VOL. 48, #17 April 28, 2017

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.
- 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: May 28, 2017

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

Addenda

BSR/ASHRAE Addendum a to BSR/ASHRAE Standard 188-201x, Legionellosis: Risk Management for Building Water Systems (addenda to ANSI/ASHRAE Standard 188-2015)

This proposal revises Section A3, Water System Flow Diagram to allow the Program Team the flexibility to determine what needs to be included in the flow diagram to manage the risk of legionellosis in the building water systems of Health Care Facilities. It also removes the permissive language that was previously in the standard.

Click here to view these changes in full

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

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

Addenda

BSR/ASHRAE Addendum b to BSR/ASHRAE Standard 188-201x, Legionellosis: Risk Management for Building Water Systems (addenda to ANSI/ASHRAE Standard 188-2015)

This proposal adds the definition of construction documents. It also revises multiple portions of the standard to remove the permissive language and put it in mandatory code enforceable language and removes a reference that is not used in the normative section.

Click here to view these changes in full

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

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

Addenda

BSR/ASHRAE Addendum c to BSR/ASHRAE Standard 188-201x, Legionellosis: Risk Management for Building Water Systems (addenda to ANSI/ASHRAE Standard 188-2015)

This revises portions of Appendix A that applies to Health Care Facilities. The intent of these revisions is to remove permissive language and change it to mandatory code enforceable language. Section A5.1 was changed to make the language clearer as to when the Designated Team needs to reevaluate the legionellosis risk management plan.

Click here to view these changes in full

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

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

Addenda

BSR/ASHRAE Addendum e to BSR/ASHRAE Standard 188-201x, Legionellosis: Risk Management for Building Water Systems (addenda to ANSI/ASHRAE Standard 188-2015)

This proposed addendum makes changes to Section 4 Compliance, has been revised to clarify that standard 188 does not use or require compliance, training or certification in any additional hazard analysis, risk assessment or risk management methodologies.

Click here to view these changes in full

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

NFRC (National Fenestration Rating Council)

Revision

BSR/NFRC 100-201x, Procedure for Determining Fenestration Product Ufactor (revision and redesignation of ANSI/NFRC 100 [E0A1]-2015)

This standard specifies a method for determining fenestration product U-factor (thermal transmittance).

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Robin Merrifield, (240) 821 -9513, rmerrifield@nfrc.org

NSF (NSF International)

Revision

BSR/NSF 37-201x (i6r6), Air Curtain for Entranceways for Food and Food Service Establishments (revision of ANSI/NSF 37-2012)

Equipment covered by this Standard includes, but is not limited to, air curtains for entranceways in food and food service establishments (e.g., service and customer entries, service windows, and cooler and cold storage entries). Housing, air-moving equipment, air-directional regulating devices, and other appurtenances to the air curtain are included.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Allan Rose, (734) 827 -3817, arose@nsf.org

NSF (NSF International)

Revision

BSR/NSF 350-201x (i15r1), Onsite Residential and Commercial Water Reuse Treatment Systems (revision of ANSI/NSF 350-2012 (i3))

This Standard contains minimum requirements for onsite residential and commercial water treatment systems.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Lauren Panoff, (734) 769 -5197, lpanoff@nsf.org

NSF (NSF International)

Revision

BSR/NSF 350-201x (i16r1), Onsite Residential and Commercial Water Reuse Treatment Systems (revision of ANSI/NSF 350-2017)

This Standard contains minimum requirements for onsite residential and commercial water treatment systems.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Lauren Panoff, (734) 769 -5197, lpanoff@nsf.org

New National Adoption

BSR/UL 60384-14-201x, Standard for Safety for Fixed Capacitors for Use in Electronic Equipment - Part 14: Sectional Specification: Fixed Capacitors for Electromagnetic Interference Suppression and Connection to the Supply Mains (national adoption of IEC 60384-14 with modifications and revision of ANSI/UL 60384-14-2016a)

(1) Removal of Figure 9, DVD2 modification.

Click here to view these changes in full

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

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 347A-201x, Standard for Safety for Medium Voltage Power Conversion Equipment (revision of ANSI/UL 347A-2015)

(2) Addition of Section 19.6 covering circuits provided with solid insulation.
(5) Addition of series connected component spacings for 600 V and below.
(14) Revisions to operation tests. (16) Breakdown of Components Test - Clarification of test method.

Click here to view these changes in full

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

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 1558-201x, Standard for Safety for Metal-Enclosed Low-Voltage Power Circuit Breaker Switchgear (revision of ANSI/UL 1558-2016)

This proposal involves an editorial revision of requirements for Wire Bending Space in Table 16.2.

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

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 2775-201X, Standard for Fixed Condensed Aerosol Extinguishing System Units (revision of ANSI/UL 2775-2016)

UL proposes revisions to the Aging Test in UL 2775.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Nicolette Allen, (919) 549 -0973, Nicolette.Allen@ul.com

Comment Deadline: June 12, 2017

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

Addenda

BSR/ASHRAE Addendum bi to BSR/ASHRAE Standard 135-201x, BACnet - A Data Communication Protocol for Building Automation and Control Networks (addenda to ANSI/ASHRAE Standard 135-2016)

This addendum adds a new Audit Reporter object type and new audit notification services to report auditable actions. Addendum bi also changes DeviceCommunicationControl Service for Audit Reporting and modifies Logging Objects to allow for Extremely Large Logs.

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

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

Addenda

BSR/ASHRAE Addendum bp to BSR/ASHRAE Standard 135-201x, BACnet - A Data Communication Protocol for Building Automation and Control Networks (addenda to ANSI/ASHRAE Standard 135-2016)

This addendum makes rules for POST consistent with rules for PUT; makes "type" consistent at all levels and introduces "effectiveType"; fully specifies the behavior of "includes"; removes the path syntax from the select query parameter/the incorrect table for callback formats; resolves conflicting statements about configuring external authorization servers; allows plain texts POSTs for primitive data and extended error numbers; adds new error numbers and a formal definition for JSON equivalent to XML's <CSML>; specifies "name" safety check for setting data/how to evaluate relative paths for collecti

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

New Standard

BSR/ASHRAE Standard 212-201x, Method of Test for Determining Energy Performance and Water-Use Efficiency of Add-On Evaporative Pre-Coolers for Unitary Air Conditioning Equipment (new standard)

The purpose of ASHRAE Standard 212P is to provide test methods for gathering performance data for use in calculating the energy savings potential and water-use performance of add-on evaporative pre-coolers for condenser inlet air of air-cooled, direct expansion unitary air conditioning equipment.

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

ASTM (ASTM International)

Revision

BSR/ASTM D7445-201x, Specification for Rigid Poly(Vinyl Chloride) (PVC) Siding with Foam Plastic Backing (Backed Vinyl Siding) (revision of ANSI/ASTM D7445-2009)

http://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 E122-201x, Practice for Calculating Sample Size to Estimate, with Specified Precision, the Average for a Characteristic of a Lot or Process (revision of ANSI/ASTM E122-2009)

http://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

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ATIS (Alliance for Telecommunications Industry Solutions)

Revision

BSR/ATIS 0300097-201x, Structure for the Identification of Communications Connections for Information Exchange (revision of ANSI ATIS 0300097 -2013)

This standard provides the code and format structures necessary for identification of telecommunications connections and describes the code structure with various combinations of data units represented within those structures. This standard contains clauses that cover its purpose and scope, described format structures and data elements for message trunks and message trunks groups, special services circuits and facilities. It also contains definitions and references. Its intended use is to provide a standard that facilities information exchange among human and machines.

Single copy price: \$110.00

Order from: Alexandra Blasgen, (202) 434-8840, ablasgen@atis.org

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

B11 (B11 Standards, Inc.)

Revision

BSR B11.22-201x, Safety Requirements for Turning Centers and Automatic, Numerically Controlled Turning Machines (revision of ANSI B11.22-2001 (R2012))

This standard specifies the safety requirements for the design, construction, operation and maintenance (including installation, dismantling and transport) of turning centers and automatic, numerically controlled turning machines.

Single copy price: \$35.00

Order from: Chris Felinski, (832) 446-6999, cfelinski@b11standards.org

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

B11 (B11 Standards, Inc.)

Revision

BSR B11.23-201x, Safety Requirements for Machining Centers and Automatic, Numerically Controlled Milling, Drilling and Boring Machines (revision of ANSI B11.23-2001 (R2012))

This standard specifies the safety requirements for the design, construction, operation and maintenance (including installation, dismantling, and transport) of machining centers and automatic numerically controlled milling, drilling and boring machines.

Single copy price: \$35.00

Order from: Chris Felinski, (832) 446-6999, cfelinski@b11standards.org

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

B11 (B11 Standards, Inc.)

Revision

BSR B11.24-201x, Safety Requirements for Transfer Machines (revision of ANSI B11.24-2001 (R2012))

This standard specifies the safety requirements for the design, construction, operation and maintenance (including installation, dismantling and transport) of transfer machines.

Single copy price: \$35.00

Order from: Chris Felinski, (832) 446-6999, cfelinski@b11standards.org

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CAAS (Commission on Accreditation of Ambulance Services)

New Standard

BSR/CAAS v3.0-201x, CAAS Standards Version 3.0 (new standard) CAAS Standards Version 3.0 is designed to provide administrative and

operational guidelines for the entire EMS/ground ambulance transportation industry. It establishes standardized administrative and operational requirements in the areas of organizational management, inter-agency relations, general management, financial management, community relations, public affairs, human resources, clinical standards, safe operations, managing risk, equipment, vehicles, facilities. and communications center.

Single copy price: \$30.00

Obtain an electronic copy from: https://store.caas.

org/eweb/shopping/shopping.aspx?

site=caas&webcode=shopping&prd_key=212b45c8-877d-4a11-9966

-4a299134a40e

Order from: Marcie McGlynn, CAAS, 1926 Waukegan Road, Suite 300,

Glenview, IL 60025, email: marciem@tcag.com

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

CTA (Consumer Technology Association)

Reaffirmation

BSR/CTA 803-B-2012 (R201x), Mobile Electronics Wiring Designations for Audio, and Vehicle Security/Convenience (reaffirmation of ANSI/CTA 803-A -2007)

This standard defines the terms, abbreviations, and definitions used in the sales and installation of vehicle aftermarket audio and security equipment. The standard adds continuity to mobile electronics installation information. enables easier data collection, and ensures consistency of information to installers. CEA-803-B does not address home theater applications. See ANSI/CEA-863-B.

Single copy price: \$61.00

Obtain an electronic copy from: standards@cta.tech

Order from: standards@cta.tech

Send comments (with copy to psa@ansi.org) to: vlancaster@cta.tech

DASMA (Door and Access Systems Manufacturers Association)

New Standard

BSR/DASMA 303-201x, Performance Criteria for Accessible Communications Entry Systems (new standard)

This standard defines general requirements and performance-based criteria for evaluating accessible communications entry systems and is intended to cover accessible communications entry systems generally used for public pedestrian access to controlled-entry buildings for intercom or assistance purposes. This standard is not intended to cover communications entry systems generally used for emergency access.

Single copy price: Free

Obtain an electronic copy from: dasma@dasma.com

Order from: dasma@dasma.com

Send comments (with copy to psa@ansi.org) to: rjames@thomasamc.com

DASMA (Door and Access Systems Manufacturers Association)

Revision

BSR/DASMA 102-201x, Specifications for Sectional Doors (revision of ANSI/DASMA 102-2011)

This specification for sectional doors is intended to cover residential- and commercial-type doors normally used on garages, warehouses, factories, service stations, and other places requiring doors generally used for vehicular traffic.

Single copy price: Free

Obtain an electronic copy from: dasma@dasma.com

Order from: dasma@dasma.com

Send comments (with copy to psa@ansi.org) to: rjames@thomasamc.com

DASMA (Door and Access Systems Manufacturers Association)

Revision

BSR/DASMA 108-201x, Standard Method for Testing Sectional Garage Doors and Rolling Doors: Determination of Structural Performance Under Uniform Static Air Pressure Difference (revision of ANSI/DASMA 108-2012)

This test method describes the determination of the structural performance of garage door, rolling door and flexible door assemblies under uniform static air pressure difference, using a test chamber.

Single copy price: Free

Obtain an electronic copy from: dasma@dasma.com

Order from: dasma@dasma.com

Send comments (with copy to psa@ansi.org) to: rjames@thomasamc.com

DASMA (Door and Access Systems Manufacturers Association)

Revision

BSR/DASMA 115-201x, Standard Method for Testing Sectional Doors, Rolling Doors and Flexible Doors: Determination of Structural Performance Under Missile Impact and Cyclic Wind Pressure (revision of ANSI/DASMA 115-2014)

This test method determines the structural performance of sectional doors, rolling doors, and flexible door assemblies impacted by missiles and subsequently subjected to cyclic static pressure differentials.

Single copy price: Free

Obtain an electronic copy from: dasma@dasma.com

Order from: dasma@dasma.com

Send comments (with copy to psa@ansi.org) to: rjames@thomasamc.com

HL7 (Health Level Seven)

New Standard

BSR/HL7 V3 HQMF, R1-201x, HL7 Version 3 Standard: Representation of the Health Quality Measures Format (eMeasure), Release 1 (new standard)

The purpose of this project is to create a standard to unambiguously represent quality measure specifications, including data elements, logic and definitions. Quality measure developers will encode their measures in this format so that they can be consumed by vendors and provider organizations, who will then be able to use the formal definitions to query their EHR data stores. Data gathered in this manner would pre-populate a measure report.

Single copy price: Free to HL7 members; free to non-members 90 days following ANSI approval and publication by HL7

Obtain an electronic copy from: karenvan@HL7.org

Order from: Karen Van Hentenryck, (734) 677-7777, Karenvan@HL7.org

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

ISA (International Society of Automation)

Reaffirmation

BSR/ISA 50.00.01-1975 (R201x), Compatibility of Analog Signals for Electronic Industrial Process Instruments (reaffirmation of ANSI/ISA 50.00.01-1975 (R2012))

This document applies to analog dc signals used in process control and monitoring systems to transmit information between subsystems or separated elements of systems. Its purpose is to provide for compatibility between the several subsystems or separated elements of given systems. This document need not apply to signals entirely used within a subsystem. When signals are to be transmitted to or received from subsystems or elements provided by different suppliers, they shall comply with the specified requirements for transmitters and receivers described in this standard.

Single copy price: \$40.00

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

MedBiq (MedBiquitous Consortium)

New Standard

BSR/MEDBIQ EA.10.1-201x, Educational Achievement (new standard)

Educational Achievements contains evidence of competence or achievement of a performance level or milestone and judgments as to whether or not a learner has achieved a particular competence or performance level or been entrusted to perform a professional activity. Results of broader assessments are included as well, such as standardized test results.

Single copy price: Free

Obtain an electronic copy from: https://medbiq. org/sites/default/files/files/EducationalAchievementSpecification.pdf Order from: Valerie Smothers, (410) 735-6142, vsmothers@jhmi.edu Send comments (with copy to psa@ansi.org) to: https://medbiq. org/public_review_educational_achievement

MSS (Manufacturers Standardization Society)

Revision

BSR/MSS SP-58-201x, Pipe Hangers and Supports - Materials, Design, Manufacture, Selection, Application, and Installation (revision of ANSI/MSS SP-58-2009)

This Standard establishes: (1) the material, design, fabrication, and inspection criteria to be used in the manufacture of standard types of pipe hanger components; (2) the allowable stress values for materials used in standard types of pipe support components and unique hanger design assemblies; (3) minimum design load ratings for rigid pipe hanger assemblies; (4) the recommended practice for the selection and application of pipe hangers and supports for all service temperatures; and (5) recommended procedures for detailing, fabrication, and installation of pipe hangers and supports.

Single copy price: \$148.00

Obtain an electronic copy from: standards@msshq.org
Order from: Michelle Pennington, (703) 281-6613, Ext 101,

mpennington@mss-hq.org

Send comments (with copy to psa@ansi.org) to: Robert O'Neill, (703) 281

-6613, boneill@mss-hq.org

PEARL (Professional Electrical Apparatus Recyclers League)

New Standard

BSR/PEARL EERS-201x, Electrical Equipment Reconditioning Standard (new standard)

The PEARL Reconditioning Standard pertains to the reconditioning of electrical distribution equipment and accessories. The term "reconditioning" is identified as "the process of returning electrical equipment to safe operating condition as recommended by the manufacturer's instructions or industrial standards, and tested by recognized industrial test standards."

Single copy price: \$375.00

Obtain an electronic copy from: pearl@pearl1.org

Send comments (with copy to psa@ansi.org) to: pearl@pearl1.org

RVIA (Recreational Vehicle Industry Association)

Revision

BSR/RVIA EGS-1-201x, Standard for Engine Generator Sets for RV Safety Requirements (revision of ANSI/RVIA EGS-1-2013)

This standard sets forth safety requirements and standards for engine generators intended for installation and operation in recreational vehicles and similar mobile applications. It is not intended to apply to emergency or standby generators with integral fuel tanks, welding generators, farm lighting plants, variable-speed generators for railroad car installations, military-specification engine generators, marine use, or similar specialized equipment. Included in this standard are recommended safety measures for installations, use, and care.

Single copy price: Free

Obtain an electronic copy from: Kent Perkins, kperkins@rvia.org
Order from: Kent Perkins, (571) 665-5872, kperkins@rvia.org
Send comments (with copy to psa@ansi.org) to: Same

TIA (Telecommunications Industry Association)

Revision

BSR/TIA 102.BAAA-B-201x, FDMA - Common Air Interface (revision and redesignation of ANSI/TIA 102.BAAA-A-2003 (R2013))

The FDMA Common Air Interface ensures that subscriber-unit equipment interoperates at the Physical Layer and Data Link Layer with subscriber-unit equipment from different manufacturers, and with radio systems for different agencies. This allows effective and reliable intra-agency and inter-agency communications in an all-digital mode for voice and data.

Single copy price: \$200.00

Obtain an electronic copy from: standards@tiaonline.org

Order from: TIA; standards@tiaonline.org

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

TIA (Telecommunications Industry Association)

Revision

BSR/TIA 102.BAAC-D-201x, Common Air Interface Reserved Values (revision and redesignation of ANSI/TIA 102.BAAC-C-2011)

This document is a supplement to the TIA 102.BAAA Common Air Interface (CAI) and describes the CAI Reserved Values that may be utilized by communications equipment conforming to TIA 102 Land Mobile Radio (LMR) standards.

Single copy price: \$73.00

Obtain an electronic copy from: standards@tiaonline.org

Order from: TIA; standards@tiaonline.org

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

UL (Underwriters Laboratories, Inc.)

New National Adoption

BSR/UL 60947-5-5-201X, Standard for Safety for Low-voltage switchgear and controlgear - Part 5-5: Control circuit devices and switching elements - Electrical emergency stop device with mechanical latching function (identical national adoption of IEC 60947-5-5)

This section of IEC 60947-5 provides detailed specifications relating to the electrical and mechanical construction of emergency stop devices with mechanical latching function and to their testing. This standard is applicable to electrical control circuit devices and switching elements which are used to initiate an emergency stop signal. Such devices may be either provided with their own enclosure, or installed according to the manufacturer's instructions. An emergency stop device may also be used to provide an emergency switching-off function.

Single copy price: Contact comm2000 for pricing and delivery options Obtain an electronic copy from: http://www.comm-2000.com

Order from: comm2000

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

Reaffirmation

BSR/UL 120202-2014 (R201x), Standard for Safety for Recommendations for the Preparation, Content, and Organization of Intrinsic Safety Control Drawings (Proposal dated 04-28-17) (reaffirmation and redesignation of ANSI/ISA 12.02.02-2014)

Reaffirmation and continuance of ANSI/ISA 12.02.02-2014 edition of the Standard for Safety for Recommendations for the Preparation, Content, and Organization of Intrinsic Safety Control Drawings under UL 120202.

Single copy price: Contact comm2000 for pricing and delivery options

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

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 1472-201x, Standard for Safety for Solid-State Dimming Controls (revision of ANSI/UL 1472-2015)

This proposal for UL 1472 covers the following topics: (1) Addition of 347 VAC synthetic load characteristics to represent electronic ballasts and self-ballasted lamps; (2) Addition of requirements for CFL and LED - recovery time; (3) Editorial correction of clause 5.10.2 to correct figure number reference and renaming of figure 4; (4) Clarification of lamp compatibility information provided in clause 7.1.8; and (5) Addition of abbreviation "EFL" denoting "Electronic Fluorescent Ballast" light load to table 15.

Single copy price: Contact comm2000 for pricing and delivery options

Obtain an electronic copy from: http://www.comm-2000.com

Order from: comm2000

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

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 1598-201X, Standard for Safety for Luminaires (revision of ANSI/UL 1598-2012)

The following changes in requirements to the Standard for Luminaires, UL 1598, are being proposed:

- (1) Revise requirements for combination HID/incandescent lamp replacement marking for remote ballasted HID luminaires;
- (2) Revise requirements for Rain and Sprinkler Test Methods;
- (3) Add requirements for luminaires for use in clothes closets in clause 12.7 (USA);
- (4) Revise requirements for self-threading screw torque;
- (5) Add paragraph 1.3 to reference UL 8750 for requirements for LED components and subassemblies;
- (6) Add standard references to clause 2;
- (7) Revise polymeric material requirements for LED optics;
- (8) Clarify requirements for luminaires using lampholders having cellulosic fiber husks;
- (9) Clarify requirements for the use of flexible cord and attachment plugs for connecting luminaires to the branch circuit;
- (10) Add requirements for recessed luminaires for installation in air-handling spaces:
- (11) Add supplementary requirements for LED luminaires;
- (12) Revise electrical spacings to include USA requirement for printed wiring board:
- (13) Revise enclosure requirements;
- (14) Add standard references to Annex A;
- (15) Add requirements for LED Type Non-IC inherently protected recessed luminaires;
- (16) Revise requirements for thermal protection for LED recessed luminaires;
- (17) Add requirements for mechanical joints and fastenings;
- (18) Revise existing definitions and add new definitions;
- (19) Revise flammability requirements for an LED lens and diffuser;
- (20) Add spacings options for UL 1598 using requirements from UL 840;
- (21) Add requirements for luminaires for use in clothes closets in clause 12.8 (CAN);
- (22) Add new section 11.1.5 (CAN) for polymeric light diffusers and lenses compliance with the National Building Code of Canada;
- (23) Revise font size requirements for product labels;
- (24) Revise definition of User Maintenance;
- (25) Revise requirement in part (c) of clause 10.6.9 (CAN) to include wall-mounted luminaires; and
- (26) Revise requirements for factory production-line tests and dielectric voltage withstand testing (DVWT).

Single copy price: Contact comm2000 for pricing and delivery options

Obtain an electronic copy from: http://www.comm-2000.com

Order from: comm2000

Send comments (with copy to psa@ansi.org) to: Heather Sakellariou, (847) 664-2346, Heather.Sakellariou@ul.com

Revision

BSR/UL 62841-2-2-201x, Standard for Safety for Electric Motor-Operated Hand-Held Tools, Transportable Tools, and Lawn and Garden Machinery - Safety - Part 2-2: Particular Requirements for Screwdrivers and Impact Wrenches (revision of ANSI/UL 62841-2-2-2016)

(1) Proposed revision to table 4, Required Performance Levels, to align with changes to IEC 62841-2-2 in IEC Corrigendum 1 of IEC 62841-2-2.

Single copy price: Contact comm2000 for pricing and delivery options

Obtain an electronic copy from: http://www.comm-2000.com

Order from: comm2000

Send comments (with copy to psa@ansi.org) to: Beth Northcott, (847) 664

-3198, Elizabeth.Northcott@ul.com

VITA (VMEbus International Trade Association (VITA))

New Standard

BSR/VITA 67.3-201x, Coaxial Interconnect on VPX, Spring-Loaded Contact on Backplane (new standard)

This document describes an open standard for configuration and interconnect within the structure of VITA 67.0 enabling an interface compatible with VITA 46 containing multi-position blind-mate analog connectors with SMPM style contacts having fixed contacts on the Plug-in Module and spring action on the backplane.

Single copy price: \$25.00

Obtain an electronic copy from: admin@vita.com

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

VITA (VMEbus International Trade Association (VITA))

Stabilized Maintenance

BSR/VITA 41.0-2006 (S201x), VXS VMEbus Switched Serial Standard (stabilized maintenance of ANSI/VITA 41.0-2006 (R2011))

This standards defines switched serial interconnects for VMEbus, coincident with the VMEbus parallel bus.

Single copy price: \$25.00

Obtain an electronic copy from: admin@vita.com

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

VITA (VMEbus International Trade Association (VITA))

Stabilized Maintenance

BSR/VITA 41.1-2006 (S201x), VXS 4X InfiniBand (TM) Protocol Layer Standard (stabilized maintenance of ANSI/VITA 41.1-2006 (R2011))

This standard describes a method for using the InfiniBand protocol on ANSI/VITA 41.0, VXS.

Single copy price: \$25.00

Obtain an electronic copy from: admin@vita.com

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

VITA (VMEbus International Trade Association (VITA))

Stabilized Maintenance

BSR/VITA 41.2-2006 (S201x), VXS 4X Serial RapidIO Protocol Layer Standard (stabilized maintenance of ANSI/VITA 41.2-2006 (R2011))

This standard describes a method for implementing Serial Rapid I/O on ANSI/VITA 41.0, VXS.

Single copy price: \$25.00

Obtain an electronic copy from: admin@vita.com

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

VITA (VMEbus International Trade Association (VITA))

Stabilized Maintenance

BSR/VITA 42.1-2006 (S201x), XMC Switched Mezzanine Card: Parallel RapidIO 8/16 LP-LVDS Protocol Layer Standard (stabilized maintenance of ANSI/VITA 42.1-2006 (R2012))

This standard defines the implementation of Parallel RapidIO on VITA 42.0,

Single copy price: \$25.00

Obtain an electronic copy from: admin@vita.com

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

VITA (VMEbus International Trade Association (VITA))

Stabilized Maintenance

BSR/VITA 42.2-2006 (S201x), XMC Serial RapidIO Protocol Layer Standard (stabilized maintenance of ANSI/VITA 42.2-2006 (R2012))

This standard defines the implementation of Serial RapidIO on VITA 42.0, XMC

Single copy price: \$25.00

Obtain an electronic copy from: admin@vita.com

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

Comment Deadline: June 27, 2017

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

Addenda

INCITS 481-2011/AM1-201x, Information technology - Fibre Channel Protocol for SCSI - 4 (FCP-4) - Amendment 1 (addenda to INCITS 481 -2011)

Defines a fourth version of the SCSI Fibre Channel Protocol (FCP) used to transport SCSI commands over the Fibre Channel interface. This amendment allows for specifying extensions to be used by INCITS 540 -201x, FC-NVMe.

Single copy price: Free

Obtain an electronic copy from: https://standards.incits. org/apps/group_public/document.php?document_id=87177&wg_abbrev=eb

Order from: https://standards.incits.org/apps/group_public/document.php? document id=87177&wg abbrev=eb

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

UL (Underwriters Laboratories, Inc.)

New Standard

BSR/UL 2748A-201x, Standard for Safety for Arcing Fault Interrupting Devices (new standard)

This proposal is for the publication of the first edition of the Standard for Arcing Fault Interrupting Devices, UL 2748A, as an American National Standard.

Single copy price: Contact comm2000 for pricing and delivery options

Obtain an electronic copy from: www.comm-2000.com
Order from: comm2000, 151 Eastern Avenue, Bensenville, IL 60106 USA, 1

-888-853-3503
Send comments (with copy to psa@ansi.org) to: Derrick Martin, (510) 319
-4271, Derrick.L.Martin@ul.com

Revision

BSR/UL 62-201X, Standard for Safety for Flexible Cords and Cables (Proposals Dated 4/28/17) (revision of ANSI/UL 62-2014)

The standard specifies the requirements for flexible cords, elevator cables, hoistway cables rated 600 V maximum, electric vehicle cables rated 1000 V maximum, and intended for use in accordance with CSA C22.1, Canadian Electrical Code, Part I and CAN/CSA C22.2 No. 0, General Requirements - Canadian Electrical Code, Part II, in Canada, NOM-001-SEDE, La Norma de Instalaciones Electricas, in Mexico, and NFPA 70, National Electrical Code (NEC), in the United States. Products included: Service cords; elevator cables; hoistway cables; heater cords; range and dryer cords; cords for decorative lighting; tinsel and lamp cords; special-use cords; and electric vehicle cables.

Single copy price: Contact comm2000 for pricing and delivery options

Obtain an electronic copy from: www.comm-2000.com

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

Send comments (with copy to psa@ansi.org) to: Linda Phinney, (510) 319 -4297, Linda.L.Phinney@ul.com

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 2157-201X, Standard for Safety for Electric Clothes Washing Machines and Extractors (Proposal dated 4-28-17) (revision of ANSI/UL 2157-2015)

Proposed fourth edition of the Standard for Electric Clothes Washing Machines and Extractors.

Single copy price: Contact comm2000 for pricing and delivery options

Obtain an electronic copy from: www.comm-2000.com

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

Send comments (with copy to psa@ansi.org) to: Ross Wilson, (919) 549 -1511, Ross.Wilson@ul.com

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 2158-201X, Standard for Safety for Electric Clothes Dryers (Proposal dated 4-17-17) (revision of ANSI/UL 2158-2015)

Proposed fifth edition of the Standard for Electric Clothes Dryers.

Single copy price: Contact comm2000 for pricing and delivery options

Obtain an electronic copy from: www.comm-2000.com

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

Send comments (with copy to psa@ansi.org) to: Ross Wilson, (919) 549 -1511, Ross.Wilson@ul.com

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.

ASA (ASC S3) (Acoustical Society of America)

Office: 1305 Walt Whitman Road Suite 300

Melville, NY 11747

Contact: Neil Stremmel

Phone: (631) 390-0215

Fax: (631) 923-2875

E-mail: asastds@acousticalsociety.org

BSR ASA S3/SC1.7-201x, Passive Acoustic Monitoring (new standard)

CTA (Consumer Technology Association)

Office: 1919 South Eads Street

Arlington, VA 22202

Contact: Veronica Lancaster
Phone: (703) 907-7697

Fax: (703) 907-4197 E-mail: vlancaster@cta.tech

BSR/CTA 803-B-2012 (R201x), Mobile Electronics Wiring Designations for Audio, and Vehicle Security/Convenience (reaffirmation of

ANSI/CTA 803-A-2007)

DASMA (Door and Access Systems Manufacturers Association)

Office: 1300 Sumner Avenue

Cleveland, OH 44115-2851

Contact: Christopher Johnson
Phone: (216) 241-7333

Fax: (216) 241-0105

E-mail: cjohnson@thomasamc.com

BSR/DASMA 102-201x, Specifications for Sectional Doors (revision of

ANSI/DASMA 102-2011)

BSR/DASMA 108-201x, Standard Method for Testing Sectional Garage Doors and Rolling Doors: Determination of Structural Performance Under Uniform Static Air Pressure Difference (revision of ANSI/DASMA 108-2012)

BSR/DASMA 115-201x, Standard Method for Testing Sectional Doors, Rolling Doors and Flexible Doors: Determination of Structural Performance Under Missile Impact and Cyclic Wind Pressure (revision of ANSI/DASMA 115-2014)

BSR/DASMA 303-201x, Performance Criteria for Accessible Communications Entry Systems (new standard)

IES (Illuminating Engineering Society)

Office: 120 Wall St. 17th Floor

New York, NY 10005

Contact: Patricia McGillicuddy

Phone: (212) 248-5000

E-mail: pmcqillicuddy@ies.org

BSR/IES RP-27.4-201x, Recommended Practice for Photobiological Safety for Lamps and Lamp Systems - Ultraviolet Lamp Systems

(new standard)

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

Office: 1101 K Street NW

Suite 610

Washington, DC 20005-3922

 Contact:
 Rachel Porter

 Phone:
 (202) 626-5741

 Fax:
 202-638-4922

 E-mail:
 comments@itic.org

INCITS 481-2011/AM1-201x, Information technology - Fibre Channel Protocol for SCSI - 4 (FCP-4) - Amendment 1 (addenda to INCITS 481-2011)

NECA (National Electrical Contractors Association)

Office: 3 Bethesda Metro Center

Suite 1100

Bethesda, MD 20814

Contact: Agnieszka Golriz **Phone:** (240) 800-5011

E-mail: Aga.golriz@necanet.org

BSR/NECA 417-201x, Recommended Practice for Designing, Installing, Operating and Maintaining Microgrids (new standard)

NFRC (National Fenestration Rating Council)

Office: 6305 Ivy Lane

Suite 140

Greenbelt, MD 20770

 Contact:
 Robin Merrifield

 Phone:
 (240) 821-9513

 Fax:
 (301) 589-3884

 E-mail:
 rmerrifield@nfrc.org

BSR/NFRC 100-201x, Procedure for Determining Fenestration Product U-factor (revision and redesignation of ANSI/NFRC 100 [E0A1]-2015)

NSF (NSF International)

Office: 789 N. Dixboro Road

Ann Arbor, MI 48105-9723

Contact: Allan Rose

Phone: (734) 827-3817

Fax: (734) 827-7875

E-mail: arose@nsf.org

BSR/NSF 37-201x (i6r6), Air Curtain for Entranceways for Food and Food Service Establishements (revision of ANSI/NSF 37-2012)

BSR/NSF 350-201x (i15r1), Onsite Residential and Commercial Water Reuse Treatment Systems (revision of ANSI/NSF 350-2012 (i3))

BSR/NSF 350-201x (i16r1), Onsite Residential and Commercial Water Reuse Treatment Systems (revision of ANSI/NSF 350-2017)

SBCA (Structural Building Components Association)

Office: 6300 Enterprise Lane

Madison, Wisconsin 53719

Contact: Timothy Ahrenholz

Phone: (608) 310-6776

E-mail: tahrenholz@qualtim.com

BSR/SBCA FS-200-201x, Standard Requirements for the Testing, Design and Application of Foam Plastic Insulation Used as Sheathing for Building Enclosure Applications (new standard)

TIA (Telecommunications Industry Association)

Office: 1320 North Courthouse Road

Suite 200

Arlington, VA 22201

 Contact:
 Teesha Jenkins

 Phone:
 (703) 907-7706

 Fax:
 (703) 907-7727

E-mail: standards@tiaonline.org

BSR/TIA 102.BAAA-B-201x, FDMA - Common Air Interface (revision and redesignation of ANSI/TIA 102.BAAA-A-2003 (R2013))

BSR/TIA 102.BAAC-D-201x, Common Air Interface Reserved Values (revision and redesignation of ANSI/TIA 102.BAAC-C-2011)

VITA (VMEbus International Trade Association (VITA))

Office: 929 W. Portobello Avenue

Mesa, AZ 85210

Contact: Jing Kwok

Phone: (602) 281-4497

E-mail: jing.kwok@vita.com

BSR/VITA 41.0-2006 (S201x), VXS VMEbus Switched Serial Standard (stabilized maintenance of ANSI/VITA 41.0-2006 (R2011))

BSR/VITA 41.1-2006 (S201x), VXS 4X InfiniBand (TM) Protocol Layer Standard (stabilized maintenance of ANSI/VITA 41.1-2006 (R2011))

BSR/VITA 41.2-2006 (S201x), VXS 4X Serial RapidIO Protocol Layer Standard (stabilized maintenance of ANSI/VITA 41.2-2006 (R2011))

BSR/VITA 42.1-2006 (S201x), XMC Switched Mezzanine Card: Parallel RapidIO 8/16 LP-LVDS Protocol Layer Standard (stabilized maintenance of ANSI/VITA 42.1-2006 (R2012))

BSR/VITA 42.2-2006 (S201x), XMC Serial RapidIO Protocol Layer Standard (stabilized maintenance of ANSI/VITA 42.2-2006 (R2012))

BSR/VITA 67.3-201x, Coaxial Interconnect on VPX, Spring-Loaded Contact on Backplane (new standard)

Call for Members (ANS Consensus Bodies)

Call for Committee Members

AAMI (Association for the Advancement of Medical Instrumentation)

AAMI is currently seeking general interest participants and users to participate on the following technical committees:

- Application of risk management to medical devices
- Software
- Software Defect Classification
- General aspects stemming from the application of quality principles to medical devices

AAMI defines a user as someone who in the context of his/her profession purchases or uses materials, products, systems, or services covered in the scope of the document(s) developed by the committee. AAMI defines a general interest participant as someone who has a general material interest in the work of the committee but who doesn't fit into the user, industry, or regulator categories.

If you are interested in joining or getting more information about the work of any of these groups, please contact Wil Vargas (wvargas@aami.org).

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:

- o General Interest
- Government
- o Producer
- o 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.

ASME (American Society of Mechanical Engineers) Reaffirmation

ANSI/ASME B1.9-1973 (R2017), Buttress Inch Screw Threads (7 deg. /45 deg. Form with 0.6 Pitch Basic Height of Thread Engagement) (reaffirmation of ANSI/ASME B1.9-1973 (R2007)): 4/18/2017

AWWA (American Water Works Association) Revision

ANSI/AWWA C220-2017, Stainless-Steel Pipe - 1/2 In. (13 mm) and Larger (revision of ANSI/AWWA C220-2012): 4/20/2017

CSA (CSA Group)

Revision

* ANSI Z21.93-2017, Excess Flow Valves for Natural Gas and Propane Gas up to Pressures of 5 psig (same as CSA 6.30) (revision of ANSI Z21.93-2013): 4/21/2017

ECIA (Electronic Components Industry Association) Revision

ANSI/EIA 364-31E-2017, Humidity Test Procedure for Electrical Connectors and Sockets (revision and redesignation of ANSI/EIA 364-31D-2014): 4/20/2017

ANSI/EIA 960-B-2017, Assembly Component Tray - ACT (revision and redesignation of ANSI/EIA 960-A-2011): 4/20/2017

IEEE (Institute of Electrical and Electronics Engineers)

New Standard

ANSI/IEEE 1857.5-2015, Draft Standard for Advanced Mobile Speech and Audio (new standard): 4/18/2017

ANSI/IEEE C37.302-2015, Guide for Fault Current Limiter (FCL)
Testing FCLs rated above 1000 V AC (new standard): 4/20/2017

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

New National Adoption

INCITS/ISO 19160-1:2015 [2017], Addressing - Part 1: Conceptual model (identical national adoption of ISO 19160-1:2015): 4/20/2017

INCITS/ISO/IEC 17788:2014 [2017], Information technology - Cloud computing - Overview and vocabulary (identical national adoption of ISO/IEC 17788:2014): 4/20/2017

INCITS/ISO/IEC 17789:2014 [2017], Information technology - Cloud computing - Reference architecture (identical national adoption of ISO/IEC 17789:2014): 4/20/2017

INCITS/ISO/IEC 17823:2015 [2017], Colour terminology for office colour equipment (identical national adoption of ISO/IEC 17823:2015): 4/20/2017

INCITS/ISO/IEC 17991:2015 [2017], Information technology - Office equipment - Method for Measuring Scanning Productivity of Digital Multifunctional Devices (identical national adoption of ISO/IEC 17991:2015): 4/20/2017 INCITS/ISO/IEC 19395:2015 [2017], Information technology -Sustainability for and by information technology - Smart data centre resource monitoring and control (identical national adoption of ISO/IEC 19395:2015): 4/20/2017

INCITS/ISO/IEC 38500:2015 [2017], Information technology -Governance of IT for the organization (identical national adoption of ISO/IEC 38500:2015): 4/20/2017

SCTE (Society of Cable Telecommunications Engineers)

Revision

ANSI/SCTE 137-2-2017, Modular Head End Architecture - Part 2: M-CMTS Downstream External PHY Interface (revision of ANSI/SCTE 137-2-2010): 4/20/2017

ANSI/SCTE 137-3-2017, Modular Head End Architecture - Part 3: Operations Support System Interface (revision of ANSI/SCTE 137-3-2010): 4/20/2017

ANSI/SCTE 137-4-2017, Modular Head End Architecture - Part 4: Edge Resource Manager Interface (revision of ANSI/SCTE 137-4-2010): 4/20/2017

ANSI/SCTE 137-5-2017, Modular Head End Architecture - Part 5: Edge QAM Provisioning and Management Interface (revision of ANSI/SCTE 137-5-2010): 4/20/2017

ANSI/SCTE 137-6-2017, Modular Head End Architecture - Part 6: Edge QAM Video Stream Interface (revision of ANSI/SCTE 137-6-2010): 4/20/2017

ANSI/SCTE 137-7-2017, Modular Head End Architecture - Part 7: EQAM Architectural Overview Technical Report (revision of ANSI/SCTE 137-7-2010): 4/20/2017

SJI (Steel Joist Institute)

Revision

ANSI/SJI 100-2015, Standard Specification for Joist Girders and Open Web Steel Joists; K-Series, LH/DLH-Series (revision of ANSI/SJI -2015): 4/18/2017

TIA (Telecommunications Industry Association) Revision

ANSI/TIA 4957.100-A-2017, Layer 1 Standard Specification for the Smart Utility Network (revision and redesignation of ANSI/TIA 4957.100-2013): 4/20/2017

ANSI/TIA 4957.210-A-2017, Multi-Hop Delivery Specification of a Data Link Sub-Layer (revision and redesignation of ANSI/TIA 4957.210 -2013): 4/18/2017

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. To view information about additional standards for which a PINS has been submitted and to search approved ANS, please visit www.NSSN.org, which is a database of standards information. Note that this database is not exhaustive.

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.

ABYC (American Boat and Yacht Council)

Contact: Lynn Lipsey, (410) 990-4460, llipsey@abycinc.org

* BSR/ABYC S-30-201x, Outboard Engine and Related Equipment Weights (revision of ANSI/ABYC S-30-2012)

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

Project Need: This standard identifies safety issues with outboard engines and related equipment weights.

This industry conformity standard is a guide for outboard engine and related equipment weights for use in determining vessel capacity and flotation.

ASC X9 (Accredited Standards Committee X9, Incorporated)

Contact: Ambria Frazier, (410) 267-7707, Ambria.frazier@x9.org

BSR X9.73-201x, Cryptographic Message Syntax - ASN.1 and XML (revision of ANSI X9.73-2010 (R2017))

Stakeholders: Developers, service providers, financial institutions, regulators, and auditors.

Project Need: Updates are needed to address changes in technology and the financial services industry.

The high value or sheer volume of such transactions within an open environment exposes the financial community to the risk of potentially severe consequences from accidental or deliberate disclosure, alteration, substitution, or destruction of data. This risk is compounded by interconnected networks and the increased number and sophistication of malicious adversaries. And when financial transactions involve systemically important payment systems, these consequences may adversely affect national and global financial markets. This Standard defines a cryptographic message syntax which can be used to protect financial transactions and other information from the threats described above. The syntax is easily extensible in design to allow the use of any cryptographic algorithm defined in current or future standards appropriate for use by the financial services. The cryptographic syntax is suitable for the protection of the identity and rights management information critical for secure access control.

BSR X9.84-201x, Biometric Information Management and Security for the Financial Services Industry (revision of ANSI X9.84-2010 (R2017))

Stakeholders: Developers, service providers, financial institutions, regulators, and auditors.

Project Need: Updates are needed to address changes in technology and the financial services industry.

This Standard describes the security framework for using biometrics for authentication of individuals in financial services. It introduces the types of biometric technologies and addresses issues concerning their application. This Standard also describes the architectures for implementation, specifies the minimum security requirements for effective management, and provides control objectives and recommendations suitable for use by a professional practitioner. Within the scope of this Standard, the following topics are addressed: Security for the collection, distribution, and processing of biometric data, encompassing data integrity, authenticity, and non-repudiation; Management of biometric data across its life cycle comprised of the enrollment, transmission and storage, verification, identification, and termination processes; Usage of biometric technology, including one-to-one and one-to-many matching, for the identification and authentication of banking customers and employees; Application of biometric technology for internal and external, as well as logical and physical, access control; Encapsulation and cryptographic protection of biometric information for security, interoperability, and data confidentiality; Secure transmission and storage of biometric information during its life cycle; Security of the physical hardware used throughout the biometric data life cycle; Cryptographic techniques for data integrity, authenticity, and data confidentiality of biometric information; Validation of credentials presented at enrollment to support authentication as required by risk management; Surveillance to protect the financial institution and its customers. Items considered out of scope and not addressed in this Standard include the following: The individual's privacy and ownership of biometric information; Specific techniques for data collection, signal processing, and matching of biometric data, and the biometric matching decision-making process; Usage of biometric technology for non-authentication convenience applications such as speech recognition, user interaction, and anonymous access control. Although this Standard does not address specific requirements and limitations of business application employing biometric technology, other standards may address these topics.

CSA (CSA Group)

Contact: Cathy Rake, (216) 524-4990 x88321, cathy.rake@csagroup.org

* BSR/CSA lng 3.14-201x, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 14: Differential pressure fuel content gauge (national adoption with modifications of ISO 12614-14)

Stakeholders: Consumers, manufacturers, certifying agencies.

Project Need: Adopt standard for safety.

This part of ISO 12614 specifies tests and requirements for the differential-pressure fuel content gauge, a liquefied natural gas fuel system component intended for use on the types of motor vehicles defined in ISO 3833. This part of ISO 12614 is not applicable to the following: (a) fuel containers; (b) stationary gas engines; (c) container mounting hardware; (d) electronic fuel management; and (e) refueling receptacles.

* BSR/CSA lng 3.18-201x, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 18: Gas temperature sensor (national adoption with modifications of ISO 12614-18)

Stakeholders: Consumers, manufacturers, certifying agencies.

Project Need: Adopt standard for safety.

This part of ISO 12614 specifies tests and requirements for the gas temperature sensor, a liquefied natural gas fuel system component intended for use on the types of motor vehicles defined in ISO 3833. This part of ISO 12614 is not applicable to the following: (a) fuel containers; (b) stationary gas engines; (c) container mounting hardware; (d) electronic fuel management; and (e) refueling receptacles.

* BSR/CSA LNG 3.1-201x, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 1: General requirements and definitions (national adoption with modifications of ISO 12614-1)

Stakeholders: Consumers, manufacturers, certifying agencies.

Project Need: Adopt standard for safety.

This part of ISO 12614 specifies general requirements and definitions of liquefied natural gas fuel system components, intended for use on the types of motor vehicles as defined in ISO 3833. It also provides general design principles and specifies requirements for instructions and marking. This part of ISO 12614 is not applicable to the following: (a) fuel containers; (b) stationary gas engines; (c) container mounting hardware; (d) electronic fuel management; and(e) fuelling receptacles.

* BSR/CSA LNG 3.2-201x, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 2: Performance and general test methods (national adoption with modifications of ISO 12614-2)

Stakeholders: Consumers, manufacturers, certifying agencies.

Project Need: Adopt standard for safety.

This part of ISO 12614 specifies general requirements and definitions of liquefied natural gas fuel system components, intended for use on the types of motor vehicles as defined in ISO 3833. This part of ISO 12614 is also applicable to other LNG-fueled motor vehicles (for example, ships) as far as appropriate, until any specific norm would be worked out for such a type of vehicle. It also provides general design principles, and specifies requirements for instructions and marking. This part of ISO 12614 is not applicable to the following: (a) fuel containers; (b) stationary gas engines; (c) container mounting hardware; (d) electronic fuel management; and (e) refueling receptacles.

* BSR/CSA LNG 3.4-201x, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 4: Manual valve (national adoption with modifications of ISO 12614-4)

Stakeholders: Consumers, manufacturers, certifying agencies.

Project Need: Adopt standard for safety.

This part of ISO 12614 specifies tests and requirements for the manual valve, a liquefied natural gas fuel system component intended for use on the types of motor vehicles defined in ISO 3833. This part of ISO 12614 is not applicable to the following: (a) fuel containers; (b) stationary gas engines; (c) container mounting hardware; (d) electronic fuel management; and (e) refueling receptacles.

* BSR/CSA LNG 3.5-201x, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 5: Tank pressure gauge (national adoption with modifications of ISO 12614-5)

Stakeholders: Consumers, manufacturers, certifying agencies.

Project Need: Adopt standard for safety.

This part of ISO 12614 specifies tests and requirements for the tank pressure gauge, a liquefied natural gas fuel system component intended for use on the types of motor vehicles defined in ISO 3833. This part of ISO 12614 is not applicable to the following: (a) fuel containers; (b) stationary gas engines; (c) container mounting hardware; (d) electronic fuel management; and (e) refueling receptacles.

* BSR/CSA LNG 3.6-201x, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 6: Pressure regulator (national adoption with modifications of ISO 12614-6)

Stakeholders: Consumers, manufacturers, certifying agencies.

Project Need: Adopt standard for safety.

This part of ISO 12614 specifies tests and requirements for the pressure regulator, a liquefied natural gas fuel system component intended for use on the types of motor vehicles defined in ISO 3833. This part of ISO 12614 is applicable to vehicles using natural gas in accordance with ISO 15403 (mono-fuel, bifuel, or dual-fuel applications). It is not applicable to the following: (1) fuel containers; (2) stationary gas engines; (3) container mounting hardware; (4) electronic fuel management; and (5) refueling receptacles.

* BSR/CSA LNG 3.7-201x, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 7: Pressure relief valve (national adoption with modifications of ISO 12614-7)

Stakeholders: Consumers, manufacturers, certifying agencies.

Project Need: Adopt standard for safety.

This part of ISO 12614 specifies tests and requirements for the pressure relief valve (PRV), a liquefied natural gas fuel system component intended for use on the types of motor vehicles defined in ISO 3833. This part of ISO 12614 is not applicable to the following: (a) fuel containers; (b) stationary gas engines; (c) container mounting hardware; (d) electronic fuel management; and (e) refueling receptacles.

BSR/CSA LNG 3.8-201x, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 8: Excess flow valve (national adoption with modifications of ISO 12614-8)

Stakeholders: Consumers, manufacturers, certifying agencies.

Project Need: Adopt standard for safety.

This part of ISO 12614 specifies tests and requirements for the excess flow valve, a liquefied natural gas fuel system component intended for use on the types of motor vehicles defined in ISO 3833. This part of ISO 12614 is applicable to vehicles using natural gas in accordance with ISO 15403 (mono-fuel, bifuel, or dual-fuel applications). It is not applicable to the following: (a) fuel containers; (b) stationary gas engines; (c) container mounting hardware; (d) electronic fuel management; and (e) refueling receptacles.

* BSR/CSA LNG 3.9-201x, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 9: Gas-tight housing and ventilation hose (national adoption with modifications of ISO 12614-9)

Stakeholders: Consumers, manufacturers, certifying agencies.

Project Need: Adopt standard for safety.

This part of ISO 12614 specifies tests and requirements for the gas-tight housing and ventilation hose, a liquefied natural gas fuel system component intended for use on the types of motor vehicles defined in ISO 3833. This part of ISO 12614 is applicable to vehicles using natural gas in accordance with ISO 15403 (monofuel, bi-fuel, or dual-fuel applications). It is not applicable to the following: (a) fuel containers; (b) stationary gas engines; (c) container mounting hardware; (d) electronic fuel management; and (e) refueling receptacles.

* BSR/CSA LNG 3.10-201x, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 10: Rigid fuel line in stainless steel (national adoption with modifications of ISO 12614-10)

Stakeholders: Consumers, manufacturers, certifying agencies.

Project Need: Adopt standard for safety.

This part of ISO 12614 specifies tests and requirements for the rigid fuel line, a liquefied natural gas fuel system component intended for use on the types of motor vehicles defined in ISO 3833. This part of ISO 12614 is not applicable to the following: (a) fuel containers; (b) stationary gas engines; (c) container mounting hardware; (d) electronic fuel management; and (e) refueling receptacles.

* BSR/CSA LNG 3.11-201x, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 11: Fittings (national adoption with modifications of ISO 12614-11)

Stakeholders: Consumers, manufacturers, certifying agencies.

Project Need: Adopt standard for safety.

This part of ISO 12614 specifies tests and requirements for the fittings, a liquefied natural gas fuel system component intended for use on the types of motor vehicles defined in ISO 3833. This part of ISO 12614 is not applicable to the following: (a) fuel containers; (b) stationary gas engines; (c) container mounting hardware; (d) electronic fuel management; and (e) refueling receptacles.

* BSR/CSA LNG 3.12-201x, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 12: Rigid fuel line in copper and its alloys (national adoption with modifications of ISO 12614-12)

Stakeholders: Consumers, manufacturers, certifying agencies.

Project Need: Adopt standard for safety.

This part of ISO 12614 specifies tests and requirements for the rigid fuel line in copper, a liquefied natural gas fuel system component intended for use on the types of motor vehicles defined in ISO 3833. This part of ISO 12614 is not applicable to the following: (a) fuel containers; (b) stationary gas engines; (c) container mounting hardware: (d) electronic fuel management: and (e) refueling receptacles.

* BSR/CSA LNG 3.13-201x, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 13: Tank pressure control regulator (national adoption with modifications of ISO 12614-13)

Stakeholders: Consumers, manufacturers, certifying agencies.

Project Need: Adopt standard for safety.

This part of ISO 12614 specifies tests and requirements for the pressure control regulator, a liquefied natural gas fuel system component intended for use on the types of motor vehicles defined in ISO 3833. This part of ISO 12614 is not applicable to the following: (a) fuel containers; (b) stationary gas engines; (c) container mounting hardware; (d) electronic fuel management; and (e) refueling receptacles.

* BSR/CSA LNG 3.15-201x, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 15: Capacitance fuel content gauge (national adoption with modifications of ISO 12614-15)

Stakeholders: Consumers, manufacturers, certifying agencies.

Project Need: Adopt standard for safety.

This part of ISO 12614 specifies tests and requirements for the capacitance fuel content gauge, a liquefied natural gas fuel system component intended for use on the types of motor vehicles defined in ISO 3833. This part of ISO 12614 is applicable to vehicles using natural gas in accordance with ISO 15403 (monofuel, bi-fuel, or dual-fuel applications). It is not applicable to the following: (a) fuel containers; (b) stationary gas engines; (c) container mounting hardware; (d) electronic fuel management; and (e) refueling receptacles.

* BSR/CSA LNG 3.16-201x, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 16: Heat exchanger-vaporizer (national adoption with modifications of ISO 12614-16)

Stakeholders: Consumers, manufacturers, certifying agencies.

Project Need: Adopt standard for safety.

This part of ISO 12614 specifies tests and requirements for the heat exchanger-vaporizer, a liquefied natural gas fuel system component intended for use on the types of motor vehicles defined in ISO 3833. This part of ISO 12614 is not applicable to the following: (a) fuel containers; (b) stationary gas engines; (c) container mounting hardware; (d) electronic fuel management; and (e) refueling receptacles.

* BSR/CSA LNG 3.17-201x, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 17: Natural gas detector (national adoption with modifications of ISO 12614-17)

Stakeholders: Consumers, manufacturers, certifying agencies.

Project Need: Adopt standard for safety.

This part of ISO 12614 specifies tests and requirements for the natural gas detector, a liquefied natural gas fuel system component intended for use on the types of motor vehicles defined in ISO 3833. This part of ISO 12614 is not applicable to the following: (a) fuel containers; (b) stationary gas engines; (c) container mounting hardware; (d) electronic fuel management; and (e) refueling receptacles.

* BSR/CSA LNG 3.19-201x, Road vehicles - Liquefied natural gas (LNG) fuel system components -Part 19: Automatic valve (national adoption with modifications of ISO 12614-19)

Stakeholders: Consumers, manufacturers, certifying agencies.

Project Need: Adopt standard for safety.

ISO 12614-19:2017 specifies tests and requirements for the automatic valve, a liquefied natural gas fuel system component intended for use on the types of motor vehicles defined in ISO 3833. This document is applicable to vehicles using natural gas in accordance with ISO 15403 (all parts) (mono-fuel, bi-fuel or dual-fuel applications). It is not applicable to the following: (a) fuel containers; (b) stationary gas engines; (c) container mounting hardware; (d) electronic fuel management; and (e) refuelling receptacles.

* BSR/CSA LNG 3.20-201x, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 20: Flexible fuel lines (new standard)

Stakeholders: Consumers, manufacturers, certifying agencies.

Project Need: Adopt standard for safety.

This standard gives design, construction, type and production testing, and marking requirements for LNG flexible hose used for the transfer of LNG within the following range of operating conditions:

- working temperature: from TBD°C to + TBD°C;
- maximum nominal pressure: 80 bar;
- nominal size (DN): from 10 to 100.

End fittings for mounting of any couplings are not within the scope of this standard. In accordance with Committee Procedures

CTA (Consumer Technology Association)

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

* BSR/CTA 931-C-2007 (S201x), Remote Control Command Pass-Through Standard for Home Networking (stabilized maintenance of ANSI/CTA 931-C-2007 (R2012))

Stakeholders: Consumers and manufacturers of home networks and products.

Project Need: Stabilization of ANSI/CTA 931-C.

This specification defines a standardized method for communication of certain basic operational functions between devices in a home network.

IES (Illuminating Engineering Society)

Contact: Patricia McGillicuddy, (212) 248-5000, pmcgillicuddy@ies.org

BSR/IES RP-27.4-201x, Recommended Practice for Photobiological Safety for Lamps and Lamp Systems - Ultraviolet Lamp Systems (new standard)

Stakeholders: Luminaire manufacturers, testing labs, lighting designers and engineers, environmentalists.

Project Need: Provide specific guidance on UV Lamp systems.

Evaluation and control of optical radiation hazards from all electrically powered sources of optical radiation that primarily emit in the wavelength range from 200 nm through 400 nm.

NECA (National Electrical Contractors Association)

Contact: Agnieszka Golriz, (240) 800-5011, Aga.golriz@necanet.org

* BSR/NECA 417-201x, Recommended Practice for Designing, Installing, Operating and Maintaining Microgrids (new standard)

Stakeholders: Electrical contractors, specifiers, electrical workers, inspectors, building owners, maintenance engineers, specifying government agencies such as Department of Energy (DOE).

Project Need: National Electrical Installation Standards (developed by NECA in partnership with other industry organizations) are the first performance standards for electrical construction. They go beyond the basic safety requirements of the National Electrical Code to clearly define what is meant by installing products and systems in a "neat and workmanlike" manner.

This Standard describes recommended practices for designing, installing, operating, and maintaining microgrids.

SBCA (Structural Building Components Association)

Contact: Timothy Ahrenholz, (608) 310-6776, tahrenholz@qualtim.com

* BSR/SBCA FS-200-201x, Standard Requirements for the Testing, Design and Application of Foam Plastic Insulation Used as Sheathing for Building Enclosure Applications (new standard)

Stakeholders: Foam sheathing manufacturers, chemical suppliers, building component manufacturers, energy code users, builders, framers, DOE.

Project Need: This standard is for the testing/quality control, performance characteristics, design and application of foam plastic insulation used as building enclosure sheathing and is needed because none currently exists.

Provides a specification for the testing/quality control, performance characteristics, design, and application of foam plastic insulation used as sheathing onto the structural framework of a building. The main focus of this standard will be on the application of foam sheathing on typical wall assemblies with regard to performance as a water-resistive barrier. Other applications such as air-barrier, thermal barrier, and noise barrier may also be addressed as these products often have multiple functional attributes. Structural concerns may also be addressed, such as cladding connections in the context of water-resistive barriers/wind-pressure resistance, etc.

UL (Underwriters Laboratories, Inc.)

Contact: Susan Malohn, (847) 664-1725, Susan.P.Malohn@ul.com

BSR/UL 61724-1-201x, Standard for Photovoltaic system performance - Part 1: Monitoring (national adoption with modifications of IEC 61724-1)

Stakeholders: Photovoltaic industry, producers, installers, and certification bodies.

Project Need: Adoption of an International Standard to define equipment, methods, and terminology for performance monitoring and analysis of photovoltaic (PV) systems.

This part of 61724 outlines equipment, methods, and terminology for performance monitoring and analysis of photovoltaic (PV) systems. It addresses sensors, installation, and accuracy for monitoring equipment in addition to measured parameter data acquisition and quality checks, calculated parameters, and performance metrics. In addition, it serves as a basis for other standards which rely upon the data collected.

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)
- AAMVA (American Association of Motor Vehicle Administrators)
- 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 (The Green Building Initiative)
- GEIA (Greenguard Environmental Institute)
- HL7 (Health Level Seven)
- IESNA (The Illuminating Engineering Society of North America)
- MHI (ASC MH10) (Material Handling Industry)
- NAHBRC (NAHB Research Center, Inc.)
- NBBPVI (National Board of Boiler and Pressure Vessel Inspectors)
- NCPDP (National Council for Prescription Drug Programs)
- NISO (National Information Standards Organization)
- NSF (NSF International)
- PRCA (Professional Ropes Course Association)
- RESNET (Residential Energy Services Network)
- 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.

ABYC

American Boat and Yacht Council 613 Third Street, Suite 10 Annapolis, MD 21403 Phone: (410) 990-4460 Web: www.abycinc.org

ASC X9

Accredited Standards Committee X9, Incorporated

275 West Street Suite 107 Annapolis, MD 21401 Phone: (410) 267-7707 Web: www.x9.org

ASHRAE

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

1791 Tullie Circle, NE Atlanta, GA 30329 Phone: (678) 539-1143 Fax: (678) 539-2159 Web: www.ashrae.org

ASME

American Society of Mechanical Engineers

Two Park Avenue New York, NY 10016 Phone: (212) 591-8521 Fax: (212) 591-8501 Web: www.asme.org

ASTM

ASTM International

100 Barr Harbor Drive West Conshohocken, PA 19428-2959 Phone: (610) 832-9744 Fax: (610) 834-3683 Web: www.astm.org

ATIS

Alliance for Telecommunications Industry Solutions

1200 G Street NW Suite 500 Washington, DC 20005 Phone: (202) 434-8840 Web: www.atis.org

AWWA

American Water Works Association

6666 W. Quincy Ave. Denver, CO 80235 Phone: (303) 347-6178 Fax: (303) 795-7603 Web: www.awwa.org

B11

B11 Standards, Inc. P.O. Box 690905 Houston, TX 77269 Phone: (832) 446-6999

CAAS

Commission on Accreditation of Ambulance Services

1926 Waukegan Road Suite 300 Glenview, IL 60025

Phone: (847) 657-6828 ext. 3016

Web: www.caas.org

CSA Crow

CSA Group

8501 East Pleasant Valley Rd. Cleveland, OH 44131 Phone: (216) 524-4990 x88321 Fax: (216) 520-8979

Web: www.csa-america.org

CTA

Consumer Technology Association

1919 South Eads Street Arlington, VA 22202 Phone: (703) 907-7697 Fax: (703) 907-4197 Web: www.cta.tech

DASMA

Door and Access Systems
Manufacturers Association

1300 Sumner Avenue Cleveland, OH 44115-2851 Phone: (216) 241-7333 Fax: (216) 241-0105

ECI/

Electronic Components Industry Association

2214 Rock Hill Road Suite 265 Herndon, VA 20170-4212 Phone: (571) 323-0294 Fax: (571) 323-0245 Web: www.ecianow.org

HL7

Health Level Seven

Web: www.hl7.org

3300 Washtenaw Avenue Suite 227 Ann Arbor, MI 48104 Phone: (734) 677-7777 Fax: (734) 677-6622

IEEE

Institute of Electrical and Electronics Engineers (IEEE)

445 Hoes Lane Piscataway, NJ 08854 Phone: (732) 562-3854 Fax: (732) 796-6966 Web: www.ieee.org

Web: www.ies.org

IES

Illuminating Engineering Society 120 Wall St. 17th Floor New York, NY 10005 Phone: (212) 248-5000

ISA (Organization)

International Society of Automation 67 Alexander Drive Research Triangle Park, NC 27709 Phone: (919) 990-9228

Fax: (919) 549-8288 Web: www.isa.org

ITI (INCITS)

InterNational Committee for Information Technology Standards

1101 K Street NW Suite 610 Washington, DC 20005-3922 Phone: (202) 626-5737 Fax: 202-638-4922 Web: www.incits.org

MedBio

MedBiquitous Consortium 5801 Smith Avenue Davis 3110C Baltimore, MD 21209 Phone: (410) 735-6142 Fax: (410) 735-4660 Web: www.medbiq.org

MSS

Manufacturers Standardization Society

127 Park Street, NE Vienna, VA 22180-4602 Phone: (703) 281-6613 Fax: (703) 281-6671 Web: www.mss-hq.org

NECA

National Electrical Contractors
Association

Suite 1100 Bethesda, MD 20814 Phone: (240) 800-5011 Web: www.neca-neis.org

3 Bethesda Metro Center

NFRC

National Fenestration Rating Council

6305 lvy Lane Suite 140 Greenbelt, MD 20770 Phone: (240) 821-9513 Fax: (301) 589-3884 Web: www.nfrc.org

NSF

NSF International 789 N. Dixboro Road

Ann Arbor, MI 48105-9723 Phone: (734) 769-5197 Web: www.nsf.org

PEARL

Professional Electrical Apparatus Recyclers League

10200 W. 44th St, Ste. 304 Wheat Ridge, CO 80033 Phone: (720) 881-6043 Fax: (720) 881-6101 Web: www.pearl1.org

RVIA

Recreational Vehicle Industry Association

1896 Preston White Drive P.O. Box 2999 Reston, VA 20191-4363 Phone: (571) 665-5872 Web: www.rvia.org

SBCA

Structural Building Components Association

6300 Enterprise Lane Madison, Wisconsin 53719 Phone: (608) 310-6776 Web: www.sbcindustry.com

SCTE

Society of Cable Telecommunications Engineers

140 Philips Rd Exton, PA 19341 Phone: (800) 542-5040 Fax: (800) 542-5040 Web: www.scte.org

SJI

Steel Joist Institute 234 W. Cheves Street Florence, SC 29501 Phone: (843) 407-4091 Fax: (843) 407-4044 Web: www.steelioist.org

TIA

Telecommunications Industry
Association

1320 North Courthouse Road Suite 200 Arlington, VA 22201 Phone: (703) 907-7706 Fax: (703) 907-7727 Web: www.tiaonline.org

UL

Underwriters Laboratories, Inc. 333 Pfingsten Road Northbrook, IL 60062-2096 Phone: (847) 664-1725 Fax: (847) 407-1725

VITA

Web: www.ul.com

Web: www.vita.com

VMEbus International Trade Association (VITA) 929 W. Portobello Avenue Mesa, AZ 85210 Phone: (602) 281-4497

IEC Draft International Standards



This section lists proposed standards that the International Electrotechnical Commission (IEC) is considering for approval. The proposals have received substantial support within the technical committees or subcommittees that developed them and are now being circulated to 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 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

IEC Drafts can be made available by contacting ANSI's Customer Service department. Please e-mail your request for an 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.

- 34C/1315(F)/CDV, IEC 62386-207 ED2: Digital addressable lighting interface Part 207: Particular requirements for control gear LED modules (device type 6), 017/7/7/
- 34C/1320(F)/CDV, IEC 62386-216 ED1: Digital addressable lighting interface Part 216: Particular requirements for control gear Load referencing (device type 15), 017/7/7/
- 34C/1321(F)/CDV, IEC 62386-217 ED1: Digital addressable lighting interface Part 217: Particular requirements for control gear Thermal gear protection (device type 16), 017/7/7/
- 34C/1322(F)/CDV, IEC 62386-218 ED1: Digital addressable lighting interface - Part 218: Particular requirements for control gear -Dimming Curve Selection (device type 17), 017/7/7/
- 34C/1323(F)/CDV, IEC 62386-222 ED1: Digital addressable lighting interface Part 222: Particular requirements for control gear Thermal lamp protection (device type 21), 017/7/7/
- 34A/2004/CD, IEC 62707-1/AMD1 ED1: LED-binning Part 1: General requirements and white colour grid, 2017/6/16
- 34A/2007/ISH, Interpretation sheet for: Amendment 1 Lamps for road vehicles - Dimensional, electrical and luminous requirements, 2017/6/16
- 46C/1070/CD, IEC 61156-5 ED3: Multicore and symmetrical pair/quad cables for digital communications Part 5: Symmetrical pair/quad cables with transmission characteristics up to 1 000 MHz Horizontal floor wiring Sectional specification, 2017/7/14
- 46C/1071/CD, IEC 61156-6 ED4: Multicore and symmetrical pair/quad cables for digital communications Part 6: Symmetrical pair/quad cables with transmission characteristics up to 1 000 MHz Work area wiring Sectional specification, 2017/7/14
- 46A/1323/CDV, IEC 61196-6-2 ED1: Coaxial communication cables Part 6-2: Detail specification for 75-4 type CATV drop cables, 2017/7/14
- 46A/1324/CDV, IEC 61196-6-3 ED1: Coaxial communication cables Part 6-3: Detail specification for type 75-5 CATV drop cables, 2017/7/14
- 46A/1325/CDV, IEC 61196-6-4 ED1: Coaxial communication cables Part 6-4: Detail specification for 75-7 type CATV drop cables, 2017/7/14
- 46A/1326/CDV, IEC 61196-1-206 ED2: Coaxial communication cables Part 1-206: Environmental test methods Climatic sequence, 2017/7/14

- 62A/1188/CD, IEC TR 60601-4-3 ED2: Medical electrical equipment -Part 4-3: Guidance and interpretation - Considerations of unaddressed safety aspects in the third edition of IEC 60601-1 and proposals for new requirements, 2017/7/14
- 65C/862A/CDV, IEC 61784-1 ED5: Industrial communication networks Profiles Part 1: Fieldbus profiles, 2017/6/16
- 65C/865B/CDV, IEC 61158-3-X ED4: Industrial communication networks - Fieldbus specifications - Part 3 - X: Data-link layer service definition - Type X elements, 2017/6/16
- 121B/58/CDV, IEC 61439-7 ED1: Low-voltage switchgear and controlgear assemblies Part 7: Assemblies for specific applications such as marinas, camping sites, market squares, electrical vehicles charging stations, 2017/7/14
- 21/923/CD, IEC 62660-1/AMD1 ED1: Secondary lithium-ion cells for the propulsion of electric road vehicles - Part 1: Performance testing, 2017/7/14
- 21/924/CD, IEC 62660-2/AMD1 ED1: Secondary lithium-ion cells for the propulsion of electric road vehicles Part 2: Reliability and abuse testing, 2017/7/14
- 21/925/NP, PNW 21-925: Electrically propelled road vehicles Test specification for battery module, 2017/7/14
- 81/563/NP, PNW TS 81-563: IEC 62305 Protection against lightning -Part x Lightning protection for photovoltaic power supply system, 2017/7/14
- 110/845/CDV, IEC 62715-6-1 ED2: Flexible display devices Part 6-1: Mechanical test methods Deformation tests, 2017/7/14
- 110/846/CDV, IEC 62906-5-4 ED1: Laser display devices Part 5-4: Optical measuring methods of colour speckle, 2017/7/14
- 115/155/CD, IEC TR 63127-1 ED1: Guideline for the System Design of HVDC Transmission - Part 1: System Scheme of HVDC Converter Station with Line-commutated Converters (LCC), 2017/7/14
- 13/1739/CDV, IEC 62055-41 ED3: Electricity metering systems Part 41: Standard transfer specification (STS) - Application layer protocol for token carrier systems, 2017/7/14
- 20/1715/CDV, IEC 60332-3-21/AMD1 ED1: Amendment 1 Tests on electric cables under fire conditions Part 3-21: Test for vertical flame spread of vertically-mounted bunched wires or cables Category A F/R, 2017/7/14

- 20/1716/CDV, IEC 60332-3-22/AMD2 ED1: Amendment 2 Tests on electric cables under fire conditions Part 3-22: Test for vertical flame spread of vertically-mounted bunched wires or cables Category A, 2017/7/14
- 20/1717/CDV, IEC 60332-3-23/AMD2 ED1: Amendment 2 Tests on electric cables under fire conditions Part 3-23: Test for vertical flame spread of vertically-mounted bunched wires or cables Category B, 2017/7/14
- 20/1718/CDV, IEC 60332-3-24/AMD2 ED1: Amendment 2 Tests on electric cables under fire conditions - Part 3-24: Test for vertical flame spread of vertically-mounted bunched wires or cables -Category C, 2017/7/14
- 20/1719/CDV, IEC 60332-3-25/AMD2 ED1: Amendment 2 Tests on electric cables under fire conditions Part 3-25: Test for vertical flame spread of vertically-mounted bunched wires or cables Category D, 2017/7/14
- 31/1315/CD, IEC 60079-42 ED1: Explosive atmospheres Part 42: Electrical safety devices for equipment, 2017/7/14
- 47/2388A/NP, PNW 47-2388: Semiconductor devices Nondestructive recognition criteria of defects in silicon carbide homoepitaxial wafer for power devices - Part 2: Test method for defects using optical inspection, 2017/6/30
- 47/2392/CD, IEC 62951-7 ED1: Semiconductor devices Flexible and stretchable semiconductor devices Part 7: Test method for characterizing the barrier performance of thin film encapsulation for flexible organic semiconductor, 2017/7/14
- 47/2393/CD, IEC 62951-6 ED1: Semiconductor devices Flexible and stretchable semiconductor devices Part 6: Test method for sheet resistance of flexible conducting films, 2017/7/14
- 49/1212/CDV, IEC 62884-2 ED1: Measurement techniques of piezoelectric, dieletric and electrostatic oscillators Part 2: Phase jitter measurement method, 2017/7/14
- 100/2894/CDV, IEC 62702-1-2 ED1: Audio Archive System Part 1-2: Blue-ray disk and data migration for long term audio data storage (TA6), 2017/7/14
- 100/2922/NP, PNW 100-2922: Sound system equipment Electrical and mechanical measurements, 2017/7/14
- CIS/A/1208/CDV, CISPR 16-1-4/AMD3/FRAG1 ED3: Amendment 3 (f1) - Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-2: Radio disturbance and immunity measuring apparatus - Coupling devices for conducted disturbance measurements, 2017/7/14

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 19788-11:2017, Information technology - Learning, education and training - Metadata for learning resources - Part 11: Migration from LOM to MLR, \$209.00

DENTISTRY (TC 106)

ISO 9873:2017, Dentistry - Intra-oral mirrors, \$68.00

GEOTECHNICS (TC 182)

ISO 22476-11:2017, Geotechnical investigation and testing - Field testing - Part 11: Flat dilatometer test, \$103.00

HEALTH INFORMATICS (TC 215)

ISO/IEEE 11073-10417:2017, Health informatics - Personal health device communication - Part 10417: Device specialization - Glucose meter, \$209.00

INDUSTRIAL AUTOMATION SYSTEMS AND INTEGRATION (TC 184)

ISO 20140-5:2017, Automation systems and integration - Evaluating energy efficiency and other factors of manufacturing systems that influence the environment - Part 5: Environmental performance evaluation data, \$209.00

INTERNAL COMBUSTION ENGINES (TC 70)

ISO 8178-1:2017, Reciprocating internal combustion engines Exhaust emission measurement - Part 1: Test-bed measurement
systems of gaseous and particulate emissions, \$232.00

ISO 8178-4:2017, Reciprocating internal combustion engines - Exhaust emission measurement - Part 4: Steady-state and transient test cycles for different engine applications, \$232.00

SIEVES, SIEVING AND OTHER SIZING METHODS (TC 24)

ISO 20998-3:2017, Measurement and characterization of particles by acoustic methods - Part 3: Guidelines for non-linear theory, \$138.00

SOLID BIOFUELS (TC 238)

ISO 19743:2017, Solid biofuels - Determination of content of heavy extraneous materials larger than 3,15 mm, \$45.00

SUSTAINABLE PROCUREMENT (TC 277)

ISO 20400:2017, Sustainable procurement - Guidance, \$209.00

TRACTORS AND MACHINERY FOR AGRICULTURE AND FORESTRY (TC 23)

ISO 11681-2/Amd1:2017, Machinery for forestry - Portable chain-saw safety requirements and testing - Part 2: Chain-saws for tree service - Amendment 1, \$19.00

ISO Technical Specifications ENVIRONMENTAL MANAGEMENT (TC 207)

ISO/TS 14027:2017, Environmental labels and declarations - Development of product category rules, \$138.00

ISO/IEC JTC 1, Information Technology

ISO/IEC TS 29125:2017, Information technology -Telecommunications cabling requirements for remote powering of terminal equipment, \$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 ANS consensus bodies and is interested in new members in all membership categories to participate in new work in fiber-optic networks, advanced advertising, 3D television, and other important topics. Of particular interest is membership from the content (program and advertising) provider and user communities.

Membership in the SCTE Standards Program is open to all directly and materially affected parties as defined in SCTE's membership rules and operating procedures. More information is available at www.scte.org or by e-mail from standards@scte.org.

ANSI Accredited Standards Developers

Reaccreditation

National Ground Water Association (NGWA)

Comment Deadline: May 30, 2017

The National Ground Water Association (NGWA), an ANSI member and Accredited Standards Developer (ASD), has submitted revisions to its currently accredited operating procedures for documenting consensus on NGWA-sponsored American National Standards, under which it was last reaccredited in 2014. As the current revisions appear to be substantive in nature, the reaccreditation process is initiated

To obtain a copy of the revised procedures or to offer comments, please contact: Ms. Jessica Michell, Industry Practices Administrator, National Ground Water Association, 601 Dempsey Road, Westerville, OH 43081; phone: 800.551.7379, ext. 1511; e-mail: jmichell@ngwa.org. You may view/download a copy of the revisions during the public review period at the following URL: www.ansi.org/accredPR. Please submit any public comments on the revised procedures to NGWA by May 30, 2017, with a copy to the ExSC Recording Secretary in ANSI's New York Office (jthompso@ANSI.org).

ANSI Accreditation Program for Third Party Product Certification Agencies

Voluntary Withdrawal

Comment Deadline: May 29, 2017

Cary Davis- Technical Manager

CERT ID LC

CERT ID LC

500 North 3rd Street, Suite 204

Fairfield IA 52556 Phone: 479-799-3336 E-mail: cdavis@cert-id.com Web: http://www.cert-id.com

On February 22, 2017, CERT ID LC, an ANSI-accredited certification body, voluntarily withdrew from the following certification scheme(s) and scopes:

LISTING OF CERTIFICATION SCHEME(S)

BRC Global Standard for Agents and Brokers

SCOPE OF ACCREDITATION

BRC GLOBAL STANDARD FOR AGENTS AND BROKERS

Category 01: Raw Meat, Fish & Prepared Foods

Category 02: Fruit and Vegetables, Prepared and

Frozen

Category 03: Dairy

Category 04: Ready to Eat Chilled and Frozen

Products

Category 05: Canned and Jarred Products

Category 06: Beverages

Category 07: Ambient Grocery Products

Category 08: Glass Packaging

Category 09: Paper Packaging

Category 10: Metal Packaging

Category 11: Plastic Packaging

Category 12: Wood and Other Material Packaging

Please send your comments by May 29. 2017 to Reinaldo Balbino Figueiredo, Senior Program Director, Product/Process/Services Accreditation Programs, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293 9287 or e-mail: rfigueir@ansi.org, or Nikki Jackson, Director, Product Certifier Accreditation, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293 9287 or e-mail: njackson@ansi.org.

International Organization for Standardization

Establishment of ISO Subcommittees

ISO/TC 35/SC 15 – Protective Coatings: Concrete Surface Preparation and Coating Application

ISO/TC 35, Paints and Varnishes, has created a new ISO Subcommittee on Protective Coatings: Concrete Surface Preparation and Coating Application (SC 15). The Secretariat has been assigned to the United States (ANSI).

ISO/TC 35/SC 15 operates under the following scope:

This subcommittee will develop standards for protective coatings being applied to a concrete substrate. The intent of the committee is to cover all aspects from the creation of the specification to pre-surface preparation through cure of coating that has been applied. It will cover testing for contaminants on/in the concrete substrate, surface preparation materials and methods, coatings applied and coating application methods, and inspection techniques used once coating has been applied and cured.

NACE International has committed to administer the U.S. TAG. Organizations interested in participating on the U.S. TAG should contact ANSI's ISO Team (isot@ansi.org).

ISO/TC 68/SC 8 – Reference Data for Financial Services

ISO/TC 68, Financial Services, has created a new ISO Subcommittee on Reference Data for Financial Services (SC 8). The Secretariat has been assigned to Switzerland (SNV).

ISO/TC 68/SC 8 operates under the following scope:

Standardization in the field of reference data for financial services.

Accredited Standards Committee X9, Inc. Financial Industry Standards has committed to administer the U.S. TAG. Organizations interested in participating on the U.S. TAG should contact ANSI's ISO Team (isot@ansi.org).

ISO/TC 68/SC 9 – Information Exchange for Financial Services

ISO/TC 68, Financial Services has created a new ISO Subcommittee on Information Exchange for Financial Services (SC 9). The Secretariat has been assigned to France (AFNOR).

ISO/TC 68/SC 9 operates under the following scope:

Standardization in the field of information exchange for financial services.

Accredited Standards Committee X9, Inc. Financial Industry Standards has committed to administer the U.S. TAG. Organizations interested in participating on the U.S. TAG should contact ANSI's ISO Team (isot@ansi.org).

Information Concerning

Call for U.S. TAG Participants

ISO/TC 135 – Non-destructive testing and 8 subcommittees

Please be advised that the American Society for Nondestructive Testing (ASNT), the ANSI-accredited administrator of the U.S. TAG to ISO/TC 135, is seeking participants for the U.S. TAG. All U.S. stakeholder organizations in relevant fields and industries are strongly encouraged to get involved.

ISO/TC 135 – *Non-destructive testing* operates under the following scope:

Standardization covering non-destructive testing as applied generally to constructional materials, components and assemblies, by means of:

- glossary of terms;
- methods of test;
- performance specifications for testing equipment and ancillary apparatus.

Excluded:

- quality levels;
- specifications for electrical equipment and apparatus, which fall within the range of IEC Committees.

ISO/TC 135 has the following active subcommittees:

- SC 2 Surface methods
- SC 3 Ultrasonic testing
- SC 4 Eddy current testing
- SC 5 Radiographic testing
- SC 6 Leak testing
- SC 7 Personnel qualification
- SC 8 Thermographic testing
- SC 9 Acoustic emission testing

Organizations requiring additional information or interesting in participating on the U.S. TAG should contact U.S. TAG Administrator James Bennett at jbennett@asnt.org or ANSI's ISO Team at jbennett@asnt.org or ANSI's ISO



BSR/ASHRAE/IES Addendum a to ANSI/ASHRAE Standard 188-2015

Public Review Draft

Proposed Addendum a to Standard 188-2015, Legionellosis: Risk Management for Building Water Systems

Second Full Public Review (April 2017)
(Draft shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at www.ashrae.org/standards-research--technology/public-review-drafts and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at www.ashrae.org/bookstore or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, www.ashrae.org.

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ASHRAE, 1791 Tullie Circle, NE, Atlanta GA 30329-2305

(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)

FOREWORD

This proposal revises Section A3, Water System Flow Diagram to allow the Program Team the flexibility to determine what needs to be included in the flow diagram to manage the risk of legionellosis in the building water systems of Health Care Facilities. It also removes the permissive language that was previously in the standard.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by <u>underlining</u> (for additions) and strikethrough (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Addendum a to 188-2015

Modify the standard as follows (IP and SI Units)

NORMATIVE APPENDIX A

HEALTH CARE FACILITIES

These requirements are only applicable to health care facilities meeting the qualifications of Section 4.3.2

A3. WATER SYSTEM FLOW DIAGRAM

A3.1 The building water systems shall be graphically represented in water system flow diagrams. that include These diagrams shall enable the identification, analysis and management of the risk of legionellosis throughout the building water systems. The following is a listing of elements to be considered for inclusion into the flow diagram:

- a. all water supply sources;
- b. all water supply service entrances;
- c. all water treatment systems and control measures, including disinfection and filtration;
- d. all water processing steps, including but not limited to receiving, conditioning, storing, heating, cooling, recirculating, and distributing;
- e. all areas where hazardous conditions may contribute to the potential for that have the potential to contribute to Legionella amplification, including but not limited to:
 - 1. all clinical support areas, including dietary and central sterile, and
 - 2. all patient care areas, including dialysis, respiratory therapy, and hydrotherapy;
- f. all water use end points, including
 - 1. cooling towers,
 - 2. open water features,
 - 3. spas and whirlpools,

- 4. pools
- 5. ice machines
- 6. humidifiers; and
- g. other points determined by the Designated Team.



BSR/ASHRAE/IES Addendum b to ANSI/ASHRAE Standard 188-2015

Public Review Draft

Proposed Addendum b to Standard 188-2015, Legionellosis: Risk Management for Building Water Systems

Second Full Public Review (April 2017)
(Draft shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at www.ashrae.org/standards-research--technology/public-review-drafts and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at www.ashrae.org/bookstore or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, www.ashrae.org.

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(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)

FOREWORD

This proposal adds the definition of construction documents. It also revises multiple portions of the standard to remove the permissive language and put it in mandatory code enforceable language and removes a reference that is not used in the normative section.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by <u>underlining</u> (for additions) and strikethrough (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Addendum b to 188-2015

Modify the standard as follows (IP and SI Units):

Add new definition:

Construction documents: Drawings and specifications used to construct a building, building systems, or portions thereof.

Revise definitions as shown:

control limit: a maximum value, a minimum value, or a range of values to which of a chemical or physical parameter associated with a control measure must be that are monitored and maintained in order to reduce the occurrence of a hazardous condition to an acceptable level..

hazard: Legionella bacteria in a building water system that, in the absence of control, ean eause <u>has the potential</u> to cause harm to humans.

Revise Section 4.2.1 as shown:

4.2 Building Owner Requirements

- **4.2.1** The building owner shall survey each existing building, new building, and any renovation, addition, or modification to an existing building and its water systems as described in Section 5. The survey and conformance with the compliance requirements of Section 4 must occur shall be completed prior to occupancy of a new building and before construction begins on renovations, additions, or modifications to existing buildings. If the building and associated property has
- a. any of the building water systems listed in Section 5.1, then all of those building water systems shall comply with the requirements of Section 6 and all applicable requirements of Section 7 of this standard.
- b. any of the factors listed in Section 5.2, then all potable building water systems and all building water systems listed in Section 5.1 shall comply with the requirements of Sections 6 and all applicable requirements of Section 7 of this standard.

Modify Section 5.1 as shown:

5. BUILDING SURVEY

5.1 The building shall be surveyed to determine whether the it-the building has one or more of the following:

- a. Open and closed-circuit cooling towers or evaporative condensers that provide cooling, and/or refrigeration or both cooling and refrigeration for the HVAC&R system or other systems or devices in the building;
- b. whirlpools or spas, either in the building or on the site; or
- c. ornamental fountains, misters, atomizers, air washes, humidifiers, or other nonpotable water systems or devices that release water aerosols in the building or on the site.

Modify Section 6.1.3 as shown:

6.1.3 *Control Limits.* For each control measure at each control location established in Section 6.1.2, determine the <u>control</u> limits including <u>but not limited to</u> a maximum value, a minimum value, or a range of values <u>within which of</u> a chemical or physical parameter <u>must that shall</u> be monitored and maintained in order to reduce hazardous conditions to an acceptable level.

Modify Section 6.2.1 as shown:

6.2.1 Program Team. Identify the persons on the Program Team responsible for developing and implementing the Program and the <u>Program Team's</u> tasks-for which they are responsible. The Program Team shall include one or more individuals selected from the following: the building owner or designee, employees, suppliers, consultants, or other individual or individuals to whom that the building owner has delegated authority and responsibility for the actions required by the Program. The Program Team—can shall be permitted to delegate Program tasks to subgroups. The Program Team shall have knowledge of the building water system design and water management as it relates related to legionellosis that can be obtained through informative documents, such as ASHRAE Guideline 12, Minimizing the Risk of Legionellosis Associated with Building Water Systems.

Informative Note: Knowledge related to legionellosis can be obtained through peer reviewed informative documents such as ASHRAE Guideline 12, Minimizing the Risk of Legionellosis Associated with Building Water Systems.

Revision Section 6.2.2 as shown:

- **6.2.2** *Describe the Building Water Systems*. The Program Team shall identify and describe the potable and nonpotable water systems within the building and on the building site, including: (at a minimum)
 - a. the locations of end-point uses of potable and nonpotable water systems,
 - b. the locations of water processing equipment and components, and
 - c. how water is received and processed, including how water is (conditioned, stored, heated, cooled, recirculated, and delivered to end-point uses).

Revise Section 6.2.3 as shown:

6.2.3 *Process Flow Diagrams.* The information from Section 6.2.2 <u>must shall</u> be graphically described in step-by-step process flow diagrams. The process flow diagrams shall have <u>sufficient detail to that enables</u> the identification, analysis, and management of the risk of legionellosis throughout the building water systems. The Program Team shall confirm that the process flow diagrams are representative of the systems as built.

Revise Section 6.2.4 as shown:

6.2.4 Analysis of Building Water Systems. The Program Team shall use the process flow diagrams in Section 6.2.3 to evaluate where hazardous conditions may have the potential to occur in the building water systems and determine where control measures ean shall be applied to control potentially hazardous system conditions. The analysis shall consider also take into consideration the vulnerability of occupants and shall include the building water systems identified in Section 5.1. The analysis shall include provisions to respond to water service disruptions.

Revision Section 6.2.8 as shown:

6.2.8 *Program Confirmation.* The Program Team shall establish procedures to confirm, both initially and on an ongoing basis, that the Program is being implemented as designed. The resulting process is (verification). The Program Team shall establish procedures to confirm, both initially and on an ongoing basis, that the Program, when implemented as designed, effectively controls the hazardous conditions throughout the building water systems. The resulting process is (validation). The Program Team shall determine whether testing for Legionella shall be performed and if so how test results will be used to validate the Program. If the Program Team determines that testing is to be performed, the testing approach, including sampling frequency, number of samples, locations, sampling methods, and test methods, shall be specified and documented. The Program Team shall consider include consideration of the following as part of the determination of whether to test for Legionella:

- a. Program control limits are not maintained in building water systems, including in water systems with supplemental disinfection.
- b. A health care facility provides in-patient services to at-risk or immunocompromised populations.
- c. A prior history of legionellosis is associated with the building water system.

Revise Figure 1 as shown:

PROGRAM TEAM – Identify persons responsible for Program development and implementation.

DESCRIBE WATER SYSTEMS/FLOW DIAGRAMS – Describe the potable and non-potable water systems within the building and on the building site and develop water system schematics.

ANALYSIS OF BUILDING WATER SYSTEMS – Conduct a systematic evaluation of <u>hazardous conditions</u> in the <u>building water systems</u> Evaluate where hazardous conditions may occur in the water systems and determine where control measures can <u>shall</u> be applied.

CONTROL MEASURES – Determine locations where control measures <u>must-shall</u> be applied and maintained in order to stay within established control limits.

MONITORING/CORRECTIVE ACTIONS – Establish procedures for monitoring whether control measures are operating within established limits and if not, take corrective actions.

CONFIRMATION – Establish procedures to confirm that:

- the Program is being implemented as designed.
 (verification)
- the Program effectively controls the hazardous conditions throughout the building water systems - (validation)

DOCUMENTATION – Establish documentation and communication procedures for all activities of the Program.

FIGURE 1 Elements of a water management program

Revise Section 7.1.2 as shown:

7.1.2 System Maintenance. The *Program* documents shall include procedures for

- a. inspection of, and inspection schedule for, water-containing vessels and system components;
- b. flushing or mixing of stagnant or low-flow areas;
- c. maintenance and *monitoring* procedures based on equipment manufacturers'-recommendations instructions for cleaning, *disinfection*, replacement of system components, and other treatments that the *Program Team* decides are necessary for the following:
 - 1. Hot water and cold water storage tanks
 - 2. Ice machines
 - 3. Water-hammer arrestors
 - 4. Expansion tanks
 - 5. Water filters
 - 6. Shower heads and hoses
 - 7. Electronic faucets
 - 8. Aerators
 - 9. Faucet flow restrictors
 - 10. Non-steam aerosol-generating humidifiers
 - 11. Water heaters
 - 12. Infrequently used equipment, including eyewash stations and showers

Revise Section 7.1.4 as shown:

7.1.4 Contingency Response Plan. For both hot water and cold water systems, the *Program* documents shall include

- a. procedures to be followed if there are known or suspected cases of *legionellosis* associated with the use of *potable* water from the *building water systems*;
- b. directives issued by national, regional, and local health department authorities;
- c. if the *Program Team* determines testing for *Legionella* shall be performed, the procedures shall include criteria for when and where the tests shall be performed;
- d. procedures for emergency disinfection; and
- e. procedures for other actions identified as necessary as determined by the *Program Team* to prevent exposure to contaminated water.

Revision Section 7.2 as shown:

7.2 Cooling Towers and Evaporative Condensers. This section describes the preventive measures required for cooling towers and evaporative condensers that provide cooling, and/or refrigeration or both cooling and refrigeration for the *HVAC&R* system or for other devices or systems in the building. The *Program* documents shall include identification of the responsible persons for every step of each *Program* requirement.

Revise Section 7.3.5.1 as shown:

7.3.5.1 Microbiological Testing. The *Program* documents shall include procedures for

- a. <u>a minimum of monthly or more frequent</u> testing of spa water for indicator organisms and pathogens identified by the *Program* microbiological standards;
- b. maintaining the total heterotrophic aerobic bacteria colony count at or below the maximum level specified by local, regional, and national codes and regulations or ≤200 CFU/mL if no-codes or regulations do not apply;
- c. maintaining the levels of indicator organisms at or below the standard threshold;

BSR/ASHRAE Addendum b to ANSI/ASHRAE Standard 188-2015, Legionellosis: Risk Management for Building Water Systems Second Full Public Review Draft

- d. when and where tests shall be performed, proper sampling procedures, and the interpretation of test results, should when the *Program Team* determines that *testing* for *Legionella* or other pathogens is required;
- e. responding to unsatisfactory test results including disinfection record review and repetition of microbiological tests.

Revise Section 7.5.1 as shown:

- **7.5.1 Equipment Siting.** Prior to beginning construction for installation of new or replacement aerosolgenerating misters, atomizers, air washers, or humidifiers, drawings shall be reviewed and the following items addressed:
 - a. Potential contamination from sources that can be drawn into the system
 - b. Inadequate a Access to pumps, filters, and treatment equipment for maintenance and inspection
 - c. External heat sources and inadequate restricted airflow that increases the temperature and thereby the *risk* of amplification of exposure to of Legionella.

Revise Section 8.1 as shown:

8. REQUIREMENTS FOR DESIGNING BUILDING WATER SYSTEMS

- 8.1 General. When designing for new construction, renovations, refurbishment, replacement, or repurposing of a facility, the following shall be documented:
- a. A system overview and intended mode of system operation
- b. Documentation and d Design compliance to that addresses hazardous conditions for each of the following:
 - 1. Schematic diagrams of water systems
 - 2. Monitoring and control diagrams of water systems
 - 3. Local, regional, and national code compliance
 - 4. Locations of the following points: makeup, flush, sampling, temperature monitoring, and drain
 - 5. Locations of outdoor air intakes
 - 6. Building water equipment
 - 7. Commissioning
 - 8. Operating instructions and procedures
 - 9. Maintenance schedules, frequencies, and procedures
 - 10. No-flow and low-flow portions of the piping and building water systems
 - 11. Impact of heat loss from hot water or heat gain by cold water in piping and water system components
 - 12. Possible e Cross connections between potable and nonpotable water
 - 13. <u>Inadequate Access to water expansion tanks</u>, water hammer arrestors, water storage tanks, water heaters, and other equipment and components <u>containing that contain</u> water

Revise Section 9 as shown:

9. REFERENCES

- 1. ASME. 2012. ASME/ANSI A112.1.2-2012, Air Gaps in
 - Plumbing Systems (for Plumbing Fixtures and Water-Connected Receptors). New York, New York: The American Society of Mechanical Engineers.
- 2. AWWA. 2014. AWWA/ANSI C651-14, Disinfecting
 - Water Mains. Denver, Colorado: American Water Works Association.
- 3. AWWA. 2011. AWWA/ANSI C652-11, *Disinfection of Water Storage Facilities*. Denver, Colorado: American Water Works Association.
- 4. EPA. 1979. Pesticides: Science and Policy. Swimming Pool Water Disinfectants. DIS/TCC-12, U.S. Environmental Protection Agency, Washington, DC. http://www.epa.gov/oppad001/dis_tss_docs/dis_12.htm.



BSR/ASHRAE/IES Addendum c to ANSI/ASHRAE Standard 188-2015

Public Review Draft

Proposed Addendum c to Standard 188-2015, Legionellosis: Risk Management for Building Water Systems

First Public Review (April 2017)
(Draft shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at www.ashrae.org/standards-research--technology/public-review-drafts and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at www.ashrae.org/bookstore or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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ASHRAE, 1791 Tullie Circle, NE, Atlanta GA 30329-2305

BSR/ASHRAE Addendum c to ANSI/ASHRAE Standard 188-2015, Legionellosis: Risk Management for Building Water Systems Second Full Public Review Draft

(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)

FOREWORD

This revises portions of Appendix A that applies to Health Care Facilities. The intent of these revisions is to remove permissive language and change it to mandatory code enforceable language. Section A5.1 was changed to make the language clearer as to when the Designated Team needs to reevaluate the legionellosis risk management plan.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by <u>underlining</u> (for additions) and <u>strikethrough</u> (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Addendum c to 188-2015

Modify the standard as follows (IP and SI Units)

NORMATIVE APPENDIX A

HEALTH CARE FACILITIES

These requirements are only applicable to health care facilities meeting the qualifications of Section 4.3.2

A4. RISK MANAGEMENT PLAN

A4.1 The *legionellosis risk management plan* must be contained within one or more documents. These documents are allowed to contain information that is not part of the *legionellosis risk management plan*, and a master document providing the location of all plan documents shall be maintained. The *legionellosis risk management plan* at a minimum shall include, without being limited to:

- a. the name, title, and contact information for the *Designated Team* leader and the role and contact information for other *Designated Team* members;
- b. the water system flow diagrams;
- c. the systematic evaluation of physical and chemical conditions associated with each step in the *water system flow diagrams* to determine where *hazardous conditions* ean—have the potential for occurring—occur in the *building water systems* and where *control measures*—may shall be applied;
- d. identification of areas with higher probability of infection throughout the facility based on the intended use of water-based processes and the relative vulnerability of patients to *legionellosis* in areas designated for specialized care;
- e. an evaluation of the results of Sections A4.1(c) and A4.1(d) to estimate the likelihood of legionellosis;
- f. the procedures required for prevention and *control* of *legionellosis* associated with the health care facility's *building* water systems, including
 - i. identification of the control locations,
 - ii. determination of the control limits,
 - iii. development of monitoring procedures, and

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- iv. determination of *corrective actions*;
- g. assignment of responsibility for each action required by the legionellosis risk management plan;
- h. documentation of all aspects of the *legionellosis risk management plan*, including development, implementation, *verification*, and *validation*;

A5. EXISTING BUILDINGS, NEW CONSTRUCTION, AND RENOVATIONS

- **A5.1 Existing Buildings.** The *Designated Team* shall conduct an evaluation and estimate of the likelihood of *legionellosis* as specified in Section A4.1(e) at least once per year for each existing building at least once per year. Based on the results of this evaluation and estimate, the *Designated Team* shall modify the *legionellosis risk management plan* and as necessary. establish what *building water system* changes or events shall require a re-evaluation of the *legionellosis risk management plan*. These changes or events shall include building renovations affecting water systems, water systems component upgrades or replacements and water service interruption events. This process shall be repeated for all affected areas
- a. whenever a building or portion of a building is changed such that one or more water system is affected;
- b. whenever major maintenance to a building water system is performed, including replacing tanks, pumps, heat exchangers, and distribution piping; and
- c. whenever there is a water service disruption from the supplier to the building.

A6. BUILDING WATER SYSTEM PROCEDURES A6.1

b. Cooling towers and evaporative condensers. This section describes the preventive measures required for cooling towers and evaporative condensers that provide cooling, and/or refrigeration or both cooling and refrigeration for the HVAC&R systems or for other devices or systems in the building. The legionellosis risk management plan documents shall include identification of the responsible persons for every step of each legionellosis risk management plan requirement.



BSR/ASHRAE Addendum e to ANSI/ASHRAE Standard 188-2015

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FOREWORD

This proposed addendum makes changes to Section 4 Compliance, has been revised to clarify that standard 188 does not use or require compliance, training or certification in any additional hazard analysis, risk assessment or risk management methodologies.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by <u>underlining</u> (for additions) and strikethrough (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Revise Section 4 as shown below.

4. COMPLIANCE

The results of each Section 4 compliance determination and the associated building survey in Section 5 shall be documented and shall be available for review by the authority having jurisdiction (AHJ). <u>This standard does not use or require compliance, training or certification in any additional hazard analysis, risk assessment or risk management methodologies.</u>

- High glazing $U_{cog} = 5.82 \text{ W/m}^2\text{-K} (1.03 \text{ Btu/hr-ft}^2\text{-F})$
- C. Glazing for dual window or door and glazing for products with secondary sash or panel, energy panel, or storm panel:
 - Low glazing Use a combination of low-E coated glass and invented gas fill from above
 - High glazing Use clear glass (non-coated) for all panes with all glazing cavity with air
- D. If the original configuration has any combination of insulated glazings and/or single glazings, low and high glazing configuration should duplicate that:
- E. If a product includes SESA, the following low and high spacer details should be used:
 - Low spacer generic low conductivity spacer – Keff = 0.01 W/m-K (0.006 Btu/hr-ft-F)
 - High spacer generic high conductivity spacer – Keff = 10.0 W/(m-K) (5.8 Btu/hr-ft-F)
- F. SESA height is standardized to 12.7 mm (0.5 in), spacer width is variable in order to match the gap width of L/H COGA;
- G. SESA is not applicable to single glazing systems; and
- H. Glass thickness is standardized to 3 mm (1/8 in) for residential products and 6 mm (1/4 in) for commercial products. Overall (nominal) thickness of L/H glazing systems should match nominal thickness (± tolerance) of the real glazing systems (i.e. 19.1 mm (3/4 in); 22.2 mm (7/8 in); 25 mm (1 in), etc.) that the simulated product is designed for.

5.9.3.1.2 Reporting Simulation Results

See NFRC 701.03 – Reporting Requirements, Section 1.2.

5.9.3.1.3 Total Product U-factor Calculation

A. Total product U-factor calculation requires the U-factors for frame components frame U-factor (U_f) and edge-of-glass U-factor (U_e), for their representative Low and High options. In

- addition, projected frame depth (pfd) is required;
- B. The following additional calculation results are required for total product U-Factor calculation and these shall be reported for the whole product:

COGA: $U_c = W/m^2-K (Btu/hr-ft2-{}^{\circ}F)$ SESA: Keff = W/m-K (Btu/hr-ft-{}^{\circ}F)

- C. The calculation of total product U-factor for products with a SESA is done using the procedure detailed in Reference 10. For products without a SESA, total product U-factor is calculated by excluding the equations that involve the SESA; and
- D. The NFRC-approved CMA Software Tool (CMAST) shall be used to determine total product U-factor for standard model size-and actual product size. U-factor ratings for sizes other than standard model size can be calculated for informational purposes when applicable.

5.9.3.2 Testing

There is no separate CMA testing procedure for frame components. Testing is done for the whole product, which is the baseline product for the purposes of validation testing, and is done to validate a Framing Product Line (FPL).

5.9.4 Validation Testing

Each FPL will require validation testing on a standard baseline product representing the framing product line, using NFRC 102. The following conditions apply:

- A. Test specimen size and configuration shall be as defined in Table 4-3 and Section 5.9.6
- B. All test specimens shall be tested without removable screens, removable grilles and trims, or any other applied devices;
- C. All test specimens shall be tested in the vertical position. For determining validation of the baseline product only, skylights, and other sloped glazing products shall be simulated in a vertical position;
- D. The test specimen shall not be modified by the testing laboratory, except as allowed in Reference 1 for sealing against air leakage and as required by this section;
- E. The product selected as the baseline product shall have an insulating glass unit(s) with a maximum center-of-glazing U-factor

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Revision to NSF/ANSI 37 - 2012 Issue 6, Revision 6 (April 2017)

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[Note – the changes are illustrated below using strikeout for proposed removal of existing text and grey highlights to indicate the proposed revised text. ONLY the highlighted text and strikeout text is within the scope of this ballot. Rationale Statements are in RED and only used to add clarity; these statements will NOT be in the finished publication].

NSF/ANSI Standard for Food Equipment –

Air curtains for entranceways in food and food service establishments

- •
- •
- •
- 6 Performance
- 6.1 Service window air curtains
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6.1.43 Acceptance criteria

The entire opening of the service window shall have a minimum 8.0 in (200 mm) air stream depth and the same width as the curtain opening. In addition, air velocity of at least 600 ft/min (183 mpm) shall be maintained at each measurement point within each rectangular.

- **6.1.3.1** When operated in accordance with the manufacturer's instructions, the air velocities measured below the airstream discharge nozzle at one-third of the maximum effective airstream height on the grid specified in 6.1.2.2, shall meet the following criteria:
 - each individual air velocity measurement shall be 400 ft/min (2.03 m/s) or greater, and
 - the mean value of all air velocity measurements shall be of 600 ft/min (3.05 m/s) or greater.
- **6.1.3.2** When operated in accordance with the manufacturer's instructions, the air velocities measured 10 in (250 mm) below the airstream discharge nozzle on the grid specified in 6.1.2.3, shall meet the following criteria:
 - each individual air velocity measurement shall be 600 ft/min (3.05 m/s) or greater.

Rationale: States only the performance requirements for service window air curtains. This removes conflicting and redundant requirements that are test method criteria. Remaining

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performance requirements are organized in the easier to read list format used in other standards.

The previous requirement for an 8 inch deep airstream was not evaluated by the test called for in the standard and was misleading. The standard specified a 6 inch deep test grid. The measurement was only done at one point in the full height of the airstream. Specifying the airstream depth implies that it is actually that deep for the full height.

6.2 Customer entry air curtains

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6.2.43 Acceptance criteria

The entire opening of the service window shall have a minimum 8.0 in (200 mm) air stream depth and the same width as the curtain opening. In addition, air velocity of at least 600 ft/min (183 mpm) shall be maintained at each measurement point within each rectangular.

- **6.2.3.1** When operated in accordance with the manufacturer's instructions, the air velocities measured below the airstream discharge nozzle at 3.0 ft (0.91 m) above the floor on the grid specified in 6.2.2.2, shall meet the following criteria:
 - each individual air velocity measurement shall be 400 ft/min (2.03 m/s) or greater, and
 - the mean value of all air velocity measurements shall be of 600 ft/min (3.05 m/s) or greater.
- **6.2.3.2** When operated in accordance with the manufacturer's instructions, the air velocities measured 10 in (250 mm) below the airstream discharge nozzle on the grid specified in 6.2.2.3, shall meet the following criteria:
 - each individual air velocity measurement shall be 600 ft/min (3.05 m/s) or greater.

Rationale: States only the performance requirements for customer entry air curtains. This removes conflicting and redundant requirements that are test method criteria. Remaining performance requirements are organized in the easier to read list format used in other standards.

The previous requirement for an 8 inch deep airstream was not evaluated by the test called for in the standard and was misleading. The standard specified a 6 inch deep test grid. The measurement was only done at one point in the full height of the airstream. Specifying the airstream depth implies that it is actually that deep for the full height.

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6.3 Service entry air curtains

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6.3.43 Acceptance criteria

The entire opening of the service entry shall have a minimum 3.0 in (75 mm) air stream depth, and the same width as the service opening. In addition, air velocity of at least 1600 fpm (488 mpm) shall be maintained at each measurement point within each rectangular sector.

6.3.3.1 When operated in accordance with the manufacturer's instructions, the air velocities measured below the airstream discharge nozzle at 3.0 ft (0.91 m) above the floor on the grid specified in 6.3.2.2, shall meet the following criteria:

- each individual air velocity measurement shall be 1200 ft/min (6.1 m/s) or greater, and
- the mean value of all air velocity measurements shall be of 1600 ft/min (8.1 m/s) or greater.

6.3.3.2 When operated in accordance with the manufacturer's instructions, the air velocities measured 10 in (250 mm) below the airstream discharge nozzle on the grid specified in 6.3.2.3, shall meet the following criteria:

each individual air velocity measurement shall be 1600 ft/min (8.1 m/s) or greater.

Rationale: States only the performance requirements for service entry air curtains. This removes conflicting and redundant requirements that are test method criteria. Remaining performance requirements are organized in the easier to read list format used in other standards.

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NSF/ANSI 350-2017 Onsite Residential and Commercial Graywater Treatment Systems for Subsurface Discharge

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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, 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.

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A.3.1.3 Comparability

Comparability will be achieved by using consistent and standardized sampling and analytical methods. All analyses will be performed using methods listed in Table A.1. Any deviations from the methods listed in Table A.1 or alternate standardized methods will be fully described and reported as part of the QA report for the data. Any deviations from these methods will be fully described and reported as part of the QA report for the data. Comparability will be achieved by using National Institute of Standards (NIST) traceable standards including the use of traceable measuring devices for volume and weight. All standards used in the analytical testing will be traceable to verified standards through the purchase of verifiable standards, and maintaining a standards logbook for all dilutions and preparation of working standards. Comparability will be monitored through QA/QC audits and review of the test procedures used and the traceability of all reference materials used in the laboratory.

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Table A.1 Summary of Analytical Accuracy and Precision Limit Goals

Analyses	Units	Reference Methods	Accuracy Percent Recovery	Precision Relative Percent Diff.
BOD₅	mg/L	SM 5210 B	75-125	0-20
CBOD₅	mg/L	SM 5210 B	75-125	0-20
total suspended solids	mg/L	SM 2540 D	NA	0-10
рН	SU	SM 4500-H+-B	NA¹	0-10
temperature	°C	SM 2550 B ²	NA	0-10
E. coli	MPN/100mL	SM 9221		
turbidity	NTU	EPA 180.1	89-102	0-7

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total chlorine residual	mg/L	SM 4500-CI-B-I	98-111	0-10
TKN	mg/L as N	EPA 351.2	80-120	0-10
NO ₃ /NO ₂	mg/L as N	EPA 353.2	80-120	0-10
total phosphorous	mg/L	SM 4500-P-E	89-123	0-10
COD	mg/L	SM 5220 B		
total coliform	MPN/100mL	SM 9221		
тос	mg/L	SM 5310 C	79-129	0-5
surfactants	mg/L	SM 5540 C	86-130	0-7
fats, oil and grease	mg/L	SM 5520 B		
iron	mg/L	EPA 200.7	86-108	0-9
alkalinity	mg/L as CaCO ₃	EPA 310.1	80-120%	0-10
hardness	mg/L as CaCO ₃	EPA 200.7	88-119	0-17
¹ NA: Not applicable.				
² Standard Methods.				

Standard Methods.

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Table A.2 Alternate Equivalent Test Methods

Table below shows the alternate equivalent test methods.

	Method Referen		Equivalent	Acceptable	
Parameter	Standard Methods	EPA	Method	Alternate	
BOD5/ CBOD5	SM 5210 B				
TSS	SM 2540 D				
рН	SM 4500-H+-B				
Temperature	SM 2550 B				
Turbidity		EPA 180.1	SM 2130B		
Total Kjeldahl Nitrogen (TKN)		EPA 351.2	I		
NO3/NO2		EPA 353.2	SM 4500 NO3 E ,F, I, SM 4500 P-J	EPA 300.1	
Alkalinity		EPA 310.1	SM 2320B		
Total phosphorous	SM 4500-P-E		SM 4500 P-J	EPA 200.7	
COD (Chemical Oxygen Demand)	SM 5220 B		EPA 410.4 R2	SM 5220 D	
TOC	SM 5310 C				
Iron		EPA 200.7	I	SM 3111 B , EPA 200.8 R 5.4	
E. coli	SM 9221		SM 9223 B by Colilert		
total coliform	SM 9221		SM 9222-B		
total chlorine residual	SM 4500-CI-B-I			EPA 330.5	
surfactants	SM 5540 C				
hardness		EPA 200.7		SM 2340 C	
Color	SM 2120 B				
Odor	SM 2150 B				
Fats, Oils and Grease	SM 5520B		EPA 1664 B		

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NSF/ANSI 350-2017 - Onsite Residential and Commercial Water Reuse Treatment Systems

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8.1.2.1.2 Graywater challenge water: Systems treating laundry source water

Wastewater components ¹	Amount/100 L
liquid laundry detergent (2X)	40 mL
test dust ²	10 g
secondary effluent	2 L
liquid laundry fabric softener	21 mL
Na ₂ SO ₄	4 g
NaHCO ₃	2 g
Na ₂ PO ₄ Na ₃ PO ₄	4 g

See Annex C for example products.

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Annex C

Wastewater components	Product	UPC
body wash with moisturizer	Johnson's BodyCare Moisturizing Body Wash	8137-002677
toothpaste	Colgate [®] Fluoride Toothpaste - regular	35000-51300

deodorant (man's)	Gillette® Odor shield antiperspirant/deodorant	35000-51300
deodorant (woman's)	Secret® Powder Fresh antiperspirant/deodorant	37000-12451
shampoo	Suave® Daily Clarifying Shampoo	79400-00957
conditioner	Suave® Daily Clarifying Conditioner	79400-76760
bath cleaner	Lysol® Disinfectant Bathroom Cleaner	19200-02699
liquid hand soap	Dial® Gold Antibacterial Hand Soap w/moisturizer	17000-08507
secondary effluent	effluent from the final clarifier of a wastewater treatment plant	NA ¹

² See ISO 12103-1, Road Vehicles – Test Dust for Filter Evaluation. The test dust shall meet the specification of ISO 12103-1, A2 - Fine test dust. A test dust that meets these specifications is available from Powder Technology, Inc., P.O. Box 1464, Burnsville, MN 55337. <a href="https://www.powdertechnologyinc.com/products/test-dust/test-dus

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sodium sulfate (Na ₂ SO ₄)	analytical grade	NA				
sodium bicarbonate (NaHCO ₃)	analytical grade	NA				
sodium phosphate (Na ₂ PO ₄ Na ₃ PO ₄)	analytical grade	NA				
liquid laundry detergent	2X Ultra Tide [®]	37000-13878				
liquid laundry fabric softener	Ultra Downy® Fabric Softener	37000-35751				
test dust	See ISO 12103-1, Road Vehicles – Test Dust for Filter Evaluation. The test dust shall meet the specification of ISO 12103-1, A2 - Fine test dust. A test dust that meets these specifications is available from Powder Technology, Inc., P.O. Box 1464, Burnsville, MN 55337 < www.powdertechnologyinc.com/products/test-dust/testdust.php>	NA				
commercial cleaner	trisodium phosphate (TSP)	NA				
¹ NA: not applicable.						

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D.3 Laundry water related ingredient loading rates: other

test dust: 10 g/100 L¹
 Na₂SO₄: 4 g/100 L¹
 NaHCO₃: 2 g/100 L¹

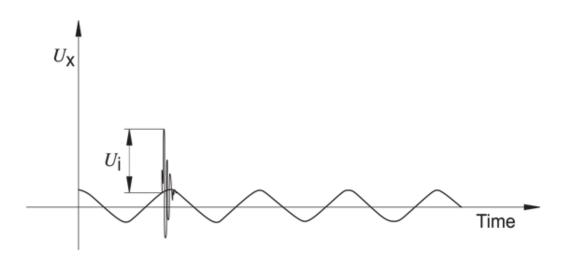
Na₂PO₄ Na₃PO₄: 4 g/100 L¹

Page 2 of 2

BSR/UL 60384-14, Standard for Safety for Fixed Capacitors for Use in Electronic Equipment – Part 14: Sectional Specification: Fixed Capacitors for Electromagnetic Interference Suppression and Connection to the Supply Mains

1. Removal of Figure 9DVD2 Modification

Figure 9 - Fundamental a.c. wave with randomly, not synchronized, superimposed high-voltage pulse



S5492 IEC 938/05

UL COPY

 T_r = isolation transformer for blocking with secondary voltage of U^{\sim} , and a sufficient capacity to supply 16 A to the test circuit at a voltage of $\geq 0.9 \times U^{\sim}$;

 C_1 , C_2 = filter capacitor 1 μ F ± 10 %;

 $L_1 ... L_4 = \text{rod core choke } 1,5 \text{ mH} \pm 20 \%, 16 \text{ A};$

 C_3 = capacitor 0,033 μ F ± 5 %;

 $R = 5 \Omega \pm 2 \%$ for $C_x \ge 1 \mu F$;

= $10 \Omega \pm 2 \%$ for $0.22 \mu F \le C_x < 1 \mu F$;

= $40 \Omega \pm 2 \%$ for $0.068 \mu F \le C_x < 0.22 \mu F$;

= 100 Ω ± 2 % for C_x < 0,068 μ F;

 C_X = capacitor under test;

 U_t = voltage to which the tank capacitor C_t is charged;

Action without prior permission from Ulti- C_t = tank capacitor is 3 μ F \pm 5 % up to C_x = 1 μ F, and \geq 3 × C_x for C_x > 1 μ F. The recommended value is 3 × C_x , but it is allowed to use a reasonably higher value in order to standardize the test equipment;

F = slow-blow fuse, rated 16 A.

NOTE C₁, C₂ and L₁ .. L₄ comprise a mains protection filter; other configurations for these filters are permitted.

 C_3 and C_t should have a suitable voltage compared to the required U_t during test.

Figure 9DV D2 Modification of Ct value in Figure 9 by adding alternate means with the following:

Ct = tank capacitor is 3 μ F \pm 5 % up to Cx = 10 μ F. For Cx > 10 μ F it is allowed to use a reasonably higher value of Ct for the intended wave form in order to standardize the test equipment.

BSR/UL 347A, Standard for Safety for Medium Voltage Power Conversion Equipment

2. Addition of Section 19.6 Covering Circuits Provided with Solid Insulation

17.10 Equipment incorporating a voltage divider shall comply with all performance requirements of this standard, including power frequency withstand dielectric voltage-withstand and impulse tests, with the voltage divider installed as intended. When voltage dividers are connected between medium voltage Sion Hom circuits and ground, the ground connection for the voltage divider shall be disconnected from ground during the dielectric voltage-withstand and impulse tests.

19.6 Voltage dividers and other circuits provided with solid insulation

- 19.6.1 Clearance and creepage distances between circuits within circuit assemblies provided with solid insulation may be less than those required in Table 19.1 when all of the following conditions are met:
- a) The circuit is provided with solid insulation such as encapsulation, that completely fills the area between the circuit components, and is applied in a manner (such as assembly in a sub-atmospheric pressure environment) that reduces the likelihood of voids or gas bubbles within the encapsulant,
- b) The solid insulation material is determined to be resistant to aging with consideration given to temperature of parts covered by the material,
- c) Clearance and creepage distances between circuits that are not covered by the solid insulation are no less than those required in Table 19.1,
- d) Clearance distances between the circuit prior to being covered by the solid insulation shall be no less than those required for Pollution Degree 1 in Table 9.1 10 of the Standard for Insulation Coordination Including Clearance and Creepage Distances for Electrical Equipment, UL 840 Standard for Adjustable Speed Electrical Power Drive Systems, UL 61800-5-1, and-
- e) The component or circuit assembly complies with the Impulse Test, Section 34, with using the impulse voltage as shown in Table 24.1 applied as indicated elsewhere in this standard, and
- f) If the voltage stress on the insulation is greater than 1 kV/mm (25.4 kV/in), the component or circuit assembly shall comply with the partial discharge test described in 5.2.3.3 of IEC 61800-5-1. The measured partial discharge shall be less than 10 pC during this test. For purpose of this requirement, the voltages stress in the recurring peak voltage divided by the distance between two parts of different potential.

5. Addition of Series Connected Component Spacings for 600 V and Below

Table 19.1
Minimum clearance and creepage distances - Medium voltage circuits

			M	inimum c	learance a	nd creep	age distar	ice		
	Potential	To of	To other than enclosure walls ^g				To walls of metal enclosure ^{c,d}		sure ^{c,d}	
Circuit type	involved, volts (rms or direct-		rance ough		ge along face		Clearance Creepage a surface			
	current) ^{a,b}	-	\ir	A	ir					
		mm	inches	mm	inches	mm	inches	mm	inches	
	2500 max ^e	25.4	1.0	50.8	2.0	50.8	2.0	76.2	3.0	
Line Voltage	7200 max ^e	50.8	2.0	88.9	3.5	76.2	3.0	101.6	4.0	
Circuits	15 kV max ^e	101.6	4.0	114.3	4.5	101.6	4.0	127.0	5.0	
	38 kV max ^e	153	6.0	203	8.0	153	6.0	203	8.0	
	51 - 150	3.2	0.125	6.4	0.25	12.7 ^h	0.5 ^h	12.7 ^h	0.5 ^h	
	151 - 300	6.4	0.25	9.5	0.375	12.7 ^h	0.5 ^h	12.7 ^h	0.5 ^h	
Series Connected Components ^f	301 - 600	9.5	0.375	12.7	0.5	12.7 ^h	0.5 ^h	12.7 ^h	0.5 ^h	
	601 - 1000	14	0.55	21.6	0.85	20.3 ^h	0.8 ^h	25.4 ^h	1.0 ^h	
	1000 - 1500	17.8	0.7	30.5	1.2	30.5 ^h	1.2 ^h	41.9 ^h	1.65 ^h	

^a Where the repetitive peak voltage on which the device used is more than 1.5 times the rms volts, the peak voltage shall be divided by V2 to obtain an equivalent rms rating in volts.

For locations other than field wiring terminals, linear interpolation based on the voltage involved is allowed for spacings between ungrounded parts of opposite polarity, when the potential involved is greater than 2500 V. Interpolation is not permissible for spacings from live parts to grounded parts.

b For grounded power systems, such as 3-phase, 4-wire systems, the clearance and creepage distances to ground shall be governed by the voltage to ground.

^c For the purpose of this requirement, a metal piece attached to the enclosure is considered to be a part of the enclosure if deformation of the enclosure is likely to reduce clearance and creepage distances between the metal piece and uninsulated live parts.

^d For subassembly enclosures where clearance and creepage distances are rigidly maintained, and when mounted inside another enclosure, the distances for "to other than enclosure walls" may be used instead of "to walls of metal enclosure."

^e Because of the effect of configuration, spacings in excess of those indicated may be required to meet the performance requirements of this document.

f In a series circuit such as a voltage divider or multi-tap transformer, the spacings between resistor terminals, transformer taps, and the like are to be based on the normal operating voltage existing between such parts.

h Where the voltage between the part and the enclosure wall does not exceed 1500 V <u>during either normal or abnormal operating conditions</u> (i.e. one output phase connected to ground in a cascaded power module <u>configuration</u>), creepage and clearance shall be selected from the appropriate row of this table for series connected components, based on the voltage involved between the part and the enclosure wall. For parts where the voltage between the part and the enclosure wall exceeds 1500 V, the creepage and clearance shall be selected from the row for line voltage circuits, based on the voltage involved.

14. Revisions to Operation Tests

- 37.2.3 When three phase auxiliary or control circuits are intended to be supplied from an external source of supply, each three phase circuit shall be subjected to single phase testing similar to that described in 37.2.1 for the main power circuit.
- 37.8.1 At the conclusion of the tests in 37.2 37.7 the equipment shall comply with all of the following:
- a) If a fuse is used as specified in 37.1.2, the fuse shall not have opened;
- b) If a fuse as specified in 37.1.2 is not used, the ground current measured in accordance with 37.1.3 shall not have exceeded 30 A.
- c) If cotton is used as specified in 37.1.4, the cotton shall not glow or flame. If cotton is not used, the controller shall comply with items (a), (b) and (c) of 37.1.4;
- d) The door or cover shall not have blown open;
- e) The door or cover shall be able to be opened; and
- f) The enclosure is not prohibited from deforming may become deformed, however, live parts shall not be accessible.

16. Breakdown of Components Test - Clarification of Test Method

- 39.8 Components shall be evaluated one at a time. The breakdown of the component shall be simulated after the controller is fully energized and in operation. The test circuit shall remain energized, with the component breakdown maintained, until one or more of the following conditions occurs:
- a) a short circuit protection device opens to remove power from the equipment;
- b) a solid state protective circuit operates and provides a trip signal to cause a circuit breaker or other device to remove power from the equipment; <u>or</u>
- c) thermal equilibrium is reached as determined by 30.2.3; or .
- d) the test duration exceeds the duration required to obtain thermal equilibrium during the temperature test of Section 30.

BSR/UL 1558, Standard for Standard for Metal-Enclosed Low-Voltage Power Circuit Breaker Switchgear

PROPOSAL

1. Editorial Revision of Requirements for Wire Bending Space in Table 16.2

Table 16.2

Minimum wire-bending space at terminals in inches (mm)

		Wires per terminal (pole) ^a							
Wire size AWG or MCM (mm²)		1			2		3	4 or more	
14 - 10	(2.1 - 5.3)	Not Specified			-	=	-	-	
8	(8.4)	1-1/2			-	=	-	-	
6	(13.3)	2		<u>-</u>	_	_	_	-	
4	(21.2)	3		<u>-</u>	-	=	-	-	
3	(26.7)	3		=	-	=	-	-	
2	(33.6)	3-1/2		<u>-</u>	-	=	_	-	
1	(42.4)	4-1/2			-		-	-	
1/0	(53.5)	5-1/2		5- 1/2		7		-	
2/0	(67.4)	6		6		7- 1/2		-	
3/0	(85.0)	6-1/2	(1/2)	6- 1/2	(1/2)	8		-	
4/0	(107)	7	(1)	7- 1/2	(1-1/2)	8- 1/2	(1/2)	-	
250	(127)	8-1/2	(2)	8- 1/2	(2)	9	(1)	10	
300	(152)	10	(3)	10	(2)	11	(1)	12	
350	(177)	12	(3)	12	(3)	13	(3)	14 (2)	
400	(203)	13	(3)	13	(3)	14	(3)	15 (3)	
500	(253)	14	(3)	14	(3)	15	(3)	16 (3)	
600	(304)	15	(3)	16	(3)	18	(3)	19 (3)	

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700	(355)	16	(3)	18	(3)	20	(3)	22 (3)
750	(380)	17	(3)	19	(3)	22	(3)	24 (3)
800	(405)	18	20	22 <u>20</u>	24	<u>22</u>		<u>24</u>
900	(456)	19	22	24 <u>22</u>	24	<u>24</u>		<u>24</u>
1000	(507)	20		=	-	=	-	-
1250	(633)	22		=	-	=	-	-
1500	(760)	24		=	-	_	-	-
1750	(887)	24		=	-		-	-
2000	(1010)	24			-	_	-	-

^a Wire bending space shall be permitted to be reduced by the number of inches shown in parentheses under the following conditions:

- 1. Only removable or lay-in wire connectors receiving one wire each are used, (there may be more than one removable wire connector per terminal).
- 2. The removable wire connectors can be removed from their intended location without disturbing structural or electrical parts other than a cover, and can be reinstalled with the conductor in place.

For SI units one inch = 25.4 mm

BSR/UL 2775, Standard for Safety for Components for Fixed Condensed Aerosol **Extinguishing System Units**

1. Revisions to Aging Test

PROPOSAL

55.2 The aging duration as a function of the aging temperature and useful life is given by the following formula.

$$t = A \cdot e^{-k \cdot T}$$

55.2 The aging duration as a function of the by the following formula.	
t = A	· e ^{-k· T}
where:	iot per
t = Aging duration in days; t ≥25 days	LIKE PARTY OF THE
$T = Aging temperature in \mathfrak{C}; T \ge 80\mathfrak{C}$	With the second
$k = 0.1 \ln(2) \approx 0.069315$	A CONTRACTOR OF THE PARTY OF TH
$k = 0.1 \ln(2) \approx 0.069315$ A = Constant and is a function of the useful	e aging temperature and useful life is given. • e ^{-k · T} • life as specified in Table 55.1.
• •	life as specified in Table 55.1.
A = Constant and is a function of the useful	life as specified in Table 55.1.
A = Constant and is a function of the useful Table	e 55.1
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A = Constant and is a function of the useful Table Useful life, years	e 55.1 Constant, A 40,895

Following are selected values based on the above equation.

Aging temperature,	Aging duration, t (days), as a function of useful life								
1 (C)	10 years	15 years	20 years	25 years					
70	320	-	-	=					
<u>75</u> 2	<u>225</u>	<u>328</u>	=	=					
80	160	232	304	375					
85	113	164	215	266					
90	80	116	152	188					
95	56	82	107	133					

105	28	58	76 54	94
110	[a]	29	38	47
115	[a]	[a]	27	33
[a] Aging duratio	on for the indicated	aging temperatu	are is less than p	and the strains of t
	Not all thorized	KOLKINI.		
	Hall Not authorized	KON KUIT		
ichtedmate	Hal. Not all thorized	KON KINE		