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American National Standards

Call for comment on proposals listed

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

Comment Deadline: February 17, 2019

ASME (American Society of Mechanical Engineers)

Revision

BSR/ASME BPVC Section XI-201x, Rules for Inservice Inspection of Nuclear Power Plant Components (revision of ANSI/ASME BPVC Section XI-2017)

Section XI, Rules for Inservice Inspection of Nuclear Power Plant Components, of the ASME Boiler and Pressure Vessel Code provides requirements for examination, testing, and inspection of components and systems, and repair/replacement activities in a nuclear power plant. Application of this Section of the Code begins when the requirements of the Construction Code have been satisfied.

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

Send comments (with copy to psa@ansi.org) to: Kimberly Verderber, (212) 591-8721, verderberk@asme.org

IKECA (International Kitchen Exhaust Cleaning Association)

New Standard

BSR/IKECA M-10-201x, Standard for the Methodology for Maintenance of Commercial Kitchen Exhaust Systems (new standard)

The purpose of this standard shall be to enhance public safety by reducing the potential fire safety hazards associated with commercial kitchen exhaust systems, irrespective of the type of cooking equipment used and whether used in public or private facilities. This standard shall define acceptable methods to operate and maintain commercial kitchen exhaust systems by end users in the interim between professional system cleaning services. This standard shall apply to, but not be limited to, Type I exhaust systems as defined in NFPA 96, Chapter 3. This standard shall not apply to residential kitchen exhaust systems, replacement air systems, heating and air-conditioning systems, dryer exhaust systems, and toilet exhaust systems. The document attached contains definitions that were not submitted when the M10 first went out for public comment in mid-2018.

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

Send comments (with copy to psa@ansi.org) to: jdixon@fernley.com

NSF (NSF International)

Revision

BSR/NSF 3-201x (i16r1), Commercial Warewashing Equipment (revision of ANSI/NSF 3-2017)

This Standard applies to commercial dishwashing; glasswashing; and pot, pan, and utensil washing machines that wash their contents by applying sprays of detergent solutions with or without blasting media granules, and sanitize their contents by applying sprays of hot water or chemical sanitizing solutions. Stationary rack and conveyor machines are covered under this Standard.

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

Send comments (with copy to psa@ansi.org) to: arose@nsf.org

BSR/NSF 350-201x (i32r3), Onsite Residential and Commercial Water Reuse Treatment Systems (revision of ANSI/NSF 350-201x (i32r2), ANSI/NSF 350-2017a)

This Standard contains minimum requirements for onsite residential and commercial greywater treatment systems. Systems may include greywater reuse treatment systems having a rated treatment capacity up to 5,678 L/d (1,500 gal/d) or commercial greywater reuse treatment systems. This applies to onsite commercial reuse treatment systems that treat combined commercial facility greywater with capacities exceeding 5,678 L/d (1,500 gal/d) and commercial facility laundry water only of any capacity. Management methods and end uses appropriate for the treated effluent discharged from greywater residential and commercial treatment systems meeting this Standard are limited to subsurface discharge to the environment only.

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

Send comments (with copy to psa@ansi.org) to: Jason Snider, (734) 418-6660, jsnider@nsf.org

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 67-201x, Standard for Safety for Panelboards (revision of ANSI/UL 67-2018)

This proposal covers the inclusion of information in Paragraph 6.7.2 about what is permitted to serve as a means to indicate a "Drill Point."

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

Send comments (with copy to psa@ansi.org) to: Derrick Martin, (510) 319-4271, Derrick.L.Martin@ul.com

BSR/UL 588-201x, Standard for Safety for Seasonal Holiday Decorative Products (revision of ANSI/UL 588-2018)

This proposal for UL 588 covers the addition of CXTW-X for use in series-connected strings.

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

Send comments (with copy to psa@ansi.org) to: Megan Sepper, (847) 664-3411, Megan.M.Sepper@ul.com

BSR/UL 1699-201X, Standard for Safety for Arc-Fault Circuit-Interrupters (revision of ANSI/UL 1699-2017)

(1) Addition of requirements to address LCDI shield continuity; (2) Allowing an alternative means of providing installation instructions; (3) Revision to 44.3 to test radiated immunity to 6 GHz.

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

Send comments (with copy to psa@ansi.org) to: Patricia Sena, (919) 549-1636, patricia.a.sena@ul.com

Comment Deadline: March 4, 2019

AGA (ASC B109) (American Gas Association)

New Standard

BSR B109.1-201x, Diaphragm-Type Gas Displacement Meters (Under 500 Cubic Feet Hour Capacity) (new standard)

This publication represents a basic standard for safe operation and substantial and durable construction for diaphragm-type gas displacement meters having a gas flow rating of under 500 cubic feet per hour (14.2m³/h) at 0.5-inch water column (125 Pa) differential pressure at base conditions. This work is the result of years of experience, supplemented by extensive research. The standard is designed to ensure efficient performance and substantial construction of equipment. This is the fifth edition of standard B109.1, in which several additions/deletions have been made to avoid any ambiguity, to provide more consistency with other B109 standards, to improve upon some requirements, and to allow more leeway for future innovation and developments.

Single copy price: \$No charge for PDF of draft

Obtain an electronic copy from: jmeyers@aga.org

Order from: Jeffrey Meyers, (202) 824-7333, jmeyers@aga.org

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

AGMA (American Gear Manufacturers Association)

Revision

BSR/AGMA 2002-DXX-201x, Tooth Thickness and Backlash Measurement of Cylindrical Involute Gearing (revision and redesignation of ANSI/AGMA 2002-C-2016)

This standard establishes the calculation procedures for determining specification limits for external and internal cylindrical involute gearing when the desired tooth thickness is known. This standard also shows the relationships between backlash and the tooth thickness, center distance, and tooth deviations in a pinion and gear mesh.

Single copy price: \$170.00

Obtain an electronic copy from: tech@agma.org

Order from: tech@agma.org

Send comments (with copy to psa@ansi.org) to: aboutaleb@agma.org

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

Revision

BSR/ASHRAE Standard 127-201x, Method of Testing for Rating Air Conditioning Units Serving Data Center (DC) and Other Information Technology Equipment (ITE) Spaces (revision of ANSI/ASHRAE Standard 127-2012)

This revision of Standard 127-2012 establishes a uniform set of test requirements for rating air conditioning units that are applied in Data Center (DC) and other Information Technology Equipment (ITE) spaces.

Single copy price: \$35.00

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

Order from: standards.section@ashrae.org

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

ASME (American Society of Mechanical Engineers)

Revision

BSR/ASME BPVC Section VIII-201x, Rules for Construction of Pressure Vessels (revision of ANSI/ASME BPVC Section VIII-2017)

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

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: Steven Rossi, (212) 591-8460, rossis@asme.org

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

Revision

BSR/ASSP A10.33-201X, Safety & Health Program Requirements for Multi-Employer Projects (revision and redesignation of ANSI/ASSE A10.33-2011 (R2016))

This standard sets forth the minimum elements and activities of a program that defines the duties and responsibilities of construction employers working on a construction project where multiple employers are engaged in the common undertaking to complete a construction project.

Single copy price: \$100.00

Obtain an electronic copy from: Tim Fisher at TFisher@ASSP.Org

Order from: Tim Fisher, (847) 768-3411, tfisher@assp.org

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

ASTM (ASTM International)

New Standard

BSR/ASTM WK44130-201x, Specification for Solid-Wall Poly(Vinyl Chloride) (PVC) Fittings for Joining Corrugated-Wall High-Density Polyethylene (PE) and Polypropylene (PP) Piping (new standard)

https://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: Corice Leonard, (610) 832-9744, accreditation@astm.org

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

BSR/ASTM WK48194-201x, Specification for Eye Protectors for Racket Sports (Racquetball, Squash, Tennis) (new standard)

https://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: Corice Leonard, (610) 832-9744, accreditation@astm.org

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

BSR/ASTM WK60062-201x, Specification for Polyethylene of Raised Temperature/Aluminum/Polyethylene of Raised Temperature (PE-RT/AL/PE-RT) Composite Pressure Pipe (new standard)

https://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: Corice Leonard, (610) 832-9744, accreditation@astm.org

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

BSR/ASTM WK63871-201x, Test Method for Playground Surface Impact Testing in a Lab at a Specified Test Height (new standard)

https://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: Corice Leonard, (610) 832-9744, accreditation@astm.org

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

ASTM (ASTM International)

Reaffirmation

BSR/ASTM F1488-2017 (R201x), Specification for Coextruded Composite Pipe (reaffirmation of ANSI/ASTM F1488-2017)

https://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: Corice Leonard, (610) 832-9744, accreditation@astm.org

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

BSR/ASTM F1951-2014 (R201x), Specification for Determination of Accessibility of Surface Systems under and around Playground Equipment (reaffirmation of ANSI/ASTM F1951-2014)

https://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: Corice Leonard, (610) 832-9744, accreditation@astm.org

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

BSR/ASTM F2649-2017 (R201x), Specification for Corrugated High Density Polyethylene (HDPE) Grease Interceptor Tanks (reaffirmation of ANSI/ASTM F2649-2017)

https://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: Corice Leonard, (610) 832-9744, accreditation@astm.org

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

BSR/ASTM F3012-2014 (R201x), Specification for Loose-Fill Rubber for Use as a Playground Safety Surface under and around Playground Equipment (reaffirmation of ANSI/ASTM F3012-2014)

https://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: Corice Leonard, (610) 832-9744, accreditation@astm.org

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

ASTM (ASTM International)

Revision

BSR/ASTM F894-201x, Specification for Polyethylene (PE) Large Diameter Profile Wall Sewer and Drain Pipe (revision of ANSI/ASTM F894-2017)

https://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: Corice Leonard, (610) 832-9744, accreditation@astm.org

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

BSR/ASTM F2278-201x, Test Method for Evaluating Paintball Barrier Netting (revision of ANSI/ASTM F2278-2010a (R2014))

https://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: Corice Leonard, (610) 832-9744, accreditation@astm.org

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

BSR/ASTM F2337-201x, Test Method for Treestand Fall Arrest System (revision of ANSI/ASTM F2337-2018)

https://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: Corice Leonard, (610) 832-9744, accreditation@astm.org

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

BSR/ASTM F2439-201x, Specification for Headgear Used in Soccer (revision of ANSI/ASTM F2439-2017)

https://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: Corice Leonard, (610) 832-9744, accreditation@astm.org

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

BSR/ASTM F2620-201x, Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings (revision of ANSI/ASTM F2620-2017)

https://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: Corice Leonard, (610) 832-9744, accreditation@astm.org

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

AWWA (American Water Works Association)

Revision

BSR/AWWA B116-201x, Electrodialysis and Ion-Exchange Membrane Systems (revision of ANSI/AWWA B116-2014)

This standard sets minimum requirements for ion-exchange membrane (IEM) systems such as electrodialysis (ED), electrodialysis reversal (EDR), electrodialysis metathesis (EDM), and electrodeionization (EDI) used for water and reclaimed water treatments systems.

Single copy price: Free

Obtain an electronic copy from: ETSsupport@awwa.org

Order from: Vicki David, (303) 347-3431, vdavid@awwa.org

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

CSA (CSA Group)

Revision

BSR/CSA HGV 4.3-201x, Test methods for hydrogen fueling parameter evaluation (revision of ANSI/CSA HGV 4.3-2016)

Details construction and performance requirements for gaseous hydrogen fueling station systems, designed primarily to adjust for full fill of vehicle storage containers. This standard establishes a standardized test method, criteria, and apparatus to evaluate a hydrogen fueling station as it relates to achieving the protocol specified in SAE J2601-2016 for fueling and SAE J2799 for communications with light-duty-vehicle hydrogen storage systems less than 10 kg.

Single copy price: Free

Obtain an electronic copy from: david.zimmerman@csagroup.org

Order from: David Zimmerman, (216) 524-4990, david.zimmerman@csagroup.org

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

BSR/CSA Z21.10.1-201x, Gas water heaters, volume I, storage water heaters with input ratings of 75,000 Btu per hour or less (same as CSA 4.1) (revision and redesignation of ANSI Z21.10.1-2017)

Details test and examination criteria for automatic storage water heaters with input ratings of 75,000 Btu per hour (21 980 W) or less for use with natural, manufactured and mixed gases, liquefied petroleum gases, and LP gas-air mixtures.

Single copy price: Free

Obtain an electronic copy from: david.zimmerman@csagroup.org

Send comments (with copy to psa@ansi.org) to: david.zimmerman@csagroup.org

BSR/CSA Z21.10.3-201x, Gas-fired water heaters, volume III, storage water heaters with input ratings above 75,000 Btu per hour, circulating and instantaneous (same as CSA 4.3) (revision and redesignation of ANSI Z21.10.3-2017)

Details test and examination criteria for automatic storage, with input ratings above 75,000 Btu per hour (21 980 W), circulating and instantaneous water heaters for use with natural, manufactured, and mixed gases; liquefied petroleum gases; and LP gas-air mixtures.

Single copy price: Free

Obtain an electronic copy from: david.zimmerman@csagroup.org

Send comments (with copy to psa@ansi.org) to: david.zimmerman@csagroup.org

BSR/CSA Z21.56-201x, Gas-fired pool heaters (same as CSA 4.7) (revision and redesignation of ANSI Z21.56-201x)

Details test and examination criteria for pool heaters for use with natural, manufactured, and mixed gases; liquefied petroleum gases; and LP gas-air mixtures. Pool heaters are designed to heat non-potable water stored at atmospheric pressure, such as water in swimming pools, spas, hot tubs, and similar applications.

Single copy price: Free

Obtain an electronic copy from: david.zimmerman@csagroup.org

Send comments (with copy to psa@ansi.org) to: david.zimmerman@csagroup.org

CTA (Consumer Technology Association)

New Standard

BSR/CTA/NSF 2052.3-201x, Performance Criteria and Testing Protocols for Features in Sleep Tracking Consumer Technology Devices and Applications (new standard)

This standard addresses performance criteria and testing protocols for features in sleep-tracking consumer technology devices and applications.

Single copy price: Free

Obtain an electronic copy from: standards@cta.tech

Order from: Veronica Lancaster, (703) 907-7697, vlancaster@cta.tech

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

FCI (Fluid Controls Institute)

Revision

BSR/FCI 91-1-201x, Standard for Qualification of Control Valve Stem Seals (revision of ANSI/FCI 91-1-2010)

This standard classifies control valve stem seals by their ability to withstand mechanical and thermal cycles at a specified set of temperature and pressure conditions. Bellows, diaphragms, and tubular seals are not covered by this standard.

Single copy price: Free

Obtain an electronic copy from: Leslie Schraff, fci@fluidcontrolsinstitute.org

Order from: Leslie Schraff, (216) 241-7333, fci@fluidcontrolsinstitute.org

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

ISA (International Society of Automation)

Revision

BSR/ISA 75.05.01-201x, Control Valve Terminology (revision of ANSI/ISA 75.05.01-2016)

The standard contains terminology for control valves commonly used in the control valve industry.

Single copy price: \$60.00

Obtain an electronic copy from: ebrazda@isa.org

Order from: Eliana Brazda, (919) 990-9228, ebrazda@isa.org

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

SSPC (The Society for Protective Coatings)

New Standard

BSR/SSPC CS 23.00/AWS C.2.23/NACE No. 12-201x, Specification for the Application of Thermal Spray Coatings (Metallizing) of Aluminum, Zinc, and Their Alloys and Composites for the Corrosion Protection of Steel (new standard)

This SSPC/AWS/NACE joint standard contains requirements for the application of zinc and aluminum alloys to steel substrates by melting feedstock with heat from combustion or electric arc and propelling the molten metal particles onto the substrate using compressed air or another gas. The standard includes requirements for surface preparation, thermal spray coating application, repair of coating defects, measurement of coating thickness, adhesion testing of the applied coating, and application of optional sealers and topcoats over the thermally sprayed metal coating.

Single copy price: \$Draft copies for review are available free of charge

Obtain an electronic copy from: beggs@sspc.org

Send comments (with copy to psa@ansi.org) to: beggs@sspc.org

UL (Underwriters Laboratories, Inc.)

New National Adoption

BSR/UL 60079-15-201X, Standard for Safety for Explosive Atmospheres - Part 15: Equipment Protection by Type of Protection (national adoption of IEC 60079-15 with modifications and revision of ANSI/UL 60079-15-2013 (R2017))

Adoption of IEC 60079-15, Explosive Atmospheres - Part 15: Equipment Protection by Type of Protection "n", (fifth edition issued by IEC December 2017) as a new UL IEC-based UL standard, UL 60079-15, with US differences.

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

BSR/UL 62091-201X, Standard for Safety for Low-Voltage Switchgear and Controlgear - Controllers for Drivers of Stationary Fire Pumps (national adoption with modifications of IEC 62091)

This document is the proposed UL/CSA IEC-based standard for fire pump controllers. It is the first edition of IEC 62091 with deviations included for Canada, Mexico, and the United States. The document was created using IEC 62091, the requirements of the third edition of UL 218/CSA C22.2 No. 263-15 and requirements pertaining to fire pump controllers from the 2019 and past editions of NFPA 20, the Standard for the Installation of Stationary Pumps for Fire Protection. This document is intended to replace UL 218/CSA C22.2 No. 263-15 to provide globally accepted requirements for fire pump controllers.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: comm2000, 151 Eastern Avenue, Bensenville, IL 60106 USA, 1-888-853-3503

Send comments (with copy to psa@ansi.org) to: Casey Granata, (919) 549-1054, Casey.Granata@UL.Com

UL (Underwriters Laboratories, Inc.)

Reaffirmation

BSR/UL 248-2-2005 (R201x), Low-Voltage Fuses - Part 2: Class C Fuses (reaffirmation of ANSI/UL 248-2-2005 (R2014))

This part applies to Class C fuses rated 1200 A or less and 600 V ac. DC ratings are optional.

Single copy price: Free

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

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

BSR/UL 248-3-2005 (R201x), Low-Voltage Fuses - Part 3: Class CA and CB Fuses (reaffirmation of ANSI/UL 248-3-2005 (R2014))

This part applies to Class CA and CB fuses rated 60 A or less and 600 V ac. DC ratings are optional.

Single copy price: Free

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

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

BSR/UL 248-4-2005 (R201x), Low-Voltage Fuses - Part 4: Class CC Fuses (reaffirmation of ANSI/UL 248-4-2005 (R2014))

This part applies to Class CC fuses rated 30 A or less and 600 V ac. DC ratings are optional.

Single copy price: Free

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

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 6-201X, Standard for Electrical Rigid Metal Conduit - Steel (revision of ANSI/UL 6-2014)

(1) Annex A, Normative References, update; (2) Interpretation of Flammability Test result for a thin nonmetallic topcoat (outermost layer) of an alternate corrosion protection system; (3) Removal of chamfer angle requirement for couplings; (4) Clarification to elbow requirements, test bend radius, and editorial changes.

Single copy price: Free

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

Send comments (with copy to psa@ansi.org) to: Joshua Johnson, (919) 549-1053, Joshua.Johnson@ul.com

BSR/UL 6A-201X, Standard for Electrical Rigid Metal Conduit - Aluminum, Red Brass, and Steel (revision of ANSI/UL 6A-2014)

(1) Annex A, Normative References, update; (2) Removal of reference to the term "Mandrel"; (3) Removal of reference to mandrel and clarification of the radius requirements for elbows; (4) Removal of chamfer angle and chamfer diameter requirements for couplings.

Single copy price: Free

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

Send comments (with copy to psa@ansi.org) to: Joshua Johnson, (919) 549-1053, Joshua.Johnson@ul.com

BSR/UL 514B-201X, Standard for Conduit, Tubing, and Cable Fittings (revision of ANSI/UL 514B-2014)

(1) Addition of requirements specific to "heavy-duty" liquid-tight flexible metal fittings; (2) Armored cable (AC) tolerances for Assembly Test (8.15.2.2); (3) Metal-clad (MC) cable, type ACG90 cable, and type ACGWU90 cable tolerances for Assembly Test (8.22.2.4); (4) Flexible cord tolerances for Assembly Test (8.27.2.2); (5) Tray cable tolerances for Assembly Test (8.28.2.2 and 8.28.2.3); (6) Tray cable tolerances for Assembly Test (8.28.2.5); (7) Cross-sectional area of conduit bodies; (8) Editorial correction; (9) Depth specifications in clause 5.7.3.7 and table 8 and table 9; (10) Addition of the Corrosion Resistance Test in 8.31.4.2; (11) 8.4.2 pulling speed; (12) Bend and Pull Tests for fittings intended for metal-covered cables; and (13) Removing XRW fittings for clause 5.6.2.2.

Single copy price: Free

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

Send comments (with copy to psa@ansi.org) to: Joshua Johnson, (919) 549-1053, Joshua.Johnson@ul.com

BSR/UL 810-201x, Standard for Safety for Capacitors (revision of ANSI/UL 810-2014)

(1) Revision of capacitor internal insulation requirements; (2) Correction of dielectric voltage withstand reference in the Supplement SA, Electrolytic Capacitors; (3) Clarity of plastic materials; (4) Editorial upkeep revisions throughout the standard.

Single copy price: Free

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

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

BSR/UL 62841-3-1-201x, Standard for Safety for Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery - Safety - Part 3-1: Particular Requirements for Transportable Table Saws (revision of ANSI/UL 62841-3-1-2017)

This proposal for UL 62841-3-1 covers: (1) Proposed addition of national differences to clarify instruction requirements specific to addressing workpiece feed and jamming instances for both corded and battery-powered tools.

Single copy price: Free

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

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

Technical Reports Registered with ANSI

Technical Reports Registered with ANSI are not consensus documents. Rather, all material contained in Technical Reports Registered with ANSI is informational in nature. Technical reports may include, for example, reports of technical research, tutorials, factual data obtained from a survey carried out among standards developers and/or national bodies, or information on the "state of the art" in relation to standards of national or international bodies on a particular subject.

Immediately following the end of a 30-day announcement period in Standards Action, the Technical Report will be registered by ANSI. Please submit any comments regarding this registration to the organization indicated, with a copy to the PSA Center, American National Standards Institute, 25 West 43rd Street, New York, NY 10036 or E-Mail to psa@ansi.org.

Comment Deadline: February 17, 2019

ASSP (Safety) (American Society of Safety Professionals)

ASSP Z590.5-2019, How to Develop and Implement An Active Shooter/Armed Assailant Plan (technical report) (technical report)

This technical report provides guidelines on how to develop an emergency response plan dealing with the active shooter/armed assailant scenario and how to best initiate such a plan. Guidance includes prudent measures on how to conduct exercises, protect facilities, train employees in administrative controls, and involve outside resources in the planning and response.

Single copy price: \$110.00

Order from: Lauren Bauerschmidt, (847) 768-3475, LBauerschmidt@assp.org

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

Projects Withdrawn from Consideration

An accredited standards developer may abandon the processing of a proposed new or revised American National Standard or portion thereof if it has followed its accredited procedures. The following projects have been withdrawn accordingly:

API (American Petroleum Institute)

BSR/API RP 131-201x, Laboratory Testing of Drilling Fluids (national adoption of ISO 10416:2008 with modifications and revision of ANSI/API RP 131/ISO 10416-2008)

Inquiries may be directed to Jacqueline Roueche, (202) 682-8286, RouecheJ@api.org

CTA (Consumer Technology Association)

BSR/CTA 770.2-D-201x, Standard Definition TV Analog Component Video Interface (new standard)

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.

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

Office: 520 N. Northwest Highway
Park Ridge, IL 60068

Contact: *Tim Fisher*

Phone: (847) 768-3411

E-mail: TFisher@ASSP.org

BSR/ASSP A10.33-201X, Safety & Health Program Requirements for Multi-Employer Projects (revision and redesignation of ANSI/ASSE A10.33-2011 (R2016))

FCI (Fluid Controls Institute)

Office: 1300 Sumner Avenue
Cleveland, OH 44115

Contact: *Leslie Schraff*

Phone: (216) 241-7333

E-mail: fcifluidcontrolsinstitute.org

BSR/FCI 91-1-201x, Standard for Qualification of Control Valve Stem Seals (revision of ANSI/FCI 91-1-2010)

IES (Illuminating Engineering Society)

Office: 120 Wall Street, Floor 17
New York, NY 10005

Contact: *Patricia McGillicuddy*

Phone: (917) 913-0027

E-mail: pmcgillicuddy@ies.org

BSR/IES LM-C303-201x, IES Guide to Application Distance Specific Radiometry (new standard)

ISA (International Society of Automation)

Office: 67 Alexander Drive
Research Triangle Park, NC 27709

Contact: *Eliana Brazda*

Phone: (919) 990-9228

E-mail: ebrazda@isa.org

BSR/ISA 75.05.01-201x, Control Valve Terminology (revision of ANSI/ISA 75.05.01-2016)

NSF (NSF International)

Office: 789 N. Dixboro Road
Ann Arbor, MI 48105-9723

Contact: *Allan Rose*

Phone: (734) 827-3817

E-mail: arose@nsf.org

BSR/NSF 3-201x (i16r1), Commercial Warewashing Equipment (revision of ANSI/NSF 3-2017)

BSR/NSF 350-201x (i32r3), Onsite Residential and Commercial Water Reuse Treatment Systems (revision of ANSI/NSF 350-201x (i32r2), ANSI/NSF 350-2017a)

PLASTICS (Plastics Industry Association)

Office: 1425 K Street NW, Suite 500
Washington, DC 20005

Contact: *Megan Hayes*

Phone: (202) 974-5217

E-mail: mhayes@plasticsindustry.org

BSR/PLASTICS B151.7-201x, Safety Requirements for Extrusion Machines (revision and redesignation of ANSI/SPI B151.7-2013)

SSPC (The Society for Protective Coatings)

Office: 40 24th Street 6th Floor
Pittsburgh, PA 15235-4656

Contact: *Aimee Beggs*

Phone: (412) 281-2331 2223

E-mail: beggs@sspc.org

BSR/SSPC CS 23.00/AWS C.2.23/NACE No. 12-201x, Specification for the Application of Thermal Spray Coatings (Metallizing) of Aluminum, Zinc, and Their Alloys and Composites for the Corrosion Protection of Steel (new standard)

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.

Final Actions on American National Standards

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

AAMI (Association for the Advancement of Medical Instrumentation)

Addenda

ANSI/AAMI/IEC 60601-2-4/A1-2019, Medical electrical equipment - Part 2-4: Particular requirements for the basic safety and essential performance of cardiac defibrillators - Amendment 1 (addenda to ANSI/AAMI/IEC 60601-2-4-2010 (R2015)): 1/11/2019

New National Adoption

ANSI/AAMI/IEC 80601-2-30-2019, Medical electrical equipment - Part 2-30: Particular requirements for the basic safety and essential performance of automated non-invasive sphygmomanometers (identical national adoption of IEC 80601-2-30 and revision of ANSI/AAMI/ISO 81060-1-2007 (R2010) and ANSI/AAMI/IEC 80601-2-30-2009/A1-2013): 1/11/2019

ABMA (American Brush Manufacturers Association)

Revision

ANSI B165.1-2019, Power Driven Brushing Tools - Safety Requirements for Design, Care and Use (revision of ANSI B165.1-2013): 1/11/2019

ASABE (American Society of Agricultural and Biological Engineers)

Revision

ANSI/ASAE S433.1 JAN2019, Loads Exerted by Free-Flowing Grain on Bins (revision and redesignation of ANSI/ASABE EP433 DEC1988 (R2015) W/Corr 1): 1/11/2019

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

Revision

ANSI/ASHRAE 20-2019, Method of Test for Rating Remote Mechanical-Draft Air-Cooled Refrigerant Condensers (revision of BSR/ASHRAE Standard 20-201x): 1/4/2019

ASME (American Society of Mechanical Engineers)

New Standard

ANSI/ASME Y14.47-2019, 3D Model Organization Schema (new standard): 1/11/2019

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

Supplement

INCITS 522-2014/AM 1-2018, Information technology - ATA/ATAPI Command Set - 3 (ACS-3) - Amendment 1 (supplement to INCITS 522-2014): 12/31/2018

Withdrawal

INCITS 340-2000 [R2015], Information technology - AT Attachment with Packet Interface - 5 (withdrawal of INCITS 340-2000 [R2015]): 1/11/2019

INCITS 370-2004 [R2014], Information technology - ATA/ATAPI Host Adapters Standard (ATA-Adapter) (withdrawal of INCITS 370-2004 [R2014]): 1/11/2019

NBBPVI (National Board of Boiler and Pressure Vessel Inspectors)

Revision

ANSI/NB-23-2019, National Board Inspection Code (NBIC) (revision of ANSI/NB-23-2017): 1/11/2019

NEMA (ASC C78) (National Electrical Manufacturers Association)

New Standard

* ANSI C78.54-2019, Standard for Electric Lamps - Specification Sheet for Tubular Fluorescent Replacement and Retrofit LED Lamps (new standard): 1/11/2019

NEMA (National Electrical Manufacturers Association)

New Standard

ANSI/NEMA SC 1-2019, Standard for Supplier Credentialing in Healthcare (new standard): 1/11/2019

RESNET (Residential Energy Services Network, Inc.)

Addenda

ANSI/RESNET/ICC 301-2014 Addendum F-2018, Normative Appendix A (addenda to ANSI/RESNET/ICC 301-2018): 1/11/2019

SCTE (Society of Cable Telecommunications Engineers)

Revision

ANSI/SCTE 104-2018, Automation System to Compression System Communications Applications Program Interface (API) (revision of ANSI/SCTE 104-2017): 1/11/2019

ANSI/SCTE 194-1-2018, DTS-HD Audio System - Part 1: Coding Constraints for Cable Television (revision of ANSI/SCTE 194-1-2010): 1/11/2019

ANSI/SCTE 194-2-2018, DTS-HD Audio System - Part 2: Constraints for Carriage over MPEG-2 Transport (revision of ANSI/SCTE 194-2-2014): 1/11/2019

UL (Underwriters Laboratories, Inc.)

New National Adoption

ANSI/UL 61010-2-030-2018, Standard for Safety for Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 2-030: Particular Requirements for Equipment Having Testing or Measuring Circuits (national adoption of IEC 61010-2-030 with modifications and revision of ANSI/UL 61010-2-030-2012 (R2016)): 12/21/2018

Revision

ANSI/UL 1206-2019, Standard for Safety for Electric Commercial Clothes-Washing Equipment (revision of ANSI/UL 1206-2018): 1/7/2019

ANSI/UL 1240-2019, Standard for Safety for Electric Commercial Clothes-Drying Equipment (Proposal dated 11/9/18) (revision of ANSI/UL 1240-2018): 1/7/2019

Project Initiation Notification System (PINS)

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

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

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

ASABE (American Society of Agricultural and Biological Engineers)

Contact: *Carla VanGilder, (269) 932-7015, vangilder@asabe.org*
2950 Niles Road, Saint Joseph, MI 49085

New National Adoption

BSR/ASABE AD8759-1-201x, Agricultural tractors - Front-mounted equipment - Part 1: Power take-off: Safety requirements and clearance zone around PTO (national adoption of ISO 8759-1:2018 with modifications and revision of ANSI/ASABE AD8759-1:2013)

Stakeholders: All manufacturers of tractors, implements that use PTOs to power implements, drive shafts, and all users of tractors that have implements that require a Front PTO to power the implement.

Project Need: Adopt updated version of the ISO standard. The earlier version of the standard, ISO 8759-1:1998, was replaced with 2018 versions of ISO 8759-1 and first editions of ISO 8759-3 and ISO 8759-4.

- Specifications for PTO Type 4 have been added;
- Dimensions for the tractor master shield and clearance zone have been updated;
- Dimensions of the protective device/tractor master shield and clearance have been presented in one figure;
- General specifications of the PTO and location requirements are now located in ISO 8759-3:2018;
- Specifications for three-point linkage is located in ISO 8759-4:2018;
- ISO 8759-1 adoption will maintain the deviation on using the PTO protective device (Master Shield) as a step.

BSR/ASABE AD8759-3-201x, Agricultural tractors - Front-mounted equipment - Part 3: Power take-off: General specifications and location (national adoption with modifications of ISO 8759-3:2018)

Stakeholders: All manufacturers of tractors, implements that use PTOs to power implements, drive shafts, and all users of tractors that have implements that require a Front PTO to power the implement.

Project Need: Adopt updated version of the ISO standard. The earlier version of the standard, ISO 8759-1:1998, was replaced with 2018 versions of ISO 8759-1 and first editions of ISO 8759-3 and ISO 8759-4.

ISO 8759-3:2018 contains the general specifications of the PTO and location requirements that were in ISO 8759-1:1998.

BSR/ASABE AD8759-4-201x, Agricultural tractors - Front-mounted equipment - Part 4: Three-point linkage (national adoption with modifications of ISO 8759-4:2018)

Stakeholders: All manufacturers of tractors, implements that use PTOs to power implements, drive shafts, and all users of tractors that have implements that require a Front PTO to power the implement.

Project Need: Adopt updated version of the ISO standard. The earlier version of the standard, ISO 8759-1:1998, was replaced with 2018 versions of ISO 8759-1 and first editions of ISO 8759-3 and ISO 8759-4.

ISO 8759-4:2018 contains the specifications for three-point linkage that were in ISO 8759-1:1998.

ASTM (ASTM International)

Contact: *Laura Klineburger, (610) 832-9696, accreditation@astm.org*
100 Barr Harbor Drive, West Conshohocken, PA 19428-2959

New Standard

BSR/ASTM WK66450-201x, New Test Method for Sonic Velocity in Manufacture Carbon and Graphite Materials for Use in Obtaining Approximate Elastic Constants: Young's Modulus, Shear Modulus and Poisson's Ratio (new standard)

Stakeholders: Manufactured Carbon and Graphite Products industry.

Project Need: This new method allows calculation of Poisson's Ratio.

This test method covers a procedure for measuring the longitudinal and transverse (shear) sonic velocities in Manufactured Carbon and Graphite which can be used to obtain approximate values for the Elastic constants: Young's modulus (E), the Shear modulus (G), and Poisson's Ratio.

AWS (American Welding Society)

Contact: *Mario Diaz, (305) 443-9353, mdiaz@aws.org*
8669 Doral Blvd, Suite 130, Doral, FL 33166

Revision

BSR/AWS D17.2/D17.2M-201x, Specification for Resistance Welding for Aerospace Applications (revision of ANSI/AWS D17.2/D17.2M-2019)

Stakeholders: Aerospace fabrication and manufacturing companies.

Project Need: This revision will improve upon the third edition of D17.2 by adding new subject matter that will better address the general resistance welding requirements for the aerospace hardware.

This specification provides the general resistance welding requirements for aerospace hardware. It includes, but is not limited to, resistance spot and resistance seam welding of aluminum, magnesium, iron, nickel, cobalt, and titanium-based alloys. There are requirements for machine and welding schedule qualification, production witness samples, and inspection and acceptance criteria for aerospace hardware.

FM (FM Approvals)

Contact: *Josephine Mahnken, (781) 255-4813, josephine.mahnken@fmaprovals.com*
1151 Boston-Providence Turnpike, Norwood, MA 02062

Revision

BSR/FM 2510-201x, Flood Abatement Equipment (revision of ANSI/FM 2510-2014)

Stakeholders: Flood barrier manufacturers, standard authorities, industrial and commercial facilities looking to protect their buildings from riverline flooding conditions.

Project Need: The following updates are proposed:

- Modifications to the opening barrier protocol to include water performance testing at lower depths;
- Additional tests that apply to open-cellular rubber compounds (i.e., foam-type rubber) which are commonly used as gaskets on flood barriers need to be added to the Standard to sufficiently assess their quality;
- Addition of adhesive testing. Many barrier designs use adhesives to bond the gasket material to the barrier. Adhesives are not addressed under the current protocol;
- Modify the flood abatement pump section to clarify approval of pump packages vs. wet-end only;
- Additional requirements for electric drive and submersible flood pumps;
- Modifications to backwater valve section to be inclusive of all types of "backwater valves" besides the traditional check valve.

Title will be changed to "flood mitigation valves"; and

- Add additional requirements for waterproofing products for building penetrations. Products in this category include collars, plugs, elastomeric seals, and types of putty.

The FM Approvals 2510 Standard contains test requirements for the performance of flood barriers, flood mitigation pumps, backwater valves, and waterproofing products for building penetrations, as well as an evaluation of the components comprising these products to assure reliability in the barrier's performance.

IES (Illuminating Engineering Society)

Contact: Patricia McGillicuddy, (917) 913-0027, pmcgillicuddy@ies.org
120 Wall Street, Floor 17, New York, NY 10005

New Standard

BSR/IES LM-C303-201x, IES Guide to Application Distance Specific Radiometry (new standard)

Stakeholders: Designers, architects, engineers, users, general public, environmentalists, lighting laboratories.

Project Need: This document describes the method for measuring illuminance, irradiance, and/or photon irradiance (i.e., photon flux density) at multiple points on a plane at a specific application distance. This document also describes a method to generate and interpret IES files composed of equivalent intensity values and applicable only to a specific range of application distances.

To establish the measurement and data application methodologies for characterizing planar distributions of illuminance, irradiance, or photon irradiance (i.e., photon flux density) at application distances, and for creating distance-specific IES files by application. The purpose is to obtain the illuminance, irradiance, or photon irradiance measurement data in laboratory environments for the horticultural, UV disinfection, back illumination of displays, task lighting, and other applications where the irradiance information is needed.

IKECA (International Kitchen Exhaust Cleaning Association)

Contact: John Dixon, (215) 320-3711, information@ikeca.org
100 North 20th Street, Suite 400, Philadelphia, PA 19103-1462

Revision

BSR/IKECA I10-201x, Standard for the Methodology for Inspection of Commercial Kitchen Exhaust Systems (revision of ANSI/IKECA-I10-2015)

Stakeholders: (1) Cleaning Contractor – An individual who provides commercial kitchen exhaust cleaning services or is a designated representative of an organization which provides commercial kitchen exhaust cleaning services;

(2) HVAC Contractor – An individual who provides heating, ventilation, and air conditioning (HVAC) services or is a designated representative of an organization which provides heating, ventilation, and air conditioning (HVAC) services;

(3) Fire Suppression Contractor – An individual who provides automatic fire-suppression systems and services that control and extinguish fires without human intervention or is a designated representative of an organization which provides automatic fire-suppression systems and services that control and extinguish fires without human intervention;

(4) Food Service/End User – An individual who is an owner, operator, or manager of a facility or representative of a facilities management company; or an individual who provides services related to making, transporting, or selling prepared foods to restaurants, hospitals, schools, and other commercial kitchen establishments or a designated representative of an organization which provides services related to making, transporting, or selling prepared foods to restaurants, hospitals, schools, and other commercial kitchen establishments;

(5) Fire Analysis Expert – An individual who provides fire investigation and analysis to the commercial kitchen industry or related industries or is a designated representative of an organization which provides fire investigation and analysis to the commercial kitchen industry or related industries;

(6) Designer – An individual who designs commercial kitchen equipment or a designated representative of an organization which designs commercial kitchen equipment;

(7) Manufacturer – An individual who represents a maker of commercial kitchen equipment;

(8) Fire Prevention Authority – An authority having jurisdiction for fire prevention and life safety or a designated representative of an authority having jurisdiction for fire prevention and life safety;

(9) Insurance – An individual who provides loss control and risk management services to an insurance carrier or broker or a designated representative of an organization which provides loss control and risk management services.

Project Need: This project will reaffirm the I10 approval for publication as of 2015. It may also revise the 2015 standard, if proposals and public comment are approved by the ANSI/IKECA Consensus Body.

This standard shall provide minimum requirements for inspecting commercial kitchen exhaust systems and system components for mechanical conditions, structural integrity, fire safety, and cleanliness levels. The purpose of this standard shall be to reduce the potential fire safety hazards associated with commercial kitchen exhaust systems through inspection services.

PLASTICS (Plastics Industry Association)

Contact: Megan Hayes, (202) 974-5217, mhayes@plasticsindustry.org
1425 K Street NW, Suite 500, Washington, DC 20005

Revision

BSR/PLASTICS B151.7-201x, Safety Requirements for Extrusion Machines (revision and redesignation of ANSI/SPI B151.7-2013)

Stakeholders: Machinery suppliers, producers, users, plastics processors, machinery safety experts.

Project Need: This document is being revised to ensure it reflects current safety technology and to align formatting with ISO formatting in preparation for a future ISO Project.

This standard provides information on the safety of extrusion machines that are used in the plastics industry. Extrusion machinery suppliers and users shall use the risk assessment process in the manufacture, care, and use of the machinery and deviations shall be based on a documented risk assessment. Safety requirements of ancillary equipment used with extrusion machines are not covered by this standard.

UL (Underwriters Laboratories, Inc.)

Contact: Derrick Martin, (510) 319-4271, Derrick.L.Martin@ul.com
47173 Benicia Street, Fremont, CA 94538

New Standard

BSR/UL 2591-201x, Standard for Safety for Battery Cell Separators (new standard)

Stakeholders: Battery manufacturers, consumers, end product producers.

Project Need: To obtain national recognition of a Standard covering battery cell separators.

These requirements cover short-term test procedures to be used for the evaluation of battery cell separators for use in lithium ion cells. These separators are intended to provide electrical insulation between the lithium ion cell electrodes while still allowing for ion transport between the electrodes, when filled with electrolyte. The test procedures to be covered in this standard provide data information with respect to the physical, mechanical, thermal, flammability, and other properties of the battery separator under consideration.

UL (Underwriters Laboratories, Inc.)

Contact: Julio Morales, (919) 549-1097, Julio.Morales@UL.com
12 Laboratory Drive, Research Triangle Park, NC 27709

New Standard

BSR/UL 3049-201x, Standard for Safety for Electrical Resistance Trace Heating Systems for Residential Applications (new standard)

Stakeholders: Manufacturers and users of electric resistance trace heating systems for residential applications.

Project Need: To obtain national recognition of a standard covering electric resistance trace heating systems for residential applications.

These requirements cover electrical resistance trace heating systems for residential applications as installed in the following ordinary locations: (a) Applied to piping to help prevent freezing or to help maintain to a prescribed temperature, and installed in accordance with National Electrical Code, ANSI/NFPA 70, Article 427; (b) Applied exposed on surfaces, such as, roofs, gutters, and other structures to help prevent freezing and snow and ice buildup and installed in accordance with National Electrical Code, ANSI/NFPA 70, Article 426; and (c) Embedded in driveways, walkways, stairs, and other areas to help prevent freezing and snow and ice buildup and installed in accordance with National Electrical Code, ANSI/NFPA 70, Article 426.

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)**
- **ITI (InterNational Committee for Information Technology Standards)**
- **MHI (Material Handling Industry)**
- **NAHBRC (NAHB Research Center, Inc.)**
- **NBBPVI (National Board of Boiler and Pressure Vessel Inspectors)**
- **NCPDP (National Council for Prescription Drug Programs)**
- **NEMA (National Electrical Manufacturers Association)**
- **NISO (National Information Standards Organization)**
- **NSF (NSF International)**
- **PRCA (Professional Ropes Course Association)**
- **RESNET (Residential Energy Services Network, Inc.)**
- **SAE (SAE International)**
- **TCNA (Tile Council of North America)**
- **TIA (Telecommunications Industry Association)**
- **UL (Underwriters Laboratories, 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.

<p>AAMI Association for the Advancement of Medical Instrumentation 4301 N. Fairfax Drive, Suite 301 Suite 301 Arlington, VA 22203-1633 Phone: (703) 253-8268 Web: www.aami.org</p>	<p>ASSP (Safety) American Society of Safety Professionals 520 N. Northwest Highway Park Ridge, IL 60068 Phone: (847) 768-3411 Web: www.assp.org</p>	<p>IES Illuminating Engineering Society 120 Wall Street, Floor 17 New York, NY 10005 Phone: (917) 913-0027 Web: www.ies.org</p>	<p>NSF NSF International 789 N. Dixboro Road Ann Arbor, MI 48105-9723 Phone: (734) 827-3817 Web: www.nsf.org</p>
<p>ABMA American Brush Manufacturers Association 736 Main Avenue Suite 7 Durango, CO 81301-5479 Phone: (720) 392-2262 Web: www.abma.org</p>	<p>ASTM ASTM International 100 Barr Harbor Drive West Conshohocken, PA 19428-2959 Phone: (610) 832-9696 Web: www.astm.org</p>	<p>IKECA International Kitchen Exhaust Cleaning Association 100 North 20th Street Suite 400 Philadelphia, PA 19103-1462 Phone: (215) 320-3711 Web: www.ikeca.org</p>	<p>PLASTICS Plastics Industry Association 1425 K Street NW, Suite 500 Washington, DC 20005 Phone: (202) 974-5217 Web: www.plasticsindustry.org</p>
<p>AGA (ASC B109) American Gas Association 400 N. Capitol St., NW Washington, DC 20001 Phone: (202) 824-7333 Web: www.aga.org</p>	<p>AWS American Welding Society 8669 Doral Blvd Suite 130 Doral, FL 33166 Phone: (305) 443-9353 Web: www.aws.org</p>	<p>ISA (Organization) International Society of Automation 67 Alexander Drive Research Triangle Park, NC 27709 Phone: (919) 990-9228 Web: www.isa.org</p>	<p>RESNET Residential Energy Services Network, Inc. 4867 Patina Court Oceanside, CA 92057 Phone: (760) 408-5860 Web: www.resnet.us.com</p>
<p>AGMA American Gear Manufacturers Association 1001 N Fairfax Street, 5th Floor Alexandria, VA 22314-1587 Phone: (703) 684-0211 Web: www.agma.org</p>	<p>AWWA American Water Works Association 6666 W. Quincy Ave. Denver, CO 80235 Phone: (303) 347-6178 Web: www.awwa.org</p>	<p>ITI (INCITS) InterNational Committee for Information Technology Standards 1101 K Street NW Suite 610 Washington, DC 20005-3922 Phone: (202) 737-8888 Web: www.incits.org</p>	<p>SCTE Society of Cable Telecommunications Engineers 140 Philips Rd Exton, PA 19341 Phone: (800) 542-5040 Web: www.scte.org</p>
<p>ASABE American Society of Agricultural and Biological Engineers 2950 Niles Road Saint Joseph, MI 49085 Phone: (269) 932-7015 Web: www.asabe.org</p>	<p>CSA CSA Group 8501 E. Pleasant Valley Road Cleveland, OH 44131 Phone: (216) 524-4990 Web: www.csagroup.org</p>	<p>NBBPVI National Board of Boiler and Pressure Vessel Inspectors 1055 Crupper Avenue Columbus, OH 43229-1183 Phone: (614) 431-3236 Web: www.nationalboard.org</p>	<p>SSPC The Society for Protective Coatings 40 24th Street, 6th Floor Pittsburgh, PA 15235-4656 Phone: (412) 281-2331 2223 Web: www.sspc.org</p>
<p>ASHRAE American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. 1791 Tullie Circle, NE Atlanta, GA 30329 Phone: (404) 636-8400 Web: www.ashrae.org</p>	<p>CTA Consumer Technology Association 1919 South Eads Street Arlington, VA 22202 Phone: (703) 907-7697 Web: www.cta.tech</p>	<p>NEMA (ASC C78) National Electrical Manufacturers Association 1300 N 17th St Rosslyn, VA 22209 Phone: (703) 841-3262 Web: www.nema.org</p>	<p>UL Underwriters Laboratories, Inc. 47173 Benicia Street Fremont, CA 94538 Phone: (510) 319-4271 Web: www.ul.com</p>
<p>ASME American Society of Mechanical Engineers Two Park Avenue New York, NY 10016-5990 Phone: (212) 591-8521 Web: www.asme.org</p>	<p>FCI Fluid Controls Institute 1300 Sumner Avenue Cleveland, OH 44115 Phone: (216) 241-7333 Web: www.fluidcontrolsinstitute.org</p>	<p>NEMA (Canvass) National Electrical Manufacturers Association 1300 North 17th Street Suite 900 Rosslyn, VA 22209 Phone: (703) 841-3227 Web: www.nema.org</p>	
	<p>FM FM Approvals 1151 Boston-Providence Turnpike Norwood, MA 02062 Phone: (781) 255-4813 Web: www.fmglobal.com</p>		



ISO & IEC Draft International Standards

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

Comments

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

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

Ordering Instructions

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

ISO Standards

AGRICULTURAL FOOD PRODUCTS (TC 34)

ISO 6887-3/DAMd1, Microbiology of the food chain - Preparation of test samples, initial suspension and decimal dilutions for microbiological examination - Part 3: Specific rules for the preparation of fish and fishery products - Amendment 1: Sample preparation for raw marine gastropods - 3/31/2019, \$29.00

AIR QUALITY (TC 146)

ISO/DIS 12039, Stationary source emissions - Determination of the mass concentration of carbon monoxide, carbon dioxide and oxygen in flue gas - Performance characteristics of automated measuring systems - 3/14/2019, \$119.00

APPLICATIONS OF STATISTICAL METHODS (TC 69)

ISO/DIS 5725-4, Accuracy (trueness and precision) of measurement methods and results - Part 4: Basic methods for the determination of the trueness of a standard measurement method - 2/2/2019, \$93.00

BIOTECHNOLOGY (TC 276)

ISO/DIS 21899, Biotechnology - Biobanking - General requirements for the validation and verification of processing methods for biological material in biobanks - 3/31/2019, \$77.00

BUILDING ENVIRONMENT DESIGN (TC 205)

ISO/DIS 52031, Energy performance of buildings - Method for calculation of system energy requirements and system efficiencies - Space emission systems (heating and cooling) - 2/6/2019, \$125.00

CONCRETE, REINFORCED CONCRETE AND PRE-STRESSED CONCRETE (TC 71)

ISO/DIS 20290-4, Aggregates for concrete - Test methods for mechanical and physical properties - Part 4: Determination of ten per cent fines value (TFV) - 2/4/2019, \$53.00

DENTISTRY (TC 106)

ISO/DIS 1942, Dentistry - Vocabulary - 4/1/2019, \$107.00

ISO/DIS 21850-1, Dentistry - Materials for dental instruments - Part 1: Stainless steel - 2/2/2019, \$67.00

DIMENSIONAL AND GEOMETRICAL PRODUCT SPECIFICATIONS AND VERIFICATION (TC 213)

ISO/DIS 16610-29, Geometrical product specifications (GPS) - Filtration - Part 29: Linear profile filters - Wavelets - 2/1/2019, \$77.00

ENVIRONMENTAL MANAGEMENT (TC 207)

ISO/DIS 14002-1, Environmental management systems - Guidelines for using ISO 14001 to address environmental aspects and conditions within an environmental topic area - Part 1: General - 3/31/2019, \$58.00

ERGONOMICS (TC 159)

ISO/DIS 24550, Ergonomics - Accessible design - Indicator lights on consumer products - 2/4/2019, \$46.00

ISO/DIS 24551, Ergonomics - Accessible design - Spoken instructions of consumer products - 2/4/2019, \$46.00

FIRE SAFETY (TC 92)

ISO/DIS 13571-1, Life-threatening components of fire - Part 1: Guidelines for the estimation of time to compromised tenability in fires - 3/31/2019, \$112.00

ISO/DIS 29903-1, Guidance for the comparison of toxic gas data from different tests - Part 1: General - 2/25/2019, \$77.00

FLUID POWER SYSTEMS (TC 131)

ISO/DIS 4399, Fluid power systems and components - Connectors and associated components - Nominal pressures - 2/3/2019, \$33.00

GAS TURBINES (TC 192)

ISO/DIS 21905, Gas turbine exhaust systems with or without waste heat recovery - 3/31/2019, \$165.00

GEOGRAPHIC INFORMATION/GEOMATICS (TC 211)

ISO/DIS 19116, Geographic information - Positioning services - 2/1/2019, \$134.00

GRAPHIC TECHNOLOGY (TC 130)

ISO/DIS 20616-2, Graphic technology - File format for quality control and metadata - Part 2: Print quality exchange (PQX) - 3/31/2019, \$107.00

IMPLANTS FOR SURGERY (TC 150)

ISO/DIS 14708-5, Implants for surgery - Active implantable medical devices - Part 5: Circulatory support devices - 2/1/2019, \$146.00

INDUSTRIAL AUTOMATION SYSTEMS AND INTEGRATION (TC 184)

ISO/DIS 15746-3, Automation systems and integration - Integration of advanced process control and optimization capabilities for manufacturing systems - Part 3: Validation and verification - 3/31/2019, \$77.00

INDUSTRIAL TRUCKS (TC 110)

ISO/DIS 11525-1, Rough-terrain trucks - Safe use requirements - Part 1: Variable-reach trucks - 2/2/2019, \$62.00

ISO/DIS 11525-2, Rough-terrain trucks - Safe use requirements - Part 2: Slewing variable-reach trucks - 2/2/2019, \$62.00

MECHANICAL VIBRATION AND SHOCK (TC 108)

ISO/DIS 18436-1, Condition monitoring and diagnostics of machine systems - Requirements for certification of personnel - Part 1: Sector specific requirements for certification bodies and the certification process - 2/2/2019, \$40.00

NUCLEAR ENERGY (TC 85)

ISO/DIS 16795, Nuclear energy - Determination of Gd₂O₃ content of gadolinium fuel pellets by X-ray fluorescence spectrometry - 3/31/2019, \$46.00

OPTICS AND OPTICAL INSTRUMENTS (TC 172)

ISO 8596/DAmD1, Ophthalmic optics - Visual acuity testing - Standard and clinical optotypes and their presentation - Amendment 1 - 3/31/2019, \$29.00

ISO 24157/DAmD1, Ophthalmic optics and instruments - Reporting aberrations of the human eye - Amendment 1 - 3/31/2019, \$29.00

PAPER, BOARD AND PULPS (TC 6)

ISO/DIS 8791-5, Paper and board - Determination of roughness/smoothness (air leak methods) - Part 5: Oken method - 3/31/2019, \$58.00

PETROLEUM PRODUCTS AND LUBRICANTS (TC 28)

ISO/DIS 14935, Petroleum and related products - Determination of wick flame persistence of fire-resistant fluids - 3/31/2019, \$46.00

PLASTICS (TC 61)

ISO/DIS 75-1, Plastics - Determination of temperature of deflection under load - Part 1: General test method - 3/31/2019, \$58.00

ISO/DIS 24022-1, Plastics - Polystyrene (PS) moulding and extrusion materials - Part 1: Designation system and basis for specifications - 4/8/2019, \$46.00

ISO/DIS 24022-2, Plastics - Polystyrene (PS) moulding and extrusion materials - Part 2: Preparation of test specimens and determination of properties - 4/8/2019, \$40.00

ISO/DIS 24023-1, Plastics - Plasticized poly(vinyl chloride) (PVC-P) moulding and extrusion materials - Part 1: Designation system and basis for specifications - 4/8/2019, \$40.00

ISO/DIS 24023-2, Plastics - Plasticized poly(vinyl chloride) (PVC-P) moulding and extrusion materials - Part 2: Preparation of test specimens and determination of properties - 4/8/2019, \$40.00

ISO/DIS 24025-1, Plastics - Sulfone polymer moulding and extrusion materials - Part 1: Designation system and basis for specifications - 4/8/2019, \$53.00

ISO/DIS 24025-2, Plastics - Sulfone polymer moulding and extrusion materials - Part 2: Preparation of test specimens and determination of properties - 4/8/2019, \$40.00

SERVICE ACTIVITIES RELATING TO DRINKING WATER SUPPLY SYSTEMS AND WASTEWATER SYSTEMS - QUALITY CRITERIA OF THE SERVICE AND PERFORMANCE INDICATORS (TC 224)

ISO/DIS 24527, Service activities relating to drinking water supply, wastewater and stormwater systems - Guidelines on alternative drinking water service provision during a crisis - 3/31/2019, \$98.00

SIEVES, SIEVING AND OTHER SIZING METHODS (TC 24)

ISO 14488/DAmD1, Ophthalmic optics and instruments - Reporting aberrations of the human eye - Amendment 1 - 2/3/2019, \$40.00

ISO/DIS 13320, Particle size analysis - Laser diffraction methods - 2/2/2019, \$134.00

ISO/DIS 14411-2, Preparation of particulate reference materials - Part 2: Polydisperse spherical particles - 1/31/2019, \$82.00

SOLID BIOFUELS (TC 238)

ISO/DIS 21404, Solid biofuels - Determination of ash melting behaviour - 3/31/2019, \$62.00

SPORTS AND RECREATIONAL EQUIPMENT (TC 83)

ISO/DIS 20957-2, Stationary training equipment - Part 2: Strength training equipment, additional specific safety requirements and test methods - 1/31/2019, \$71.00

ISO/DIS 20957-7, Stationary training equipment - Part 7: Rowing equipment, additional specific safety requirements and test methods - 1/31/2019, \$53.00

STEEL (TC 17)

ISO/DIS 4948, Classification of steel based on chemical composition - 4/5/2019, \$46.00

TRADITIONAL CHINESE MEDICINE (TC 249)

ISO/DIS 22894, Traditional Chinese medicine - Pulse waveform format - 4/1/2019, \$62.00

TRANSPORT INFORMATION AND CONTROL SYSTEMS (TC 204)

ISO/DIS 20901, Intelligent transport systems - Emergency electronic brake light systems (EEBL) - Performance requirements and test procedures - 3/31/2019, \$67.00

ISO/IEC JTC 1, Information Technology

ISO/IEC DIS 21836, Information Technology - Data Centres - Server Energy Effectiveness Metric - 3/31/2019, \$134.00

ISO/IEC DIS 22624, Information technology - Cloud Computing - Taxonomy based data handling for cloud services - 3/14/2019, \$107.00

ISO/IEC DIS 19757-7, Information technology - Document Schema Definition Languages (DSDL) - Part 7: Character Repertoire Description Language (CREPDL) - 3/31/2019, \$71.00

IEC Standards

2/1933(F)/CDV, IEC 60034-2-3 ED1: Rotating electrical machines - Part 2-3: Specific test methods for determining losses and efficiency of converter-fed AC motor, 2019/3/29

13/1780/CDV, IEC 62053-22 ED2: Electricity metering equipment (a. c.) - Particular requirements - Part 22: Static meters for active energy (classes 0,1 S, 0,2 S and 0,5 S), 019/4/5/

- 13/1778/CDV, IEC 62052-11 ED2: Electricity metering equipment (a. c.) - General requirements, tests and test conditions - Part 11: Metering equipment, 019/4/5/
- 13/1782/CDV, IEC 62053-24 ED2: Electricity metering equipment (a. c.) - Particular requirements - Part 24: Static meters for reactive energy at fundamental frequency (classes 0,5 S, 1S, 1, 2 and 3), 019/4/5/
- 13/1779/CDV, IEC 62053-21 ED2: Electricity metering equipment (a. c.) - Particular requirements - Part 21: Static meters for active energy (classes 1 and 2), 019/4/5/
- 13/1781/CDV, IEC 62053-23 ED2: Electricity metering equipment (a. c.) - Particular requirements - Part 23: Static meters for reactive energy (classes 2 and 3), 019/4/5/
- 15/871/CD, IEC 60674-3-1 ED2: Plastic films for electrical purposes - Part 3: Specifications for individual materials - Sheet 1: Biaxially oriented polypropylene (PP) film for capacitors, 019/3/8/
- 17A/1208/FDIS, IEC 62271-109 ED3: High-voltage switchgear and controlgear - Part 109: Alternating-current series capacitor by-pass switches, 2019/2/22
- 21A/688(F)/CDV, IEC 61960-4 ED1: Secondary cells and batteries containing alkaline or other non-acid electrolytes - Secondary lithium cells and batteries for portable applications - Part 4 - Coin types (button) lithium secondary cells and batteries, 2019/3/29
- 22F/521/DTR, IEC TR 63238 ED1: Performance of unified power flow controller (UPFC) in electric systems, 019/3/8/
- 22F/519/DTR, IEC TR 62544/AMD2 ED1: High-voltage direct current (HVDC) systems - Application of active filters, 019/3/8/
- 22F/520/DTR, 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, 019/3/8/
- 23H/432/CD, IEC 60309-2 ED5: Plugs, socket-outlets and couplers for industrial purposes - Part 2: Dimensional interchangeability requirements for pin and contact-tube accessories, 019/5/3/
- 23H/433/CD, IEC 60309-4 ED2: Plugs, socket-outlets and couplers for industrial purposes - Part 4: Switched socket-outlets and connectors with or without interlock, 019/5/3/
- 23H/434/CD, IEC 61316/AMD1 ED2: Industrial cable reels, 019/5/3/
- 23H/431/CD, IEC 60309-1 ED5: Plugs, socket-outlets and couplers for industrial purposes - Part 1: General requirements, 019/5/3/
- 29/1015/DTR, IEC TR 62809 ED2: Summary of requirements and tests to products in the scope of IEC 60601-2-66, 019/3/8/
- 31/1444/CD, IEC 62990-3 ED1: Workplace atmospheres - Part 3: Gas detectors - Electrical apparatus for the detection and measurement of oxygen - Performance requirements and test methods, 019/4/5/
- 31/1443/CD, IEC 60079-26 ED4: Explosive atmospheres - Part 26: Equipment with separation elements or combined levels of protection, 019/4/5/
- 34D/1453/CD, IEC 60598-2-23 ED2: Luminaires - Part 2: Particular requirements - Section 23: Extra low voltage lighting systems for filament lamps, 019/4/5/
- 35/1416/FDIS, IEC 62281 ED4: Safety of primary and secondary lithium cells and batteries during transport, 2019/2/22
- 45/865/CD, IEC 63148 ED1: Requirements of tracking system for radioactive materials, 019/3/8/
- 45B/929/FDIS, IEC 62244 ED2: Radiation protection instrumentation - Installed radiation portal monitors (RPMs) for the detection of illicit trafficking of radioactive and nuclear materials, 2019/2/22
- 46A/1377/CD, IEC 61196-6-2 ED2: Coaxial communication cables - Part 6-2: Detail specification for 75-4 type CATV drop cables, 019/4/5/
- 46A/1379/CD, IEC 61196-6-4 ED2: Coaxial communication cables - Part 6-4: Detail specification for 75-7 type CATV drop cables, 019/4/5/
- 46A/1378/CD, IEC 61196-6-3 ED2: Coaxial communication cables - Part 6-3: Detail specification for type 75-5 CATV drop cables, 019/4/5/
- 46C/1118/FDIS, IEC 61156-11 ED1: Multicore and symmetrical pair/quad cables for digital communications - Part 11: Symmetrical single pair cables with transmission characteristics up to 600 MHz - Horizontal floor wiring - Sectional specification, 2019/2/22
- 47/2524/CDV, IEC 62779-4 ED1: Semiconductor devices - Semiconductor interface for human body communication - Part 4: Semiconductor interface for capsule endoscopy using human body communication, 019/4/5/
- 47E/631/CDV, IEC 60747-18-2 ED1: Semiconductor devices - Part 18 -2: Semiconductor bio sensors - Evaluation process of lens-free CMOS photonic array sensor package module, 019/4/5/
- 47E/639/CD, IEC 60747-14-11 ED1: Semiconductor devices - Part 14 -11: Semiconductor sensors - Test method of surface acoustic wave based integrated sensor for measuring ultra violet, illumination and temperature, 019/3/8/
- 47E/632/CDV, IEC 60747-18-3 ED1: Semiconductor devices - Part 18 -3: Semiconductor bio sensors - Fluid flow characteristics of lens-free CMOS photonic array sensor package module with fluidic system, 019/4/5/
- 48D/694/NP, PNW TS 48D-694: Mechanical Structures for Electronic Equipment - Aisle Containment for IT Cabinets Part 3: Aspects of operational and personal safety, 019/4/5/
- 49/1294/CD, IEC 63155 ED1: Guidelines for the measurement method of power durability for surface acoustic wave (SAW) and bulk acoustic wave (BAW) devices in radio frequency (RF) applications., 019/4/5/
- 57/2064/NP, PNW 57-2064: Framework for energy market communications - Part 451-7: Balancing processes, contextual and assembly models for European style market, 019/4/5/
- 59A/223/CDV, IEC 63136 ED1: Electric dishwashers for commercial use - Test methods for measuring the performance, 019/4/5/
- 59M/104/FDIS, IEC 60704-2-14/AMD1 ED2: Household and similar electrical appliances - Test code for the determination of airborne acoustical noise - Part 2-14: Particular requirements for refrigerators, frozen-food storage cabinets and food freezers, 2019/2/22
- 61/5756/FDIS, IEC 60335-2-17/AMD2 ED3: Household and similar electrical appliances - Safety - Part 2-17: Particular requirements for blankets, pads, clothing and similar flexible heating appliances, 2019/2/22
- 61/5757/FDIS, IEC 60335-2-23/AMD1 ED6: Household and similar electrical appliances - Safety - Part 2-23: Particular requirements for appliances for skin or hair care, 2019/2/22
- 61/5758/FDIS, IEC 60335-2-54/AMD2 ED4: Household and similar electrical appliances - Safety - Part 2-54: Particular requirements for surface-cleaning appliances for household use employing liquids or steam, 2019/2/22
- 61/5755/FDIS, IEC 60335-2-14/AMD1 ED6: Household and similar electrical appliances - Safety - Part 2-14: Particular requirements for kitchen machines, 2019/2/22
- 62A/1308/CD, ISO 81001-1 ED1: Health software and health IT systems safety, effectiveness and security - Foundational principles, concepts and terms, 019/3/8/
- 82/1549/NP, PNW TS 82-1549: Tracker structure design using local wind conditions, 019/4/5/

- 85/671/NP, PNW 85-671: Electrical safety in low voltage distribution systems up to 1000V AC and 1500V DC-equipment for testing; Measuring and monitoring of protective measures - Part 17: Non-contact voltage indicators, 019/4/5/
- 86/548/NP, PNW 86-548: Optical circuit boards - Part 4-xxx: Terminated waveguide OCB assembly using a single-row thirty-two-channel PMT connector, 019/4/5/
- 86/549/CD, IEC 62496-2-61 ED1: Optical circuit boards - Part 2-61: Test methods - Flexibility for flexible optic-electric circuits, 019/4/5/
- 86A/1919/CD, IEC 60794-6 ED1: Optical Fibre Cables Part 6: Indoor-Outdoor cables - Sectional specification for Indoor-Outdoor cables, 019/4/5/
- 86B/4148(F)/CDV, IEC 61300-2-54 ED1: Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-54: Tests - Corrosive atmosphere (mixed gas), 019/3/1/
- 86B/4172/CD, IEC 61755-3-1 ED2: Fibre optic interconnecting devices and passive components - Connector optical interfaces - Part 3-1: Connection parameters for 1,25 mm and 2,5 mm diameter cylindrical full zirconia PC ferrules, core location variant 1, non-dispersion shifted single mode fibres, 019/4/5/
- 86B/4173/CD, IEC 61755-3-2 ED2: Fibre optic interconnecting devices and passive components - Connector optical interfaces - Part 3-1: Connection parameters for 1,25 mm and 2,5 mm diameter cylindrical full zirconia angled PC ferrules, core location variant 1, non-dispersion shifted single mode fibres, 019/4/5/
- 86C/1567/CDV, IEC 62343-2-1 ED1: Dynamic modules - Reliability - Part 2-1: Qualification test template, 019/4/5/
- 90/429/CD, IEC 61788-23 ED2: Superconductivity - Part 23: Residual resistance ratio measurement - Residual resistance ratio of Nb superconductors, 019/4/5/
- 91/1550/CDV, IEC 62878-1 ED1: Device embedding assembly technology - Part 1: Generic specification for device embedded substrates, 019/4/5/
- 104/822/CD, IEC 60068-2-11 ED4: Basic environmental testing procedures - Part 2-11: Tests - Test Ka: Salt mist, 019/4/5/
- 112/444A/CD, IEC TR 62039 ED2: Selection guide for polymeric materials for outdoor use under HV stress, 2019/3/29
- 113/450/CD, IEC TS 62607-4-8: Nanomanufacturing - Key control characteristics - Part 4-8: Nano-enabled electrical energy storage devices - Determination of water content for electrode nanomaterials by the Karl Fischer Method, 019/4/5/
- 117/101/CD, IEC 62862-4-1 ED1: Solar thermal electric plants - Part 4-1: General requirements for the design of solar tower plants, 019/4/5/
- 119/251/NP, PNW 119-251: IEC 62899-503-2 ED1: Quality assessment - Roll-to-roll printed TFT active matrix: Electrical characterization, 019/4/5/
- 121/44/DTR, IEC TR 63196 ED1: Switchgear and controlgear and their assemblies for low-voltage - Energy efficiency, 019/3/8/



Newly Published ISO Standards

Listed here are new and revised standards recently approved and promulgated by ISO - the International Organization for Standardization. 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/IEC JTC 1 Technical Reports

ISO/IEC TR 22678:2019, Information technology - Cloud computing - Guidance for policy development, \$162.00

AGRICULTURAL FOOD PRODUCTS (TC 34)

ISO 21446:2019, Infant formula and adult nutritionals - Determination of trans and total (cis + trans) vitamin K1 content - Normal phase HPLC, \$138.00

CONCRETE, REINFORCED CONCRETE AND PRE-STRESSED CONCRETE (TC 71)

ISO 13315-8:2019, Environmental management for concrete and concrete structures - Part 8: Environmental labels and declarations, \$138.00

CORK (TC 87)

ISO 633:2019, Cork - Vocabulary, \$45.00

DOCUMENT IMAGING APPLICATIONS (TC 171)

ISO 8126:2019, Micrographics - Duplicating film, silver, diazo and vesicular - Specifications and measurement for visual density, \$45.00

GAS CYLINDERS (TC 58)

ISO 16964:2019, Gas cylinders - Flexible hoses assemblies - Specification and testing, \$103.00

GEOGRAPHIC INFORMATION/GEOMATICS (TC 211)

ISO 19115-2:2019, Geographic information - Metadata - Part 2: Extensions for acquisition and processing, \$209.00

IMPLANTS FOR SURGERY (TC 150)

ISO 14242-3/Amd1:2019, Implants for surgery - Wear of total hip-joint prostheses - Part 3: Loading and displacement parameters for orbital bearing type wear testing machines and corresponding environmental conditions for test - Amendment 1, \$19.00

MEASUREMENT OF FLUID FLOW IN CLOSED CONDUITS (TC 30)

ISO 14511:2019, Measurement of fluid flow in closed conduits - Thermal mass flowmeters, \$162.00

METALLIC AND OTHER INORGANIC COATINGS (TC 107)

ISO 10111:2019, Metallic and other inorganic coatings - Measurement of mass per unit area - Review of gravimetric and chemical analysis methods, \$68.00

PLAIN BEARINGS (TC 123)

ISO 22423:2019, Foil bearings - Performance testing of foil thrust bearings - Testing of static load capacity, bearing torque, friction coefficient and lifetime, \$103.00

PLASTICS PIPES, FITTINGS AND VALVES FOR THE TRANSPORT OF FLUIDS (TC 138)

ISO 11296-7:2019, Plastics piping systems for renovation of underground non-pressure drainage and sewerage networks - Part 7: Lining with spirally-wound pipes, \$103.00

ROAD VEHICLES (TC 22)

ISO 11452-2:2019, Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 2: Absorber-lined shielded enclosure, \$185.00

ISO 15037-1:2019, Road vehicles - Vehicle dynamics test methods - Part 1: General conditions for passenger cars, \$138.00

ISO/PAS 21448:2019, Road vehicles - Safety of the intended functionality, \$209.00

SMALL TOOLS (TC 29)

ISO 22180:2019, CVD diamond tools - Categorization, \$103.00

STEEL (TC 17)

ISO 5952:2019, Steel sheet, hot-rolled, of structural quality with improved atmospheric corrosion resistance, \$68.00

TEXTILES (TC 38)

ISO 2370:2019, Textiles - Determination of fineness of flax fibres - Permeametric methods, \$103.00

ISO 18692-2:2019, Fibre ropes for offshore stationkeeping - Part 2: Polyester, \$68.00

TRANSFUSION, INFUSION AND INJECTION EQUIPMENT FOR MEDICAL USE (TC 76)

ISO 11040-6:2019, Prefilled syringes - Part 6: Plastic barrels for injectables and sterilized subassembled syringes ready for filling, \$209.00

TRANSPORT INFORMATION AND CONTROL SYSTEMS (TC 204)

ISO 14827-3:2019, Transport information and control systems - Data interfaces between centres for transport information and control systems - Part 3: Data interfaces between centres for intelligent transport systems (ITS) using XML (Profile A), \$162.00

ISO Technical Reports**PAPER, BOARD AND PULPS (TC 6)**

ISO/TR 24498:2019, Paper, board and pulps - Estimation of uncertainty for test methods by interlaboratory comparisons, \$68.00

PUMPS (TC 115)

ISO/TR 19688:2019, Rotodynamic pumps - Hydraulic performance acceptance test using a model pump, \$185.00

TRADITIONAL CHINESE MEDICINE (TC 249)

ISO/TR 20498-5:2019, Traditional Chinese medicine - Computerized tongue image analysis system - Part 5: Method of acquisition and expression of tongue colour and tongue coating colour, \$103.00

WELDING AND ALLIED PROCESSES (TC 44)

ISO/TR 23413:2019, Resistance welding - Overview of standards for resistance welding, \$68.00

ISO Technical Specifications**SMALL TOOLS (TC 29)**

ISO/TS 13399-406:2019, Cutting tool data representation and exchange - Part 406: Creation and exchange of 3D models - Modelling of connection interface, \$185.00

ISO/IEC JTC 1, Information Technology

ISO/IEC 23000-19/Amd2:2019, Information technology - Multimedia application format (MPEG-A) - Part 19: Common media application format (CMAF) for segmented media - Amendment 2: XHE-AAC and other media profiles, \$19.00

ISO/IEC 23001-14:2019, Information technology - MPEG systems technologies - Part 14: Partial file format, \$138.00

Proposed Foreign Government Regulations

Call for Comment

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

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

To register for Notify U.S., please visit <http://www.nist.gov/notifyus/>.

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

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

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

Information Concerning

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 consensus bodies and is interested in new members in all membership categories to participate in new work in fiber-optic networks, advanced advertising, 3D television, and other important topics. Of particular interest is membership from the content (program and advertising) provider and user communities.

Membership in the SCTE Standards Program is open to all directly 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

Approval of Reaccreditation

Portable Lights American Trade Association (PLATO)

The reaccreditation of the Portable Lights American Trade Organization (PLATO), an ANSI member and Accredited Standards Developer (ASD), has been approved at the direction of ANSI's Executive Standards Council, under its recently revised operating procedures for documenting consensus on PLATO-sponsored American National Standards, effective January 11, 2019. For additional information, please contact: Mr. Jack Pekarek, Sr. Product Manager, PLATO, 25225 Detroit Road, Westlake, OH 44145; phone: 440.899.6167; e-mail: JackC.Pekarek@energizer.com.

International Organization for Standardization (ISO)

Establishment of ISO Technical Committee

ISO/TC 324 – Sharing Economy

A new ISO Technical Committee, ISO/TC 324, Sharing economy, has been formed. The Secretariat has been assigned to Japan (JISC).

ISO/TC 324 operates under the following scope:

Standardization in the field of sharing economy.
Excluded: Technical aspects of information security or risk management guidelines already covered by ISO/IEC JTC 1/SC27 and ISO/TC 262, respectively.

The Organization for the Advancement of Structured Information Standards (OASIS) has indicated its intent to partner with ANSI to administer the U.S. TAG. Organizations interested in participating on the U.S. TAG should contact ANSI's ISO Team (isot@ansi.org).

ASME BPVC. XI-20XX

(Proposed revision of
ASME BPVC. XI-2017)

ASME Boiler and Pressure Vessel Code- Section XI

Rules for Inservice Inspection of Nuclear Power Plant Components

January 2019 Draft Revisions

Tentative

Subject to Revision or Withdrawal

Specific permission required for Reproduction or Quotation

ASME Codes and Standards

Record 18-457
Proposal File

IWA-2430 INSPECTION INTERVALS

(c) For components inspected under the Inspection Program, the following shall apply:

(1) Each inspection interval may be extended by as much as ~~1-yr and 1-yr~~. Each inspection interval may be reduced without restriction, provided the examinations required for the interval have been completed. Successive intervals shall not extend more than 1 yr beyond the original pattern of 10 - yr intervals and shall not exceed 11 yr in length. If an inspection interval is extended, neither the start and end dates nor the inservice inspection program for the successive interval need be revised.

(3) That portion of an inspection interval described as an inspection period may be extended by as much as ~~1-yr; 1 yr~~. An inspection period ~~and~~ may be reduced without restriction, provided the examinations required for that period have been completed. This adjustment shall not alter the requirements for scheduling inspection intervals.

Record # 18-2010 (Note: This Code Revision Record is linked to Case Record # 18-2014)

Proposed Action: A numerical change is shown in statement IWA-6230(b) below.
The other statements are shown "For Information Only".

IWA-6230 OWNER'S ACTIVITY REPORT

- (a) Form OAR-1 for the preservice examinations shall be completed prior to the date of placement of the unit into commercial service.
- (b) For preservice and inservice examinations performed following placement of the unit into commercial service, Form OAR-1, as shown in Mandatory Appendix II, shall be processed as specified below within ~~120~~ calendar days of the completion of each refueling outage.
- (1) A listing of the items with flaws or relevant conditions ...
 - (2) An abstract of the repair/replacement activities ...
 - (3) If there were multiple inspection plans ...
 - (4) Form OAR-1 shall be certified by the Owner ...
 - (5) The completed Form OAR-1 shall be submitted to the regulatory and enforcement authorities having jurisdiction at the plant site, if required by these authorities.

Table IWB-2500-1 (B-G-1)
Examination Category B-G-1, Pressure-Retaining Bolting, Greater Than 2 in. (50 mm) in Diameter (Cont'd)

NOTES (CONT'D):

- (3) Volumetric examination of bolts and studs for heat exchangers, pumps, or valves may be conducted on one heat exchanger, one pump, or one valve among a group of heat exchangers, pumps, or valves that are similar in design, type, and function. In addition, when the component to be examined contains a group of bolted connections of similar design and size, such as flanged connections, the examination may be conducted on one bolted connection among the group.
- ~~(4) Visual examination of nuts, bushings, washers, and flange surfaces for heat exchangers, pumps, or valves is required only when the component is examined under Examination Category B-B, B-L-2, or B-M-2. Examination of a bolted connection is required only once during the interval.~~
- (5) The examination of flange bolting in piping systems may be limited to one bolted connection among a group of bolted connections that are similar in design, size, function, and service.
- (6) Examination includes 1 in. (25 mm) annular surface of flange surrounding each stud.
- (7) When bolts or studs are removed for examination, surface examination meeting the acceptance standards of [IWB-3515](#) may be substituted for volumetric examination.

(4) Visual examination of nuts, bushings, washers, and flange surfaces for heat exchangers, pumps, or valves may be conducted on one heat exchanger, one pump, or one valve among a group of heat exchangers, pumps, or valves that are similar in design, type, and function. In addition, when the component to be examined contains a group of bolted connections of similar design and size, such as flanged connections, the examination may be conducted on one bolted connection among the group. Visual examination is required only once during the interval, when the connection is disassembled, and only if the component is examined in accordance with Examination Category B-B, B-L-2, or B-M-2.

Record #17-2045
Proposal File

IWA-2200 EXAMINATION METHODS

(c) All nondestructive examinations of the required examination ~~surface or~~ volume ~~or area~~ shall be conducted to the maximum extent practical. When performing VT - 1, surface, radiographic, or ultrasonic examination on a component with defined ~~surface or~~ volume ~~or area~~, essentially 100% of the required ~~surface or~~ volume ~~or area~~ shall be examined. Essentially 100% coverage is achieved when the applicable examination coverage is greater than 90%; however, in no case shall the examination be terminated when greater than 90% coverage is achieved, if additional coverage of the required examination ~~surface or~~ volume ~~or area~~ is practical. Nonmandatory Appendix S provides guidance that may be used for calculating examination coverage.

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Table IWB-2500-1 (B-A)
Examination Category B-A, Pressure-Retaining Welds in Reactor Vessel

Item No.	Parts Examined	Examination Requirements/ Figure No.	Examination Method	Acceptance Standard	Extent and Frequency of Examination		Deferral of Examination to End of Interval
					First Inspection Interval	Successive Inspection Intervals	
B1.10	Shell welds	IWB-2500-1	Volumetric	IWB-3510	All welds [Note (2)]	Same as for first interval	Permissible
B1.11	Circumferential						
B1.12	Longitudinal						
B1.20	Head welds	IWB-2500-3	Volumetric	IWB-3510	Accessible length of all welds [Note (2)]	Same as for first interval	Permissible
B1.21	Circumferential						
B1.22	Meridional						
B1.30	Shell-to-flange weld	IWB-2500-4	Volumetric	IWB-3510	Weld [Note (2)]	Same as for first interval	Permissible [Note (3)] or [Note (5)]
B1.40	Head-to-flange weld	IWB-2500-5	Volumetric and surface [Note (6)]	IWB-3510	Weld [Note (2)]	Same as for first interval	Permissible [Note (4)] or [Note (5)]
B1.50	Repair welds [Note (1)]	IWB-2500-1 and IWB-2500-2	Volumetric	IWB-3510	All weld repair areas	Same as for first interval	Permissible
B1.51	Holdline region						

NOTES:
 (1) Material (base metal) weld repairs where repair depth exceeds 10% nominal of the vessel wall. If the location of the repair is not positively and accurately known, then the individual shell plate, forging, or shell course containing the repair shall be included.
 (2) Includes essentially 100% of the weld volume.
 (3) The shell-to-flange weld examination may be performed during the first and third periods, in which case 50% of the shell-to-flange weld shall be examined by the end of the first period, and the remainder by the end of third period. During the first period, the examination need only be performed from the flange face, provided this same portion is examined from the shell during the third period.
 (4) During the first and second periods, the examination may be performed from the flange face, provided these same portions are examined from the head during the third period.
 (5) Deferral in the first inspection interval is not permitted. Deferral in successive inspection intervals is permitted provided that:
 (a) no welded repair/replacement activities have been performed either on the shell-to-flange weld or head-to-flange weld; and
 (b) neither the shell-to-flange weld nor the head-to-flange weld contains identified flaws or relevant conditions that require successive inspections in accordance with IWB-2420(b).
 (6) After a preservice or in-service ultrasonic examination has been performed with no flaw detected that exceeds the acceptance criteria of IWB-3500, only the surface examination requirements of B1.40 need to be met.

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(2) Includes essentially 100% of the examination volume or area.

Table IWB-2500-1 (B-B)
Examination Category B-B, Pressure-Retaining Welds in Vessels Other Than Reactor Vessels (Cont'd)

NOTES:
 (1) The examination may be limited to one vessel among the group of vessels performing a similar function.
 (2) The weld selected for examination is that weld intersecting the circumferential weld.
 (3) The initially selected welds are to be examined in the same sequence during successive inspection intervals, to the extent practical.
 (4) Includes essentially 100% of the weld length.

(4) Includes essentially 100% of the examination volume.

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Table IWB-2500-1 (B-J)
Examination Category B-J, Pressure-Retaining Welds in Piping (Cont'd)

NOTES (CONT'D):

- (c) each piping and branch run exclusive of the categories of loop and runs that are part of system piping of (a) and (b) above
- (2) For BWR plants
 - (c) one reactor coolant recirculation loop (where a loop or run branches, only one branch)
 - (b) one branch run representative of an essentially symmetric piping configuration among each group of branch runs that are connected to a loop and that perform similar system functions
 - (c) one steam line run representative of an essentially symmetric piping configuration among the runs
 - (d) one feedwater line run representative of an essentially symmetric piping configuration among the runs (where a loop or run branches, only one branch)
- (e) each piping and branch exclusive of the categories of loops and runs that are part of the system piping of (a) through (d) above

(3) Includes essentially 100% of the examination volume or area.

(4) For circumferential welds with intersecting longitudinal welds, surface examination of the longitudinal piping welds is required for those portions of the welds within the examination boundaries of intersecting Examination Categories B-F and B-J circumferential welds.

(5) For circumferential welds with intersecting longitudinal welds, volumetric examination of the longitudinal piping welds is required for those portions of the welds within the examination boundaries of intersecting Examination Categories B-F and B-J circumferential welds. The following requirements shall also be met:

- (a) When longitudinal welds are specified and locations are known, examination requirements shall be met for both transverse and parallel flaws at the intersection of the welds and for that length of longitudinal weld within the circumferential weld examination volume.
- (b) When longitudinal welds are specified but locations are unknown, or the existence of longitudinal welds is uncertain, the examination requirements shall be met for both transverse and parallel flaws within the entire examination volume of intersecting circumferential welds.

(6) For welds in carbon or low alloy steels, only those welds showing reportable preservice transverse indications need to be examined by the ultrasonic method for reflectors transverse to the weld length direction except that circumferential welds with intersecting longitudinal welds shall meet (Note 5).

(7) A 10% sample of PWR high pressure safety injection system circumferential welds in piping greater than or equal to NPS 1 1/2 (DN 40) and less than NPS 4 (DN 100) shall be selected for examination. This sample shall be selected from locations determined by the Owner as most likely to be subject to thermal fatigue. Thermal fatigue may be caused by conditions such as valve leakage or turbulence effects.

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(3) Includes essentially 100% of the examination volume or area.

Table IWB-2500-1 (B-K)
Examination Category B-K, Welded Attachments for Vessels, Piping, Pumps, and Valves

Item No.	Parts Examined [Note (1)]	Examination Requirements/ Figure No.	Examination Method	Acceptance Standard	Extent [Note (2)], [Note (3)] and Frequency [Note (4)] of Examination		Deferral of Examination to End of Interval
					First Inspection Interval	Successive Inspection Intervals	
B10.10	Pressure Vessels Welded attachments	IWB-2500-13, IWB-2500-14, and IWB-2500-15	Surface [Note (7)]	IWB-3516	Each welded attachment and each identified occurrence [Note (4)]	Same as for first interval	Not permissible
					Each welded attachment and each identified occurrence [Note (5)]	Same as for first interval	Not permissible
B10.20	Piping Welded attachments	IWB-2500-13, IWB-2500-14, and IWB-2500-15	Surface	IWB-3516	Each welded attachment and each identified occurrence [Note (4)]	Same as for first interval	Not permissible
					Each welded attachment and each identified occurrence [Note (5)]	Same as for first interval	Not permissible
B10.30	Pumps Welded attachments	IWB-2500-13, IWB-2500-14, and IWB-2500-15	Surface	IWB-3516	Each welded attachment and each identified occurrence [Note (4)]	Same as for first interval	Not permissible
					Each welded attachment and each identified occurrence [Note (5)]	Same as for first interval	Not permissible
B10.40	Valves Welded attachments	IWB-2500-13, IWB-2500-14, and IWB-2500-15	Surface	IWB-3516	Each welded attachment and each identified occurrence [Note (4)]	Same as for first interval	Not permissible
					Each welded attachment and each identified occurrence [Note (5)]	Same as for first interval	Not permissible

NOTES:

- (1) Weld buildup on nozzles that is in compression under normal conditions and provides only component support is excluded from examination. Examination is limited to those welded attachments that meet the following conditions:
 - (a) the attachment is on the outside surface of the pressure-retaining component;
 - (b) the attachment provides component support as defined in NF-1110;
 - (c) the attachment weld joins the attachment either directly to the surface of the component or to an integrally cast or forged attachment to the component, and
 - (d) the attachment weld is full penetration, fillet, or partial penetration, either continuous or intermittent.
- (2) The extent of the examination shall be essentially 100% of the attachment weld at each attachment subject to examination, except that, for the configuration shown in Figure IWB-2500-15, examination of surface areas may be limited to the portions of these areas that are accessible without removal of support members.
- (3) Selected samples of welded attachments shall be examined each inspection interval.
- (4) For multiple vessels of similar design, function and service, only one welded attachment of only one of the multiple vessels shall be selected for examination. For single vessels, only one welded attachment shall be selected for examination. The attachment selected for examination on one of the multiple vessels or the single vessel, as applicable, shall be an attachment under continuous load during normal system operation or an attachment subject to a potential intermittent load (seismic, water hammer, etc.) during normal system operation if an attachment under continuous load does not exist.
- (5) For piping, pumps, and valves, a sample of 10% of the welded attachments associated with the component supports selected for examination under IWB-2510 shall be examined.
- (6) Examination is required whenever component support member deformation, e.g., broken, bent, or pulled out parts, is identified during operation, refueling, maintenance, examination, or testing.

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includes essentially 100% of the examination volume or area

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Table IWC-2500-1 (C-A)
Examination Category C-A, Pressure-Retaining Welds in Pressure Vessels [Note (1)]

Item No.	Parts Examined	Examination Requirements/ Figure No.	Examination Method [Note (2)]	Acceptance Standard	Extent of Examination [Note (3)], [Note (4)]	Frequency of Examination [Note (5)]
C1.10	Shell Circumferential Welds	IWC-2500-1	Volumetric	IWC-3510	Cylindrical-shell-to-conical-shell junction welds and shell (or head)-to-flange welds	Each inspection interval
C1.20	Head Circumferential Welds	IWC-2500-1	Volumetric	IWC-3510	Head-to-shell weld and welds in the knuckle, including knuckle-to-crown welds, of an ellipsoidal or torispherical head	Each inspection interval
C1.30	Tubesheet-to-Shell Weld	IWC-2500-2	Volumetric	IWC-3510	Tubesheet-to-shell weld	Each inspection interval

NOTES:
 (1) These requirements do not apply to atmospheric or 0 psig to 15 psig (0 kPa to 100 kPa) storage tanks.
 (2) For welds in vessels with nominal wall thickness of 0.2 in. (5 mm) or less, a surface examination may be applied in lieu of a volumetric examination. The examination shall include the weld and 0.5 in. (13 mm) on either side of the weld. The acceptance standards for the examination shall be those specified for piping in IWC-3514.
 (3) Includes essentially 100% of the weld length.
 (4) In the case of multiple vessels of similar design, size, and service (such as steam generators, heat exchangers), the required examinations may be limited to one vessel or distributed among the vessels.
 (5) The vessel areas selected for the initial examination shall be reexamined in the same sequence over the service lifetime of the component, to the extent practical.

(3) Includes essentially 100% of the examination volume.

Table IWC-2500-1 (C-C)
Examination Category C-C, Welded Attachments for Pressure Vessels [Note (1)], Piping, Pumps, and Valves

Item No.	Parts Examined [Note (2)]	Examination Requirements/ Figure No.	Examination Method	Acceptance Standard	Extent of Examination [Note (3)], [Note (4)]	Frequency of Examination [Note (5)]
C3.10	Pressure Vessels	IWC-2500-5	Surface	IWC-3512	100% of required areas of each welded attachment	Each identified occurrence and each inspection interval [Note (6)]
	Welded Attachments					
C3.20	Piping	IWC-2500-5	Surface	IWC-3512	100% of required areas of each welded attachment	Each identified occurrence and each inspection interval [Note (7)]
	Welded Attachments					
C3.30	Pumps	IWC-2500-5	Surface	IWC-3512	100% of required areas of each welded attachment	Each identified occurrence and each inspection interval [Note (7)]
	Welded Attachments					
C3.40	Valves	IWC-2500-5	Surface	IWC-3512	100% of required areas of each welded attachment	Each identified occurrence and each inspection interval [Note (7)]
	Welded Attachments					

NOTES:
 (1) These requirements do not apply to atmospheric or 0 psig to 15 psig (0 kPa to 100 kPa) storage tanks.
 (2) Examination is limited to those welded attachments that meet the following conditions:
 (a) the attachment is on the outside surface of the pressure-retaining component;
 (b) the attachment provides component support as defined in NP-1110;
 (c) the attachment weld joins the attachment either directly to the surface of the component or to an integrally cast or forged attachment to the component; and
 (d) the attachment weld is full penetration, fillet, or partial penetration, either continuous or intermittent.
 (3) The extent of the examination includes essentially 100% of the length of the attachment weld at each attachment subject to examination, except that, for the configuration shown in Figure IWC-2500-5, examination surface areas may be limited to the portions of these areas that are accessible without removal of support members.
 (4) Selected samples of welded attachments shall be examined each inspection interval.
 (5) Examination is required whenever component support member deformation, e.g. broken, bent, or pulled out parts, is identified during operation, refueling, maintenance, examination, or testing.
 (6) For multiple vessels of similar design, function, and service, only one welded attachment of only one of the multiple vessels shall be selected for examination. For single vessels, only one welded attachment shall be selected for examination. The attachment selected for examination on one of the multiple vessels or the single vessel, as applicable, shall be an attachment under continuous load during normal system operation, or an attachment subject to a potential intermittent load (seismic, water hammer, etc.) during normal system operation if an attachment under continuous load does not exist.
 (7) For piping, pumps, and valves, a sample of 10% of the welded attachments associated with the component supports selected for examination under IWC-2510 shall be examined.

includes essentially 100% of the examination area

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BSR/IKECA M-10-201x**M10 – Definitions****3.1 General.**

The definitions contained in this chapter shall apply to the terms used in this standard. Where terms are not defined in this chapter or within another chapter, they shall be defined using their ordinarily accepted meanings within the context in which they are used. Merriam-Webster's Collegiate Dictionary, 11th edition, shall be the source for the ordinarily accepted meaning.

3.2 NFPA Official Definitions.**3.2.1 Approved.**

Acceptable to the authority having jurisdiction. [NFPA 96, 3.2.1]

3.2.2 Authority Having Jurisdiction (AHJ).

An organization, office or individual responsible for enforcing the requirements of a code or standard, or, for approving equipment, materials, an installation, or a procedure. [NFPA 96, 3.2.2]

3.2.3 Listed.

Equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction and concerned with the evaluation of products or services, that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services, and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose. [NFPA 96, 3.2.4]

3.2.4 Shall.

Indicates a mandatory requirement. [NFPA 96, 3.2.5]

3.2.5 Should.

Indicates a recommendation or that which is advised but not required. [NFPA 96, 3.2.6]

3.2.6. Standard.

A Standard (NFPA or Other), the main text of which contains only mandatory provisions using the word “shall” to indicate requirements and that is in a form generally suitable for mandatory reference by another standard or code or for adoption into law. Nonmandatory provisions are not to be considered part of the requirements of a standard and shall be located in an appendix, annex, footnote, informational note, or other means as permitted in the NFPA Manuals of Style.

When used in a generic sense, such as in the phrase “standards development process” or “standards development activities,” the term “standards” includes all NFPA Standards, including Codes, Standards, Recommended Practices, and Guides. [NFPA 96, 3.2.7]

3.3 General Definitions.

3.3.1 Access Panel.

The removable cover to an opening into a duct, an enclosure, or equipment.

3.3.2 Air Intakes.

An opening in a building’s envelope purposed to allow outside air to be drawn into the structure to replace inside air as it is removed by exhaust systems.

3.3.3 Pollution Control Unit.

A device or system of components – installed through a transition in the exhaust ductwork -- designed specifically for the removal of grease particles and abatement of smoke or odor from the exhaust air stream that significantly reduces grease, smoke, odor and debris produced by the cooking process as collected by the commercial kitchen exhaust system.

3.3.4 Appliance Flue.

The engineered escape in a cooking appliance through which vapors and/or post-combustion gases, migrate out.

3.3.5 Baffle Plate.

An object of stationary construct, placed in or near an appliance, to affect the direction or the flow of air or the exhaust system.

3.3.6 Broiler.

An appliance used in the preparation of food whereby foods are exposed to intense radiant heat, and perhaps to convective heat, with the food or the food and the radiant source not limited to the horizontal.

3.3.7 Certified.

A formally stated recognition and approval of a suitable level of competency, acceptable to the AHJ.

3.3.8 Cleaning.

For kitchen exhaust systems and cooking equipment, the act of removing grease, oil deposits, and other residue.

3.3.9 **Clearly Identified.**

Capable of being recognized by a person of normal vision without causing uncertainty and indecisiveness about the location or operating process of the identified item.

3.3.10 **Damper.**

A valve or plate for controlling draft or flow of gases, including air. [NFPA 96, 3.3.16]

3.3.11 **Detection Devices.**

Electrical, pneumatic, thermal, mechanical, or optical sensing instruments, or subcomponents of such instruments, whose purpose is to cause an automatic action upon the occurrence of some preselected event. [NFPA 96, 3.3.17]

3.3.12 **Discharge.**

The terminus of a duct or pipe from which the conveyed gas or liquid is released.

3.3.13 **Duct Termination.**

The final or intended end-portion of a duct system that is designed and functions to fulfill the obligations of the system in a satisfactory manner. [NFPA 96, 3.3.19]

3.3.14 **Ducts (or Duct System).**

A continuous passageway for the transmission of air and vapors that, in addition to the containment components themselves, might include duct fittings, dampers, plenums, and/or other items or air-handling equipment.

3.3.14.1 **Grease Ducts.**

A containment system for the transportation of air and grease vapors that is designed and installed to reduce the possibility of the accumulation of combustible condensation and the occurrence of damage if a fire occurs within the system.

3.3.15 **Easily Accessible.**

Within comfortable reach, with limited dependence on mechanical devices, extension, or assistance.

3.3.16 **Hood Grease Filter.**

A removable component of the grease exhaust system designed to capture grease and direct it to a safe collection point.

3.2.17 Fire-Extinguishing Equipment.

Automatic fire-extinguishing systems and portable fire extinguishers provided for the protection of grease removal devices, hoods, duct systems and cooking equipment, and listed for such use.

3.3.18 Grease.

Rendered animal fat, vegetable shortening, and other such oily matter used for the purposes of and resulting from cooking and/or preparing foods. [NPFA 96, 3.3.29]

3.3.19 Grease Removal Devices.

A system of components designed and intended to process vapors, gases and/or air as it is drawn through such devices by collecting airborne grease particles and concentrating them for further action at some time, leaving the exiting air with a lower amount of combustible matter. [NFPA 96, 3.3.30]

3.3.20 Hood.

A device provided for a cooking appliance(s) to direct and capture grease-laden vapors and exhaust gases. [NPFA 96, 3.3.33]

3.3.20.1 Fixed Baffle Hood.

A listed unitary exhaust hood design where the grease removal device is a nonremovable assembly that contains an integral fire-activated water-wash fire-extinguishing system listed for this purpose.

3.3.21 Interconnected.

Mutually assembled to another component in such a manner that the operation of one directly affects the other or that the contents of one specific duct system are allowed to encounter or contact the products being moved by another duct system. [NFPA 96, 3.3.34]

3.3.22 Maintenance.

Work, including, but not limited to, repair, replacement, and service, performed to ensure that equipment operates properly. [NFPA 96, 3.3.36]

3.3.23 Qualified.

A competent and capable person who has met the requirements and training for a given field acceptable to the AHJ. [NFPA 96 3.3.40]

3.3.24 Removable.

Capable of being transferred to another location with a limited application of effort and tools. [NFPA 96, 3.3.42]

3.4.25 Solid Cooking Fuel.

Any solid, organic, consumable fuel such as briquettes, mesquite, hardwood, chips, or charcoal or any other product that releases energy when ignited; and, diminishes in mass by the process of incineration.

3.3.26 Solid Fuel Cooking Appliances.

Cooking equipment that utilizes solid fuel.

3.3.27 Solvent.

A substance (usually liquid) capable of dissolving or dispersing another substance; a chemical compound designed and used to convert solidified grease into a liquid or semiliquid state in order to facilitate a cleaning operation. [NFPA 96, 3.3.46]

3.3.28 Spark Arrester.

A device or method that minimizes the passage of airborne sparks and embers into a plenum, duct, and flue. [NFPA 96, 3.3.48]

3.3.29 Trained.

A person who has become proficient in performing a skill reliably and safely through instruction and practice/field experience acceptable to the AHJ. [NFPA 96, 3.3.50]

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[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by **grey highlighting**. Rationale Statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI Standard
for Food Equipment –

Commercial Warewashing Equipment

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2 Normative references

The following documents contain provisions that, through reference, constitute provisions of this NSF/ANSI Standard. At the time this Standard was balloted, the editions listed below were valid. All documents are subject to revision, and parties are encouraged to investigate the possibility of applying the recent editions of the documents indicated below. The most recent published edition of the document shall be used for undated references.

40 C.F.R. §180.940 *Tolerance exemptions for active and inert ingredients for use in antimicrobial formulations (Food-Contact Surface Sanitizing Solutions)*⁴

ANSI/ASSE 1001 – ~~2008~~ 2017. *Performance Requirements for Atmospheric Type Vacuum Breakers*⁵

ANSI/ASSE.1004 – ~~2008~~ 2017. *Backflow Prevention Requirements for Commercial Dishwashing Machines*⁵

APHA, *Standard Methods for the Examination of Dairy Products*, seventeenth edition⁶

APHA, *Standard Methods for the Examination of Water and Wastewater*, 22nd edition⁶

IAPMO – *Uniform Plumbing Code* 2015⁷ 2018

ICC – *International Plumbing Code* 2015⁸ 2018

IEEE/ASTM SI 10 – ~~2010~~ 2016. *American National Standard for Metric Practice*⁹

NSF/ANSI 29. *Detergent and chemical feeders for commercial spray-type dishwashing machines*

NSF/ANSI 170. *Glossary of food equipment terminology*

Rationale: The APHA documents are no longer used in NSF 3 and no longer need to be referenced.

⁴ U. S. Government Printing Office, Washington, DC 20402. <www.gpo.gov>.

⁵ ASSE International 18927 Hickory Creek Drive, Suite 220 Mokena, Illinois 60448. <www.asse-plumbing.org>.

⁶ American Public Health Association, 800 I Street, NW, Washington, DC 20001. <www.apha.org>.

⁷ International Association of Plumbing and Mechanical Officials, 5001 E. Philadelphia St., Ontario, CA 91761. <www.iapmo.org>.

⁸ International Code Council, 5203 Leesburg Pike, Suite 600; Falls Church, VA 22041. <www.iccsafe.org>.

⁹ ASTM International, 100 Barr Harbor Dr., West Conshohocken, PA 19428. <www.astm.org>.

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NSF/ANSI Standard For Wastewater Technology –

Onsite residential and commercial water reuse treatment systems

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3.15 30-day (30-d) average: The average of daily measurements over a 30-day period, calculated as the sum of all daily measurements taken during a 30-day period divided by the number of daily measurements taken during that 30-day period. ~~When a sample result is less than the detection limit, the detection limit shall be used as the value for the purpose of calculating the 30-day average. When all of the sample results in a 30-day period are less than the detection limit, the 30-day average shall be reported as less than the detection limit.~~

3.16 30-day (30-d) geometric mean (geo mean): A type of average, calculated as the nth root of the product of n values (daily measurements) taken over a 30-day period. For example, If 10 measurements were taken over a 30-day period, the geometric mean of those measurements would be the 10th root of the product of those 10 measurements $\sqrt[10]{X_1 * X_2 * ... * X_{10}}$. ~~When a sample result is less than the detection limit, the detection limit shall be used as the value for the purpose of calculating the 30-day geometric mean. When all of the sample results in a 30-day period are less than the detection limit, the 30-day geometric mean shall be reported as less than the detection limit.~~

Rationale: Definitions cannot contain requirements (shall). These have been moved to Section 8, performance testing and evaluation

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8 Performance testing and evaluation

The analytical methods listed in Table A.1 shall be used for testing. Alternate methods ~~may also be used~~ are permissible, provided equivalency is demonstrated by technical review and the review is documented. An equivalent method involves the same measurement technique. Equivalent methods are known to be capable of generating reliable results to equivalent quality requirements. All sample collection methods shall be in accordance with *Standard Methods* unless otherwise specified.

Rationale: avoid use of the word "may"

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8.6 Criteria (applicable to all reuse systems evaluated in accordance with 8.1, 8.2, and 8.3)

8.6.1 General

8.6.1.1 If conditions during the testing and evaluation period result in system upset, improper sampling, improper dosing, or influent characteristics outside of the specified ranges, an assessment shall be conducted to determine the extent to which these conditions adversely affected the performance of the

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system. Based on this assessment, it is acceptable to exclude specific data points ~~may be excluded~~ from the averages of effluent measurements. Rationale for all data exclusions shall be documented in the final report.

Rationale: avoid use of the word "may"

8.6.1.2 In the event that a catastrophic site problem not described in this Standard including, but not limited to, influent characteristics (including influent total coliform or *E.coli* results exceeding the single sample maximum values during testing under 8.1), malfunctions of test apparatus, and acts of nature, jeopardizes the validity of the performance testing and evaluation, manufacturers shall be given the choice to:

- perform maintenance on the system, reinitiate system start-up procedures, and restart the performance testing and evaluation; or
- with no routine maintenance performed, have the system brought back to pre-existing conditions and resume testing within 3 wk (21 d) after the site problem has been identified and corrected. Data collected during the system recovery period shall be excluded from averages of effluent measurements.

NOTE — Pre-existing conditions shall be defined as the point when the results of 3 consecutive data days are within 15% of the previous 30-d average(s).

8.6.1.3 During the design loading sequence, a minimum of 2/3 of the total scheduled data days shall be necessary for the test to be considered valid.

8.6.1.4 During the stress loading sequence (8.1.2.2.2 and 8.2.2.2.2), a minimum of 2/3 of the total scheduled data days and from at least one of the scheduled data days during any single stress recovery shall be necessary for the test to be considered valid.

8.6.1.5 A 30-d average or 30-d geo mean average discharge value shall consist of a minimum of 50% of the regularly scheduled sampling days per month. If a 30-day period contains less than the required number of data days, it is permissible to transfer sufficient data days from the preceding 30-day period to constitute a 30-d average or 30-d geo mean discharge value. If there are not sufficient data days available in the preceding 30-day period, it is permissible for the transfer of data days to take place from the following 30-day period to constitute a 30-d average or 30-d geo mean discharge value. No data day shall be included in more than one 30-d average or 30-d geo mean discharge value.

8.6.1.6 When a sample result is less than the detection limit, the detection limit shall be used as the value for the purpose of calculating the 30-d average or 30-d geo mean. When all of the sample results in a 30 day period are less than the detection limit, the 30-d average or 30-d geo mean shall be reported as less than the detection limit.

BSR/UL 67, Standard for Safety for Panelboards

1. Inclusion of Information in Paragraph 6.7.2 About What is Permitted to Serve as a Means to Indicate a "Drill Point"

6.7.2 A panelboard may have provision for field-installed accessories provided the following conditions are met:

- a) The panelboard is acceptable for use with or without the accessory.
- b) Instructions for the installation and operation are provided with each accessory.
- c) The installation of an accessory does not require the use of other than normally available tools, such as screwdrivers, pliers and wrenches, unless such a tool and instructions for its use are furnished with each accessory.
- d) A barrier that is necessary because spacings would otherwise be less than required is securely attached at the factory to either the panelboard, or to the accessory to be installed.
- e) The accessory is an essentially complete unit and does not require assembly in the field.
- f) The installation of the accessory does not expose uninsulated or mechanical functional parts that would not be exposed during the replacement of overcurrent protective devices.
- g) Except as noted in (h) and (i) means for mounting the accessory require no drilling, cutting, or filing of holes.
- h) Drilling, cutting, or filing is acceptable in the panelboard enclosure if such openings are indicated by drill points or breakouts on the enclosure. Drill points may be applied at the factory, by a template provided with the field-installed accessory, or other equivalent means, such that the location to be drilled can be determined by the installer.
- i) If possible to accomplish the operation described in (h) in a manner so that debris inside the panelboard enclosure does not accumulate.
- j) The accessory complies with the marking requirements of 34.12, Field-installed equipment.

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BSR/UL 588, Standard for Safety for Seasonal and Holiday Decorative Products

1. Addition of CXTW-X for use in series connected strings

13.2.4 The wire employed in a series-connected seasonal product shall be a minimum 22 AWG (0.32 mm²) Type CXTW twisted conductor, a minimum 22 AWG (0.32 mm²) Type CXTW-IS or CXTW-S or 22 AWG (0.32 mm²) Type XTW, with a minimum insulation temperature of 105°C (221°F). Type CXTW, CXTW-IS, CXTW-S and XTW wire are suitable for both indoor and outdoor use.

Exception No. 1: A decorative outfit is able to employ single-conductor Type CXTW wire as indicated in 31.7 provided that the lampholders or the wire or both are secured to and supported by a rigid frame.

Exception No. 2: When a net lighting string employs single conductor Type CXTW flexible cord, it shall be a minimum 18 AWG (0.82 mm²).

Exception No. 3: When a series-connected seasonal product employs a polarized line and load fitting, it shall employ a minimum 20 AWG (0.52 mm²) Type CXTW twisted conductor wire or 20 AWG (0.52 mm²) XTW wire.

Exception No. 4: Single conductor CXTW wire is permitted to be employed if the wire is twisted with a non-current carrying polymeric supporting rope which is rated for at least 105°C and:

- a) Complies with 82.1 when the support rope has a minimum diameter equivalent to the CXTW wire, or*
- b) Complies with 82.2 when the diameter of support rope is less than that of the CXTW wire.*

When the seasonal product is for outdoor-use, then the non-current carrying polymeric rope shall also comply with the requirements in 94.2.

Exception No. 5: A lighting string that complies with 82.2 is permitted to be provided with a single CXTW conductor with integral parallel construction.

Exception No. 6: CXTW-X is permitted between lampholders in a series-connected lighting string provided it is minimum 25 AWG (0.162 mm²), the maximum length does not exceed 20 inches (508 mm) and the maximum current does not exceed 300 mA.

BSR/UL 1699, *Standard for Safety for Arc-Fault Circuit-Interrupters*

1. Addition of Requirements to Address LCDI Shield Continuity

SB6A LCDI Shield Continuity

SB6A.1 An LCDI employing a shielded power supply cord or shielded cord set shall monitor shield continuity. In the event the shield continuity does not exist when an attempt is made to start using the equipment, the device shall not energize the circuitry connected to its load terminals and shall interrupt the circuit under conditions where the shield is lost during operation.

SB6A.2 An open circuit in the shield shall cause the LCDI to interrupt the circuit within a period of 0.5 seconds.

SB9A LCDI Shield Continuity Test

SB9A.1 To demonstrate that an LCDI complies with LCDI Shield Continuity, Section SB6A, the tests described in SB6A.1 and SB6A.2, shall be conducted. The LCDI shall:

- a) Interrupt the circuit within the time period given in SB6A.2;
- b) Not permit power to be applied to the circuit each time the reset button is pressed; and
- c) Provide a visual and/or audible indication.

SB9A.2 A representative LCDI is to be correctly connected to the rated line voltage and allowed to stabilize. A closed switch is placed in series with the shield. The reset button is to be operated to allow the LCDI to be in the "ON" state. The switch is then opened to simulate an open shield condition during normal operation.

SB9A.3 The test in SB9A.1 is repeated except the test button on a representative LCDI is to be operated to allow the LCDI to be in the "OFF" state. With the switch in the open state in series with the shield to simulate a damaged shield, the reset button on the LCDI is then pressed.

2. Allowing an Alternative Means of Providing Installation Instructions

68.6 Each outlet-circuit AFCI with feed-through provisions and receptacle outlets shall be provided with the installation instructions shown in Figures 68.1 - 68.6 in printed format, using a QR code, or via an internet address where users can download the required instructions. The installation instruction sheet, containing the detail of all six figures, shall not be smaller than 8-1/2 inches (215.9 mm) high x 16-1/2 inches (419.1 mm) long, consisting of 12 panels (for folding), each no smaller than 4-1/4 inches (108 mm) high x 2-3/4 inches (69.9 mm) long. The front of the installation instructions shall contain the manufacturer's name, cautionary note, and steps 1 - 6 as shown in Figures 68.1 - 68.3. The back of the installation instruction sheet shall contain steps 7 and 8 as shown in Figures 68.4 - 68.6. The only modifications that may be made to the content of

the instructions are those necessary for including the manufacturer's name, model, and warranty information, and any product configurations different from those represented in the figures.

3. Revision to 44.3 to Test Radiated Immunity to 6 GHz

44.3 Radiated electromagnetic field immunity

44.3.1 The Standard for Electromagnetic compatibility (EMC) Part 4: Testing and measurement techniques - Section 3: Radiated, radio frequency, electromagnetic field immunity test, IEC 61000-4-3, is to be the test measurement reference. The frequency range to be investigated is to be from 80 MHz to 4 6 GHz. The exposure is to be level 2, 3 V/m modulated with 80 percent AM modulation at 1 kHz. The protective device shall not false trip when exposed to these fields. The frequencies to be used encompass the standard broadcast frequency ranges for commercial and amateur ("ham") radio and television. The step size for the test frequency ranges is to be 1 percent of fundamental. In addition the device should be exposed to radiated electromagnetic fields that simulate those generated by digital radio telephones (commonly known as "cell phones"), standard computer peripheral devices, and WIFI routers. This test consists of exposure to 3 V/m field using a 200 Hz digital modulation technique with a 50 percent duty cycle on one frequency between 895 MHz and 905 MHz multiple frequencies of 900 Mhz, 1800 MHz, 1900 MHz, 2450 MHz, 5000 MHz, and 6000 MHz. Other frequency ranges that are used in the United States are to be considered.

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