-date information on schedules and deadlines for processing NFPA Documents, check the NFPA website (http://www.nfpa.org) or contact NFPA's Codes and Standards Administration. Those who send comments to NFPA (Contact Codes and Standards Administration, NFPA, One Batterymarch Park, Quincy, MA 02269-7471) on the related standards are invited to copy ANSI's Board of Standards Review.

NFPA (National Fire Protection Association)

Revision

BSR/NFPA 402-201x, Guide for Aircraft Rescue and Fire-Fighting Operations (revision of ANSI/NFPA 402-2012)

This guide provides information relative to aircraft rescue and fire-fighting operations and procedures for airport and structural fire departments. Statistics indicate that approximately 80 percent of all major commercial aircraft accidents occur in the critical rescue and fire-fighting access area. This is the primary response area for airport-based ARFF services. Approximately 15 percent of the accidents occur in the approach areas. In such instances, the community/mutual services could be the prime responders. Some airport fire departments have the total fire prevention and fire protection responsibility for the entire airport, including structural fire-fighting responsibilities in terminal buildings, aircraft hangars, airport hotels, cargo buildings, and other facilities. Procedures for these fire prevention and protection operations are not covered in this guide.
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)
Office: 4301 N. Fairfax Dr., Suite 301
        Arlington, VA 22203
Contact: Amanda Benedict
Phone: (703) 253-8284
Fax: (703) 276-0793
E-mail: abenedict@aami.org


API (American Petroleum Institute)
Office: 1220 L Street NW
        Washington, DC 20005
Contact: John Buflod
Phone: (202) 682-8344
Fax: (202) 682-8344
E-mail: buflodj@api.org

BSR/API RP 1162, 3RD EDITION-201x, Public Awareness Programs for Pipeline Operators (revision and redesignation of ANSI/API RP 1162-2003)

ATIS (Alliance for Telecommunications Industry Solutions)
Office: 1200 G Street NW
        Suite 500
        Washington, DC 20005
Contact: Alexandra Blasgen
Phone: (202) 434-8840
E-mail: ablasgen@atis.org

BSR/ATIS 0600038-201x, Intrusion of Outside Plant Cabinets (OSP) to include Insect, Water, and Dust (new standard)

CTA (Consumer Technology Association)
Office: 1919 South Eads Street
        Arlington, VA 22202
Contact: Veronica Lancaster
Phone: (703) 907-7697
Fax: (703) 907-4197
E-mail: vlancaster@cta.tech

ANSI/CEA 775-C-2008 (R2013), DTV 1394 Interface Specification (withdrawal of ANSI/CEA 775-C-2008 (R2013))

BSR/CEA 805-E-2013 (R201x), Data Services on the Component Video Interfaces (reaffirmation of ANSI/CEA 805-E-2013)


BSR/CTA 2083-201x, Requirements for Reporting Performance and Usage Information for Mobile Health Solutions (new standard)

BSR/CTA CEDIA 897-2010 (R201x), F-Connector Color Coding for Home Television Systems (reaffirmation of ANSI/CTA CEDIA 897-2010)

EOS/ESD (ESD Association, Inc.)
Office: 7900 Turin Rd., Bldg. 3
        Rome, NY 13440
Contact: Christina Earl
Phone: (315) 339-6937
Fax: (315) 339-6793
E-mail: cearl@esda.org

BSR/ESD SP5.1.4-201x, ESD Association Standard Practice for Electrostatic Discharge Sensitivity Testing - Human Body Model (HBM) Testing - Component Level - Sampling of Supply Pins (new standard)

ISA (International Society of Automation)
Office: 67 Alexander Drive
        Research Triangle Park, NC 27709
Contact: Eliana Brazda
Phone: (919) 990-9228
Fax: (919) 549-8288
E-mail: ebrazda@isa.org

BSR/ISA 62443-1-2-201x, Security for Industrial Automation and Control Systems - Part 1-2: Master Glossary of Terms and Abbreviations (new standard)

BSR/ISA 62443-2-2-201x, Security for Industrial Automation and Control Systems - Part 2-2: Industrial Automation and Control System Protection Levels (new standard)
ISEA (International Safety Equipment Association)
Office: 1901 North Moore Street
Suite 808
Arlington, VA  22209
Contact: Cristine Fargo
Phone: (703) 525-1695
Fax: (703) 525-1698
E-mail: cfargo@safetyequipment.org

BSR/ISEA 125-201x, Conformity Assessment of Safety and Personal Protective Equipment (revision of ANSI/ISEA 125-2014)

MTConnect (MTConnect Institute)
Office: 7901 Jones Branch Drive
Suite 900
McLean,
Contact: Pamela Kachel
Phone: (703) 827-5274
E-mail: pkachel@AMTonline.org

BSR/MTC 1.4-201x, MTConnect Standard V1.4 (new standard)

NFRC (National Fenestration Rating Council)
Office: 6305 Ivy Lane
Suite 140
Greenbelt, MD  20770
Contact: Robin Merrifield
Phone: (240) 821-9513
Fax: (301) 589-3884
E-mail: rmerrifield@nfrc.org

BSR/NFRC 100-201x, Procedure for Determining Fenestration Product U-factors (revision of ANSI/NFRC 100-2017)


SDI (ASC A250) (Steel Door Institute)
Office: 30200 Detroit Road
Westlake, OH  44145
Contact: Linda Hamill
Phone: (440) 899-0010
Fax: (440) 892-1404
E-mail: leh@wherryassoc.com

BSR/SDI/BHMA A250.13-2014 (R201x), Testing and Rating of Severe Windstorm Resistant Components for Swinging Door Assemblies for Protection of Building Envelopes (Not applicable for FEMA 320/361 or ICC 500 Shelters) (reaffirmation and redesignation of ANSI A250.13-2014)

UL (Underwriters Laboratories, Inc.)
Office: 12 Laboratory Drive
Research Triangle Park, NC  27709-3995
Contact: Wathma Jayathilake
Phone: (613) 368-4432
E-mail: Wathma.Jayathilake@ul.com

BSR/UL 768-2013 (R201x), Standard for Combination Locks (reaffirmation of ANSI/UL 768-2013)

BSR/UL 1256-2013 (R201x), Standard for Fire Test of Roof Deck Constructions (reaffirmation of ANSI/UL 1256-2013)

BSR/UL 1486-2003 (R201x), Standard for Quick Opening Devices for Dry Pipe Valves for Fire Protection Service (reaffirmation of ANSI/UL 1486-2003 (R2013))

BSR/UL 2043-2013 (R201x), Standard for Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces (reaffirmation of ANSI/UL 2043-2013)
Call for Members (ANS Consensus Bodies)

Call for Committee Members

ASC O1 – Safety Requirements for Woodworking Machinery

Are you interested in contributing to the development and maintenance of valuable industry safety standards? The ASC O1 is currently looking for members in the following categories:

- General Interest
- Government
- Producer
- User

If you are interested in joining the ASC O1, contact WMMA Associate Director Jennifer Miller at jennifer@wmma.org.
AAFS (American Academy of Forensic Sciences)

New Standard


ADA (American Dental Association)

New National Adoption


ASME (American Society of Mechanical Engineers)

Revision

ANSI/ASME PTC 36-2018, Measurement of Industrial Sound (revision of ANSI/ASME PTC 36-2004 (R2013)): 5/15/2018

ASTM (ASTM International)

New Standard


Revision

ANSI/ASTM D2992-2018, Practice for Obtaining Hydrostatic or Pressure Design Basis for Fiberglass (Glass-Fiber-Reinforced Thermosetting-Resin) Pipe and Fittings (revision of ANSI/ASTM D2992-2012): 5/15/2018

AWWA (American Water Works Association)

New Standard

ANSI/AWWA C519-2018, High Performance Butterfly Valves, 3 In. (80 mm) through 60 In. (1,500 mm) (new standard): 5/18/2018

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

Revision

ANSI/CSA B45.8/IAPMO Z403-2018, Terrazzo, concrete, and natural stone plumbing fixtures (revision of ANSI/CSA B45.8/IAPMO Z403-2013): 5/18/2018

IEEE (Institute of Electrical and Electronics Engineers)

New Standard

ANSI/IEEE 802.1AC-2016, Standard for Local and metropolitan area networks - Media Access Control (MAC) Service Definition (new standard): 5/18/2018

Revision


UL (Underwriters Laboratories, Inc.)

New Standard

ANSI/UL 2258-2018, Standard for Aboveground Nonmetallic Tanks for Fuel Oil and Other Combustible Liquids (new standard): 5/17/2018
ANSI/UL 2258-2018a, Standard for Aboveground Nonmetallic Tanks for Fuel Oil and Other Combustible Liquids (new standard): 5/17/2018

Revision

BSR/ASB Std 064-201x, Standard Test Method for Measuring Trigger Pull of Firearms (new standard)

Stakeholders: Firearm and tool mark examiners or technicians.

Project Need: This document will provide a standard for measuring the trigger pull of firearms. This document expands and provides greater specificity than current guidelines. This document provides a standard for measuring the trigger pull of firearms by a forensic firearm and toolmark examiner or technician.

BSR/ASB Std 067-201x, Test Method for Measuring Trigger Pull of Firearms (new standard)

Stakeholders: Firearm and tool mark examiners or technicians; forensic service providers that provide firearm and tool mark examination services; judicial system; law enforcement investigators; and general public.

Project Need: This document is intended to provide procedures for the initial examination and classification of evidence firearms by forensic firearm and toolmark examiners or technicians. Following these procedures, an examiner or technician will be able to conduct the initial examination of a firearm, to include documentation of the received condition and physical characteristics of the firearm. This document expands and provides greater specificity than current guidelines.

This document provides standard test procedures for the physical examination and classification of a firearm by a forensic firearm and toolmark examiner or technician.

BSR/ASB Std 083-201x, Contraband Canine Detection (new standard)

Stakeholders: Federal, state, local and private sector canine detection teams; scientific and non-profit community involved in odor detection; and biological detectors involved in research.

Project Need: Currently, there are no consensus standards for canine teams (canine and handler) specifically dedicated to specialized protocols in contraband detection work. It is anticipated that implementation of universal standards will result in accurate and consistent results.

This Standard contains requirements for the development of training of canine handlers and canines and will also detail the canine team assessments and the basis for certification procedures including record keeping and document management. This Standard addresses the canine scent detection discipline of contraband which entails a canine team (canine and handler) to search for an article or a substance prohibited by law or regulation. This Standard does not include narcotics or explosives detection.
Standards Action - May 25, 2018 - Page 14 of 56 pages
BSR/ASME B89.1.13-201x, Micrometers (revision of ANSI/ASME B89.1.13-2013)

Stakeholders: Manufacturers, users, calibration laboratories, designers.
Project Need: The Standard is being revised to bring it up to date with current business practices.
This Standard is intended to provide the essential requirements for micrometers as a basis for mutual understanding between manufacturers and consumers.

ASTM (ASTM International)

Office: 100 Barr Harbor Drive
West Conshohocken, PA  19428-2959
Contact: Corice Leonard
Fax: (610) 834-3683
E-mail: accreditation@astm.org

BSR/ASTM WK63409-201x, New Specification for Boxing Headgear and Gloves (new standard)
Stakeholders: Headgear and Helmets industry.
Project Need: A need has been identified by USA Boxing to have a standardized methodology for the assessment for both gloves and headgear.
There is currently no official standard for the testing of boxing headgear and gloves.

ATIS (Alliance for Telecommunications Industry Solutions)

Office: 1200 G Street NW
Suite 500
Washington, DC  20005
Contact: Alexandra Blasgen
E-mail: ablasgen@atis.org

BSR/ATIS 0600038-201x, Intrusion of Outside Plant Cabinets (OSP) to include Insect, Water, and Dust (new standard)
Stakeholders: Communications industry.
Project Need: There is a need to expand the work done thus far on the outside plant environment to include insect, water, and dust intrusion.
This document will expand the work done thus far on the outside plant environment to include insect, water, and dust intrusion.

CSA (CSA Group)

Office: 8501 E. Pleasant Valley Road
Cleveland, OH 44131
Contact: David Zimmerman
Fax: (216) 520-8979
E-mail: david.zimmerman@csagroup.org

BSR/CSA 1800-201x, Commercial Unmanned Aircraft System (UAS) Programs and Operator Competencies (new standard)
Stakeholders: Government bodies, producers, users, and academics.
Project Need: A fully designed and implemented UAV program, including the hiring of competent operators is critical to all industries and organizations involved in drone operation. Currently, there are no specific set of accepted requirements/standards provided to guide the process. An acceptable program would add tremendous value in commercial/professional operations and public safety. As the advancements in commercial drone use increases, there are significant opportunities to safeguard both the manned aviation sector and the public as the frequency, duration, and risks associated with unmanned flight increases.
This standard shall cover the minimum requirements related to the establishment and implementation of Unmanned Aircraft System (UAS) programs for commercial and professional use. It shall cover the following details:
- the minimum training and competencies for operation and support;
- cover all relevant classes of UAVs;
- programs and operation in varied sectors (e.g., agriculture, oil and gas, emergency response, public safety, municipalities);
- programs and operation for varied tasks (e.g., inspection, monitoring, search and rescue); and
- beyond visual line of sight (BVLOS).

CTA (Consumer Technology Association)

Office: 1919 South Eads Street
Arlington, VA 22202
Contact: Veronica Lancaster
Fax: (703) 907-4197
E-mail: vlancaster@cta.tech

* ANSI/CEA 775-C-2008 (R2013), DTV 1394 Interface Specification (withdrawal of ANSI/CEA 775-C-2008 (R2013))
Stakeholders: Consumers, manufacturers, retailers.
Project Need: Withdraw ANSI/CTA 775-C-R-2013.
CTA-775-C defines mechanisms to allow a source of MPEG service, such as a cable or terrestrial set-top box, digital VCR, or DTV to utilize the MPEG decoding and display capabilities in a DTV. A method is included to allow the OSD Producer to supply bitmap graphic overlays for blending and composition in the DTV over decoded video.

* BSR/CEA 805-E-2013 (R201x), Data Services on the Component Video Interfaces (reaffirmation of ANSI/CEA 805-E-2013)
Stakeholders: Consumers, manufacturers, retailers.
Project Need: Reaffirm ANSI/CTA 805-E.
This standard, ANSI/CEA-805-E, specifies how data services are carried on analog Component Video Interfaces (CVI), as described in CEA-770.2-C and CEA-770.3-C. CEA-805-D applies to all CE devices carrying data on the CVI vertical blanking interval (VBI). All CEA-805-E references to component video and/or component video interfaces are analog only, and no reference to digital is implied.

Stakeholders: Consumers, manufacturers, and retailers.

Project Need: To define requirements and provides recommendations to publishers, software developers, content providers, and hardware manufacturers for the data structure, usability requirements, playback systems, and delivery systems for audiobooks in digital file format. CTA-2003-C defines requirements and provides recommendations to publishers, software developers, content providers, and hardware manufacturers for the data structure, usability requirements, playback systems, and delivery systems for audiobooks in digital file format. It should be noted that throughout CTA-2003-C, the term, audiobook, is defined as any audio file or collection of audio files of primarily spoken word content that is played in a linear order. Therefore, spoken-word audio with occasional music, a narration of newspaper articles, or other similar spoken-word audio, would additionally be considered audiobooks under this standard.


Stakeholders: Consumers, manufacturers, and retailers.

Project Need: To describe a serial communication protocol that enables command and control communication between portable electronic devices and accessories attached to those devices. This document describes a serial communication protocol that enables command and control communication between portable electronic devices and accessories attached to those devices. This protocol builds upon functions provided by the MOST network developed by the MOST Cooperation. MOST is a registered trademark of the MOST Cooperation.

BSR/CTA 2083-201x, Requirements for Reporting Performance and Usage Information for Mobile Health Solutions (new standard)

Stakeholders: Consumers, health and fitness device manufacturers, and users.

Project Need: To outline minimum reporting criteria to be included with a product or service that provides mobile health solutions. This document outlines minimum reporting criteria to be included with a product or service that provides mobile health solutions. Final output could indicate how the product addresses a variety of areas of concern to the consumer, such as data sampling rates, FDA clearance, privacy and security regarding sensitive health data, data usage and disclosures, accuracy, connectivity, and other aspects.

BSR/CTA CEDIA 897-2010 (R201x), F-Connector Color Coding for Home Television Systems (reaffirmation of ANSI/CTA CEDIA 897-2010)

Stakeholders: Consumers, manufacturers, installers, retailers.

Project Need: To reaffirm ANSI/CTA/CEDIA 897. ANSI/CTA/CEDIA 897 defines the colors for marking F-connectors commonly used for electronic devices in a home television system.

IEEE (Institute of Electrical and Electronics Engineers)

Office: 445 Hoes Lane
Piscataway, NJ 08854-4141

Contact: Lisa Weisser

E-mail: l.weisser@ieee.org

BSR/IEEE 515-201x, Standard for the Testing, Design, Installation, and Maintenance of Electrical Resistance Trace Heating for Industrial Applications (new standard)

Stakeholders: Manufacturers of resistance trace heaters, designers of trace heating systems, users of trace heating systems, and approval agencies.

Project Need: IEC/IEEE 60079-30-1 and -2, joint development standards integrating IEEE 515 and IEC 60079-30, have been approved. The requirements in IEEE 515-2011 for hazardous (classified) locations will now be superseded by the requirements in IEC/IEEE 60079-30-1 and -2. IEEE 515 needs to be revised to remove hazardous location requirements and update the standard for industrial unclassified (ordinary) locations. This standard provides requirements for the testing, design, installation, and maintenance of electrical resistance trace heating in general industries as applied to pipelines, vessels, pre-traced and thermally insulated instrument tubing and piping, and mechanical equipment. The electrical resistance trace heating is in the form of series trace heaters, parallel trace heaters, and surface heating devices. The requirements also include test criteria to determine the suitability of these heating devices utilized in unclassified (ordinary) locations.

BSR/IEEE 515-201x/Cor 1-201x, Standard for the Testing, Design, Installation, and Maintenance of Electrical Resistance Trace Heating for Industrial Applications - Corrigendum 1 (new standard)

Stakeholders: Manufacturers of resistance trace heating, designers of trace heating systems, users of trace heating systems, and approval agencies.

Project Need: Corrigendum is needed for two corrections listed above. This standard provides requirements for the testing, design, installation, and maintenance of electrical resistance trace heating in general industries as applied to pipelines, vessels, pre-traced and thermally insulated instrument tubing and piping, and mechanical equipment. The electrical resistance trace heating is in the form of series trace heaters, parallel trace heaters, and surface heating devices. The requirements also include test criteria to determine the suitability of these heating devices utilized in unclassified (ordinary) locations.
BSR/IEEE 1865.1-201x, Specifications for Maintenance and Test of Distributed Control Systems in Thermal Power Stations: Maintenance and Testing (new standard)

Stakeholders: The main stakeholders expected to benefit from the proposed standard are power plant operators, authorities, engineering contractors, and/or the public.

Project Need: A DCS is a dedicated computerized system used to control manufacturing processes in various industries. It is typically composed of functionally and/or geographically distributed digital controllers connected by networks for communication and monitoring. DCSs designed for power plants are generally integrated systems composed of computer systems and control devices for electricity-generating units. Recently, the widespread use and development of DCSs in such plants have significantly improved operational safety and production efficiency, and have reduced unnecessary costs by supplying reliable real-time data for decision-making. Due to the severe operational environments in power plants, ensuring proper operation and maintenance of DCSs is critical to the stable production performance of power plants. As a result, it is necessary to establish standard specifications for maintaining and testing distributed control systems.

This standard specifies the basic principles, contents, methods, performance indicators, and acceptance requirements for scheduled maintenance and testing of distributed control systems.

Stakeholders: The main stakeholders expected to benefit from the proposed standard are power plant operators, authorities, engineering contractors, and/or the public.

Project Need: A distributed control system (DCS) is a dedicated computerized system used to control manufacturing processes in various industries. It is typically composed of functionally and/or geographically distributed digital controllers connected by networks for communication and monitoring. DCSs designed for power plants are generally integrated systems composed of computer systems and control devices for electricity-generating units. Recently, the widespread use and development of DCSs in such plants have significantly improved operational safety and production efficiency, and have reduced unnecessary costs by supplying reliable real-time data for decision-making. Due to the severe operational environments in power plants, ensuring proper operation and maintenance of DCSs is critical to the stable production performance of power plants. As a result, it is necessary to establish standard specifications for

This standard defines mechanisms and procedures for the operation and management of DCSs in thermal power stations in commercial operation, enabling stable and reliable DCS operation.

BSR/IEEE 1865.2-201x, Specifications for Maintenance and Test of Distributed Control Systems in Thermal Power Stations: Operation Service and Management (new standard)

Stakeholders: The main stakeholders expected to benefit from the proposed standard are power plant operators, authorities, engineering contractors, and/or the public.

Project Need: A distributed control system (DCS) is a dedicated computerized system used to control manufacturing processes in various industries. It is typically composed of functionally and/or geographically distributed digital controllers connected by networks for communication and monitoring. DCSs designed for power plants are generally integrated systems composed of computer systems and control devices for electricity-generating units. Recently, the widespread use and development of DCSs in such plants have significantly improved operational safety and production efficiency, and have reduced unnecessary costs by supplying reliable real-time data for decision-making. Due to the severe operational environments in power plants, ensuring proper operation and maintenance of DCSs is critical to the stable production performance of power plants. As a result, it is necessary to establish standard specifications for

This standard specifies the basic principles, contents, methods, performance indicators, and acceptance requirements for scheduled maintenance and testing of distributed control systems.

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Project Need: A distributed control system (DCS) is a dedicated computerized system used to control manufacturing processes in various industries. It is typically composed of functionally and/or geographically distributed digital controllers connected by networks for communication and monitoring. DCSs designed for power plants are generally integrated systems composed of computer systems and control devices for electricity-generating units. Recently, the widespread use and development of DCSs in such plants have significantly improved operational safety and production efficiency, and have reduced unnecessary costs by supplying reliable real-time data for decision-making. Due to the severe operational environments in power plants, ensuring proper operation and maintenance of DCSs is critical to the stable production performance of power plants. As a result, it is necessary to establish standard specifications for

This standard defines mechanisms and procedures for the operation and management of DCSs in thermal power stations in commercial operation, enabling stable and reliable DCS operation.
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.

This part of the ISA 62443 series specifies a framework and structure for evaluating the defense-in-depth strategy of the IACS in the context of industrial automation and control systems. It includes a procedure for combining the evaluation of organizational and technical security measures in numerical values called “protection levels.” The framework provides the structure for evaluating the defense-in-depth strategy of the IACS in operation, based on the technical and organizational requirements specified in other documents of the ISA 62443 series as well as references to other standards contained within them where applicable, such as ISO/IEC 27001. Protection levels can be applied to the whole IACS as well as to zones and conduits within an IACS.

The purpose of this document is to describe the Common Intermediate Format MPD including its elements, attributes, and values. The CIF MPD or CIF manifest is created from the parsing of an MPEG Transport Stream that is marked up and conditioned for virtual segmentation. A downstream device such as a packager can then use the CIF MPD to request and extract segments that can be modified to support various types of adaptive streaming technologies in the client.
American National Standards Maintained 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-AGRSS (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)
- 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, Inc.)

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 “Standards Activities,” click on “Public Review and Comment” and “American National Standards Maintained Under Continuous Maintenance.” This information is also available directly at www.ansi.org/publicreview

Alternatively, you may contact the Procedures & Standards Administration department (PSA) at psa@ansi.org or via fax at 212-840-2298. If you request that information be provided via E-mail, please include your E-mail address; if you request that information be provided via fax, please include your fax number. Thank you.
ANSI-Accredited Standards Developers Contact Information

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.

AAFS
American Academy of Forensic Sciences
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AAMI
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Arlington, VA 22203
Phone: (703) 253-8284
Fax: (703) 276-0793
Web: www.aami.org

ADA (Organization)
American Dental Association
211 East Chicago Avenue
Chicago, IL 60611-2678
Phone: (312) 587-4129
Fax: (312) 440-2529
Web: www.ada.org

AMCI
AMC Institute
1940 Duke Street
Suite 200
Alexandria, VA 22314
Phone: (703) 570-8954
Web: www.amc institute.org

API
American Petroleum Institute
1220 L Street NW
Washington, DC 20005
Phone: (202) 682-8344
Fax: (202) 682-8344
Web: www.api.org

ASABE
American Society of Agricultural and Biological Engineers
2950 Niles Road
Saint Joseph, MI 49085
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Web: www.asabe.org

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1625 Prince Street
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ASME
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Web: www.asme.org

ASTM
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Web: www.astm.org

ATIS
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AWWA
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IEEE
Institute of Electrical and Electronics Engineers
445 Hoes Lane
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Web: www.ieee.org

InfoComm
InfoComm International
Phone: (703) 273-7200
Web: www.infocomm.org

ISO (Organization)
International Organization for Standardization
67 Alexander Drive
Research Triangle Park, NC 27709
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Fax: (919) 549-8288
Web: www.iso.org

ISEA
International Safety Equipment Association
1901 North Moore Street
Suite 808
Arlington, VA 22209
Phone: (703) 525-1695
Fax: (703) 525-1698
Web: www.safetyequipment.org

MTConnect
MTConnect Institute
7901 Jones Branch Drive
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McLean, VA 22102-4206
Phone: (703) 827-5274
Web: www.mtconnect.org

NFPA
National Fire Protection Association
One Batterypark Place
Quincy, MA 02169
Phone: (617) 984-7246
Web: www.nfpa.org

NFRC
National Fenestration Rating Council
6305 Ivy Lane
Suite 140
Greenbelt, MD 20770
Phone: (240) 821-9513
Fax: (301) 589-3884
Web: www.nfrc.org

SCTE
Society of Cable Telecommunications Engineers
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SDI (ASC A250)
Steel Door Institute
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Westlake, OH 44145
Phone: (440) 899-0010
Fax: (440) 892-1404
Web: www.wherryassocsteel door.org

UL
Underwriters Laboratories, Inc.
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Northbrook, IL 60062
Phone: (847) 664-3198
Fax: (847) 664-3198
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ISO & IEC Draft International Standards

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

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

ISO Standards

AGRICULTURAL FOOD PRODUCTS (TC 34)
ISO/DIS 19036, Microbiology of the food chain - Estimation of measurement uncertainty for quantitative determinations - 6/10/2018, $98.00

AIR QUALITY (TC 146)
ISO/DIS 16000-38, Indoor air - Part 38: Determination of amines in indoor and test chamber air - Active sampling on samplers containing phosphoric acid impregnated filters - 8/4/2018, $58.00
ISO/DIS 16000-40, Indoor air - Part 40: Indoor air quality management system - 8/11/2018, $82.00

AIRCRAFT AND SPACE VEHICLES (TC 20)
ISO/DIS 10795, Space systems - Programme management and quality - Vocabulary - 8/6/2018, $107.00

CONCRETE, REINFORCED CONCRETE AND PRE-STRESSED CONCRETE (TC 71)
ISO/DIS 1920-6, Testing of concrete - Part 6: Sampling, preparing and testing of concrete cores - 8/6/2018, $46.00

DIMENSIONAL AND GEOMETRICAL PRODUCT SPECIFICATIONS AND VERIFICATION (TC 213)
ISO/DIS 25178-73, Geometrical product specifications (GPS) - Surface texture: Areal - Part 73: Material measures - Terms and definitions for surface defects - 6/9/2018, $46.00

FLUID POWER SYSTEMS (TC 131)
ISO/DIS 10763, Hydraulic fluid power - Plain-end, seamless and welded precision steel tubes - Dimensions and nominal working pressures - 8/9/2018, $33.00

HYDROMETRIC DETERMINATIONS (TC 113)
ISO/DIS 8368, Hydrometric determinations - Flow measurements in open channels using structures - Guidelines for selection of structure - 6/7/2018, $93.00

IMPLANTS FOR SURGERY (TC 150)
ISO 7199/DAm1, Cardiovascular implants and artificial organs - Blood-gas exchangers (oxygenators) - Amendment 1: Connectors - 6/7/2018, $53.00
ISO 15674/DAm1, Cardiovascular implants and artificial organs - Hard-shell cardiectomy/venous reservoir systems (witith/without filter) and soft venous reservoir bags - Amendment 1: Connectors - 6/7/2018, $53.00
ISO 15675/DAm1, Cardiovascular implants and artificial organs - Cardiopulmonary bypass systems - Arterial blood line filters - Amendment 1: Connectors - 6/7/2018, $53.00
ISO 18241/DAm1, Cardiovascular implants and extracorporeal systems - Cardiopulmonary bypass systems - Venous bubble traps - Amendment 1 - 6/7/2018, $53.00

MACHINE TOOLS (TC 39)
ISO/DIS 10791-7, Test conditions for machining centres - Part 7: Accuracy of finished test piece - 6/7/2018, $98.00

PAINTS AND VARNISHES (TC 35)
ISO/DIS 22970, Paints and varnishes - Test method for evaluation of adhesion of elastic adhesives on coatings by peel test, peel strength test and tensile lap-shear strength test with additional stress by condensation test or cataplasm storage - 8/3/2018, $82.00

PERSONAL SAFETY - PROTECTIVE CLOTHING AND EQUIPMENT (TC 94)
ISO/DIS 16321-1, Eye and face protection for occupational use - Part 1: General requirements - 6/11/2018, $112.00

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/DIS 16321-2, Eye and face protection for occupational use - Part 2: Additional requirements for protectors used during welding and related techniques - 6/11/2018, $77.00
ISO/DIS 16321-3, Eye and face protection for occupational use - Part 3: Additional requirements for mesh protectors - 6/11/2018, $46.00
ISO/DIS 18526-1, Eye and face protection - Test methods - Part 1: Geometrical optical properties - 6/11/2018, $58.00
ISO/DIS 18526-2, Eye and face protection - Test methods - Part 2: Physical optical properties - 6/11/2018, $146.00
ISO/DIS 18526-3, Eye and face protection - Test methods - Part 3: Physical and mechanical properties - 6/11/2018, $125.00
ISO/DIS 18526-4, Eye and face protection - Test methods - Part 4: Headforms - 6/11/2018, $62.00

PETROLEUM PRODUCTS AND LUBRICANTS (TC 28)
ISO/DIS 20424, Fatty Acid Methyl Esters (FAME) - Determination of sulfur content - Inductively coupled plasma optical emission spectrometry (ICP-OES) method - 8/4/2018, $53.00

PHOTOGRAPHY (TC 42)
ISO/DIS 15781, Photography - Digital still cameras - Measuring shooting time lag, shutter release time lag, shooting rate, and start-up time lag - 6/8/2018, $102.00

PLASTICS (TC 61)
ISO/DIS 527-1, Plastics - Determination of tensile properties - Part 1: General principles - 8/3/2018, $88.00
ISO/DIS 21194, Structural adhesives - Testing of adhesively bonded joints - Bead peel test - 6/8/2018, $46.00
ISO/DIS 22633, Adhesives - Test methods for adhesives for floor coverings and wall coverings - Determination of the dimensional changes of a linoleum floor covering in contact with an adhesive - 6/8/2018, $40.00
ISO/DIS 22635, Adhesives - Test method for adhesives for plastic or rubber floor coverings or wall coverings - Determination of dimensional changes after accelerated ageing - 6/8/2018, $46.00
ISO/DIS 22637, Adhesives - Test of adhesive for floor covering - Determination of the electrical resistance of adhesive films and composites - 6/8/2018, $46.00
ISO/DIS 6721-11, Plastics - Determination of dynamic mechanical properties - Part 11: Glass transition temperature - 6/8/2018, $58.00

PLASTICS PIPES, FITTINGS AND VALVES FOR THE TRANSPORT OF FLUIDS (TC 138)
ISO/DIS 9624, Thermoplastics pipes for fluids under pressure - Mating dimensions of flange adapters and loose backing flanges - 8/3/2018, $71.00

PULLEYS AND BELTS (INCLUDING VEEBELTS) (TC 41)
ISO/DIS 9981, Belt drives - Pulleys and V-ribbed belts for the automotive industry - PK profile: Dimensions - 6/10/2018, $53.00

QUALITY MANAGEMENT AND CORRESPONDING GENERAL ASPECTS FOR MEDICAL DEVICES (TC 210)
ISO/DIS 14971, Medical devices - Application of risk management to medical devices - 8/12/2018, $112.00

REFRIGERATION (TC 86)

ROAD VEHICLES (TC 22)

ROLLING BEARINGS (TC 4)
ISO/DIS 355, Rolling bearings - Tapered roller bearings - Boundary dimensions and series designations - 6/7/2018, $102.00

RUBBER AND RUBBER PRODUCTS (TC 45)
ISO/DIS 1656, Rubber, raw natural, and rubber latex, natural - Determination of nitrogen content - 8/11/2018, $52.00

SERVICE ACTIVITIES RELATING TO DRINKING WATER SUPPLY SYSTEMS AND WASTEWATER SYSTEMS - QUALITY CRITERIA OF THE SERVICE AND PERFORMANCE INDICATORS (TC 224)
ISO/DIS 24526, Water efficiency management systems - Requirements with guidance for use - 8/3/2018, $107.00

SURFACE CHEMICAL ANALYSIS (TC 201)
ISO/DIS 22415, Surface chemical analysis - Secondary ion mass spectrometry - Method for determining yield volume in argon cluster sputter depth profiling of organic materials - 8/12/2018, $82.00

SUSTAINABLE DEVELOPMENT IN COMMUNITIES (TC 268)
ISO/DIS 37105, Sustainable cities and communities - Descriptive framework for cities and communities - 8/2/2018, $125.00
ISO/DIS 37159, Smart community infrastructures - Smart transportation for rapid transit in/between large city zones and the surrounding areas - 6/11/2018, $58.00

TOBACCO AND TOBACCO PRODUCTS (TC 126)
ISO/DIS 22253, Cigarettes - Determination of nicotine in total particulate matter from the mainstream smoke under intense smoking conditions - Gas-chromatographic method - 6/8/2018, $53.00

TRADITIONAL CHINESE MEDICINE (TC 249)
ISO/DIS 22988, Traditional Chinese medicine - Astragalus mongholicus root - 8/11/2018, $71.00

ISO/IEC JTC 1, Information Technology
ISO/IEC 14496-10/DAmd1, Information technology - Coding of audio-visual objects - Part 10: Advanced Video Coding - Amendment 1: Level 5.2 and progressive high profile - 8/12/2018, $107.00
ISO/IEC 14496-12/DAmd1, Information technology - Coding of audio-visual objects - Part 12: ISO base media file format - Amendment 1: Compact Sample-To-Group, new capabilities for tracks, and other improvements - 8/4/2018, $71.00
ISO/IEC 23001-10/DAmd2, Information technology - MPEG systems technologies - Part 10: Carriage of timed metadata metrics of media in ISO base media file format - Amendment 2: Support for encoded regions of interest - 8/6/2018, $29.00
ISO/IEC DIS 19515, Information technology - Object Management Group Automated Function Points (AFP), 1.0 - 8/11/2018, $102.00
ISO/IEC DIS 24761, Information technology - Security techniques - Authentication context for biometrics - 8/9/2018, $146.00
ISO/IEC DIS 26552, Software and systems engineering - Tools and methods for product line architecture design - 6/10/2018, $125.00
ISO/IEC DIS 21122-1, Information technology - Low-latency lightweight image coding system - Part 1: Core coding system - 6/8/2018, $146.00
ISO/IEC DIS 23000-22, Information technology - Multimedia application format (MPEG-A) - Part 22: Multi-Image Application Format (MIAF) - 8/4/2018, $93.00

IEC Standards

22F/486/CD, IEC TR 62757/AMD1 ED1: Fire prevention measures on converters for high-voltage direct current (HVDC) systems, static var compensators (SVC) and flexible AC transmission systems (FACTS) and their valve halls, 2018/7/13
22F/487/CD, IEC 62823/AMD1 ED1: Thyristor valves for thyristor controlled series capacitors (TCSC) - Electrical testing, 2018/7/13
23A/851A/FDIS, IEC 62275 ED3: Cable management systems - Cable ties for electrical installations, 2018/6/22
25/624/CD, IEC 80000-6 ED2: Quantities and units - Part 6: Electromagnetism, 018/9/7/
31/1387/NP, PNW 31-1387: Workplace atmospheres - Part 3: Gas detectors - Electrical apparatus for the detection and measurement of oxygen - Performance requirements and test methods, 2018/8/10
49/1281/CDV, IEC 60122-4 ED1: Quartz crystal units of assessed quality - Part 4: Crystal units with thermistors, 2018/8/10
59A/217/CD, IEC 63136 ED1: Electric dishwashers for commercial use - Test methods for measuring the performance, 018/9/7/
61C/732(F)/CDV, IEC 60335-2-89 ED3: Household and similar electrical appliances - Safety - Part 2-89: Particular requirements for commercial refrigerating appliances with an incorporated or remote refrigerant unit or compressor, 2018/7/13
65E/589/CDV, IEC 62769-2 ED2: Field Device Integration (FDI) - Part 2: FDI Client, 2018/8/10
65E/590/CDV, IEC 62769-3 ED2: Field Device Integration (FDI) - Part 3: FDI Server, 2018/8/10
65E/592/CDV, IEC 62769-5 ED2: Field Device Integration (FDI) - Part 5: FDI Information Model, 2018/8/10
65E/593/CDV, IEC 62769-6 ED2: Field Device Integration (FDI) - Part 6: FDI Technology Mapping, 2018/8/10
65E/588/CDV, IEC 62769-1 ED2: Field Device Integration (FDI) - Part 1: Overview, 2018/8/10
65E/594/CDV, IEC 62769-7 ED2: Field Device Integration (FDI) - Part 7: FDI Communication Devices, 2018/8/10
65E/591/CDV, IEC 62769-4 ED2: Field Device Integration (FDI) - Part 4: FDI Packages, 2018/8/10
72/1140/NP, PNW 72-1140: Automatic electrical controls - Part 2-xx: Particular requirements for displacement sensing controls, 2018/8/10

82/1427/CD, IEC 63104 ED1: Solar trackers - Safety requirements, 2018/7/13
82/1430/NP, PNW TS 82-1430: Extended-stress testing of photovoltaic modules for risk analysis, 2018/8/10
88/684/NP, PNW 88-684: Wind energy generation systems - Marking and lighting of wind turbines (proposed IEC 61400-29), 2018/8/10
90/404/FDIS, IEC 61788-25 ED1: Superconductivity - Part 25: Mechanical properties measurement - Room temperature tensile test on REBCO wires, 2018/6/29
90/405/CD, IEC 61788-7 ED3: Superconductivity - Part 7: Electronic characteristic measurements - Surface resistance of superconductors at microwave frequencies, 2018/8/10
115/187/CD, IEC TS 62344/AMD1 ED1: Design of earth electrode stations for high-voltage direct current (HVDC) links - General guidelines, 2018/8/10
121A/227/CD, IEC TR 63201 ED1: Low-voltage switchgear and controlgear - Guidance for the development of embedded software, 018/9/7/
CIS/I/587/CD, Amendment 1 - CISPR 32: Electromagnetic compatibility of multimedia equipment - Emission requirements - Fragment 6, 2018/8/10
Newly Published ISO & IEC Standards

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

ISO Standards

ISO/IEC JTC 1 Technical Reports

ISO/IEC TR 29196:2018, Information technology - Guidance for biometric enrolment, $209.00

APPLICATIONS OF STATISTICAL METHODS (TC 69)
ISO 39511:2018, Sequential sampling plans for inspection by variables for percent nonconforming (known standard deviation), $162.00

CORROSION OF METALS AND ALLOYS (TC 156)
ISO 16151:2018, Corrosion of metals and alloys - Accelerated cyclic test with exposure to acidified salt spray, dry and wet conditions, $138.00

DENTISTRY (TC 106)
ISO 10637:2018, Dentistry - Central suction source equipment, $103.00

IMPLANTS FOR SURGERY (TC 150)
ISO 14242-4:2018, Implants for surgery - Wear of total hip-joint prostheses - Part 4: Testing hip prostheses under variations in component positioning which results in direct edge loading, $68.00

MATERIALS, EQUIPMENT AND OFFSHORE STRUCTURES FOR PETROLEUM AND NATURAL GAS INDUSTRIES (TC 67)
ISO 10855-1:2018, Offshore containers and associated lifting sets - Part 1: Design, manufacture and marking of offshore containers, $162.00
ISO 10855-2:2018, Offshore containers and associated lifting sets - Part 2: Design, manufacture and marking of lifting sets, $103.00
ISO 10855-3:2018, Offshore containers and associated lifting sets - Part 3: Periodic inspection, examination and testing, $103.00

PHOTOGRAPHY (TC 42)
ISO 18944:2018, Imaging materials - Reflection colour photographic prints - Test print construction and measurement, $138.00

PLASTICS (TC 61)
ISO 2555:2018, Plastics - Resins in the liquid state or as emulsions or dispersions - Determination of apparent viscosity using a single cylinder type rotational viscometer method, $103.00
ISO 20557-2:2018, Plastics - Poly(phenylene ether) (PPE) moulding and extrusion materials - Part 2: Preparation of test specimen and determination of properties, $45.00

PLASTICS PIPES, FITTINGS AND VALVES FOR THE TRANSPORT OF FLUIDS (TC 138)
ISO 10467:2018, Plastics piping systems for pressure and non-pressure drainage and sewerage - Glass-reinforced thermosetting plastics (GRP) systems based on unsaturated polyester (UP) resin, $209.00
ISO 10471:2018, Glass-reinforced thermosetting plastics (GRP) pipes - Determination of the long-term ultimate bending strain and the long-term ultimate relative ring deflection under wet conditions, $68.00

PULLEYS AND BELTS (INCLUDING VEEBELTS) (TC 41)
ISO 7590:2018, Steel cord conveyor belts - Methods for the determination of total thickness and cover thickness, $68.00

ROAD VEHICLES (TC 22)
ISO 7638-1:2018, Road vehicles - Connectors for the electrical connection of towing and towed vehicles - Part 1: Connectors for braking systems and running gear of vehicles with 24 V nominal supply voltage, $68.00
ISO 7638-2:2018, Road vehicles - Connectors for the electrical connection of towing and towed vehicles - Part 2: Connectors for braking systems and running gear of vehicles with 12 V nominal supply voltage, $68.00

SIEVES, SIEVING AND OTHER SIZING METHODS (TC 24)

SMALL CRAFT (TC 188)
ISO 16147:2018, Small craft - Inboard diesel engines - Engine-mounted fuel, oil and electrical components, $45.00

STEEL (TC 17)
ISO 9443:2018, Surface quality classes for hot-rolled bars and wire rod, $68.00
ISO 19203:2018, Hot-dip galvanized and zinc-aluminium coated high tensile steel wire for bridge cables - Specifications, $103.00

THERMAL INSULATION (TC 163)
ISO 20310:2018, Thermal insulation for building equipment and industrial installations - Aluminosilicate wool products - Specification, $68.00

TRACTORS AND MACHINERY FOR AGRICULTURE AND FORESTRY (TC 23)
ISO 5687:2018, Equipment for harvesting - Combine harvesters - Determination and designation of grain tank capacity and unloading device performance, $45.00

WATER QUALITY (TC 147)
ISO 20950-1:2018, Water quality - Determination of available weak and dissociable (WAD) cyanide - Part 1: Method using ligand exchange, flow injection analysis (FIA), gas-diffusion and amperometric detection, $103.00

ISO Technical Reports

MACHINE TOOLS (TC 39)

ISO Technical Specifications

HEALTH INFORMATICS (TC 215)
ISO/TS 20405:2018, Health informatics - Framework of event data and reporting definitions for the safety of health software, $103.00

ISO/IEC JTC 1, Information Technology

ISO/IEC 8824-3/Cor1:2018, Information technology - Abstract Syntax Notation One (ASN.1): Constraint specification - Corrigendum, FREE
ISO/IEC 8825-4/Cor1:2018, Information technology - ASN.1 encoding rules: XML Encoding Rules (XER) - Corrigendum, FREE
ISO/IEC TS 20540:2018, Information technology - Security techniques - Testing cryptographic modules in their operational environment, $185.00
ISO/IEC TS 21544:2018, Programming languages - Extensions to C++ for modules, $162.00

IEC Standards

CAPACITORS AND RESISTORS FOR ELECTRONIC EQUIPMENT (TC 40)
IEC 60384-26 Ed. 2.0 b:2018, Fixed capacitors for use in electronic equipment - Part 26: Sectional specification - Fixed aluminium electrolytic capacitors with conductive polymer solid electrolyte, $305.00

ELECTROMECHANICAL COMPONENTS AND MECHANICAL STRUCTURES FOR ELECTRONIC EQUIPMENTS (TC 48)
IEC 62610-2 Ed. 1.0 b:2018, Mechanical structures for electrical and electronic equipment - Thermal management for cabinets in accordance with IEC 60297 and IEC 60917 series - Part 2: Method for the determination of forced air cooling structure, $117.00

FIBRE OPTICS (TC 86)
IEC 60794-1-31 Ed. 1.0 en:2018, Optical fibre cables - Part 1-31: Generic specification - Optical cable elements - Optical fibre ribbon, $47.00

NUCLEAR INSTRUMENTATION (TC 45)
IEC 62808 Ed. 1.1 en:2018, Nuclear power plants - Instrumentation and control systems important to safety - Design and qualification of isolation devices, $176.00
IEC 62808 Amd.1 Ed. 1.0 en:2018, Amendment 1 - Nuclear power plants - Instrumentation and control systems important to safety - Design and qualification of isolation devices, $12.00
IEC 62887 Ed. 1.0 b:2018, Nuclear power plants - Instrumentation systems important to safety - Pressure transmitters: Characteristics and test methods, $199.00

OTHER
CISPR 15 Ed. 9.0 b:2018, Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment, $352.00

SWITCHGEAR AND CONTROLGEAR (TC 17)
IEC 62271-102 Ed. 2.0 b:2018, High-voltage switchgear and controlgear - Part 102: Alternating current disconnectors and earthing switches, $375.00

TERMINOLOGY (TC 1)
IEC 60050-511 Ed. 1.0 b:2018, International electrotechnical vocabulary - Part 511: Nano-enabled electrotechnical products and systems, $47.00
Registration of Organization Names in the United States

The Procedures for Registration of Organization Names in the United States of America (document ISSB 989) require that alphanumeric organization names be subject to a 90-day Public Review period prior to registration. For further information, please contact the Registration Coordinator at (212) 642-4975.

The following is a list of alphanumeric organization names that have been submitted to ANSI for registration. 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

Antech Imaging Services
Public Review: March 9 to June 1, 2018
South Carolina Law Enforcement Division (SLED)
Public Review: April 27 to July 23, 2018

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.


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

For further information about the USA TBT Inquiry Point, please visit https://www.nist.gov/standardsgov/what-we-do/trade-regulatory-programs/usa-wto-tbt-inquiry-point

Contact the USA TBT Inquiry Point at:(301) 975-2918; Fax: (301) 926-1559; E-mail: usatbt@nist.gov or notifyus@nist.gov.
American National Standards

Call for Members

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

Society of Cable Telecommunications

ANSI Accredited Standards Developer

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 AN onsenus 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 a materially affected parties as defined in SCTE’s membership rules and operating procedures. More information is available at www.scte.org or by e-mail from standards@scte.org.

ANSI Accredited Standards Developers

Change of ASD Name

American Society of Safety Engineers (ASSE) Becomes American Society of Safety Professionals (ASSP)

Effective June 1, 2018, please be advised that the American Society of Safety Engineers (ASSE), an ANSI member and Accredited Standards Developer (ASD), will be known formally as the American Society of Safety Professionals (ASSP). For any related questions, please contact: Mr. Timothy R. Fisher, CSP, CHMM, ARM, CAE, CPEA, STS, Director, Standards and Technical Services, American Society of Safety Professionals, 520 N. Northwest Highway, Park Ridge, IL 60068; phone: 847.768.3411; e-mail: TFisher@ASSE.org.

Approval of Reaccreditation

ASC OP – Optics and Electro-Optical Instruments

The reaccreditation of Accredited Standards Committee OP, Optics and Electro-Optical Instruments, has been approved at the direction of ANSI’s Executive Standards Council, under its recently revised operating procedures for documenting consensus on ASC OP-sponsored American National Standards, effective May 18, 2018. For additional information, please contact the Secretariat of ASC OP: Mr. Allen Krisiloff, Executive Director, Optics and Electro-Optics Standards Council, c/o Triptar Lens Company, Inc., 439 Monroe Avenue, Rochester, NY 14607; phone: 585.473.4470; e-mail: allen@oeosc.org.

ASC Z80 – Ophthalmic Standards

The reaccreditation of Accredited Standards Committee Z80, Ophthalmic Standards, has been approved at the direction of ANSI’s Executive Standards Council, under its recently revised operating procedures for documenting consensus on ASC Z80-sponsored American National Standards, effective May 23, 2018. For additional information, please contact the Secretariat of ASC Z80: Ms. Michele Stolberg, ASC Z80 Administrator, The Vision Council, 225 Reineckers Lane, Suite 700, Alexandria, VA 22314; phone: 703.548.4560; e-mail: ascz80@thevisioncouncil.org.

ASC Z133 – Safety in Tree Trimming Operations

The reaccreditation of Accredited Standards Committee Z133, Safety in Tree Trimming Operations, has been approved at the direction of ANSI’s Executive Standards Council, under its recently revised operating procedures for documenting consensus on ASC Z133-sponsored American National Standards, effective May 22, 2018. For additional information, please contact the Secretariat of ASC Z133: Ms. Tricia Duzan, Educational Programming Manager, Educational Products and Services, International Society of Arboriculture, P.O. Box 3129, Champaign, IL 61826-3129; phone: 217.355.9411; e-mail: tduzan@isa-arbor.com
U.S. Technical Advisory Groups

Approval of TAG Accreditation

U.S. TAG to ISO PC 316 – Water Efficient Products – Banding

ANSI’s Executive Standards Council (ExSC) has formally approved the accreditation of the U.S. Technical Advisory Group to ISO PC 316, Water efficient products – Banding under the Model Operating Procedures for U.S. Technical Advisory Groups to ANSI for ISO Activities (Annex A of the ANSI International Procedures) with the International Association of Plumbing and Mechanical Officials (IAPMO) serving as TAG Administrator, effective May 18, 2018. For additional information, please contact: Mr. Pete DeMarco, Executive Vice-President of Advocacy and Research, IAPMO, 4755 E. Philadelphia Street, Ontario, CA 91761; phone: 732.329.1237; e-mail: pete.demarco@iapmo.org.

Approval of Reaccreditation

U.S. TAG to ISO TC 171/SC 2 – Document File Formats, EDMS Systems and Authenticity of Information

ANSI’s Executive Standards Council has approved the reaccreditation of the U.S. Technical Advisory Group to ISO TC 171/SC 2, Document file formats, EDMS systems and authenticity of information under its recently revised operating procedures, effective May 18, 2018. For additional information, please contact the TAG Administrator of the U.S. TAG to ISO TC 171/SC 2: Ms. Betsy Fanning, CIP, Director of Standards, 3D PDF Consortium, 3855 SW 153rd Drive, Pace, FL 32571; phone: 571.218.9817; e-mail: betsy.fanning@3dpdfconsortium.org.
Information Concerning

Meeting Notice and Call for Members for the New INCITS Technical Committee on Governance of Organizations (US TAG to ISO/TC 309)

Organizational Meeting – Tuesday, June 19, 2018. The organizational meeting of the new committee INCITS/Governance of Organizations will be held via WebEx on Tuesday, June 19, 2018 from 11:00 AM to 5:00 PM (Eastern time). The agenda, related documents and instructions for joining the WebEx meeting will be distributed to organizational representatives requesting membership on the new committee. RSVPs for the meeting should be submitted to Jennifer Garner (jgarner@itic.org) as soon as possible.

The INCITS Executive Board established a new Technical Committee INCITS/Governance of Organizations and delegated the US TAG responsibilities for ISO/TC 309 to this new INCITS Technical Committee.

Scope of ISO/TC 309 – Standardization in the field of governance relating to aspects of direction, control and accountability of organizations.

The INCITS committee will operate under the ANSI-accredited procedures for the InterNational Committee for Information Technology Standards (INCITS); (see INCITS Organization, Policies and Procedures). Additional information can also be found at http://www.INCITS.org and http://www.incits.org/participation/membership-info.

The complete meeting notice and membership information can be found at https://standards.incits.org/apps/group_public/document.php?document_id=98060&wg_abbrev=governance.
BSR/AMCI A100.1-201x

American National Standard

An American National Standard implies a consensus of those substantially concerned with its scope and provisions. This American National Standard is intended as a guide to aid the service provider, the consumer, and the general public. The existence of an American National Standard does not in any respect preclude anyone whether approving the Standard or not, from using the processes not conforming to the Standard. American National Standards are subject to periodic review and users are cautioned to obtain the latest editions.

CAUTION NOTICE: This American National Standard is permitted to be revised or withdrawn at any time. The procedures of the American National Standards Institute require that an action be taken to reaffirm, revise, or withdraw this Standard no later than five years from the date of publication. Purchasers of American National Standards receive current information on all Standards by calling or writing the American National Standards Institute.

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AMC Institute

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Foreword
(This Foreword is not a part of the Standard.)

Members of AMC Institute have developed a Standard of Good Practices for the Association Management Company industry. The purpose of this Standard is two-fold: (1) to collectively enhance management practices across Association Management Companies (AMCs) and (2) to assist AMCs in the establishment of internal quality service systems.

AMCs that conform to the Standard communicate to present and prospective association clients, as well as the marketplace at large, a commitment and ability to deliver the highest quality of services to clients as demonstrated in their performance, policies, and procedures.

Further, AMC Institute offers an AMC Accreditation Program closely linked to this Standard. AMCs that can demonstrate the adoption and good use of internal quality service systems, from policy statements to clearly outlined performance requirements and procedures, are eligible to apply for AMC Institute Accreditation.

AMC Institute will take into consideration the request for appropriate revisions to this Standard. Requested changes will be vetted through AMC Institute Accreditation & Standards Committee and through a public review process per AMC Institute’s Standard Development Procedures and ANSI’s Essential Requirement Procedures. AMC Institute’s Accreditation & Standards Committee will also review any requests for interpretations or appeals related to the Standard.

The first two sections (Scope and Definitions) are meant as background information to serve as a guide for sections 3 through 12.

1. Scope
   1.1 This Standard establishes requirements that provide a measurement for practices that are utilized by all sizes and types of Association Management Companies (AMCs) in order to enhance the
performance of the AMC and its staff.

1.2 This Standard establishes requirements that each individual AMC is permitted to use to create its own measurable outcomes. An AMC’s compliance with this Standard will depend on its adoption and implementation of its own definitions, procedures, and policies as they relate to each element in this Standard.

2. Definitions

2.1 Association Management Company (AMC): A for-profit professional service company that manages two or more associations, societies, foundations, or other types of organizations.

2.2 Client Team: Employees of an AMC who work together with a particular client or clients.

2.3 Performance Policy Statement: A compilation of documents adopted by an AMC containing the procedures it has in place, which will cause it to be in conformance with this Standard.

2.4 Performance Service Systems are internal processes (described in sections 3 through 12 of this document) that must be developed, documented, and implemented by an AMC. When these systems are in place, an AMC:

- Ensures that a client’s needs are identified and the services to be provided by the AMC are agreed upon by the AMC and the client;
- Requires regular feedback from clients;
- Provides a prompt response to clients’ needs and requests;
- Establishes a staff personnel training and development program;
- Fosters an organizational culture embracing professional performance attributes; and
- Controls costs, improves efficiency, and promotes prompt performance of quality services to the client.

3. Client Contracts: Review Procedures and Requirements

3.1 AMCs shall maintain written agreements with their clients.

3.2 AMCs shall adopt client contract review procedures, which shall ensure that all contractual requirements are acceptable to the client and the AMC before the AMC agrees to provide services to the client. This includes written service commitments ensuring that the service and service delivery processes meet the client’s needs and expectations.

3.3 AMCs shall adopt and document internal procedures to coordinate the periodic review of client contracts and their amendments.

3.4 AMCs shall adopt procedures specifying how client contracts are amended and ensuring that changes in the contract are communicated throughout the AMC organization.

3.5 AMCs shall establish transition procedures that at a minimum include the following:

- A timetable to include the closing or transferring of all documents, shipment of client materials in an organized manner, with clearly marked files, and notification to members.
- A list of clearly defined responsibilities for current management, volunteer leaders, and new management.
- Disclosed fees and charges for agreed upon services that may be rendered during the transition and following termination.

3.6 The methodology to be used for timely notification of the change in management to all vendors of management change.

3.5.5 An external, independent, qualified third party (CPA or outside the USA equivalent) shall conduct an asset and liability verification (audit or agreed upon procedures engagement) immediately prior to or immediately after the transfer of financial responsibilities to new management; if a verification is not authorized by the client, this fact shall be recorded in writing.

3.5.6 An outside independent CPA shall conduct an independent verification (audit or agreed upon procedure engagement) immediately prior to or immediately after the transfer of financial responsibilities; or if no audit or asset and liability verification is authorized by the Board, a written release that they will accept financial records as transferred will be obtained.

3.6 AMCs shall address in writing, whether in their contracts, or other documentation, the respective intellectual property rights (e.g. copyright, trademark, patents) of the client and the AMC including:
3.6.1 Materials and software systems developed and customized specifically for the client.
3.6.2 Materials and software systems of the AMC adapted for use with the client.

4. Servicing the Clients and Service Delivery Procedure

4.1 AMCs shall establish service policies and service delivery systems that include the following characteristics:
4.1.1 Quantity and types of services to be provided;
4.1.2 Competence and knowledge of staff servicing the client;
4.1.3 Service accessibility and availability;
4.1.4 Service speed and accuracy;
4.1.5 Ability to increase and expand services for the client with appropriate staff;
4.1.6 Assurance that the client is the focal point of the policy;
4.1.7 Emphasis on the importance of customer satisfaction;
4.1.8 Provision if an internal communication policy that emphasizes performance of service;
4.1.9 Performance measurement of the service and services delivery processes against established objectives;
4.1.10 Methods to improve performance.

4.2 AMCs shall establish responsibilities owed to the client and assign authority to staff for implementation.

4.3 AMCs shall establish a system of internal communications including as appropriate, briefings, meetings, memos, email, reports, and telephone conversations with staff on the client team.

4.4 AMCs shall establish a system of communication with clients, including staff communication and interaction, reaction to client expectations and comments, and information about the AMC and the services being provided.

4.5 AMCs shall establish procedures to correct or prevent failures to perform as they are identified by the client or the AMC.

4.6 AMCs shall establish policies and procedures for advising existing clients in the protection of their intellectual property (e.g., copyright, trademark, patents).

4.7 AMCs shall evaluate and develop an internal policy and client policies for external communications, including but not limited to press releases, newsletters, and social media, etc.

5. Evaluation of Services

5.1 AMCs shall adopt methods for clients to use to evaluate the performance of AMC services, including methods for measuring client satisfaction, to be conducted at least annually.

5.2 AMCs shall adopt an internal measuring system that evaluates service performance.

6. Financial Management and Internal Controls

6.1 AMCs shall establish procedures that ensure that the most recent year-end financial statements for each client present fairly, in all material respects, the financial position and changes in net assets, and that cash flows at year-end are in conformity with the generally accepted accounting principles (GAAP) as determined by the American Institute of Certified Public Accountants or corresponding organization.\(^1\) for internationally based AMCs, unless otherwise authorized in writing by the client.

6.2 AMCs shall establish adequate internal controls, policies, and procedures which are designed to safeguard client assets and facilitate accurate financial reporting that ensure financial control and reporting systems, which conform to generally accepted accounting principles (GAAP), are in place and utilized as appropriate, unless otherwise authorized in writing by the client.

6.3 AMCs shall adopt a written policy that prohibits co-mingling of any and all client assets with AMC or any other client’s assets.

6.4 AMCs shall adopt written policies and procedures addressing the acquisition, protection, storage, and use of client’s proceedings, records, and data.

6.5 AMCs shall adopt policies to ensure disclosure to clients all income received from commissions, finder’s fees, and other sources directly attributable or related to such clients.

6.6 AMCs shall propose to Client Boards the need for an outside independent review or audit of all financial

\(^1\) International Financial Reporting Standards (IFRS) as defined by the International Accounting Standards Board (IASB), the Generally Accepted Accounting Practice (new UK GAAP) as defined by the Financial Reporting Council (FRC), etc.
transactions and records by a qualified third party (CPA or outside the USA/non-US equivalent.) The recommendation shall be made in writing.

6.7 AMCs shall propose to Client Boards the need for General Liability, Association Professional Liability, Insurance (APLI), and Cyber insurance policies. If declined, this fact shall be recorded in writing.

6.6 AMCs shall propose to Client Boards the need for General Liability and Association Professional Liability Insurance (APLI) Policies. If declined, this fact shall be recorded in writing.

7. Insurance Coverage

7.1 AMCs shall have in place a comprehensive insurance program that provides the following minimum coverage where such coverage is available in the jurisdiction where the AMC has its headquarters.

| 7.1.1 Commercial General Liability | Minimum Amount or Recommendation for AMCs to determine amount based on the suggested criteria | $1,000,000 |
| 7.1.2 Property (including property in transit) | Full value of property |  |
| 7.1.3 Valuable Papers | Full value to reconstruct |  |
| 7.1.4 Employee Dishonesty | For both AMC and client property and funds |  |
| 7.1.5 Money and Securities | For both the AMC and client funds, maximum amount of cash on hand, including convention receipts |  |
| 7.1.6 Computer Equipment and Data | Full value of equipment and reconstruction of data |  |
| 7.1.7 Non-Owned and Hired Auto Liability | $1,000,000 |  |
| 7.1.8 Worker’s Compensation | Minimum amount based on local each state’s regulations |  |
| 7.1.9 Errors and Omissions | $1,000,000 |  |
| 7.1.10 Cyber Liability | $1,000,000 |  |

8. Employee Recruitment and Selection

8.1 AMCs shall adopt a procedure for creating, reviewing, and updating employee job descriptions.

8.2 AMCs shall adopt procedures for interviewing and assessing candidates for positions within the AMC.

8.3 AMCs shall adopt a procedure for exit interviews with departing employees.

9. Employee Training and Professional Development Procedures

9.1 AMCs shall adopt an evaluation procedure for all employees covering competencies, performance assessment, and professional development.

9.2 AMCs shall provide periodic internal and external training and development to ensure functions of association management are completed professionally with use of current best practices. These functions include but are not limited to:

9.2.1 Process monitoring and control;

9.2.2 Data collection and analysis;

9.2.3 Performance improvement and corrective action;

9.2.4 Teamwork, interaction, and communication;

9.2.5 Financial management, meetings management, membership development, marketing, non-profit legal issues, and other functions basic to association management and services.

10. Subcontracting and Purchasing Requirements

10.1 AMCs shall adopt procedures to ensure that due diligence is exercised when purchasing products or services for clients and that they meet all service requirements.

10.2 AMCs shall adopt procedures to ensure that due diligence is exercised when preparing purchase or service orders and bid/quote documents for clients.

10.3 AMCs shall adopt procedures that permit the AMC or clients to verify acceptability of products or services purchased.

10.4 AMCs shall adopt procedures for evaluating the hiring of subcontractors, including the following:
10.6 AMCs shall adopt procedures to track and record the use of products and services provided by subcontractors and used by the AMC to service clients.

10.6 AMCs shall disclose conflicts of interests when contracting or making a purchase for the benefit of the client from related entities (e.g. partnerships, subsidiaries, family members, etc.).

11. Record Keeping Requirements/Continuity of Operations

11.1 AMCs shall adopt a records retention policy that identifies and defines the information and records that are to be retained (electronic or hard copy).

11.2 AMCs shall adopt procedures to maintain and control a record-keeping system to:

11.2.1 Collect and record information (create records);
11.2.2 File, index, store, and maintain records; *both hardcopy and electronic*;
11.2.3 Remove, archive, or destroy old records on a predetermined time basis;
11.2.4 Prevent records from being altered without approval of a designated authority;
11.2.5 Safeguard records from damage or deterioration;
11.2.6 Protect records from unauthorized access.

11.3 AMCs shall adopt a business continuity plan that will include, at a minimum:

11.3.1 Procedures for the management of electronic back-up of software and electronic records;
11.3.2 Communications to inform staff, members, vendors, etc. about the recovery plan;
11.3.3 Building evacuation plan;
11.3.4 Options for temporary *workplaces in the event that the AMC’s usual workplaces facility in the event current office(s) is (are) not available.*

12. Internal Quality Control Requirements

12.1 AMCs shall adopt a schedule of internal *audit* quality control verification procedures to:

12.1.1 Determine whether performance complies with the AMCs written plans, procedures, and programs;
12.1.2 Validate the effectiveness of the AMC’s corrective actions;
12.1.3 Confirm that activities are appropriately planned;
12.1.4 Ensure internal reviewers are independent of the procedures, client, and people being reviewed and external *auditors-reviewers* are recognized independent entities;
12.1.5 Demonstrate that quality control results, corrective actions, and corrective action results and consequences are appropriately recorded;
12.1.6 Verify that quality control conclusions are discussed with the people whose activities and results are being reviewed, and that deficiencies are corrected;
12.1.7 Affirm that copies of *the* quality control reports are kept on file for future reference in accordance with the records retention policy, but for not less than four years.
ANSI/NFRC 100
Definitions, Page 7, 10

**Hybrid Tubular Daylighting Device (HTDD):** The HTDD category has been retired and all products have been placed in the TDD category. A TDD whose light transmitting tube consists of more than one material and/or has more than one geometry throughout its length. Typically used with suspended ceilings or to illuminate spaces without ceilings.

**Thermal Opening Area:** The area of the TDD/HTDD product at the interior-most plane of the building’s thermal envelope.

**Section 4.1.2**

### 4.1.2 Testing Alternative

If an individual product listed in Section 2.1 cannot be simulated in accordance with Section 4.3.1, the test procedure found in Section 4.3.2.1 shall be used to determine the U-factors of the individual fenestration product(s) for the size defined in Table 4-3.

Currently the following products cannot be simulated:

a) Non-planar products including but not limited to:
   
   1) Greenhouse/garden windows
   
   2) Tubular daylighting devices
   
   3) Hybrid tubular daylighting devices
   
   3) Domed skylights without frames or flashing

b) Complex glazed products other than the following:
   
   1) Vertical products with between-glass venetian blinds
   
   2) Products with outdoor woven shades
   
   3) Products with fritted glazing

The test specimen size shall be the size with the lowest deviation determined from Equation 4-2. If the test specimen cannot be fabricated at the Table 4-3 size, the tested U-factor shall be adjusted to the model size using the following, unless other provisions for specific products have been made in ANSI/NFRC 100:

\[
U_{mod} = \left( \frac{u_{rep} A_{rep}}{A_{mod}} \right)
\]
Equation 4-1

Where:

\[ U_{\text{mod}} \] = U-factor at model size
\[ U_{\text{rep}} \] = U-factor at representative size (test size)
\[ A_{\text{rep}} \] = Area at representative size
\[ A_{\text{mod}} \] = Area of model size

Section 4.3.1

4.3.1 Simulation

The requirements of Reference 2 (NFRC Simulation Manual) and of Section 4.3.2.1 shall be used to determine total fenestration product U-factors.

Skylights and other sloped glazing products shall be simulated and rated at a slope of 20° above the horizontal. Until accurate simulation software is available, tubular daylighting devices (TDDs and HTDDs) shall be tested and rated with the tube in a vertical orientation (Figures 5-10a and b). All other products shall be simulated and rated in the vertical position.

All calculations shall be based on computer simulations using the latest approved software (which shall be in compliance with ISO 15099), with the following exceptions:

Section 4.3.2.1

4.3.2.1 Total Fenestration Product Test Procedure

The NFRC 102 [Reference 1], shall be used to determine tested total fenestration product U-factors. The following conditions also apply:

A. Test specimen size tested shall be in accordance with Section 4.6.1;

B. All test specimens shall be tested without screens, removable grilles and trims, or any other applied devices;

C. All test specimens shall be tested in the vertical position, except tubular daylighting devices and hybrid tubular daylighting devices (TDDs and HTDDs). TDDs and HTDDs shall be tested and rated with the tube in a vertical orientation (see Figures 5-10a and b). For determining validation of the baseline product only, skylights and other sloped glazing products shall be simulated in a vertical position; and

D. The test specimen shall not be modified by the testing laboratory, except as allowed in Reference 1 for sealing against air leakage and as required in this section.
5.4.4.2 Sizes

The standard TDD and HTDD sizes listed in Table 4-3 are based on the Thermal Opening Area, as defined in Section 3. For the purpose of testing, this is the interior side of the 254 mm (10 in.) foam panel. The standard TDD size is based on a standardized 350 mm +/- 30 mm (14 in +/- 1 in) diameter tube opening. The hybrid tubular daylighting device (HTDD) size is based on a standardized 530 mm +/- 30 mm (21 in +/- 1.2 in) diameter upper tube opening with a round to square transition to a 600 mm +/- 30 mm (24 in +/- 1.2 in) square lower opening. For products of non-circular shape, the product shall use an opening area equivalent to a standard size round product. The closest production size to the standard size shall be tested. In the event that the device is not manufactured in the standard model size, the production size with the closest area (as defined in 5.4.4.3) shall be used and the result for that unit shall be the product’s rating. For TDD products with non-circular Thermal Opening Area, the product shall use an opening area equivalent to the actual size of the manufactured product as tested. Equation 4-1 shall not be used to adjust the results to model size.

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Opening (X) Non-operating (O)</th>
<th>Model Size (width by height) SI (IP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casement – Double1</td>
<td>XX, XO, OO</td>
<td>1200 mm x 1500 mm (47 in x 59 in)</td>
</tr>
<tr>
<td>Casement – Single</td>
<td>X6</td>
<td>600 mm x 1500 mm (24 in x 59 in)</td>
</tr>
<tr>
<td>Dual Action</td>
<td>X6</td>
<td>1200 mm x 1500 mm (47 in x 59 in)</td>
</tr>
<tr>
<td>Fixed (includes non-standard shapes)</td>
<td>O</td>
<td>1200 mm x 1500 mm (47 in x 59 in)</td>
</tr>
<tr>
<td>Garage(Vehicular Access)/Rolling Door</td>
<td>X6</td>
<td>2134 mm x 2134 mm (84 in x 84 in)</td>
</tr>
<tr>
<td>Greenhouse/Garden2</td>
<td>X6</td>
<td>1500 mm x 1200 mm (59 in x 47 in)</td>
</tr>
<tr>
<td>Hinged Escape</td>
<td>X6</td>
<td>1500 mm x 1200 mm (59 in x 47 in)</td>
</tr>
<tr>
<td>Horizontal Slider</td>
<td>XO or XX</td>
<td>1500 mm x 1200 mm (59 in x 47 in)</td>
</tr>
<tr>
<td>Hybrid Tubular Daylighting Device</td>
<td>O</td>
<td>530 mm Dia. (21 in Dia.)</td>
</tr>
<tr>
<td>Jal/Jal Awning</td>
<td>X6</td>
<td>1200 mm x 1500 mm (47 in x 59 in)</td>
</tr>
<tr>
<td>Pivoted</td>
<td>X6</td>
<td>1200 mm x 1500 mm (47 in x 59 in)</td>
</tr>
<tr>
<td>Projecting (Awning, Dual)</td>
<td>XX6</td>
<td>1500 mm x 1200 mm (59 in x 47 in)</td>
</tr>
<tr>
<td>Projecting (Awning – Single)</td>
<td>X6</td>
<td>1500 mm x 600 mm (59 in x 24 in)</td>
</tr>
<tr>
<td>Door Sidelite5</td>
<td>X or O</td>
<td>600 mm x 2090 mm (24 in x 82 3/8 in)</td>
</tr>
<tr>
<td>Product Type</td>
<td>Opening (X) Non-operating (O)</td>
<td>Model Size (width by height)</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>--------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Skylight/Roof Window</td>
<td>X²</td>
<td>1200 mm x 1200 mm (47 in x 47 in)</td>
</tr>
<tr>
<td>Sliding Patio Door with Frame</td>
<td>XO or XX⁸</td>
<td>2000 mm x 2000 mm (79 in x 79 in)</td>
</tr>
<tr>
<td>Curtain Wall/Window Wall/Storefront/Sloped Glazing</td>
<td>OO³</td>
<td>2000 mm x 2000 mm (79 in x 79 in)</td>
</tr>
<tr>
<td>Spandrel Panel</td>
<td>OO</td>
<td>2000 mm x 1200 mm (79 in x 47 in)</td>
</tr>
<tr>
<td>Side-Hinged Exterior Door</td>
<td>O, X, XO or XX⁴</td>
<td>960 mm x 2090 mm (37 3/4 in x 82 3/8 in); or 1920 mm x 2090 mm (75 1/2 in x 82 3/8 in)</td>
</tr>
<tr>
<td>Door Transom⁵,⁷</td>
<td>O</td>
<td>2000 mm x 600 mm (79 in x 24 in)</td>
</tr>
<tr>
<td>Tropical Awning</td>
<td>X⁶</td>
<td>1500 mm x 1200 mm (59 in x 47 in)</td>
</tr>
<tr>
<td>Tubular Daylighting Device</td>
<td>O</td>
<td>350 mm Dia. (14 in Dia.)</td>
</tr>
<tr>
<td>Vertical Slider</td>
<td>XO or XX</td>
<td>1200 mm by 1500 mm (47 in by 59 in)</td>
</tr>
</tbody>
</table>
2.1.3 Products Covered Using NFRC 203 Test Procedure for VT

Products not covered by NFRC 200 simulation techniques and that are covered by test-only procedures are as follows:

A. Tubular daylighting devices (TDD), including hybrid tubular daylighting devices (HTDD).

4.1.2 Testing Alternative

The component or total fenestration product SHGC shall be tested in accordance with NFRC 201.

For translucent panels, center-of-glazing VT shall be tested in accordance with NFRC 202.

For TDD and HTDD products, the VT shall be tested in accordance with NFRC 203.

For products not covered under NFRC 202 or NFRC 203, the component or fenestration product VT shall be tested once a test procedure has been approved.

4.3.2.2 VT Testing

A. Environmental Conditions during TDD/HTDD NFRC 203 Testing (See NFRC 203).

B. Center-of-Glazing Component Test Procedure

   i. The center-of-glazing VT shall be calculated in accordance with NFRC 202;

   ii. For a product that consists of a glazing panel only (without frame), the tested VT per NFRC 202 shall be the VT of the product.

4.6.1 Total Fenestration Product

   i. The total fenestration product SHGC shall be calculated in accordance with NFRC 201 at the conditions specified in Section 4.3.2.1.A.

   ii. For TDD and HTDD products, determination of the whole product VT is per NFRC 203.

Guidance for the appropriate use of any future approved Total Fenestration Product Test Procedure for VT will be published as an addendum to this procedure or as a Technical Interpretation.
BSR/UL 1449, Standard for Safety for Surge Protective Devices

1. Spacings on Multi-layer PWBs

19.6 For inner layers of multi-layer PWBs, the insulation between adjacent tracks on the same layer shall be treated as either:

a) Creepage distance for pollution degree 1;

b) Clearance is not considered for the inner layer where air does not exist; or

c) Solid insulation evaluated by the Dielectric Voltage-Withstand Test in Section 38.

2. Clarification of N-G Testing and High Voltage Probes

40.2.4.1 To determine Voltage Protection Ratings, a differential connection of two probes that are determined to be equivalent to two Tektronix, model P6015A high voltage probes with 10 foot cables shall be used. Equivalency is determined by:

a) Ensuring the probes have a peak pulse input voltage rating of 20 kV at 10 MHz, an input impedance of 100MΩ and an input capacitance of 3 pF with 1000:1 attenuation, and by

b) Conducting comparison testing with the Tektronix, model P6015A probes, for the specific test set-up (generator, fixturing and the like) and EUT type (SPD employing a MOV, SPD employing a MOV with a capacitor, SPD employing a filter and the like).

Exception: A single differential high voltage probe or high voltage probes other than specified above may be used for all other surge testing including VPR testing when used to check for degradation provided that they are used within the probe manufacturer's declared specifications.

3. Revision of 40.7.1 Pertaining to In Measurement

40.7.1 The manufacturer shall specify (declare) the value of the Nominal Discharge Current ($I_n$) to which the sample will be tested. The value of the Nominal Discharge Current ($I_n$) selected by the manufacturer shall be: 10 kA or 20 kA for Type 1 SPDs and 3 kA, 5 kA, 10 kA or 20 kA for Type 2 SPDs. With the SPD in the circuit the surge generator voltage shall be adjusted to ensure that the value of $I_n$ (selected by the manufacturer) is impressed through the SPD. Once $I_n$ is initially adjusted and measured, it need not be verified during nominal discharge testing. Once In is measured through the SPD, further adjustment is not necessary, however the magnitude and wave shape shall be monitored. The resultant waveshape is permitted to deviate from the initial short circuit calibration of the 8x20 us waveshape providing that the front time is a maximum of 9 us and the duration is a minimum of 16 us.

Exception: A generator that can be calibrated to produce an 8x20 us waveform with the EUT in the circuit is considered acceptable.
4. Addition of New Paragraph 1.19 to Include Ambient Temperature Range for SPDs

1.19 This standard covers SPDs for use in an within the following ambient temperature range: -40°C (-40°F) to and +40°C (104°F) or a range specified by the manufacturer and evaluated by this standard.

Exception No. 1: Discrete MOVs, GDTs and SADs may have an ambient temperature range within: -55°C (-67°F) to +85°C (185°F), unless tested for an ambient temperature greater than +85°C (185°F) in accordance with 41.2.

Exception No. 2: Discrete MOVs incorporating thermal responsive devices may have an ambient temperature range: -40°C (-40°F) to +85°C (185°F) unless subjected to the Thermal Responsive Device Test sequence at temperatures lower or higher than this range.

7. UL 1449 Clarifications and Corrections

41.1 3 samples shall be subjected to the following sequence:

a) For varistors only, Metal Oxide Varistor (MOV) Voltage (MOV) Vn as specified in Section 69.

b) For gas tubes only, Breakdown Voltage Measurement as specified in Section 73.

Exception: Where the gas pressure and composition is controlled, this test need not be conducted.

c) For Type 5 SPDs with rated operating temperature above 85°C, Aging Test as specified in Section 70. Immediately following the Aging Test, while the samples are still in a heated condition, the samples are to be subjected to Nominal Discharge Current (In) as specified in 41.1(d).

d) Apply 15 surges at the manufacturer selected Nominal Discharge Current (In). The value of the current selected shall be: (0.01, 0.05, 0.1, 0.15, 0.25, 0.5, 1, 1.5, 2, 2.5, 3, 5, 10 or 20 kA).

e) Nominal discharge current (In) is to be conducted in accordance with the Test Equipment, Surge Generator Calibration and Test Procedure of Sections 40.2, 40.3 and 40.7.3.

f) Measure MLV during each surge and compute the average of the 45 values to obtain the MLV rating (rounding to the nearest 10 V).

g) For varistors only, repeat the MOV (Vn) sequence. The repeated Vn value as specified in Section 69 shall be within 10% of the initial value.

h) For gas tubes only repeat Breakdown Voltage Measurement. The repeated measurement as specified in 73 shall be within 20% of the initial value.

i) For all other SPDs such as capacitors, each individual MLV measurement shall be within 10% of the average of the 15 MLVs for that sample.

j) Operational Voltage Test in Section 43.
1. Short Time Current testing of Single Pole Separable Connectors

2 Reference Publications

IEEE Standards

IEEE 837
*Standard for Qualifying Permanent Connections Used in Substation Grounding*

6.11.7 Each assembly shall be subjected to the test current and associated time as shown in Table 4. All three mated pairs shall be tested individually. When the conductor cannot maintain minimum current as defined in Table 4, the current may be reduced to a lesser value, but not less than 5000 A, provided the test time is increased to a higher value, not to exceed 1 min. The values for test current and time shall be calculated using the formula in Table 4.

### Table 4
*Short-time test currents*

<table>
<thead>
<tr>
<th>Equipment grounding conductor size</th>
<th>Time, s</th>
<th>Current, a</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AWG or kcmil</strong></td>
<td><strong>(mm²)</strong></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1530</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2450</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3100</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3900</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>4900</td>
<td></td>
</tr>
<tr>
<td>1/0</td>
<td>5050</td>
<td></td>
</tr>
<tr>
<td>2/0</td>
<td>6400</td>
<td></td>
</tr>
<tr>
<td>3/0</td>
<td>8030</td>
<td></td>
</tr>
<tr>
<td>4/0</td>
<td>10100</td>
<td></td>
</tr>
<tr>
<td>250 kcmil</td>
<td>12000</td>
<td></td>
</tr>
<tr>
<td>300</td>
<td>14300</td>
<td></td>
</tr>
<tr>
<td>350</td>
<td>16700</td>
<td></td>
</tr>
<tr>
<td>400</td>
<td>19100</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>23900</td>
<td></td>
</tr>
<tr>
<td>600</td>
<td>28700</td>
<td></td>
</tr>
<tr>
<td>700</td>
<td>33500</td>
<td></td>
</tr>
</tbody>
</table>
Note: Test current values are derived from the following formula and have been rounded. To derive test current values for electrode materials other than the ones listed above, see Annex C of the Standard for Qualifying Permanent Connections Used in Substation Grounding, IEEE 837.

\[ I = A \sqrt{\frac{t}{K_o + T_m}} - \frac{K_o + T_a}{\beta * t} \]

in which:

\( T_m = 1083°C \) for melting point for copper

\( T_a = 40°C = \) ambient temperature

\( I = \) short-time current (amperes) in kA

\( A = \) conductor cross-section in mm²

\( t = \) time (s)

\( K_o = \) reciprocal of thermal coefficient of resistivity at 0°C = 234 for copper

\( \beta = \) material constant = 19.8 for copper

2. New Supplement SA - REPLACEMENT ENCLOSURE FOR USE WITH SPECIFIC MANUFACTURER’S SINGLE POLE LOCKING - TYPE SEPARABLE ATTACHMENT PLUG and CABLE CONNECTOR

SUPPLEMENT SA - REPLACEMENT ENCLOSURE FOR USE WITH SPECIFIC MANUFACTURER’S SINGLE POLE LOCKING-TYPE SEPARABLE ATTACHMENT PLUG and CABLE CONNECTOR

INTRODUCTION
**SA1 Scope**

SA1.1 These requirements cover replacement enclosure (housing) (see SA3.1) intended for use in the specific manufacturer’s single pole locking-type separable attachment plug and cable connector.

**SA2 General**

SA2.1 In addition to complying with SA3 - SA8 of these requirements, the replacement enclosure (housing) alone, and in combination with the complete device (attachment plug and cable connector, respectively), shall comply with the applicable Construction and Performance requirements in the main body of this Standard.

**SA3 Definitions**

SA3.1 REPLACEMENT ENCLOSURE (PART) - An individual replacement enclosure (housing) identified by the manufacturer for use in the same manufacturer’s complete device (single pole locking-type separable attachment plug and cable connector, respectively).

Note: The replacement part is packaged as a “kit” containing the individual part and installation instructions (see SA8).

**CONSTRUCTION**

**SA4 General**

SA4.1 The replacement enclosure (housing) shall be formed and assembled so that it can be installed, in accordance with the installation instructions, into its specified single pole locking-type separable attachment plug and cable connector without risk of fire or electric shock. Risk of fire or electric shock is determined by compliance with the construction and performance requirements herein and the applicable requirements of the main body of this Standard.

SA4.2 A replacement enclosure (housing) part shall only be installed using commonly used tools such as a screw driver or a wrench. A replacement enclosure (housing) shall not be permitted that requires the installer to remove or defeat or replace a factory installed securement means such as a rivet or drive pin.

**PERFORMANCE**
SA5 General

SA5.1 If the replacement enclosure (housing) is recommended for use with more than one device, each representative combination of replacement enclosure (housing) and device shall be evaluated.

SA6 Replacement Part Assembly Test

SA6.1 The replacement enclosure (housing) shall be able to be installed in the specified device and shall be reliably retained in place without causing an increased risk of fire or electric shock. Compliance is determined by inspection and the test of SA6.2 shall be performed.

SA6.2 A sample of the replacement enclosure (housing) shall be assembled to its specified device using the manufacturer’s installation instructions. Upon completion of the assembly, the integrity of the completed assembly shall be examined and if necessary, subjected to the applicable performance testing necessary to maintain continued compliance with this Standard.

MARKINGS

SA7 General

SA7.1 The replacement enclosure (housing) shall be provided in the form of a kit, including marking as detailed in SA7.2 - SA7.4.

SA7.2 A required marking shall be molded, die-stamped, paint-stenciled, stamped or etched metal that is permanently secured, or indelibly stamped lettering on a pressure-sensitive label secured by adhesive that, upon investigation, meets the intent of the requirement for the application.

SA7.3 The replacement enclosure (housing) shall be provided with the following identification markings:

a) Manufacturer’s name,

b) Specific catalog or series number, and

c) The date or other dating period of manufacture not exceeding any three consecutive months.
Abbreviation of the date of manufacture, or provision in a nationally accepted conventional code or in a code affirmed by the manufacturer, meets the intent of the requirement.

SA7.4 The replacement enclosure (housing) packaging shall be marked with the following marking or equivalent: "WARNING - Use only replacement part (Catalog Number) with (+) Attachment Plug or Cord Connector", where "(+)" is to be replaced with the specific manufacturer name and model/catalog number of the intended device(s).

INSTRUCTIONS

SA8 General

SA8.1 The replacement enclosure (housing) shall be provided with instructions pertaining to its installation, operation, and maintenance, as applicable.

SA8.2 An illustration may be used to clarify the intent of a required instruction but shall not replace the written instruction.

SA8.3 Instructions shall include the following statements or their equivalent:

IMPORTANT SAFETY INSTRUCTIONS

"WARNING - Use only replacement enclosure (housing) (Catalog Number) with (+) Attachment Plug or Cord Connector Only", where (+) is to be replaced with the specific manufacturer name and model/catalog number of the intended device(s)."

"WARNING - Risk of Fire or Electric Shock. Do not use this replacement enclosure (housing) with any attachment plug or cord connector (as appropriate), other than the one specified on the replacement mark packaging and in these instructions."

SAVE THESE INSTRUCTIONS

SA8.4 The opening and closing statements of the instructions specified in SA8.3 - "IMPORTANT SAFETY INSTRUCTIONS" and "SAVE THESE INSTRUCTIONS" or the equivalent shall be entirely in upper case letters or shall be emphasized to distinguish them from the rest of the text.
BSR/UL 1993, Standard for Safety for Self-Ballasted Lamps and Lamp Adapters

1. Addition Of Risk Of Electric Shock Re-Lamping Test To Supplement SC

SA8.19.1 As specified in Clause 6.13.2, Devices substituting for linear-double-ended or U-bend fluorescent lamps shall be evaluated for a possible risk of electric shock while installing, removing, or replacing the LED lamp device.

NOTE: LED lamps replacing U-bend T8 - T12 fluorescent lamps are included here because, due to the distance between their lamp bases, one base can be seated in a lampholder while the other base is accessible to contact.

SA8.19.2 One end (lamp base) of the device under test shall be connected to its intended source of supply while the other end (lamp base) of the device shall be considered accessible and shall be connected to the shock hazard measurement meter circuit and, in turn, to earth ground as shown in Figure 8.1. The current shall not exceed 5 M.I.U (7.07 peak M.I.U.). The test shall be conducted using two methods, in turn, that simulate likely contact scenarios. Each lamp device end (base) shall also be tested in turn. In all cases, the highest measurement shall not exceed 5 M.I.U. RMS.

a) Method A - Contact during insertion into a live circuit. The supply source shall be energized with no lamp in the circuit. One end (base) of the device shall then be connected to the supply source while the other end (base) is connected to the shock hazard measurement meter circuit. Readings shall be monitored for 30 seconds, starting immediately after device connection (insertion). The highest reading shall be recorded.

b) Method B - Contact during removal from a live circuit. The supply source shall be energized with the device in the circuit. One end (base) of the device shall then be disconnected from its lampholder and connected to the shock hazard measurement meter circuit. Readings shall be monitored for 30 seconds, starting at 1 second after disconnection (removal) from the lampholder. The highest reading shall be recorded.

NOTE: A test may be terminated before 30 seconds if non-compliant measurements are recorded.

SA8.19.3 The construction of the shock hazard measurement meter circuit, meter, and the explanation of M.I.U. measurement unit are described in UL 935. The shock hazard measurement meter circuit is the let-go response network shown in Figure SAB.1A.
Figure SA8.1

Risk of electric shock measurements
Figure SA8.1a
Let-go Response Network
SA8.19.4 During the measurement, any externally accessible mechanical interlock mechanism intended to prevent current from flowing through the lamp during its insertion or removal shall be defeated. However, an interlock mechanism located on the free end of the lamp under test is allowed to operate normally if it meets all the following criteria:

a) Actuators shall be located only on the face of the lamp bases and have a normally-open, momentary-type action so that they automatically engage and disengage when the lamp is inserted or removed from the luminaire, respectively;

b) Actuators shall require a force of no more than 4.45 N (1 lbf) to recess completely into the lamp base so that they are flush with the lamp base surface;

c) The actuator shall be made from or externally encapsulated by an insulating material that complies with the requirements for at least basic insulation;

d) The actuator shall be shaped and located to reduce the likelihood of accidental engagement by an end user during lamp insertion into or removal from an energized luminaire. The actuator is considered to comply with this requirement if it cannot be engaged by a 50.8 mm (2 inch) diameter rigid sphere regardless of how it contacts the lamp, see Figure SA8.2; and

e) The interlock mechanism shall endure 500 actuation cycles under its intended electrical load without resulting in mechanical or electrical damage to the lamp or mechanism.

### Table SC4.1

**Test plan summary**

<table>
<thead>
<tr>
<th>Test description</th>
<th>Reference</th>
<th>Number and description of samples*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input measurementsb</td>
<td>8.2, SA8.2, SC4.2.2</td>
<td>One sample of device.</td>
</tr>
<tr>
<td>Leakage-currentb,c</td>
<td>8.4</td>
<td>One sample of device; can be same as used for input measurements.</td>
</tr>
<tr>
<td>Temperatureb</td>
<td>8.5, SA8.5</td>
<td>One sample of device. If the device is normally potted, it is necessary to prepare a sample with thermocouples attached prior to potting. If acceptable to all parties concerned, the sample for test can be unpotted.</td>
</tr>
<tr>
<td>Dielectric voltage withstand</td>
<td>8.6, SA8.6, SC4.2.4</td>
<td>One sample of the device - can be the same as used for input measurements, but not the sample for temperature test as the thermocouples can interfere with the test.</td>
</tr>
<tr>
<td>Drop impact</td>
<td>8.8, SA8.8, SC4.2.5</td>
<td>One sample of each enclosure type can be subjected to three drops, or if suitable to all concerned, three samples each of which can be subjected to one drop.</td>
</tr>
<tr>
<td>Mold-stress relief conditioning</td>
<td>8.9</td>
<td>One sample of each enclosure type; may be same as used in drop test, if undamaged.</td>
</tr>
<tr>
<td>Deflection</td>
<td>8.10</td>
<td>One sample of each enclosure type; may be same as used in drop test, if undamaged.</td>
</tr>
<tr>
<td>Humidity conditioning</td>
<td>8.13</td>
<td>For damp location rating, 1 sample; may be used in previous tests.</td>
</tr>
<tr>
<td>Water spray</td>
<td>8.14</td>
<td>For wet location rating and device is not potted, one sample of each enclosure type; can be the same as used in previous tests if intact and undamaged.</td>
</tr>
<tr>
<td>Cold impact</td>
<td>8.15, SC4.2.5</td>
<td>For wet location rating, three samples of each enclosure type.</td>
</tr>
<tr>
<td>Lamp fault conditionsb</td>
<td>SA8.16</td>
<td>Five samples of device; only applicable to fluorescent lamp adapters.</td>
</tr>
</tbody>
</table>
| LED lamp and driver abnormal conditionsb, d | SA8.22, SC4.2.3 | One sample for each component fault, or less if it can be determined that previous faults did not damage the sample. Potted samples would need to have additional wires to attach to internal connections so that the short
condition can easily be created. Devices that are normally potted can be tested without potting if agreeable to all parties concerned.

<table>
<thead>
<tr>
<th>Rigidity after Drop</th>
<th>SC4.3</th>
<th>Three or 6 samples; same ones used for Drop and Cold Impact.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk of Shock - Relamping - Type A lamps</td>
<td>SC4.5</td>
<td>One sample of each double-ended or U-bend lamp.</td>
</tr>
</tbody>
</table>

This table is a summary of test samples typically needed. Actual number of samples may vary where agreeable to all parties concerned.

The sample shall be powered from a reference ballast, see Clauses SC4.1.2 and SC4.1.3.

The reference ballast shall be powered from a supply source isolated from both the branch circuit and ground.

Since this device is intended to operate separately from the existing fluorescent ballast, this abnormal test applies to both LED lamps and fluorescent lamp adapters.

**SC4.5 Risk of electric shock - Relamping - Type A lamps**

SC4.5.1 The test described in clause SA8.19 shall be conducted on all devices intended as direct replacements for double-ended or U-bend fluorescent lamps, as modified by this clause. The mechanical interlock requirements in SA8.19.4 are applicable to this test.

SC4.5.2 When testing direct replacement (e.g.: Type A) lamps, the supply source shall be a 60 Hz reference ballast that is compliant with all pertinent requirements of ANSI/NEMA CB2.3, the Standard for Reference Ballasts for Fluorescent Lamps. The reference ballast shall be powered from an isolated supply source. Prior to testing, the reference ballast shall be adjusted for the voltage, current and power characteristics of the target lamp. For double-ended fluorescent lamps, these characteristics can be found in ANSI ANSLG C78.81 or IEC 60081. Refer to Figure SC4.5.2 for the test setup.

**Figure SC4.5.2**

**Risk of electric shock measurements-Direct Replacement Lamps**
BSR/UL 2271, Standard for Safety for Batteries for Use in Light Electric Vehicle (LEV) Applications

1. Correction of Cell Criteria and Tolerance Information.

PROPOSAL

16.5 Batteries employing re-closable pressure release valves on the external enclosure of the battery (e.g. valve regulated lead acid batteries) or flame arresters on vented batteries, shall comply with the pressure release test or the flame arrester test of the Standard for Standby Batteries, UL 1989.

3. Revision of marking and instruction requirements for EESAs that are not removed when charging.

PROPOSAL

MARKINGS

42 General

42.5 EESAs shall be marked with charging instructions. An example of such a marking where a specific charger is required to be used, would be the following or equivalent "Use Only (____) Charger". The marking shall be visible to the user, including after installation, if the ESSA is not removed for charging. If applicable, the installation instructions shall indicate the need to include this charging marking on the external surface of the vehicle near the exposed charging connection. See 43.2.1. Additional markings are not required on the EESAs if the charger plugs and receptacles are uniquely keyed, and for vehicles that use communications between vehicle and charger or other methods to prevent charging by non-approved chargers.

4. Addition of Production Quality Control Criteria in 17.4.

PROPOSAL

17 Manufacturing and Production Line Testing

17.4 Manufacturers of EESAs shall have documented production process controls in place that continually monitor and record the following key elements of the manufacturing process that can affect safety, and shall include measured parametric limits enabling corrective/preventative action to address defects (out of limit parameters) found affecting these key elements:

a) Supply chain control; and
b) Assembly processes.

5. Clarifications to the functional safety criteria.

PROPOSAL

PERFORMANCE

18 General

18.5 Where there is a specific reference to a single fault condition in the individual test methods, the single fault is to consist of a single failure (i.e. open, short or other failure means) of any component in the EESAs that could occur and affect the results of the test. This fault is implemented in conjunction with the test being conducted (i.e. overcharge, short circuit, etc.) or may be conducted as part of a verification of a protective circuit. A protective component determined to be reliable may remain in the circuit without being faulted. A reliable protective component is one that has been evaluated to its applicable component standard. See Annex A and
2.1. A protective circuit determined to be reliable is one that has been shown to comply with an appropriate functional safety standard per 15.5 with a safety level defined by a corresponding hazards and risk analysis.

24 Short Circuit Test

24.3 Samples are to be subjected to an external short under a single fault condition in the protection circuit of the DUT that could impact the external short single fault across any protective device in the load circuit. Protective devices that have been determined reliable may remain in the circuit and circuits that have been determined reliable may remain active without being faulted as noted in 18.5.

6. Clarification of connections to battery cells.

PROPOSAL

10 Wiring and Terminals

10.2.1 Connections to the cells shall be made in a manner that does not result in damage to the cells or protection assembly. For example, connections made using high heat processes, such as solder, shall not be used on direct connections to the cell terminals without proper processes and controls as this could result in damage to the cell as a result of heat transfer during soldering. To prevent damage to cells or protective devices, connections between cells and electronic protective devices should be made using the connection sequences recommended by the protective device manufacturer.
BSR/UL 5500, Standard for Safety for Remote Software Updates

1. Revise the proposed First Edition of the Standard for Safety for Remote Software Updates, UL 5500, covers the remote updating of software via the manufacturer’s recommended process. It is limited to software elements having an influence on safety and on compliance with the particular end product safety standard.

PROPOSAL

2 Normative references

IEEE 802.15.1, Information Technology - Telecommunications and Information Exchange Between Systems Local - Local and Metropolitan Area Networks - Specific Requirements Part 15.1: Wireless Medium Access Control (MAC) and Physical Layer (PHY) Specifications for Wireless Personal Area Networks (WPANs) - IEEE Computer Society

IEEE 802.15.4, Standard for Low-Rate Wireless Networks

3.5

REMOTE

a term defined by the end product standard.

Note to entry: In the end product application, the term potentially addresses, but is not limited to the following conditions:

- supervision;
- intervention;
- whether the presence of the hazard is detectable;
- distance from the device; and
- and physical access to the device or devices.

4.1.1 The REMOTE software update process shall not result in a risk of fire, electrical shock hazard, casualty hazard, injury to persons, loss of one or more safety functions, or other hazard as specified in the relevant end product standard. The remote software update process, including any AUTHENTICATION and encryption processes, shall include means to prioritize hardware and software interrupts of the operational firmware.

Compliance is checked by applying the requirements of 4.1.2 and 4.2 to 4.9
4.2.1 The manufacturer shall identify a communication protocol for establishing a REMOTE connection between the host and end device.

Compliance is checked by inspection. Suitable technologies that may be used include, but are not limited to:

- IEEE 802.3;
- IEEE 802.11;
- IEEE 802.15.1;
- IEEE 802.15.4;
- Other open source and proprietary methodologies.

NOTE: Link and transport layer cryptographic techniques for these protocols may be used to fulfill the requirement of 4.6 where a SOFTWARE DOWNLOAD PACKAGE is encrypted from the host and end device entities.

4.3 Authentication

The AUTHENTICATION process shall

- Establish the respective identities of the host and end device(s); and
- Include suitable means for verifying the host and end device entities are, by design, those intended to be engaged in REMOTE software update.

AUTHENTICATION attributes shall be encrypted.

NOTE: Suitable means may include digital certificates, device IDs, serial numbers, white listing and known-answer tests.

Compliance is checked by inspection.

4.4 Authorization

The AUTHORIZATION process shall:

- Include means to prioritize hardware and software interrupts; and
- Include suitable means for verifying that the host ENTITY has the manufacturer specified REMOTE software update rights; or
- Include suitable means for verifying that the end device may engage the host ENTITY in the receipt and installation of a REMOTE SOFTWARE DOWNLOAD PACKAGE.
Compliance is checked by inspection.

4.9 Remote Software Update Process Concluded Conclusion of Remote Software Update Process

The REMOTE software update process conclusion shall:

- Include reporting the SOFTWARE DOWNLOAD PACKAGE identity of the end device and, upon host ENTITY verification, terminate REMOTE software download process, or

- Abort at any point of the REMOTE software update process in response to the failure / status identification conditions of 5.2.

Process termination may be as specified by the manufacturer if not otherwise specified in the requirements of the end product standard.

Compliance is checked by inspection.

5.1 General

At any point during REMOTE software update the end device shall remain in compliance with the requirements of the end product standard and, when the REMOTE software update process is concluded, the end device shall:

- Resume its intended function with the new SOFTWARE DOWNLOAD PACKAGE installed; or

- Revert to its intended function under the old SOFTWARE DOWNLOAD PACKAGE; or

- Exist in a fail-safe condition (e.g. "bricking"), as specified in the end product standard; or

- Continue to retry the REMOTE software update process.

Compliance is checked by inspection and functional test, both successful and failed update attempts, of the end product simulating the REMOTE software update process taking into account the requirements of 5.2 to 5.4.