ANSI STANDARDS ACTION

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Contents

American National Standards

Call for comment on proposals listed

This section solicits public comments on proposed draft new American National Standards, including the national adoption of ISO and IEC standards as American National Standards, and on proposals to revise, reaffirm or withdraw approval of existing American National Standards. A draft standard is listed in this section under the ANSI-accredited standards developer (ASD) that sponsors it and from whom a copy may be obtained. Comments in connection with a draft American National Standard must be submitted in writing to the ASD no later than the last day of the comment period specified herein. Such comments shall be specific to the section(s) of the standard under review and include sufficient detail so as to enable the reader to understand the commenter's position, concerns and suggested alternative language, if appropriate. Please note that the ANSI Executive Standards Council (ExSC) has determined that an ASD has the right to require that interested parties submit public review comments electronically, in accordance with the developer's procedures.

Ordering Instructions for "Call-for-Comment" Listings

1. **Order from the organization indicated for the specific proposal.**
2. **Use the full identification in your order, including the BSR prefix; for example, Electric Fuses BSR/SAE J554.**
3. **Include remittance with all orders.**
4. **BSR proposals will not be available after the deadline of call for comment.**

Comments should be addressed to the organization indicated, with a copy to the Board of Standards Review, American National Standards Institute, 25 West 43rd Street, New York, NY 10036. Fax: 212-840-2298; e-mail: psa@ansi.org

* Standard for consumer products

ISSN 0038-9633

Comment Deadline: September 2, 2018

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

Addenda

BSR/ASHRAE/IES Addendum 90.1at-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

This addendum contains new language to create proper energy accounting at buildings that provide fuel or electricity to vehicles. In some areas, certain or all commercial buildings are being required to install electric vehicle supply equipment (EV charging stations). In other cases, more types of retail operations other than traditional “gas stations” are selling fuel to customers.

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

BSR/ASHRAE/IES Addendum 90.1au-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

This addendum makes changes to coordinate with addendum f to Standard 62.1. Addendum f to Standard 62.1 created a simplified way of determining outdoor air rates for multiple-zone recirculating air handling systems that includes a simple prescriptive requirement for calculating minimum air-handler outdoor-air rates and minimum setpoints for VAV zones.

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

BSR/ASHRAE/IES Addendum 90.1ax-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

This addendum gives the standard user alternatives to compliance with the automatic receptacle control requirement (Section 8.4.2).

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

BSR/ASHRAE/IES Addendum 90.1ay-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

This addendum introduces new material in Section 6.5.6.1 which contains energy recovery ventilation requirements that were developed without consideration given for dwelling units within the scope of 90.1. In an effort to develop rational energy recovery ventilation requirements for dwelling units, building energy simulations were conducted on a nominal 1000 ft2, 2-bedroom apartment dwelling unit in compliance with the prescriptive path of 90.1 across all climate zones. Four ventilation systems were evaluated for outdoor air: exhaust-only (not permitted by the International Mechanical Code, which requires supply or balanced ventilation, but evaluated at the request of the 90.1 Mechanical Subcommittee), dedicated supply, central-fan integrated supply, and balanced with energy recovery. Ventilation rates were set in accordance with ASHRAE 62.2.

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

BSR/ASHRAE/IES Addendum 90.1az-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

The current language implies that a different modeling methodology should be used to model refrigeration equipment in the baseline and proposed design. Since Tables G3.10.1 and 2 list kWh/day based on the AHRI 1200 testing procedure, the proposed design usage must also be based on the rated kWh/day of the specified equipment using the same testing procedure.

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

BSR/ASHRAE/IES Addendum 90.1ba-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

This proposed addendum establishes a methodology for determining the baseline flow rates on projects where service water-heating is demonstrated to be reduced by water conservation measures that reduce the physical volume of service water required, such as with low-flow shower heads.

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

BSR/ASHRAE/IES Addendum 90.1bf-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

This proposed addendum provides an alternative to the requirement for vestibules by use of an air curtain that meets specific requirements prescribed in the proposed language. Air curtains have been installed in buildings for over 60 years. The energy savings that air curtains provide has been thoroughly documented in the extensive research conducted by Concordia University. For more than 6 years, Concordia University researchers have been studying air curtain energy usage and savings. They have also compared it to the energy savings and losses of vestibules. The results show that air curtains, in fact save more energy than vestibules. As this is an option to the vestibule requirement, this addendum was not subject to cost-effectiveness analysis.

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

BSR/ASHRAE/IES Addendum 90.1v-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

Most hospitals use reheat HVAC systems with simultaneous heating and cooling. Even with required air or water economizers, there are many hours with simultaneous heating and cooling use. It is generally lower cost to generate heating water with a heat recovery chiller or heat pump when the chilled water generated is useful than it is to use a boiler that complies with 90.1. Evaluation of a typical hospital in multiple climate zones shows a potential for reasonable recovery with a heat recovery chiller or heat pump that is sized between 7% and 12% of the cooling plant, depending on climate zone. For simplification, the minimum is set at 7% of total cooling load across the board.

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.)

Revision

BSR/ASHRAE/IES Standard 90.2-201x, Energy-Efficient Design of Low-Rise Residential Buildings (revision of ANSI/ASHRAE Standard 90.2-2007)

This proposed revision of ASHRAE Standard 90.2 builds on the last public reviews and includes revisions to gain better alignment between this standard's requirements and marketplace product availability as well as some revisions to improve the document's clarity and internal consistency.

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

IEEE (ASC C63) (Institute of Electrical and Electronics Engineers)

Revision

BSR C63.5-201x, Draft Standard for Electromagnetic Compatibility - Radiated Emission Measurements in Electromagnetic Interference (EMI) Control - Calibration and Qualification of Antennas (9 kHz to 40 GHz) - Corrigendum 1 (revision of ANSI C63.5-2017)

Correct Step e) of Clause 5.1.1.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: j.santulli@ieee.org

NSF (NSF International)

Revision

BSR/NSF 49-201x (i118r1), Biosafety Cabinetry: Design, Construction, Performance, and Field Certification (revision of ANSI/NSF 49 -2016)

This Standard applies to Class II (laminar flow) biosafety cabinetry designed to minimize hazards inherent in work with agents assigned to biosafety levels 1, 2, 3, or 4. It also defines the tests that shall be passed by such cabinetry to meet this Standard. This Standard includes basic requirements for the design, construction, and performance of biosafety cabinets that are intended to provide personnel, product, and environmental protection; reliable operation; durability and structural stability; cleanability; limitations on noise level; illumination; vibration; and motor/blower performance.

Click here to view these changes in full

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

BSR/NSF 419-201x (i7r2), Public Drinking Water Equipment Performance - Membrane Filtration (revision of ANSI/NSF 419-2015)

This Standard is designed to describe the performance evaluation test procedure for the product specific challenge testing of full-scale UF and MF membrane modules, bag filters, and cartridge filters for the removal of microbial contaminants. This Standard provides procedures to develop challenge testing Log Removal Values (LRVC_TEST), as required in the EPA's Long-Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) published in 40 CFR 141-subpart W.

Click here to view these changes in full

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

RESNET (Residential Energy Services Network, Inc.)

Addenda

BSR/RESNET/ICC 301-2014 Addendum R-201x, Threshold Ratings (addenda to ANSI/RESNET/ICC 301-2014)

Revise Standard ANSI/RESNET/ICC 301-2014 to add a definition and requirements for a new type energy rating, the Threshold Rating.

Click here to view these changes in full

Comments are submitted via RESNET's online comment form. See the links from webpage: http://www.resnet/us/blog/resnet-consensus-standards/

TIA (Telecommunications Industry Association)

Revision

BSR/TIA 920.120-C-201x, Telecommunications - Communications Products - Transmission Requirements for Digital Interface Communications Devices with Speakerphone (revision and redesignation of ANSI/TIA 920.120-B-2017)

This standard establishes transmission performance requirements for speakerphone devices that function as narrowband (300 to 3400 Hz) or wideband (100 to 7000 Hz) digital interface communications devices, or both. Transmission may be over any digital interface including Local or Wide Area Networks, Firewire/IEEE Std 1394, Universal Serial Bus (USB), public ISDN, or digital over twisted pair wire. This includes TDM-based and packet-based (e.g., VoIP) devices. These devices may be connected through modems, voice gateways, wireless access points, or PBXs, or they may be personal computer-based communications devices. Examples include, but are not limited to: Cordless handsets in speakerphone mode, ISDN telephones, digital proprietary telephones, VoIP telephones (corded and cordless), softphones running on personal computers, IEEE Std 802.11 communications devices, USB communications devices, DECT (CAT-iq) telephones, Bluetooth® communications devices, and HD (High-Definition) voice communications devices. Some communications systems consist of a host (such as a laptop computer) with an interface for a Universal Serial Bus (USB) or radio-linked device. If the host device is assumed to have a 0 dB loss plan in its default state, then the relevant clauses of this standard are directly applicable to the USB or radio-linked device. If the host system provides gain or loss in the send path, receive path, or both, then the relevant clauses of this standard apply to the composite system. This revision will re-introduce the use of send and receive loudness ratings (SLR and RLR) as alternatives to send and receive level measurements. However, all receive testing is performed using the nominal volume control settings based on output level.

Click here to view these changes in full

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

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 51-201x, Standard for Safety for Power-Operated Pumps and Bypass Valves for Anhydrous Ammonia, LP-Gas, and Propylene (revision of ANSI/UL 51-2015)

The following is being proposed: (1) Addition of Endurance Test for By-Pass Valves.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Jeff Prusko, (847) 664-3416, jeffrey.prusko@ul.com

BSR/UL 444-201X, Standard for Safety for Communications Cables (revision of ANSI/UL 444-2017)

(1) Addition of jackets of expanded material.

Click here to view these changes in full

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

BSR/UL 834-201x, Standard for Safety for Heating, Water Supply, and Power Boilers - Electric (revision of ANSI/UL 834-2018)

This proposal includes the addition of medium voltage requirements.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Marcia Kawate, (510) 319-4259, Marcia.M.Kawate@ul.com

BSR/UL 1773-201x, Standard for Safety for Termination Boxes (revision of ANSI/UL 1773-2016)

This proposal covers the removal of requirements for Inlet Assemblies for Cord Connections of Generators used in conjunction with Transfer Switch Equipment.

Click here to view these changes in full

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

BSR/UL 1998-201x, Standard for Safety for Software in Programmable Components (revision of ANSI/UL 1998-2013)

These requirements apply to non-networked embedded microprocessor software whose failure is capable of resulting in a risk of fire, electric shock, or injury to persons. This is a reference standard in which the requirements are to be applied when specifically referenced by other standards or product safety requirements.

Click here to view these changes in full

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

Comment Deadline: September 17, 2018

AAMI (Association for the Advancement of Medical Instrumentation)

New National Adoption

BSR/AAMI/ISO 14971-201x, Medical devices - Application of risk management to medical devices (identical national adoption of ISO 14971/Ed.3 and revision of ANSI/AAMI/ISO 14971-2007 (Ed 2, vers 2) (R2016))

This International Standard specifies a process for a manufacturer to identify the hazards associated with medical devices, including in vitro diagnostic (IVD) medical devices, to estimate and evaluate the associated risks, to control these risks, and to monitor the effectiveness of the controls. The requirements of this International Standard are applicable to all stages of the life-cycle of a medical device. This International Standard does not apply to clinical decision making. This International Standard does not specify acceptable risk levels. This International Standard does not require that the manufacturer have a quality management system in place.

Single copy price: Free

Obtain an electronic copy from: https://standards.aami.org/higherlogic/ws/public/document?document_id=14657&wg_id=PUBLIC_REV

Order from: https://standards.aami.org/higherlogic/ws/public/document?document_id=14657&wg_id=PUBLIC_REV

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

ASA (ASC S3) (Acoustical Society of America)

Revision

BSR/ASA S3.6-201x, Specification for Audiometers (revision of ANSI/ASA S3.6-2010)

The audiometers covered in this specification are devices designed for use in determining the hearing threshold level of an individual in comparison with a chosen standard reference threshold level. This standard provides specifications and tolerances for pure tone, speech, and masking signals and describes the minimum test capabilities of different types of audiometers.

Single copy price: $150.00

Obtain an electronic copy from: asastds@acousticalsociety.org

Order from: Caryn Mennigke, (631) 390-0215, asastds@acousticalsociety.org

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

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

Addenda

BSR/ASHRAE/IES Addendum 90.1av-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

This addendum introduces requirements to address thermal bridges in this standard. The contents of this proposal include prescriptive and performance (e.g., modeling thermal transmission values) options. The goal is to provide users with as many options as are currently available in the Standard that will allow users to choose which method of evaluation (e.g., simple or complex) may be in the best interest of the building owner or building project without sacrificing the existing stringency.

Single copy price: $35.00

Obtain an electronic copy from: standards.section@ashrae.org

Order from: standards.section@ashrae.org

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

BSR/ASHRAE/IES Addendum 90.1aw-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

This addendum revises the fenestration prescriptive criteria in Tables 5.5-0 through 5.5-8. Proposed changes were developed using both cost-effectiveness analysis and engineering judgment.

Single copy price: $35.00

Obtain an electronic copy from: standards.section@ashrae.org

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

BSR/ASHRAE/IES Addendum 90.1bb-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

The Lighting Subcommittee (LSC) has performed a wholesale review of the existing model for determining LPDs. Each space-type LPD has been evaluated for compliance with the ANSI lighting standards. This addendum reflects the changes in LPDs.

Single copy price: $35.00

Obtain an electronic copy from: standards.section@ashrae.org

Order from: standards.section@ashrae.org

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

BSR/ASHRAE/IES Addendum 90.1be-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

This addendum updates the efficiency requirements for computer-room air conditioners as listed in table 6.8.1-11.

Single copy price: $35.00

Obtain an electronic copy from: standards.section@ashrae.org

Order from: standards.section@ashrae.org

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

AWS (American Welding Society)

New Standard

BSR/AWS J1.3M/J1.3-201x, Specification for Materials Used in Resistance Welding Applications (new standard)

This standard specifies essential properties of materials used for resistance welding electrodes and related components, the common applications of these materials, and methods of conformance verification.

Single copy price: $35.00

Obtain an electronic copy from: mdiaz@aws.org

Order from: Mario Diaz, (305) 443-9353, mdiaz@aws.org

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

AWWA (American Water Works Association)

Revision

BSR/AWWA B201-201x, Soda Ash (revision of ANSI/AWWA B201-2013)

This standard describes soda ash for use in the treatment of potable water, wastewater, or reclaimed water.

Single copy price: Free

Obtain an electronic copy from: ETSsupport@awwa.org

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

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

BSR/AWWA C502-201x, Dry-Barrel Fire Hydrants (revision of ANSI/AWWA C502-2014)

This standard describes post-type, dry-barrel fire hydrants with compression shutoff (opening against or with the pressure) or gate shutoff for use in fire protection service in all climates, including those where freezing occurs.

Single copy price: Free

Obtain an electronic copy from: ETSsupport@awwa.org

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

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

BSR/AWWA C503-201x, Wet-Barrel Fire Hydrants (revision of ANSI/AWWA C503-2014)

This standard pertains to the various types and classes of wet-barrel fire hydrants for use in fire-protection service in areas where the climate is mild and freezing temperatures do not occur.

Single copy price: Free

Obtain an electronic copy from: ETSsupport@awwa.org

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

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

CTA (Consumer Technology Association)

Reaffirmation

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

This standard, ANSI/CEA-805-E, specifies how data services are carried on analog Component Video Interfaces (CVI), as described in CEA 770.2-C and CEA 770.3-C. CEA 805-D applies to all CE devices carrying data on the CVI vertical blanking interval (VBI). All CEA 805-E references to component video and/or component video interfaces are analog only, and no reference to digital is implied.

Single copy price: Free

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

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

CTA (Consumer Technology Association)

Revision

BSR/CTA 2040-A-201x, SD Common Card Interface Standard (revision and redesignation of ANSI/CTA 2040-2011)

CTA 2040 describes interfaces between a Common Interface Module (CI Module) located on a microSD card and a Terminal device. The purpose of this standard is to specify the hardware, signaling, and application interface between a digital consumer electronics device, e.g., television receiver (handheld, stationary or otherwise) and a small removable, replaceable CI Module that implements and embodies significant portions of a Conditional Access System (CAS).

Single copy price: Free

Obtain an electronic copy from: vlancaster@cta.tech

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

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

NAAMM (National Association of Architectural Metal Manufacturers)

Revision

BSR/NAAMM HMMA 860-201x, Guide Specifications for Hollow Metal Doors and Frames (revision of ANSI/NAAMM HMMA 860-2013)

Due to the similarities between HMMA 860 and HMMA 867, it has been decided to revise HMMA 860 to include requirements appropriate for the construction of laminated core hollow metal doors.

Single copy price: $25.00

Obtain an electronic copy from: http://www.naamm.org/ansi-information#ANSI/NAAMM%20Standards Projects

Order from: Vernon (Wes) Lewis, (757) 489-0787, wlewis7@cox.net

Send comments (with copy to psa@ansi.org) to: Vernon W. Lewis, Jr. NAAMM Technical Consultant, 123 College Place, Unit 1101, Norfolk, VA 23510

NACE (NACE International, The Worldwide Corrosion Authority)

New National Adoption

BSR/NACE SP21422/ISO 11126-201x, Preparation of Steel Substrates before Application of Paints and Related Products - Specifications for Non-Metallic Blast-Cleaning Abrasives (identical national adoption of ISO 11126-1, ISO 11126-3, ISO 11126-4, ISO 11126-5, ISO 11126-6, ISO 11126-7, ISO 11126-8, ISO 11126-9, ISO 11126-10, ISO 11126-1:1993/Cor 2:1997, ISO 11126-1:1993/Cor 1:1997, and ISO 11126-7:1995/Cor 1:1999)

ISO 11126 describes a classification of non-metallic blast-cleaning abrasives for the preparation of steel substrates before application of paints and related products. It specifies the characteristics required for the complete designation of such abrasives. Abrasives addressed in the standard include copper refinery slag, coal furnace slag, nickel refinery slag, iron furnace slag, fused aluminum oxide, olivine sand, staurolite, and garnet. The standard applies to abrasives supplied in the “new” or unused condition only. It does not apply to abrasives either during or after use. NACE will be adopting all parts of the ISO standard (1 and 3-10) and all three technical corrigenda. (Part 2 was previously withdrawn by ISO).

Single copy price: $See the ANSI web store; https://webstore.ansi.org/

Obtain an electronic copy from: https://webstore.ansi.org/

Send comments (with copy to psa@ansi.org) to: rick.southard@nace.org

NACE (NACE International, The Worldwide Corrosion Authority)

Revision

BSR/NACE SP0502-201x, Pipeline External Corrosion Direct Assessment (revision of ANSI/NACE SP0502-2010)

This standard covers the NACE external corrosion direct assessment (ECDA) process for buried onshore ferrous pipeline systems. It is intended to serve as a guide for applying the NACE ECDA process on typical pipeline systems. Its intended audience includes pipeline operators and others who must manage pipeline integrity.

Single copy price: Free

Obtain an electronic copy from: rick.southard@nace.org

Send comments (with copy to psa@ansi.org) to: rick.southard@nace.org

RESNET (Residential Energy Services Network, Inc.)

Addenda

BSR/RESNET/ICC 301-2014 Addendum F-201x, Normative Appendix A (addenda to ANSI/RESNET/ICC 301-2014)

Revise Standard ANSI/RESNET/ICC 301-2014 to add Normative Appendix A that provides inspection procedures and grading criteria for insulation installed in residential buildings.

Single copy price: $55.00

Obtain an electronic copy from: An electronic copy can be downloaded from the RESNET website by following the links from webpage: http://www.resnet.us/blog/resnet-consensus-standards/

Send comments (with copy to psa@ansi.org) to: Comments are submitted via RESNET's online comment form. See the links from webpage: http://www.resnet.us/blog/resnet-consensus-standards/

RESNET (Residential Energy Services Network, Inc.)

New Standard

BSR/RESNET/ICC 1101-201X, Standard for the Calculation and Labeling of the Water Use Performance of One- and Two-Family Dwellings Using the Water Rating Index (new standard)

This Standard provides a consistent, uniform methodology for evaluating, quantifying, and labeling the water-use performance of one- and two-family dwellings. The methodology compares the water-use performance of an actual home (rated home) with the water-use performance of a reference home of the same geometry, resulting in a relative Water Use Rating called the “Water Rating Index (WRI)”. Where the water-use performance of the actual home and the reference home are equal, the Water Rating Index is 100.

Single copy price: $55.00

Obtain an electronic copy from: http://www.resnet.us/blog/resnet-consensus-standards/

Send comments (with copy to psa@ansi.org) to: http://www.resnet/us/blog/resnet-consensus-standards/

SCTE (Society of Cable Telecommunications Engineers)

Revision

BSR/SCTE 177-201x, Specification for Braided 75 , Mini-Series Quad Shield Coaxial Cable for CMTS and SDI cables (revision of ANSI/SCTE 177-2012)

This specification defines the required performance with regards to electrical and mechanical properties of 75-ohm, braided, mini-series quad-shield coaxial cable for CMTS and SDI applications.

Single copy price: $50.00

Obtain an electronic copy from: admin@standards.scte.org

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

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

TAPPI (Technical Association of the Pulp and Paper Industry)

New Standard

BSR/TAPPI T 205 sp-201x, Forming handsheets for physical tests of pulp (new standard)

This procedure describes a method of forming test handsheets at an oven dry weight of 60 g/m^2 for determining the physical properties of pulp for both unrefined and refined pulps. Appendix B describes a modified procedure for making heavier weight sheets for pulps intended for use in paperboard manufacture.

Single copy price: Free

Obtain an electronic copy from: standards@tappi.org

Order from: Priscila Briggs, (770) 209-7249, standards@tappi.org

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

TAPPI (Technical Association of the Pulp and Paper Industry)

Reaffirmation

BSR/TAPPI T 271 om-2012 (R201x), Fiber length of pulp and paper by automated optical analyzer using polarized light (reaffirmation of ANSI/TAPPI T 271 om-2012)

This is an automated method by which the numerical and weighted average fiber lengths and fiber length distributions of pulp and paper can be measured using light-polarizing optics in the range of 0.1 mm to 7.2 mm.

Single copy price: Free

Obtain an electronic copy from: standards@tappi.org

Order from: Priscila Briggs, (770) 209-7249, standards@tappi.org

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

TIA (Telecommunications Industry Association)

Addenda

BSR/TIA 568.3-D-1-201x, Optical Fiber Cabling Component Standard - Addendum 1: General Updates (addenda to ANSI/TIA 568-D.3 -2016)

This standard is applicable to premises optical fiber cabling and components. The scope of this addendum includes subject matter on the following topics: (1) Use of OM5 name; (2) Use of OSIa name; (3) Color for OM5 connecting hardware; (4) Connecting hardware color definitions; (5) Reference-grade to standard-grade loss allocation; (6) MPO testing; and (7) Updates based on FOTP-171-B. The justification is to harmonize and update the existing standard.

Single copy price: $60.00

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 470.130-D-201x, Telecommunications - Telephone Terminal equipment - Headset Acoustic Performance Requirements for Analog Telephones (revision and redesignation of ANSI/TIA 470.130-C-2008 (R2016))

This revision will update to new ANSI/TIA-470.1xx document format, performance concepts, and acoustic reference point.

Single copy price: $133.00

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.)

Revision

BSR/UL 294-201x, Standard for Access Control System Units (revision of ANSI/UL 294-2018)

UL proposes corrections to the 7th edition of UL 294 due to accidental omissions.

Single copy price: Free

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

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

BSR/UL 923-201x, Standard for Safety for Microwave Cooking Appliances (revision of ANSI/UL 923-2017b)

This proposal for UL 923 covers: (1) Add Standards Vessel for Normal Temperature test and (2) Child-resistant microwave oven doors.

Single copy price: Free

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

Send comments (with copy to psa@ansi.org) to: Amy Walker, (847) 664-2023, Amy.K.Walker@ul.com

BSR/UL 962A-201x, Standard for Safety for Furniture Power Distribution Units (revision of ANSI/UL 962A-2018)

Additional types of receptacles.

Single copy price: Free

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

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

Comment Deadline: October 2, 2018

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

ASME (American Society of Mechanical Engineers)

Revision

BSR/ASME HST-2-201x, Performance Standard for Hand Chain Manually Operated Chain Hoists (revision of ANSI/ASME HST-2-2014)

Update definitions in this standard to reflect other volumes in the series and update the formatting of the document and references to reflect changes made in newer standards.

Single copy price: Free

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

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

Send comments (with copy to psa@ansi.org) to: Elijah Dominguez, (212) 591-8521, domingueze@asme.org

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

New Standard

INCITS 545-201x, Information technology - Fibre Channel - Framing and Signaling - 5 (FC-FS-5) (new standard)

Recommends the development of a set of technical additions and clarifications to INCITS 488, Fibre Channel - Framing and Signaling - 4 (FC-FS-4). Included within this scope are: (a) Clarifications of existing ambiguities; (b) Any items deemed necessary to support energy-efficient Fibre Channel; and (c) Any other item as deemed necessary during the development.

Single copy price: Free

Obtain an electronic copy from: https://standards.incits.org/apps/org/workgroup/eb/download.php/100037

Order from: https://standards.incits.org/apps/group_public/document.php?document_id=100037&wg_abbrev=eb

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

Call for Members (ANS Consensus Bodies)

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

AAMI (Association for the Advancement of Medical Instrumentation)

Office: 4301 N. Fairfax Drive, Suite 301
Arlington, VA 22203-1633

Contact: *Patrick Bernat*

Phone: (703) 253-8298

E-mail: pbernat@aami.org

BSR/AAMI EQ56-201x, Recommended Practice for a Medical Equipment Management Program (revision of ANSI/AAMI EQ56 -2013)

BSR/AAMI EQ103-201x, Alternative Equipment Management in Healthcare Delivery Organizations (new standard)

BSR/AAMI ST100-201x, End-to-End Sterility Assurance (new standard)

BSR/AAMI/ISO 14971-201x, Medical devices - Application of risk management to medical devices (identical national adoption of ISO 14971/Ed.3 and revision of ANSI/AAMI/ISO 14971-2007 (Ed 2, vers 2) (R2016))

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

Office: 2121 Wilson Blvd
Suite 500
Arlington, VA 22201

Contact: *Ladan Bulookbashi*

Phone: (703) 600-0327

E-mail: lbulookbashi@ahrinet.org

BSR/AHRI Standard 230-201X, Sound Intensity Testing Procedures for Determining Sound Power of HVAC Equipment (revision of ANSI/AHRI Standard 230-2013)

BSR/AHRI Standard 250-201X, Performance and Calibration of Reference Sound Sources (revision of ANSI/AHRI Standard 250 -2013)

BSR/AHRI Standard 275-201X, Application of Outdoor Unitary Equipment A-Weighted Sound Power Ratings (revision of ANSI/AHRI Standard 275-2010)

BSR/AHRI Standard 441P (SI)-201X, Performance Rating of Room Fan-Coils (new standard)

BSR/AHRI Standard 530-201X, Rating of Sound and Vibration for Refrigerant Compressors (revision of ANSI/AHRI Standard 530-2011)

BSR/AHRI Standard 860P (I-P)-201X, Performance Rating of Fan-Powered Chilled Water Terminals (new standard)

BSR/AHRI Standard 861P (SI)-201X, Performance Rating of Fan-Powered Chilled Water Terminals (new standard)

BSR/AHRI Standard 920 (I-P)-201X, Performance Rating of DX-Dedicated Outdoor Air System Units (revision of ANSI/AHRI Standard 920 (I-P)-2015)

BSR/AHRI Standard 921 (SI)-201X, Performance Rating of DX-Dedicated Outdoor Air System Units (revision of ANSI/AHRI Standard 921 (SI)-2015)

BSR/AHRI Standard 1060 (I-P)-201X, Performance Rating of Air-to-Air Exchangers for Energy Recovery Ventilation Equipment (revision of ANSI/AHRI Standard 1060 (I-P)-2014)

BSR/AHRI Standard 1061 (SI)-201X, Performance Rating of Air-to-Air Exchangers for Energy Recovery Ventilation Equipment (revision of ANSI/AHRI Standard 1061 (SI)-2014)

BSR/AHRI Standard 1120-201X, Acoustical Test Methods and Sound Power Rating Procedures for Transport Refrigeration Equipment (revision of ANSI/AHRI Standard 1120-2012)

BSR/AHRI Standard 1140-201X, Sound Quality Evaluation Procedures for Air-Conditioning and Refrigeration Equipment (revision of ANSI/AHRI Standard 1140-2012)

BSR/AHRI Standard 1231P (SI)-201X, Performance Rating of Variable Refrigerant Flow (VRF) Multi-Split Air-Conditioning and Heat Pump Equipment (new standard)

BSR/AHRI Standard 1520P (I-P)-201X, Performance Rating of Centrifugal Refrigerant Compressors (new standard)

BSR/AHRI Standard 1521P (SI)-201X, Performance Rating of Centrifugal Refrigerant Compressors (new standard)

BSR/AHRI Standard 310/380-201X, Standard for Packaged Terminal Air-Conditioners and Heat Pumps (revision of ANSI/AHRI Standard 310/380-2014)

BSR/AHRI Standard 340/360 (I-P)-201X, Performance Rating of Commercial and Industrial Unitary Air-Conditioning and Heat Pump Equipment (revision and redesignation of ANSI/AHRI Standard 340/360 with Addenda 1 and 2-2011)

ASA (ASC S3) (Acoustical Society of America)

Office: 1305 Walt Whitman Road
Suite 300
Melville, NY 11747

Contact: *Caryn Mennigke*

Phone: (631) 390-0215

E-mail: asastds@acousticalsociety.org

BSR/ASA S3.6-201x, Specification for Audiometers (revision of ANSI/ASA S3.6-2010)

CTA (Consumer Technology Association)

Office: 1919 South Eads Street
Arlington, VA 22202

Contact: *Veronica Lancaster*

Phone: (703) 907-7697

E-mail: vlancaster@cta.tech

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

BSR/CTA 2040-A-201x, SD Common Card Interface Standard (revision and redesignation of ANSI/CTA 2040-2011)

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

Office: 1101 K Street NW
Suite 610
Washington, DC 20005

Contact: *Rachel Porter*

Phone: (202) 737-8888

E-mail: comments@standards.incits.org

INCITS 545-201x, Information technology - Fibre Channel - Framing and Signaling - 5 (FC-FS-5) (new standard)

NAAMM (National Association of Architectural Metal Manufacturers)

Office: 123 College Place
#1101
Norfolk, VA 23510

Contact: *Vernon (Wes) Lewis*

Phone: (757) 489-0787

E-mail: wlewis7@cox.net

BSR/NAAMM HMMA 860-201x, Guide Specifications for Hollow Metal Doors and Frames (revision of ANSI/NAAMM HMMA 860-2013)

NEMA (ASC C18) (National Electrical Manufacturers Association)

Office: 1300 North 17th Street
Rosslyn, VA 22209

Contact: *Khaled Masri*

Phone: (703) 841-3278

E-mail: Khaled.Masri@nema.org

BSR NEMA C18.1M, Part 2-201x, Standard for Portable Primary Cells and Batteries with Aqueous Electrolyte - Safety Standard (revision and redesignation of ANSI C18.1M, Part 2-2017)

NSF (NSF International)

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

Contact: *Allan Rose*

Phone: (734) 827-3817

E-mail: arose@nsf.org

BSR/NSF 49-201x (i118r1), Biosafety Cabinetry: Design, Construction, Performance, and Field Certification (revision of ANSI/NSF 49-2016)

BSR/NSF 419-201x (i7r2), Public Drinking Water Equipment Performance - Membrane Filtration (revision of ANSI/NSF 419-2015)

TIA (Telecommunications Industry Association)

Office: 1320 North Courthouse Road
Suite 200
Arlington, VA 22201

Contact: *Teesha Jenkins*

Phone: (703) 907-7706

E-mail: standards@tiaonline.org

BSR/TIA 10-201x, Interference Criteria for Microwave Systems (new standard)

BSR/TIA 470.130-D-201x, Telecommunications - Telephone Terminal Equipment - Headset Acoustic Performance Requirements for Analog Telephones (revision and redesignation of ANSI/TIA 470.130-C-2008 (R2016))

BSR/TIA 470.220-F-201x, Telecommunications - Telephone Terminal Equipment - Alerter Acoustic Output Performance Requirements for Analog Telephones (revision and redesignation of ANSI/TIA 470.220-E-2016)

BSR/TIA 568.3-D-1-201x, Optical Fiber Cabling Component Standard - Addendum 1: General Updates (addenda to ANSI/TIA 568-D.3-2016)

BSR/TIA 758-C-201x, Customer-Owned Outside Plant Telecommunications Infrastructure Standard (revision and redesignation of ANSI/TIA 758-B-2012)

BSR/TIA 920.120-C-201x, Telecommunications - Communications Products - Transmission Requirements for Digital Interface Communications Devices with Speakerphone (revision and redesignation of ANSI/TIA 920.120-B-2017)

BSR/TIA 2020-201x, Telecommunications - Communications Products - Performance Requirements for Purchasing Agents (new standard)

UL (Underwriters Laboratories, Inc.)

Office: 333 Pfingsten Road
Northbrook, IL 60062

Contact: *Megan Monsen*

Phone: (847) 664-1292

E-mail: megan.monsen@ul.com

BSR/UL 1998-201x, Standard for Safety for Software in Programmable Components (revision of ANSI/UL 1998-2013)

Call for Members (ANS Consensus Bodies)

Call for Committee Members

ASC O1 – Safety Requirements for Woodworking Machinery

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

- General Interest
- Government
- Producer
- User

If you are interested in joining the ASC O1, contact WMMA Associate Director Jennifer Miller at jennifer@wmma.org.

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.

AISC (American Institute of Steel Construction)

Supplement

ANSI/AISC 358-S1-2018, Supplement No. 1 to AISC 358-16: Prequalified Connections for Special and Intermediate Steel Moment Frames for Seismic Applications (supplement to ANSI/AISC 358-2016): 7/26/2018

ASABE (American Society of Agricultural and Biological Engineers)

Revision

ANSI/ASABE S625.1-JUL2018, Drawbar Pin Dimensions and Requirements for Towing Machine with Clevis (revision and redesignation of ANSI/ASABE S625-2015): 7/27/2018

ASME (American Society of Mechanical Engineers)

New Standard

* ANSI/ASME B107.56-2018, Body Repair Tools (new standard): 7/20/2018

ANSI/ASME NM.1-2018, Thermoplastic Piping Systems (new standard): 7/27/2018

ANSI/ASME PTC 13-2018, Wire-To-Air Performance Test Code for Blower Systems (new standard): 7/20/2018

ANSI/ASME SRB-1-2018, Design, Installation, Maintenance and Application of Ball Slewing Ring Bearings (new standard): 7/27/2018

Reaffirmation

ANSI/ASME B89.3.7-2013 (R2018), Granite Surface Plates (reaffirmation of ANSI/ASME B89.3.7-2013): 7/20/2018

ANSI/ASME MFC-5.3-2013 (R2018), Measurement of Liquid Flow in Closed Conduits Using Doppler Ultrasonic Flowmeters (reaffirmation of ANSI/ASME MFC-5.3-2013): 7/20/2018

Revision

ANSI/ASME B16.50-2018, Wrought Copper and Copper Alloy Braze-Joint Pressure Fittings (revision of ANSI/ASME B16.50-2013): 7/27/2018

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

Revision

ANSI/ASSP A10.7-2018, Safety and Health Requirements for Construction and Demolition Use, Storage, Handling and Site Movement of Commercial Blasting Agents (revision of ANSI/ASSP A10.7-2011): 7/25/2018

ANSI/ASSP A10.28-2018, Safety Requirements for Work Platforms Suspended from Cranes or Derricks (revision and redesignation of ANSI/ASSE A10.28-2011): 7/27/2018

ASSP (Safety) (American Society of Safety Professionals)

New National Adoption

ANSI/ASSP/ISO 31000-2018, Risk Management Guidelines (identical national adoption of ISO 31000-2018 and revision of ANSI/ASSE Z690.2-2011): 7/20/2018

ASTM (ASTM International)

Reaffirmation

ANSI/ASTM E1355-2012 (R2018), Guide for Evaluating the Predictive Capability of Deterministic Fire Models (reaffirmation of ANSI/ASTM E1355-2012): 7/17/2018

Revision

ANSI/ASTM D7826-2018a, Guide for Evaluation of New Aviation Gasolines and New Aviation Gasoline Additives (revision of ANSI/ASTM D7826-2017): 7/17/2018

ANSI/ASTM D7915-2018, Practice for Application of Generalized Extreme Studentized Deviate (GESD) Technique to Simultaneously Identify Multiple Outliers in a Data Set (revision of ANSI/ASTM D7915-2014): 7/17/2018

ANSI/ASTM F3059-2018, Specification for Fiber-Reinforced Polymer (FRP) Gratings Used in Marine Construction and Shipbuilding (revision of ANSI/ASTM F3059-2015): 7/17/2018

ATIS (Alliance for Telecommunications Industry Solutions)

New Standard

ANSI/ATIS 0600035-2018, Recommended Maintenance Routines and Frequencies for Central Office Backup Power (new standard): 7/27/2018

Reaffirmation

ANSI/ATIS 0600333-2013 (R2018), Grounding and Bonding of Telecommunications Equipment (reaffirmation of ANSI ATIS 0600333-2013): 7/27/2018

Withdrawal

ANSI ATIS 0600009-2007 (R2012), RoHS-Compliant Plating Standard for Structural Metals, Bus Bars, and Fasteners (withdrawal of ANSI ATIS 0600009-2007 (R2012)): 7/27/2018

CSA (CSA Group)

Withdrawal

ANSI/CSA HGV 4.5-2013, Standard for priority and sequencing equipment for hydrogen vehicle fueling (withdrawal of ANSI/CSA HGV 4.5-2013): 7/24/2018

HPS (ASC N13) (Health Physics Society)

Revision

ANSI N13.32-2018, Performance Testing of Extremity Dosimeters (revision of ANSI N13.32-2008): 7/27/2018

HPS (ASC N43) (Health Physics Society)

New Standard

ANSI N43.7-2018, Safe Design and Use of Self-Contained, Dry Source Storage Irradiators (Category I) (new standard): 7/24/2018

Reaffirmation

ANSI N43.17-2009 (R2018), Radiation Safety for Personnel Security Screening Systems Using X-Ray or Gamma Radiation (reaffirmation of ANSI N43.17-2009): 7/24/2018

IES (Illuminating Engineering Society)

New Standard

ANSI/IES TM-30-2018, IES Method for Evaluating Light Source Color Rendition (new standard): 7/27/2018

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

New Standard

INCITS 538-2018, Information technology - SAS Protocol Layer - 4 (SPL-4) (new standard): 7/26/2018

NCPDP (National Council for Prescription Drug Programs)

Revision

ANSI/NCPDP Post Adj v48-2018, NCPDP Post Adjudication Standard v48 (revision and redesignation of ANSI/NCPDP Post Adj v47 -2017): 7/24/2018

ANSI/NCPDP RDS Standard v21-2018, NCPDP Retiree Drug Subsidy Standard Implementation Guide v21 (revision and redesignation of ANSI/NCPDP RDS Standard v2.0-2013): 7/24/2018

ANSI/NCPDP SC Standard 2018071-2018, NCPDP SCRIPT Standard 2018071 (revision and redesignation of BSR/NCPDP SC WG110077201xxx-201x): 7/27/2018

ANSI/NCPDP Specialized Standard 2018071-2018, NCPDP Specialized Standard 2018071 (revision and redesignation of BSR/NCPDP Specialized Standard WG110077201xxx-201x): 7/24/2018

ANSI/NCPDP TC vF3-2018, NCPDP Telecommunication Standard vF3 (revision and redesignation of ANSI/NCPDP TC vF2-2017): 7/27/2018

ANSI/NCPDP Uniform Healthcare Payer Data Standard v25-2018, NCPDP Uniform Healthcare Payer Data Standard v25 (revision and redesignation of ANSI/NCPDP Uniform Healthcare Payer Data Standard v24-2017): 7/20/2018

NFPA (National Fire Protection Association)

Revision

ANSI/NFPA 51B-2014, Standard for Fire Prevention During Welding, Cutting, and Other Hot Work (revision of ANSI/NFPA 51B-2013): 7/15/2018

ANSI/NFPA 211-2019, Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances (revision of ANSI/NFPA 211-2016): 8/15/2018

ANSI/NFPA 260-2013, Standard Methods of Tests and Classification System for Cigarette Ignition Resistance of Components of Upholstered Furniture (revision of ANSI/NFPA 260-2012): 7/13/2018

NSF (NSF International)

New National Adoption

ANSI/NSF 46-2018 (i31r2), Evaluation of Components and Devices Used in Wastewater Treatment Systems (identical national adoption of and revision of ANSI/NSF 46-2017): 7/17/2018

Revision

ANSI/NSF 46-2018 (i31r1), Evaluation of Components and Devices Used in Wastewater Treatment Systems (revision of ANSI/NSF 46 -2017): 7/17/2018

ANSI/NSF 49-2018 (i125r1), Biosafety Cabinetry: Design, Construction, Performance, and Field Certification (revision of ANSI/NSF 49-2016): 7/17/2018

ANSI/NSF 49-2018 (i125r2), Biosafety Cabinetry: Design, Construction, Performance, and Field Certification (revision of ANSI/NSF 49-2016): 7/17/2018

ANSI/NSF 53-2018 (i109r1), Drinking Water Treatment Units - Health Effects (revision of ANSI/NSF 53-2017): 7/15/2018

ANSI/NSF 419-2018 (i5r1), Public Drinking Water Equipment Performance - Membrane Filtration (revision of ANSI/NSF 419 -2015): 7/22/2018

NW&RA (ASC Z245) (National Waste & Recycling Association)

New Standard

ANSI Z245.30-2018, Waste Containers - Safety Requirements (new standard): 7/19/2018

ANSI Z245.60-2018, Waste Containers - Compatibility Dimensions (new standard): 7/19/2018

SCTE (Society of Cable Telecommunications Engineers)

New Standard

ANSI/SCTE 17-2018, Test Procedure for Carrier to Noise (C/N, CCN, CIN, CTN) (new standard): 7/20/2018

Revision

ANSI/SCTE 154-2-2018, SCTE-HMS-QAM-MIB (revision of ANSI/SCTE 154-2-2008): 7/20/2018

ANSI/SCTE 154-4-2018, MPEG Management Information Base SCTE-HMS-MPEG MIB (revision of ANSI/SCTE 154-4-2008): 7/20/2018

ANSI/SCTE 154-5-2018, SCTE-HMS-Headendident Textual Conventions MIB (revision of ANSI/SCTE 154-5-2008): 7/20/2018

ANSI/SCTE 163-2018, SCTE HMS Switched Digital Video MIB (revision of ANSI/SCTE 163-2009): 7/20/2018

SDI (ASC A250) (Steel Door Institute)

Reaffirmation

ANSI/SDI/BHMA A250.13-2014 (R2018), Testing and Rating of Severe-Windstorm-Resistant Components for Swinging Door Assemblies for Protection of Building Envelopes (Not applicable for FEMA 320/361 or ICC 500 Shelters) (reaffirmation and redesignation of ANSI A250.13-2014): 7/27/2018

TIA (Telecommunications Industry Association)

Addenda

ANSI/TIA 569-D-2-2018, Telecommunications Pathways and Spaces - Addendum 2: Guidelines for Supporting Remote Powering (addenda to ANSI/TIA 569-D-2015): 7/20/2018

UAMA (ASC B74) (Unified Abrasives Manufacturers' Association)

Revision

ANSI B74.12-2018, Specifications for the Size of Abrasive Grain-Grinding Wheels, Polishing and General Industrial Uses (revision of ANSI B74.12-2012): 7/20/2018

UL (Underwriters Laboratories, Inc.)

New Standard

ANSI/UL 1204-2018, Standard for Safety for Parts Cleaners (new standard): 7/19/2018

Reaffirmation

ANSI/UL 10A-2009a (R2018), Standard for Tin-Clad Fire Doors (reaffirmation of ANSI/UL 10A-2009a (R2013)): 7/20/2018

ANSI/UL 680-2004 (R2018), Standard for Emergency Vault Ventilators and Vault-Ventilating Ports (reaffirmation of ANSI/UL 680-2004 (R2014)): 7/20/2018

ANSI/UL 753-2013 (R2018), Standard for Alarm Accessories for Automatic Water-Supply Control Valves for Fire Protection Service (reaffirmation of ANSI/UL 753-2013): 7/20/2018

ANSI/UL 2043-2013 (R2018), Standard for Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces (reaffirmation of ANSI/UL 2043 -2013): 7/13/2018

Revision

ANSI/UL 20-2018, Standard for Safety for General-Use Snap Switches (revision of ANSI/UL 20-2012): 7/20/2018

ANSI/UL 1026-2018b, Standard for Safety for Household Electric Cooking and Food Serving Appliances (Proposal dated 5-18-18) (revision of ANSI/UL 1026-2018): 7/17/2018

VITA (VMEbus International Trade Association (VITA))

New Standard

ANSI/VITA 57.4-2018, FPGA Mezzanine Card Plus (FMC+) Standard (new standard): 7/24/2018

Correction

Title and Designation Change

ANSI/NECA/NACMA 120-2018

The designation and title of ANSI/NECA 120-2018, which appeared in the Final Actions section of the July 15, 2018 issue of Standards Action, has changed. The new designation and title are: ANSI/NECA/NACMA 120-2018, Standard for Installing Armored Cable (Type AC) and Type Metal-Clad (MC) Cable.

Project Initiation Notification System (PINS)

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

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

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

AAFS (American Academy of Forensic Sciences)

Contact: Teresa Ambrosius, (719) 453-1036, tambrosius@aafs.org
410 North 21st Street, Colorado Springs, CO 80904

New Standard

BSR/ASB Std 074-201x, Agriculture Detection - Canine Training, Certification, and Document Management Standards (new standard)

Stakeholders: Canine handlers, canine trainers, canine evaluating officials, agricultural inspectors, border control, defense and prosecution attorneys, US and State Departments of Agriculture.

Project Need: Establishment of training, certification, and documentation requirements in the agriculture detection canine industry. This could impact state, federal, and international canine training programs as the USDA services multiple agencies through contract canine training services. There are no consensus standards for the canine teams (canine and handler) and certifying processes, specifically dedicated to Canine Detection of Agriculture.

This Standard contains requirements for the development of training of canine handlers and canines and will also detail the canine team assessments and the basis for certification procedures including record keeping and document management. This Standard addresses the canine odor detection discipline of agricultural substances which entails canine teams (canine handlers and canines) trained to search for agricultural products (e.g., fruits, vegetables, and meats).

BSR/ASB Std 078-201x, Standard for Training of Forensic Autosomal and Y STR Data Interpretation (new standard)

Stakeholders: Forensic DNA laboratory practitioners, criminal justice system end-users.

Project Need: Training programs for forensic DNA laboratories based on this standard will provide more consistent interpretations of forensic autosomal and Y STR data among laboratory personnel, and overall more effective training.

This standard defines the minimum requirements that shall be met in a forensic DNA analyst training program for autosomal and Y STR data interpretation. This standard excludes sequencing.

BSR/ASB Std 079-201x, Standard for Training of the Combined DNA Index System (new standard)

Stakeholders: Forensic DNA laboratory practitioners and investigators; criminal justice system end-users.

Project Need: Training programs vary within their current requirements and scope. Training programs for forensic DNA laboratories based on this standard will provide more consistent understanding of CODIS among laboratory personnel, and overall more effective training.

This standard defines the minimum requirements that shall be met in a forensic DNA analyst training program for CODIS (Combined DNA Index System). This document excludes training for CODIS administrators.

BSR/ASB Std 094-201x, Postmortem Fingerprint Recovery: Guidance and Best Practices for Disaster Victim Identification (new standard)

Stakeholders: The local medicolegal authority will be the group impacted by this document.

Project Need: The proper fingerprint station morgue setup, postmortem fingerprint recovery methodology, and retention of records is crucial to the successful use of postmortem impressions as a means of victim identification. Furthermore, the condition of postmortem friction ridge skin may be significantly compromised by various destructive influences due to the circumstances of death and/or the severity of postmortem changes following a mass fatality incident. As such, the use of specialized reconditioning techniques may be required prior to recording the postmortem fingerprint impressions.

This document provides guidance on, and highlights challenges associated with, obtaining postmortem prints from decedents and/or human remains in morgue operations associated with mass fatality disaster incidents.

AAMI (Association for the Advancement of Medical Instrumentation)

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New Standard

BSR/AAMI ST100-201x, End-to-End Sterility Assurance (new standard)

Stakeholders: Medical device manufacturers, testing labs, healthcare delivery organizations, clinical users, consumers, academia, regulatory agencies.

Project Need: Currently, the AAMI standards associated with assurance of sterility are documents addressing individual topics, such as a specific sterilization modality (e.g., radiation, EO, moist heat), manufacturing monitoring requirements to demonstrate maintenance of sterilization validation (e.g., environmental monitoring, bioburden), or maintenance of sterility (e.g., packaging). This document would provide a framework for the integration of the individual topics to demonstrate how they are linked to provide assurance of sterility.

This standard will provide a comprehensive framework to develop an end-to-end assurance of sterility. This framework is intended to connect the sterility assurance activities that might be addressed during each phase of the supply chain: from the definition of the product needs during R&D, to the manufacture and distribution of the product to the Customer, Consumer or Patient. This standard will address manufacturing and/or healthcare activities to support microbiologically controlled products or products with a sterile label claim. The end-to-end sterility assurance framework will also provide a link to the use of the sterilization and supporting standards.

AAMI (Association for the Advancement of Medical Instrumentation)

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New Standard

BSR/AAMI EQ103-201x, Alternative Equipment Management in Healthcare Delivery Organizations (new standard)

Stakeholders: Users, including healthcare technology management (HTM) professionals; technology manufacturers; regulatory/accrediting bodies; engineers.

Project Need: Addresses effective resource deployment using risk/evidence-based maintenance for the benefit of patients and medical equipment. Provides guidance on minimizing maintenance-related risk. Supports equipment availability and reliability in the healthcare delivery environment to optimize equipment safety and quality.

Provides guidance to healthcare delivery organizations on implementing a defensible alternative equipment maintenance (AEM) program. Seeks to ensure that a quantitative, scientific, risk/evidence-based methodology is used, including input from clinical and other impacted staff. It includes quality assurance to ensure proper decisions are made based on sound engineering principles, periodic review, and corrective action to address deficiencies.

Revision

BSR/AAMI EQ56-201x, Recommended Practice for a Medical Equipment Management Program (revision of ANSI/AAMI EQ56 -2013)

Stakeholders: Users, including healthcare technology management professionals; technology manufacturers; regulatory/accrediting bodies; academics; engineers.

Project Need: The current standard (2013) does not include a comprehensive treatment of quality management principles or processes. A recent FDA report on device servicing recommended that service providers adopt quality-management principles and systems. Revision will include these principles, including an effort to align with the concepts in ISO 20000, Information technology - Service management (and indirectly with ISO 9001). The current standard is also silent on information security/cybersecurity, which this revision will address.

Identifies standardized quality management principles and practices across the patient-care continuum, which will allow for consistent delivery of quality services. Adds new sections to existing standard to address cybersecurity, service-level management, capacity management, service continuity (availability management), and change management.

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

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New Standard

BSR/AHRI Standard 441 (SI)-201x, Performance Rating of Room Fan-Coils (new standard)

Stakeholders: This standard is intended for the guidance of the industry, including manufacturers, engineers, installers, contractors, and users.

Project Need: To create a metric-only version of the ANSI/AHRI Standard 440-2009.

The purpose of this standard is to provide for Fan-Coil Units: definitions; test requirements; rating requirements; minimum data requirements for Published Ratings; operating requirements; marking and nameplate data; and conformance conditions. This standard applies to Fan-Coil Units as defined in Section 3 of this standard.

BSR/AHRI Standard 441P (SI)-201X, Performance Rating of Room Fan-coils (new standard)

Stakeholders: This standard is intended for the guidance of the industry, including manufacturers, engineers, installers, contractors, and users.

Project Need: To create a metric-only version of the ANSI/AHRI Standard 440-2009.

The purpose of this standard is to provide for Fan-Coil Units: definitions; test requirements; rating requirements; minimum data requirements for Published Ratings; operating requirements; marking and nameplate data; and conformance conditions. This standard applies to Fan-Coil Units as defined in Section 3 of this standard.

BSR/AHRI Standard 860P (I-P)-201X, Performance Rating of Fan-Powered Chilled Water Terminals (new standard)

Stakeholders: This standard is intended for the guidance of the industry, including manufacturers, engineers, installers, contractors, and users.

Project Need: The purpose of this standard is to establish for Fan-Powered Chilled Water Terminals: definitions; classifications; test requirements; rating requirements; minimum data requirements for Published Ratings; marking and nameplate data; and conformance conditions.

This standard applies to Fan-Powered Chilled Water Terminals that include a hydronic cooling coil and an airflow-regulating Primary Air Valve and in which the Primary Air Valve is in series with the fan and all air flows through the fan. The primary air shall bypass the cooling coil. The cooling coil shall be designed and rated for sensible operation only. The unit may have supplemental heat. The unit shall be designed to be ceiling- or floor-plenum mounted and designed for ducted Primary Air and Discharge Air.

BSR/AHRI Standard 861P (SI)-201X, Performance Rating of Fan-Powered Chilled Water Terminals (new standard)

Stakeholders: This standard is intended for the guidance of the industry, including manufacturers, engineers, installers, contractors, and users.

Project Need: The purpose of this standard is to establish for Fan-Powered Chilled Water Terminals: definitions; classifications; test requirements; rating requirements; minimum data requirements for Published Ratings; marking and nameplate data; and conformance conditions.

This standard applies to Fan-Powered Chilled Water Terminals that include a hydronic cooling coil and an airflow-regulating Primary Air Valve and in which the Primary Air Valve is in series with the fan and all air flows through the fan. The primary air shall bypass the cooling coil. The cooling coil shall be designed and rated for sensible operation only. The unit may have supplemental heat. The unit shall be designed to be ceiling- or floor-plenum mounted and designed for ducted Primary Air and Discharge Air.

BSR/AHRI Standard 1231P (SI)-201X, Performance Rating of Variable Refrigerant Flow (VRF) Multi-Split Air-Conditioning and Heat Pump Equipment (new standard)

Stakeholders: For the guidance of the industry, including manufacturers, engineers, installers, contractors, and local applicable regulations, and efficiency standards developed by American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE), International Energy Conservation Code (IECC), Canadian Standards Association (CSA), and users.

Project Need: This standard is intended for use outside the U.S. and Canada with the purpose of establishing for Variable Refrigerant Flow (VRF) Multi-Split Air Conditioners and Heat Pumps: definitions; classifications; test requirements; rating requirements; minimum data requirements for Published Ratings; operating requirements; marking and nameplate data; and conformance conditions.

This standard covers matched Variable Refrigerant Flow (VRF) Multi-Split Air Conditioners and Multi-Split Heat Pumps using distributed refrigerant technology as defined in Section 3 of this standard. This standard applies to VRF Multi-Split Systems consisting of the following matched components: An Outdoor Unit with single or multiple compressors, at least one of which is a variable capacity compressor or has a variable speed drive on a single refrigeration circuit; Indoor Unit(s) that have a coil, air movement device intended for single-zone air distribution, and a temperature-sensing control; and a zone temperature control device.

BSR/AHRI Standard 1520P (I-P)-201X, Performance Rating of Centrifugal Refrigerant Compressors (new standard)

Stakeholders: This standard is intended for the guidance of the industry, including manufacturers, engineers, installers, contractors, and users.

Project Need: The purpose of this standard is to establish for Centrifugal Compressors: definitions, test requirements, rating requirements, minimum data requirements for Published Ratings, operating requirements, marking and nameplate data, and conformance conditions. The standard defines the minimum amount of information, in a standard form to enable the evaluation and comparison of different Centrifugal Compressors for use in an application.

This standard applies to Centrifugal Compressors and their presentation of performance in heating and air-conditioning applications. The manufacturer is solely responsible for the determination of values to be used in published product information. This standard stipulates the minimum amount of information to be provided and suggests a method to be used to verify the accuracy of that information.

BSR/AHRI Standard 1521P (SI)-201X, Performance Rating of Centrifugal Refrigerant Compressors (new standard)

Stakeholders: This standard is intended for the guidance of the industry, including manufacturers, engineers, installers, contractors, and users.

Project Need: The purpose of this standard is to establish for Centrifugal Compressors: definitions, test requirements, rating requirements, minimum data requirements for Published Ratings, operating requirements, marking and nameplate data, and conformance conditions. The standard defines the minimum amount of information, in a standard form to enable the evaluation and comparison of different Centrifugal Compressors for use in an application.

This standard applies to Centrifugal Compressors and their presentation of performance in heating and air-conditioning applications. The manufacturer is solely responsible for the determination of values to be used in published product information. This standard stipulates the minimum amount of information to be provided and suggests a method to be used to verify the accuracy of that information.

Revision

BSR/AHRI Standard 230-201X, Sound Intensity Testing Procedures for Determining Sound Power of HVAC Equipment (revision of ANSI/AHRI Standard 230-2013)

Stakeholders: This standard is intended for the guidance of the industry, including manufacturers, engineers, installers, contractors, and users.

Project Need: This standard is subject to review and amendment as technology advances. This project is to begin the required 5-year review and to consider revisions to keep up with the state of practice in the industry.

This standard applies to HVAC products where sound power is determined by measurement using the sound intensity method. This standard provides a standalone method of test that is referenced by other AHRI sound performance rating standards and provides an alternative to the reverberation room method of test outlined in AHRI Standard 220. The standard contains information on instrumentation, installation, and operation of the source and procedures for the calculation of Sound Power Level. This standard covers the frequency range from the 50 Hz to the 10,000 Hz One-Third Octave Band (63 Hz to 8000 Hz Octave Bands).

BSR/AHRI Standard 250-201X, Performance and Calibration of Reference Sound Sources (revision of ANSI/AHRI Standard 250 -2013)

Stakeholders: This standard is intended for the guidance of the industry, including manufacturers, engineers, installers, contractors, and users.

Project Need: This standard is subject to review and amendment as technology advances. This project is to begin the required 5-year review and to consider revisions to keep up with the state of practice in the industry.

This standard applies to all Reference Sound Sources used in conjunction with AHRI sound rating standards and covers the one-third octave band frequency range from 50 to 10,000 Hz. This standard also includes calibration over a limited frequency range. Multiple Reference Sound Sources may be used to cover the entire frequency range from 50 to 10,000 Hz. The purpose of this standard is to establish the performance characteristics of a Reference Sound Source, define the acoustical calibration procedures, and define the method for transfer of calibration from a Primary to a Secondary Reference Sound Source.

BSR/AHRI Standard 275-201X, Application of Outdoor Unitary Equipment A-Weighted Sound Power Ratings (revision of ANSI/AHRI Standard 275-2010)

Stakeholders: This standard is intended for the guidance of the industry, including manufacturers, engineers, installers, contractors, and users.

Project Need: This standard is subject to review and amendment as technology advances. This project is to begin the required periodic review and to consider revisions to keep up with the state of practice in the industry.

The purpose of this standard is to establish for outdoor unitary equipment: definitions, procedures for estimating A-weighted Sound Pressure Levels from the A-weighted Sound Power Ratings, and recommended application practices. This standard applies to the outdoor sections of factory-made air-conditioning and heat-pump equipment with cooling capacities up to 40 kW as defined in AHRI standards 210/240, 340/360, 1230 (I-P), and 1160 (I-P) and 1161 (SI) , when rated in accordance with AHRI Standard 270.

BSR/AHRI Standard 530-201X, Rating of Sound and Vibration for Refrigerant Compressors (revision of ANSI/AHRI Standard 530 -2011)

Stakeholders: This standard is intended for the guidance of the industry, including manufacturers, engineers, installers, contractors, and users.

Project Need: This standard is subject to review and amendment as technology advances. This project is to begin the required periodic review and to consider revisions (expansion of the scope of the standard) to keep up with the state of practice in the industry.

The current published standard applies to External-Drive, Hermetic, and Semi-Hermetic Positive-Displacement Refrigerant Compressors. The purpose of this standard is to establish for the rating of sound and vibration for Refrigerant Compressors: definitions; test requirements; rating requirements; minimum data requirements for published ratings; and conformance conditions.

BSR/AHRI Standard 920 (I-P)-201X, Performance Rating of DX-Dedicated Outdoor Air System Units (revision of ANSI/AHRI Standard 920 (I-P)-2015)

Stakeholders: This standard is intended for the guidance of the industry, including manufacturers, engineers, installers, contractors, and users.

Project Need: This standard is subject to review and amendment as technology advances. This project is to begin the required 5-year review and to consider revisions to keep up with the state of practice in the industry.

The purpose of this standard is to establish for Direct-Expansion-Dedicated Outdoor Air System Units (DX-DOAS): definitions; classifications; test requirements; rating requirements; minimum data requirements for Published Ratings; operating requirements; marking and nameplate data; and conformance conditions. This standard applies to factory-assembled commercial or industrial DX-DOAS Units. This standard applies to electrically operated, vapor-compression refrigeration systems. DX-DOAS Units are intended for ducted or non-ducted installation with field or factory-supplied grills.

BSR/AHRI Standard 921 (SI)-201X, Performance Rating of DX-Dedicated Outdoor Air System Units (revision of ANSI/AHRI Standard 921 (SI)-2015)

Stakeholders: This standard is intended for the guidance of the industry, including manufacturers, engineers, installers, contractors, and users.

Project Need: This standard is subject to review and amendment as technology advances. This project is to begin the required 5-year review and to consider revisions to keep up with the state of practice in the industry.

The purpose of this standard is to establish for Direct-Expansion-Dedicated Outdoor Air System Units (DX-DOAS): definitions; classifications; test requirements; rating requirements; minimum data requirements for Published Ratings; operating requirements; marking and nameplate data; and conformance conditions. This standard applies to factory-assembled commercial or industrial DX-DOAS Units. This standard applies to electrically operated, vapor-compression refrigeration systems. DX-DOAS Units are intended for ducted or non-ducted installation with field or factory-supplied grills.

BSR/AHRI Standard 1060 (I-P)-201X, Performance Rating of Air-to-Air Exchangers for Energy Recovery Ventilation Equipment (revision of ANSI/AHRI Standard 1060 (I-P)-2014)

Stakeholders: This standard is intended for the guidance of the industry, including manufacturers, designers, installers, contractors, and users.

Project Need: This standard is subject to review and amendment as technology advances. This project is to begin the required 5-year review and to consider revisions to keep up with the state of practice in the industry.

The purpose of this standard is to establish for Air-to-Air Exchangers intended for use in Air-to-Air Energy Recovery Ventilation Equipment: definitions; test requirements; rating requirements; minimum data requirements for Published Ratings; marking and nameplate data; and conformance conditions. This standard applies to factory-made Air-to-Air Exchangers for use in Air-to-Air Energy Recovery Ventilation Equipment as defined in Section 3 of this standard.

BSR/AHRI Standard 1061 (SI)-201X, Performance Rating of Air-to-Air Exchangers for Energy Recovery Ventilation Equipment (revision of ANSI/AHRI Standard 1061 (SI)-2014)

Stakeholders: This standard is intended for the guidance of the industry, including manufacturers, designers, installers, contractors, and users.

Project Need: This standard is subject to review and amendment as technology advances. This project is to begin the required 5-year review and to consider revisions to keep up with the state of practice in the industry.

The purpose of this standard is to establish for Air-to-Air Exchangers intended for use in Air-to-Air Energy Recovery Ventilation Equipment: definitions; test requirements; rating requirements; minimum data requirements for Published Ratings; marking and nameplate data; and conformance conditions. This standard applies to factory-made Air-to-Air Exchangers for use in Air-to-Air Energy Recovery Ventilation Equipment as defined in Section 3 of this standard.

BSR/AHRI Standard 1120-201X, Acoustical Test Methods and Sound Power Rating Procedures for Transport Refrigeration Equipment (revision of ANSI/AHRI Standard 1120-2012)

Stakeholders: This standard is intended for the guidance of the industry, including manufacturers, engineers, installers, contractors, and users.

Project Need: This standard is subject to review and amendment as technology advances. This project is to begin the required periodic review and to consider revisions to keep up with the state of practice in the industry.

This standard applies to factory-made Transport Refrigeration Equipment. The purpose of this standard is to establish acoustical test methods for Transport Refrigeration Equipment
and to provide definitions; test requirements; rating requirements; minimum data requirements for Published Ratings; and conformance conditions.

BSR/AHRI Standard 1140-201X, Sound Quality Evaluation Procedures for Air-Conditioning and Refrigeration Equipment (revision of ANSI/AHRI Standard 1140-2012)

Stakeholders: This standard is intended for the guidance of the industry, including manufacturers, engineers, installers, contractors, and users.

Project Need: This standard is subject to review and amendment as technology advances. This project is to begin the required periodic review, and to consider revisions (develop a new sound quality metric) to keep up with the state of practice in the industry.

This standard applies to factory-made, residential and commercial air-conditioning as well as transport refrigeration equipment. The purpose of this standard is to establish sound-quality evaluation procedures for air-conditioning and refrigeration equipment and to provide definitions; test requirements; sound-quality evaluation procedures; minimum data requirements for Published Ratings; and conformance conditions.

BSR/AHRI Standard 310/380-201X, Standard for Packaged Terminal Air-Conditioners and Heat Pumps (revision of ANSI/AHRI Standard 310/380-2014)

Stakeholders: This Standard is intended to guide manufacturers, engineers, installers, contractors, and users.

Project Need: This standard is subject to review and amendment as technology advances. This project is to begin the required 5-year review, and to consider revisions to keep up with the state of practice in the industry.

The purpose of this Standard is to establish the following for packaged terminal air-conditioner and heat-pump equipment: test requirements; rating requirements; minimum data requirements for published ratings; operating requirements; marking and nameplate data; and conformance conditions. This Standard applies to factory-manufactured residential, commercial, and industrial packaged terminal air-conditioners and heat pumps as defined in Clause 3 of this standard. This Standard applies to electrically operated vapor-compression refrigeration systems. This standard applies to packaged terminal air-conditioners and heat pumps intended for unducted installation, but may be employed with ductwork having external static resistance up to 25 Pa (0.1 in H_2O).

BSR/AHRI Standard 340/360 (I-P)-201X, Performance Rating of Commercial and Industrial Unitary Air-Conditioning and Heat Pump Equipment (revision and redesignation of ANSI/AHRI Standard 340/360 with Addenda 1 and 2-2011)

Stakeholders: This standard is intended for the guidance of the industry, including manufacturers, engineers, installers, contractors, federal and state regulations, and efficiency standards developed by American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE), International Energy Conservation Code (IECC), Canadian Standards Association (CSA), Department of Energy (DOE), and users.

Project Need: This standard is subject to review and amendment as technology advances. This project is to begin the required periodic review, and to consider revisions to keep up with the state of practice in the industry.

The purpose of this standard is to establish for Commercial and Industrial Unitary Air-Conditioning and Heat-Pump Equipment: definitions; classifications; test requirements; rating requirements; minimum data requirements for Published Ratings; operating requirements; marking and nameplate data; and conformance conditions. This standard applies to factory-made Commercial and Industrial Unitary Air-Conditioning and Heat-Pump Equipment. This standard applies only to electrically operated, vapor-compression refrigeration systems.

ANS (American Nuclear Society)

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Revision

BSR/ANS 10.4-201x, Verification and Validation of Non-Safety-Related Scientific and Engineering Computer Programs for the Nuclear Industry (revision of ANSI/ANS 10.4-2008 (R2016))

Stakeholders: Developers and users of software for the civilian nuclear industry and federal nuclear facilities.

Project Need: This standard provides requirements and guidelines for the verification and validation (V&V) of non-safety related scientific analysis and engineering computer programs developed for use by the nuclear industry. The scope is restricted to research, analysis, engineering, and other non-safety-related applications. Non-safety-related applications are normally understood to be applications that are not used to directly ensure the health and safety of the public nor require approval by some regulatory authority. This standard also excludes computer programs developed for non-safety-related digital control systems. Digital control systems are normally used in real-time to provide the surveillance of critical parameters within a given process. Though the requirements of this standard are not to be as stringent as those under ANS 10.7 or ANS 10.8, a consistent set of definitions for verification, validation, and other basic concepts should be used in all three of the standards. Thus, revisions to ANS 10.4 will begin with ensuring that the basic definitions are modernized, provide additional clarity, and are reasonably consistent with ANS 10.7.

This standard provides requirements and guidelines for the verification and validation (V&V) of non-safety-related scientific analysis and engineering computer programs developed for use by the nuclear industry. The scope is restricted to research, analysis, engineering, and other non-safety-related applications. This standard also excludes computer programs developed for non-safety-related digital control systems.

BSR/ANS 15.8-201x, Quality Assurance Program Requirements for Research Reactors (revision of ANSI/ANS 15.8-1995 (R2018))

Stakeholders: The principal stakeholders include the national labs, private companies, and university research reactors operators. The impact will be to federal and national laboratories, private companies, and university research reactors.

Project Need: The current standard will be revised and updated to reflect changes that may have occurred in QA program requirements.

The standard provides criteria for quality assurance in the design, construction, operation, and decommissioning of research reactors.

APA (APA - The Engineered Wood Association)

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Revision

BSR/APA PRP 210-201x, Standard for Performance-Rated Engineered Wood Siding (revision of ANSI/APA PRP 210-2014)

Stakeholders: Engineered wood siding manufacturers, distributors, designers, users, building code regulators, and government agencies.

Project Need: Update the existing ANSI standard.

This standard provides manufacturing, qualification, and quality-assurance requirements for engineered wood siding products made of veneer-based structural-use composites or laps with or without overlays on the faces.

API (American Petroleum Institute)

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New National Adoption

BSR/API RP 2MET-201x, Derivation of Metocean Design and Operating Conditions (national adoption of ISO 19901-1 with modifications and revision of ANSI/API RP 2MET-2014)

Stakeholders: Oil and natural gas exploration and production operators, manufacturers, and contractors.

Project Need: Provide guidance on relevant environmental conditions for the design and operation of offshore structures.

This standard contains general requirements for the determination and use of meteorological and oceanographic (metocean) conditions for the design, construction, and operation of offshore structures of all types.

ASABE (American Society of Agricultural and Biological Engineers)

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New Standard

BSR/ASAE S583.2 MONYEAR-201x, Safety for Agricultural Front End Loaders (new standard)

Stakeholders: Loader manufacturers, attachment manufacturers, tractor manufacturers, users.

Project Need: The purpose of this standard is to provide a reasonable degree of personal safety for operators and other persons during normal operation and servicing of front loaders on agricultural tractors.

This standard specifies safety requirements for the design and construction of agricultural front end loaders (front loaders) designed to be mounted on agricultural wheeled tractors (as defined in ASAE 390.5, sections 3.1.1.1 and 3.1.1.2).

ASC X9 (Accredited Standards Committee X9, Incorporated)

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New National Adoption

BSR X9.97-1-201x, Secure Cryptographic Devices (Retail) - Part 1: Concepts, Requirements and Evaluation Methods (national adoption of ISO 13491-1:2016 with modifications and revision of ANSI X9.97-1-2009 (R2017))

Stakeholders: SCD vendors, transaction processing hosts, key loading facilities, networks, PCI SSC.

Project Need: The working group is opening ANS X9.97 Part 1: Financial services - Secure Cryptographic Devices (Retail) - Part 1: Concepts, Requirements and Evaluation Methods for the purpose of bringing the standard up to today's technology of SCDs. The modifications to ISO 13491 were not adequate and the working group believes that a new version of the standard is necessary.

X9.97 specifies the requirements for Secure Cryptographic Devices which incorporate the cryptographic processes defined in ISO 9564, ISO 16609, and ISO 11566. Has two primary purposes: (1) to state the requirements concerning both the operational characteristics of SCDs and the management of such devices throughout all stages of their life cycle and (2) to standardize the methodology for verifying compliance with those requirements.

BSR X9.97-2-201x, Secure Cryptographic Devices (Retail) - Part 2: Security Compliance Checklists for Devices Used in Financial Transactions (national adoption of ISO 13491-2:2017 with modifications and revision of ANSI X9.97-2-2009 (R2017))

Stakeholders: SCD vendors, transaction processing hosts, key loading facilities, networks, PCI SSC.

Project Need: This part specifies checklists to be used to evaluate secure cryptographic devices (SCDs) incorporating cryptographic processes, as specified in parts 1 and 2 of ISO 9564, ISO 16609, and parts 1-6 of ISO 11568, in the financial services environment. The modifications to ISO 13491 were not adequate and the working group believes that a new version of the standard is necessary.

This part specifies checklists to be used to evaluate secure cryptographic devices (SCDs) incorporating cryptographic processes, as specified in parts 1 and 2 of ISO 9564, ISO 16609, and parts 1-6 of ISO 11568, in the financial services environment. This part does not address issues arising from the denial of service of an SCD.

ASME (American Society of Mechanical Engineers)

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Revision

BSR CSA B44.1/ASME A17.5-201x, Elevator and Escalator Electrical Equipment (revision of ANSI CSA B44.1/ASME A17.5-2014)

Stakeholders: Manufacturers, owners and users of elevators and escalators and elevating (lift) devices.

Project Need: Revision to current standard to provide updates to requirements to address new technologies.

The requirements of this Standard apply to the following electrical equipment for elevators, escalators, moving walks, dumbwaiters, material lifts, and elevating devices for persons with physical disabilities (platform lifts and stairway chairlifts):
(a) motor controllers;
(b) motion controllers;
(c) operation controllers;
(d) operating devices; and
(e) all other electrical equipment not listed/certified and labeled/marked according to another product safety standard or code.

AWS (American Welding Society)

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Revision

BSR/AWS D17.1/D17.1M-201x-AMD2, Specification for Fusion Welding for Aerospace Applications (revision and redesignation of ANSI/AWS D17.1/D17.1M-2017-AMD1)

Stakeholders: The Aerospace industry and all subcontractors will use this specification for welder certification, inspection, and acceptance of all welded aerospace production hardware.

Project Need: This revision will address specific issues that have developed since the original document was issued.

This specification provides the general welding requirements for welding aircraft and space hardware. It includes but is not limited to the fusion welding of aluminum-based, nickel-based, iron-based, cobalt-based, magnesium-based, and titanium-based alloys using electric-arc and high-energy-beam processes. There are requirements for welding design, personnel and procedure qualification, inspection, and acceptance criteria for aerospace, support, and nonflight hardware. Additional requirements cover repair welding of existing hardware. A commentary for the specification is included.

IEEE (ASC N42) (Institute of Electrical and Electronics Engineers)

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New Standard

BSR N42.22-201x, Traceability of Radioactive Sources to NIST and Associated Instrument Quality Control (new standard)

Stakeholders: Radioactivity source manufacturers, nuclear medicine users, research organizations.

Project Need: To revise N42.22 to reflect accreditation of radioactivity source manufacturers.

The standard provides criteria necessary for manufacturers to maintain and assure measurement traceability of radionuclides to NIST. These criteria are described in the following sections: (a) Quality Assurance Program, (b) Facilities and Equipment, (c) Participation in a NIST Measurements Assurance Program, and (d) Certificates.

BSR N42.23-201x, Measurement and Associated Instrument Quality Assurance for Radioassay Laboratories (new standard)

Stakeholders: Specialized sectors of the radioassay laboratory community, i.e., bioassay, routine environmental monitoring, environmental restoration and waste management, radiopharmaceuticals, nuclear power radiochemistry, and other areas involved in radioassays.

Project Need: To revise N42.23 to reflect accreditation of a national or an organizational NIST-traceable measurement quality assurance (MQA) program that will optimize the quality of radioassays performed by service laboratories

A framework that can be used to create a national or an organizational NIST-traceable measurement quality assurance (MQA) program that will optimize the quality of radioassays performed by service laboratories is presented. This standard serves as a guide for MQA programs developed for specialized sectors of the radioassay laboratory community, i.e., bioassay, routine environmental monitoring, environmental restoration and waste management, radiopharmaceuticals, nuclear power radiochemistry, and other areas involved in radioassays.

Revision

BSR N42.46-201x, Standard for Determination of the Imaging Performance of X-Ray and Gamma-Ray Systems for Cargo and Vehicle Security Screening (revision of ANSI N42.46-2008 (R2017))

Stakeholders: Includes the USDHS, USDOE , USNRC, USDOD, many equipment manufacturers.

Project Need: To revise N42.46 to reflect evolution of equipment and lessons learned from application of previous version of standard.

This standard is intended to be used to determine the imaging performance of x-ray and gamma-ray systems utilized to inspect loaded or empty vehicles, including personal and commercial vehicles of any type; marine and air cargo containers of any size; railroad cars; and palletized or unpalletized cargo larger than 1 meter by 1 meter in cross-section. The standard applies to systems that are the following:
- single or multiple energy, source, or view;
- employ primary (i.e., transmission) and/or scatter (e.g., backscatter) radiation detection;
- used to detect prohibited and controlled materials and/or to verify manifests;
- primarily imaging systems but also may have complementary features such as material discrimination and automatic active or passive threat alerts.

This standard does not address how to test these complementary features. Adherence to all applicable mechanical and electrical safety requirements and compatibility with all applicable installation codes, including electromagnetic compatibility requirements, is extremely important for any type of x-ray or gamma-ray screening system; however, identification of these requirements is not within the scope of this standard.

IEEE (Institute of Electrical and Electronics Engineers)

Contact: Lisa Weisser, (732) 981-2864, l.weisser@ieee.org
445 Hoes Lane, Piscataway, NJ 08854-4141

New Standard

BSR/IEEE 1366-201x, Guide for Electric Power Distribution Reliability Indices (new standard)

Stakeholders: Electric Utilities and Regulators.

Project Need: Minor editorial changes and update several definitions.

This guide identifies distribution reliability indices and factors that affect their calculation. It includes indices, which are useful today, as well as ones that may be useful in the future. The indices are intended to apply to distribution systems, substations, circuits, and defined regions.

BSR/IEEE 1735-201x, Recommended Practice for Encryption and Management of Electronic Design Intellectual Property (IP) (new standard)

Stakeholders: Those that produce Design IP, including: digital system IP providers; those that use the IP provided: including systems integrators; and those that provide trusted hardware and/or software environments for working with the protected IP, including Field Programmable Gate Array providers, silicon fabrication operations, and Electronic Design Automation Tool providers

Project Need: Working groups currently incorporating IP Encryption technologies use different descriptive language which makes shared implementation technology more difficult to produce, and the standards more difficult to interpret. Users of those standards also want further guidance on how to use the IP Encryption technologies for interoperability.

This standard specifies embeddable and encapsulating mark-up syntaxes for design IP encryption and rights management, together with recommendations for integration with design specification formats described in other standards. It also recommends use models for interoperable tool and hardware flows, which will include selecting encryption and encoding algorithms and encryption key management. The recommendation includes a description of the trust model assumed in the recommended use models. This standard does not specifically include any consideration of digitally encoded entertainment media. In the context of this document, the term "IP" will be used to mean Intellectual Property electronic design data. Electronic Design Intellectual Property is a term used in the electronic design community. It refers to a reusable collection of design specifications which represent the behavior, properties, and/or representation of the design in various media. Examples of these collections include, but are not limited to: A unit of electronic system design, a design verification and analysis scheme (e.g., test bench), a netlist indicating elements and the interconnection thereof to implement a function, a set of fabrication instructions, a physical layout design or chip layout, a design intent specification. The term is partially derived from the common practice for the collection to be considered the intellectual property of one party. Hardware and software descriptions are encompassed by this term.

BSR/IEEE 11073-10425-201x, Standard for Health Informatics - Personal Health Device Communication - Part 10425: Device Specialization - Continuous Glucose Monitor (CGM) (new standard)

Stakeholders: People who use personal health devices in home and mobile environments, personal health device vendors, personal health manager vendors, institutions that may ultimately receive data from these devices (e.g., hospitals, doctor offices, diet and fitness companies), payors (e.g., insurance companies), regulatory agencies (e.g., Food and Drug Administration), and telemedicine consultants and businesses.

Project Need: To enrich the functionalities of this standard and to resolve the known issues identified from previous version, in order to better support the needs of our stakeholders.

This standard establishes a normative definition of communication between personal health continuous glucose monitor (CGM) devices (agents) and managers [e.g., cell phones, personal computers (PCs), personal health appliances, set top boxes] in a manner that enables plug-and-play interoperability. It leverages work done in other ISO/IEEE 11073 standards including existing terminology, information profiles, application profile standards, and transport standards. It specifies the use of specific term codes, formats, and behaviors in telehealth environments restricting optionality in base frameworks in favor of interoperability. This standard defines a common core of communication functionality of CGM devices. In this context, CGM refers to the measurement of the level of glucose in the body on a regular (typically 5-minute) basis through a sensor continuously attached to the person.

Revision

BSR/IEEE 776-201x, Recommended Practice for Inductive Coordination of Electric Supply and Communication Lines (revision of ANSI/IEEE 776-1993 (R2008))

Stakeholders: Stakeholders for this standard include electrical power providers and any providers of communications services that are transported by wire-line (metallic) facilities which are located in the proximity of power transmission or distribution facilities. Manufacturers of equipment that may be utilized to mitigate the effects of undesired voltages or interference that are induced on communication circuits in such situations are also included.

Project Need: This project, triggered by a maintenance review of ANSI/IEEE 776-1993, is needed to modify presentation of acceptable levels of interference for clarity, update acceptable levels for applicability to current wire-line facility architectures, bring the Guide in line with the latest IEEE-SA Style Manual, and effect revisions to clarify application and content of this standard.

This recommended practice addresses the inductive environment that exists in the vicinity of electric power and wire-line telecommunications systems and the interfering effect that may be produced thereby; guidance is offered for the control or modification of the environment and the susceptibility of the affected systems in order to maintain an acceptable level of interference. An acceptable level is defined as an amount of steady-state or surge-induced longitudinal voltage or current that does not cause a personnel or public safety hazard, damage to cable or equipment, and/or circuit degradation or failure. To aid the user of this recommended practice in calculating induction between power and telecommunication lines, the concept of an interface is developed. This recommended practice permits either party, without need to involve the other, to verify the induction at the interface by use of a probe wire. This recommended practice does not apply to railway signal circuits.

BSR/IEEE 11073-10417-201x, Health Informatics - Personal Health Device Communication - Part 10417: Device Specialization - Glucose Meter (revision of ANSI/IEEE 11073-10417-2015)

Stakeholders: Stakeholders are people who use personal health devices in home and mobile environments, personal health device vendors, personal health compute engine vendors, institutions that may ultimately receive data from these devices (e. g., hospitals, doctor offices, diet and fitness companies), payors (e.g., insurance companies), regulatory agencies, telemedicine consultants and businesses.

Project Need: To enrich the functionalities of this standard and to resolve the known issues, in order to better support the needs of our stakeholders.

Within the context of the ISO/IEEE 11073 family of standards for device communication, this standard establishes a normative definition of communication between personal telehealth glucose meter devices and compute engines (e.g., cell phones, personal computers, personal health appliances, and set top boxes) in a manner that enables plug-and-play interoperability. It leverages appropriate portions of existing standards, including ISO/IEEE 11073 terminology, information models, application profile standards, and transport standards. It specifies the use of specific term codes, formats, and behaviors in telehealth environments restricting optionality in base frameworks in favor of interoperability. This standard defines a common core of communication functionality for personal telehealth glucose meters.

BSR/IEEE 11073-10419-201x, Health Informatics - Personal Health Device Communication - Part 10419: Device Specialization - Insulin Pump (revision of ANSI/IEEE 11073-10419-2015)

Stakeholders: People who use personal health devices in home and mobile environments, personal health device vendors, personal health manager vendors, institutions that may ultimately receive data from these devices (e.g., hospitals, doctor offices, diet and fitness companies), payors (e.g., insurance companies), regulatory agencies (e.g., Food and Drug Sdministration), telemedicine consultants and businesses.

Project Need: To enrich the functionalities of this standard and to resolve the known issues, in order to better support the needs of our stakeholders.

The scope of this standard is to establish a normative definition of communication between personal telehealth insulin pump devices (agents) and managers (e.g., cell phones, personal computers, personal health appliances, set top boxes) in a manner that enables plug-and-play interoperability. It leverages work done in other ISO/IEEE 11073 standards including existing terminology, information profiles, application profile standards, and transport standards. It specifies the use of specific term codes, formats, and behaviors in telehealth environments restricting optionality in base frameworks in favor of interoperability. This standard defines a common core functionality of personal telehealth insulin pump devices. In the context of personal health devices, an insulin pump is a medical device used for the administration of insulin in the treatment of diabetes mellitus, also known as continuous subcutaneous insulin infusion (CSII) therapy. This standard provides the data modeling according to the ISO/IEEE 11073-20601 standard, and does not specify the measurement method.

BSR/IEEE C57.19.00-201x, Standard General Requirements and Test Procedure for Power Apparatus Bushings (revision of ANSI/IEEE C57.19.00-2004 (R2010))

Stakeholders: Transmission and distribution stations, generation station, insulators, and breakers.

Project Need: After more than 10 years practice of the current standard (revised in 2004), the WG determined it is the time to revise and update the standard. Some (not all) of the specific areas to be addressed include: Expansion of the title and scope to include additional bushing applications, revision and addition of new definitions, additional clarifications on bushing loading, and update of the test requirements and test procedures.

This standard applies to applies to use of bushings as components of liquid immersed transformers and liquid immersed reactors. This standard does not apply to the following: High-voltage cable terminations (potheads), bushings for circuit breakers, bushings for instrument transformers including station service voltage transformers, bushings for test transformers, bushings in which the internal insulation is provided by a gas, bushings applied with gaseous insulation (other than air at atmospheric pressure) external to the bushing, bushings for automatic circuit reclosers and line sectionalizers, and bushings for dc applications.

NEMA (ASC C18) (National Electrical Manufacturers Association)

Contact: Khaled Masri, (703) 841-3278, Khaled.Masri@nema.org
1300 North 17th Street, Rosslyn, VA 22209

Revision

BSR NEMA C18.1M, Part 2-201x, Standard for Portable Primary Cells and Batteries with Aqueous Electrolyte - Safety Standard (revision and redesignation of ANSI C18.1M, Part 2-2017)

Stakeholders: Manufacturers, consumers electronics, government regulators, and testing laboratories.

Project Need: Revise to remove the pass/fail criteria of “no rupture” in the currently published ANSI C18.1M Part 2-2017 on page 22.

This American National Standard specifies tests and requirements for portable primary batteries with aqueous electrolyte and zinc anode (non-lithium) to ensure their safe operation under normal use and reasonably foreseeable misuse. For reference, the chemical systems standardized in ANSI C18.1M, Part 1 are: (a) carbon zinc (Leclanch and zinc chloride types); (b) alkaline manganese dioxide; (c) silver oxide; (d) zinc air; and (e) nickel oxy-hydroxide.

TIA (Telecommunications Industry Association)

Contact: Teesha Jenkins, (703) 907-7706, standards@tiaonline.org
1320 North Courthouse Road, Suite 200, Arlington, VA 22201

New Standard

BSR/TIA 10-201x, Interference Criteria for Microwave Systems (new standard)

Stakeholders: Telecommunication operators and vendors; users and Manufacturers of microwave radio networks.

Project Need: Create new standard.

To update the "Interference Criteria for Microwave Systems" document, formerly TIA TSB-10. The former TIA TSB-10-F is widely used for fixed point to point microwave frequency coordination. Last published in 2004, the document requires updates to adequately address modern microwave radio networks. The proposed project will address needed updates and will be broader than interference criteria.

BSR/TIA 2020-201x, Telecommunications - Communications Products - Performance Requirements for Purchasing Agents (new standard)

Stakeholders: Purchasing agents, users, manufacturers.

Project Need: Create new standard.

This is a new standard to identify applicable TIA standards based on product types and features. It is expected that this standard could be used to encourage product purchasing agents to include just this single standard as a requirement in their RFPs and purchasing requisition documents rather than needing to include a long list of individual TIA standards that may be applicable for the product to be evaluated.

Revision

BSR/TIA 470.220-F-201x, Telecommunications - Telephone Terminal Equipment - Alerter Acoustic Output Performance Requirements for Analog Telephones (revision and redesignation of ANSI/TIA 470.220-E-2016)

Stakeholders: Manufacturers, users, distributors of analog telephones.

Project Need: Update the standard.

This standard defines the acoustic and electrical performance requirements of analog telephone alerters (sometimes referred to as "ringers"). This current revision includes the addition of alerter response testing for non-sinusoidal ring signals that are more common with the modern network.

BSR/TIA 758-C-201x, Customer-Owned Outside Plant Telecommunications Infrastructure Standard (revision and redesignation of ANSI/TIA 758-B-2012)

Stakeholders: Designers, installers, building owners, and building tenants.

Project Need: Update the standard.

The purpose of this Standard is to enable the planning and installation of an outside-plant-structured cabling system infrastructure. This Standard establishes the recommendations and requirements used in the design of the telecommunication pathways and spaces, and the cabling installed between buildings or points in a customer-owned campus environment. Customer-owned campus facilities are typically termed "outside plant (OSP)". For the purpose of this Standard, they are termed "customer-owned OSP".

UL (Underwriters Laboratories, Inc.)

Contact: Megan Van Heirseele, (847) 664-2881, Megan.M.VanHeirseele@ul.com
333 Pfingsten Road, Northbrook, IL 60062-2096

New Standard

BSR/UL 9540A-201x, Standard for Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems (new standard)

Stakeholders: Battery energy storage systems and equipment manufacturers; cell and module manufacturers; UPS manufacturers; utilities; building owners that need uninterruptible power supplies such as hospitals, governmental agencies, telecom, etc.; fire protection consultants; insurance companies; regulatory agencies/AHJs; local building and electrical inspectors; municipalities; First Responders and other research groups, academia and fire experts.

Project Need: To obtain national recognition of a standard covering test methodologies that evaluate the fire characteristics of a battery energy storage system that undergoes thermal runaway.

The test methodology in this document evaluates the fire characteristics of a battery energy storage system that undergoes thermal runaway. The data generated will be used to determine the fire and explosion protection required for an installation of a battery energy storage system intended for installation, operation, and maintenance in accordance with the International Fire Code (IFC), the Fire Code (NFPA 1), the National Electrical Code (NFPA 70), the National Electrical Safety Code (NESC), IEEE C2, other energy storage system codes, and the manufacturer's installation instructions. Fire protection requirements not related to battery energy storage system equipment are covered by appropriate installation codes.

UL (Underwriters Laboratories, Inc.)

Contact: Susan Malohn, (847) 664-1725, Susan.P.Malohn@ul.com
333 Pfingsten Road, Northbrook, IL 60062-2096

New Standard

BSR/UL 5800-201x, Standard for Safety for Battery Fire Containment Products (new standard)

Stakeholders: Airlines (pilots, crew, and flight attendants), the FAA, air carriers, manufacturers of fire containment products, battery manufacturers.

Project Need: To develop a safety standard for battery fire containment products which would be used in commercial, private, and military aviation to contain lithium battery fires and the related smoke during flight.

This standard includes requirements covering fire testing and performance criteria to evaluate battery fire containment products. The fire condition represented by the standard simulates the ignition of a battery-powered device and combustible components and assemblies within an enclosure. This standard does not cover fires caused by non-battery-operated devices.

American National Standards Maintained Under Continuous Maintenance

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

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

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

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

To obtain additional information with regard to these standards, including contact information at the ANSI Accredited Standards Developer, please visit ANSI Online at www.ansi.org/asd, select "Standards Activities," click on "Public Review and Comment" and "American National Standards Maintained Under Continuous Maintenance." This information is also available directly at www.ansi.org/publicreview

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

ANSI-Accredited Standards Developers Contact Information

The addresses listed in this section are to be used in conjunction with standards listed in PINS, Call for Comment and Final Actions. This section is a list of developers who have submitted standards for this issue of *Standards Action* – it is not intended to be a list of all ANSI-Accredited Standards Developers. Please send all address corrections to Standards Action Editor at standact@ansi.org.

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

AAMI
Association for the Advancement of Medical Instrumentation
4301 N. Fairfax Drive, Suite 301
Arlington, VA 22203-1633
Phone: (703) 253-8298
Web: www.aami.org

AHRI
Air-Conditioning, Heating, and Refrigeration Institute
2121 Wilson Blvd
Suite 500
Arlington, VA 22201
Phone: (703) 600-0327
Web: www.ahrinet.org

AISC
American Institute of Steel Construction
130 E. Randolph Street, Suite 2000
Chicago, IL 60601
Phone: (314) 601-5420
Web: www.aisc.org

ANS
American Nuclear Society
555 North Kensington Avenue
La Grange Park, IL 60526
Phone: (708) 579-8268
Web: www.ans.org

APA
APA - The Engineered Wood Association
7011 South 19th Street
Tacoma, WA 98466
Phone: (253) 620-7467
Web: www.apawood.org

API
American Petroleum Institute
1220 L Street, NW
Washington, DC 20005-4070
Phone: (202) 682-8056
Web: www.api.org

ASA (ASC S3)
Acoustical Society of America
1305 Walt Whitman Road
Suite 300
Melville, NY 11747
Phone: (631) 390-0215
Web: www.acousticalsociety.org

ASABE
American Society of Agricultural and Biological Engineers
2950 Niles Road
Saint Joseph, MI 49085
Phone: (269) 932-7015
Web: www.asabe.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 30329-2305
Phone: (678) 539-1125
Web: www.ashrae.org

ASME
American Society of Mechanical Engineers
Two Park Avenue
New York, NY 10016-5990
Phone: (212) 591-8521
Web: www.asme.org

ASSP (ASC A10)
American Society of Safety Professionals
520 N. Northwest Hwy.
Park Ridge, IL 60068
Phone: (847) 768-3475
Web: www.asse.org

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

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

ATIS
Alliance for Telecommunications Industry Solutions
1200 G Street NW
Suite 500
Washington, DC 20005
Phone: (202) 662-8654
Web: www.atis.org

AWS
American Welding Society
8669 Doral Blvd
Suite 130
Doral, 33166
Phone: (305) 443-9353
Web: www.aws.org

AWWA
American Water Works Association
6666 W. Quincy Ave.
Denver, CO 80235
Phone: (303) 347-6178
Web: www.awwa.org

CSA
CSA Group
8501 E. Pleasant Valley Road
Cleveland, OH 44131
Phone: (216) 524-4990
Web: www.csagroup.org

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

HPS (ASC N13)
Health Physics Society
1313 Dolley Madison Blvd #402
McLean, VA 22101
Phone: (703) 790-1745
Web: www.hps.org

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

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

IEEE (ASC C63)
Institute of Electrical and Electronics Engineers
445 Hoes Lane
Piscataway, NJ 08854
Phone: (732) 562-3874
Web: standards.ieee.org

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

ITI (INCITS)
InterNational Committee for Information Technology Standards
1101 K Street NW
Suite 610
Washington, DC 20005
Phone: (202) 737-8888
Web: www.incits.org

NAAMM
National Association of Architectural Metal Manufacturers
123 College Place
#1101
Norfolk, VA 23510
Phone: (757) 489-0787
Web: www.naamm.org

NACE
NACE International, The Worldwide Corrosion Authority
15835 Park Ten Place
Houston, TX 77084
Phone: (281) 228-6485
Web: www.nace.org

NCPDP
National Council for Prescription Drug Programs
9240 East Raintree Drive
Scottsdale, AZ 85260
Phone: (480) 477-1000 ext.134
Web: www.ncpdp.org

NEMA (ASC C8)
National Electrical Manufacturers Association
1300 North 17th Street
Rosslyn, VA 22209
Phone: (703) 841-3278
Web: www.nema.org

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

NSF
NSF International
789 N. Dixboro Road
Ann Arbor, MI 48105-9723
Phone: (734) 827-5643
Web: www.nsf.org

NW&RA (ASC Z245)
National Waste & Recycling Association
1550 Crystal Drive, Suite #804
Arlington, VA 22202
Phone: (202) 364-3710
Web: www.wasterecycling.org

RESNET
Residential Energy Services Network, Inc.

4867 Patina Court
Oceanside, CA 92057
Phone: (760) 408-5860

Web: www.resnet.us.com

SCTE
Society of Cable Telecommunications Engineers

140 Philips Rd
Exton, PA 19341
Phone: (800) 542-5040

Web: www.scte.org

SDI (ASC A250)
Steel Door Institute

30200 Detroit Road
Westlake, OH 44145
Phone: (440) 899-0010

Web: www.wherryassocsteeldoor.org

TAPPI
Technical Association of the Pulp and Paper Industry

15 Technology Parkway South
Suite 115
Peachtree Corners, GA 30092
Phone: (770) 209-7249

Web: www.tappi.org

TIA
Telecommunications Industry Association

1320 North Courthouse Road
Suite 200
Arlington, VA 22201
Phone: (703) 907-7706

Web: www.tiaonline.org

UAMA (ASC B74)
Unified Abrasives Manufacturers' Association

30200 Detroit Road
Cleveland, OH 44145-1967
Phone: (440) 899-0010

Web: www.uama.org

UL
Underwriters Laboratories, Inc.

333 Pfingsten Road
Northbrook, IL 60062-2096
Phone: (847) 664-1725

Web: www.ul.com

VITA
VMEbus International Trade Association (VITA)

929 W. Portobello Avenue
Mesa, AZ 85210
Phone: (602) 281-4497

Web: www.vita.com

ISO & IEC Draft International Standards

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

Comments

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

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

Ordering Instructions

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

ISO Standards

AIR QUALITY (TC 146)

ISO/DIS 14966, Ambient air - Determination of numerical concentration of inorganic fibrous particles - Scanning electron microscopy method - 10/14/2018, $119.00

AIRCRAFT AND SPACE VEHICLES (TC 20)

ISO/DIS 24113, Space systems - Space debris mitigation requirements - 10/14/2018, $62.00

BANKING AND RELATED FINANCIAL SERVICES (TC 68)

ISO/DIS 17442, Financial services - Legal Entity Identifier (LEI) - 10/13/2018, $46.00

BUILDING ENVIRONMENT DESIGN (TC 205)

ISO/DIS 19454, Building environment design - Indoor environment - Daylight opening design for sustainability principles in visual environment - 10/19/2018, $88.00

DOCUMENT IMAGING APPLICATIONS (TC 171)

ISO/DIS 18759, Document management - Trusted Storage Sub-System (TSS) functional and technical requirements - 10/19/2018, $82.00

ENVIRONMENTAL MANAGEMENT (TC 207)

ISO/DIS 14006, Environmental management systems - Guidelines for incorporating ecodesign - 8/20/2018, $112.00

ISO/DIS 14007, Environmental management - Guidelines for determining environmental costs and benefits - 10/19/2018, $88.00

FIRE SAFETY (TC 92)

ISO/DIS 834-13, Fire resistance tests - Elements of building construction - Part 13: Specific requirements for the testing and assessment of applied fire protection to steel beams with web openings - 8/17/2018, $107.00

ISO/DIS 834-14, Fire resistance tests - Elements of building construction - Part 14: Specific requirements for the testing and assessment of applied fire protection to solid steel bar - 8/17/2018, $82.00

GLASS IN BUILDING (TC 160)

ISO/DIS 16932, Glass in building - Destructive-windstorm-resistant security glazing - Test and classification - 8/17/2018, $77.00

GRAPHIC TECHNOLOGY (TC 130)

ISO/DIS 12643-1, Graphic technology - Safety requirements for graphic technology equipment and systems - Part 1: General requirements - 10/14/2018, $155.00

ISO/DIS 12643-2, Graphic technology - Safety requirements for graphic technology equipment and systems - Part 2: Prepress and press equipment and systems - 10/14/2018, $125.00

IMPLANTS FOR SURGERY (TC 150)

ISO/DIS 6475, Implants for surgery - Metal bone screws with asymmetrical thread - Requirements and mechanical test methods - 10/12/2018, $82.00

ISO/DIS 8827, Implants for surgery - Staples with parallel legs for orthopaedic use - General requirements - 8/20/2018, $40.00

MATERIALS, EQUIPMENT AND OFFSHORE STRUCTURES FOR PETROLEUM AND NATURAL GAS INDUSTRIES (TC 67)

ISO/DIS 11960, Petroleum and natural gas industries - Steel pipes for use as casing or tubing for wells - 8/19/2018, $203.00

OPTICS AND OPTICAL INSTRUMENTS (TC 172)

ISO/DIS 21073, Microscopes - Confocal microscopes - Optical data of fluorescence confocal microscopes for biological imaging - 8/20/2018, $62.00

OTHER

ISO/DIS 17076-1, Leather - Determination of abrasion resistance - Part 1: Taber method - 10/13/2018, $40.00

PAINTS AND VARNISHES (TC 35)

ISO/DIS 23168, Paints and varnishes - Determination of water content - Gas-chromatographic method - 10/15/2018, $53.00

ISO/DIS 23496, Determination of pH value - Reference buffer solutions for the calibration of pH measuring equipment - 10/15/2018, $58.00

ISO/DIS 23497, Determination of pH value - Technical buffer solutions, preferably for the calibration of technical measuring installations - 10/15/2018, $46.00

PULLEYS AND BELTS (INCLUDING VEEBELTS) (TC 41)

ISO/DIS 21342, Synchronous belt drives - Automotive belts and pulleys - 8/19/2018, $77.00

ROAD VEHICLES (TC 22)

ISO/DIS 19363, Electrically propelled road vehicles - Magnetic field wireless power transfer - Safety and interoperability requirements - 10/13/2018, $112.00

SHIPS AND MARINE TECHNOLOGY (TC 8)

ISO/DIS 21593, Ship and marine technology - Technical requirements for liquefied natural gas bunkering dry-disconnect/connect coupling - 10/19/2018, $67.00

ISO/DIS 21711, Marine structure - Mobile offshore units - Chain wheels - 10/14/2018, $46.00

SMALL CRAFT (TC 188)

ISO/DIS 12216, Small craft - Windows, portlights, hatches, deadlights and doors - Strength and tightness requirements - 10/14/2018, $112.00

STEEL (TC 17)

ISO/DIS 19959, Visual examination of the surface condition of investment castings - Steel, nickel alloys and cobalt alloys - 10/19/2018, $33.00

SUSTAINABLE DEVELOPMENT IN COMMUNITIES (TC 268)

ISO/DIS 37155-1, Framework for integration and operation of smart community infrastructures - Part 1: Opportunities and challenges from interactions in smart community infrastructures from all aspects through the life-cycle - 10/13/2018, $88.00

TEXTILES (TC 38)

ISO/DIS 20705, Textiles - Quantitative microscopical analysis - General principles of testing - 10/14/2018, $58.00

TRACTORS AND MACHINERY FOR AGRICULTURE AND FORESTRY (TC 23)

ISO/DIS 4254-17, Agricultural machinery - Safety - Part 17: Root crop harvesters - 10/12/2018, $125.00

TRANSPORT INFORMATION AND CONTROL SYSTEMS (TC 204)

ISO/DIS 19414, Intelligent transport systems - Service architecture of probe vehicle systems - 10/14/2018, $58.00

ISO/DIS 29281-2, Intelligent transport systems - Localized communications - Part 2: Legacy system support - 8/17/2018, $98.00

ISO/DIS 15638-22, Intelligent transport systems ITS - Framework for collaborative telematics applications for regulated commercial freight vehicles (TARV) - Part 22: Freight vehicle stability monitoring - 8/19/2018, $107.00

WELDING AND ALLIED PROCESSES (TC 44)

ISO/DIS 17927-1, Welding for aerospace applications - Fusion welding of metallic components - Part 1: Process specification - 10/19/2018, $88.00

IEC Standards

CABPUB/166/DTS, ISO/IEC DTS 17021-8 Conformity assessment - Requirements for bodies providing audit and certification of management systems - Part 8: Competence requirements for auditing and certification of management systems for sustainable development, /2018/10/1

14/974/FDIS, IEC/IEEE 60076-21 ED1: Power transformers - Part 21: Standard requirements, terminology, and test code for step-voltage regulators, 018/9/7/

21/971/CD, IEC 62485-6 ED1: Safety requirements for secondary batteries and battery installations - Part 6: Safe operation of lithium-ion batteries in traction applications, 2018/9/21

21/972/CD, IEC 62485-5 ED1: Safety requirements for secondary batteries and battery installations - Part 5: Safe operation of stationary lithium-ion batteries, 2018/9/21

23J/447/FDIS, IEC 61058-2-5 ED3: Switches for appliances - Part 2-5: Particular requirements for change-over selectors, 018/9/7/

31/1412/DC, Draft Interpretation Sheet 1: Explosive atmospheres - Part 29-1: Gas detectors - Performance requirements of detectors for flammable gases, 018/9/7/

31/1411/DC, Draft Interpretation Sheet: IEC 60079-0:2007 (Ed 5) Explosive atmospheres - Part 0: General requirements, 018/9/7/

31/1413/DC, Draft Interpretation Sheet 2: Explosive atmospheres - Part 29-1: Gas detectors - Performance requirements of detectors for flammable gases, 018/9/7/

34D/1403/CD, IEC 60570/AMD2/FRAG2 ED4: Electrical supply track systems for luminaires, /2018/10/1

34D/1404/CD, IEC 60598-1/AMD2/FRAG27 ED8: Luminaires - Part 1: General requirements and tests, /2018/10/1

40/2611/CDV, IEC 60539-2 ED2: Directly heated negative temperature coefficient thermistors - Part 2: Sectional specification - Surface mount negative temperature coefficient thermistors, /2018/10/1

46C/1105/CD, IEC TR 62222 ED3: Fire performance of communication cables installed in buildings, /2018/10/1

47/2504/CD, IEC 62435-8 ED1: Long-term storage of electronic components - Part 8: Passive electronic devices, 2018/9/21

47/2503/FDIS, 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, 018/9/7/

47F/316/NP, PNW 47F-316: Semiconductor devices - Micro-electromechanical devices - Part 37: Environmental test methods of MEMS piezoelectric thin films for sensor application, 2018/9/21

48B/2676/CD, IEC 60352-3 ED2: Solderless connections - Part 3: Solderless accessible insulation displacement connections - General requirements, test methods and practical guidance, /2018/10/1

48B/2677/CD, IEC 60352-4 ED2: Solderless connections - Part 4: Solderless non-accessible insulation displacement connections - General requirements, test methods and practical guidance, /2018/10/1

56/1796/CD, IEC TR 63162 ED1: Electric components - Reliability - Reference failure rates at reference conditions, /2018/10/1

57/2026/DC, Proposed Amendment 2 to IEC 62351-3 ED1.1: Power systems management and associated information exchange - Data and communications security - Part 3: Communication network and system security - Profiles including TCP/IP, 2018/9/14

59/687/NP, PNW 59-687: Household and similar electrical appliances - Product information properties, /2018/10/1

64/2316/FDIS, IEC 60364-5-56 ED3: Low-voltage electrical installations - Part 5-56: Selection and erection of electrical equipment - Safety services, 018/9/7/

65/705/CD, IEC 62832-3 ED1: Industrial-process measurement, control and automation - Digital Factory framework - Part 3: Application of Digital Factory for life cycle management of production systems, 2018/9/21

65B/1122/FDIS, IEC 60534-3-1 ED2: Industrial-process control valves - Part 3-1: Dimensions - Face-to-face dimensions for flanged, two-way, globe type, straight pattern and centre-toface dimensions for flanged, two-way, globe-type, angle pattern control valves, 018/9/7/

65B/1123/CD, IEC 62828-5 ED1: Reference conditions and procedures for testing Industrial and process measurement transmitters - Part 5: Specific procedures for flow transmitters, 2018/9/21

82/1450/CD, IEC 62941 ED1: Terrestrial photovoltaic (PV) modules - Quality system for PV module manufacturing, 2018/9/21

82/1453/CD, IEC 61215-1 ED2: Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 1: Test requirements, 2018/9/21

82/1455/CD, IEC 61215-1-2 ED2: Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 1-2: Special requirements for testing of thin-film Cadmium Telluride (CdTe) based photovoltaic (PV) modules, 2018/9/21

82/1456/CD, IEC 61215-1-3 ED2: Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 1-3: Special requirements for testing of thin-film amorphous silicon based photovoltaic (PV) modules, 2018/9/21

82/1457/CD, IEC 61215-1-4 ED2: Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 1-4: Special requirements for testing of thin-film Cu(In,GA)(S,Se)2 based photovoltaic (PV) modules, 2018/9/21

82/1458/CD, IEC 61215-2 ED2: Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 2: Test procedures, 2018/9/21

82/1454/CD, IEC 61215-1-1 ED2: Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 1-1: Special requirements for testing of crystalline silicon photovoltaic (PV) modules, 2018/9/21

86B/4139/FDIS, IEC 60869-1 ED5: Fibre optic interconnecting devices and passive components - Fibre optic passive power control devices - Part 1: Generic specification, 018/9/7/

89/1430/CD, IEC TS 60695-2-20 ED3: Fire hazard testing - Part 2-20: Glowing/hot-wire based test methods - Hot wire ignition test - Apparatus, confirmatory test arrangement and guidance, /2018/10/1

89/1431/CD, IEC 60695-4 ED5: Fire hazard testing - Part 4: Terminology concerning fire tests for electrotechnical products, /2018/10/1

89/1432/CD, IEC 60695-9-2 ED2: Fire hazard testing - Part 9-2: Surface spread of flame - Summary and relevance of test methods, /2018/10/1

91/1522/CD, IEC 62878-2-5 ED1: Device embedded substrate - Part 2 -5: Implementation of a 3D data format for device embedded substrate, 2018/9/21

99/219/Q, Proposed horizontal standard - IEC 60071-1 (Ed.9.0) Insulation co-ordination - Part 1: Definitions, principles and rules, 018/9/7/

99/199/CDV, IEC 60071-1 ED9: Insulation co-ordination - Part 1: Definitions, principles and rules (Proposed horizontal standard), /2018/10/1

100/3137/CD, IEC 62574 ED2: Audio, video and multimedia systems - General channel assignment of multichannel audio (TA 11), 2018/9/21

106/460/CDV, IEC 62209-2/AMD1 ED1: Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Human models, instrumentation, and procedures - Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz), /2018/10/1

110/1007/CD, IEC 62977-3-5 ED1: lElectronic displays - Part 3-5: Evaluation of optical performances - Colour capabilities, 2018/9/21

110/1008/CD, IEC 62977-2-2 ED1: Electronic displays - Part 2-2: Measurements of optical characteristics - Ambient performance, 2018/9/21

110/1006/CD, IEC 62977-3-4 ED1: Electronic displays - Part 3-4: Evaluation of optical performances - High dynamic range displays, 2018/9/21

110/1005/NP, PNW 110-1005: Future IEC 63145-21-20: Eyewear Display - Part 21-20: Specific measurement methods for VR type - Image quality, 2018/9/21

117/94/NP, PNW 117-94: Solar thermal electric plants - Part 5-2: Systems and components - General requirements and test methods for large-size linear Fresnel collectors, /2018/10/1

SyCAAL/110/Q, Proposal for NP SyC AAL Reference Architecture and Architecture Model as International Standards, 018/9/7/

SyCSmartCities/49/NP, PNW TS SYCSMARTCITIES-49: Systems Resource Document (SRD) - Smart City Standards Inventory and Mapping, /2018/10/1

JTC1-SC41/61/CD, ISO/IEC TR 30148-1 ED1: Internet of Things (IoT) - Technical requirements and application of sensor network for wireless gas meters, 2018/9/21

Newly Published ISO & IEC Standards

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

ISO Standards

AGRICULTURAL FOOD PRODUCTS (TC 34)

ISO 3961:2018, Animal and vegetable fats and oils - Determination of iodine value, $68.00

ISO 15141:2018, Cereals and cereal products - Determination of ochratoxin A - High performance liquid chromatographic method with immunoaffinity column cleanup and fluorescence detection, $68.00

ISO 19942:2018, Maize (Zea mays L.) - Specification, $103.00

AIRCRAFT AND SPACE VEHICLES (TC 20)

ISO 20930:2018, Space systems - Calibration requirements for satellite-based passive microwave sensors, $138.00

CORROSION OF METALS AND ALLOYS (TC 156)

ISO 14993:2018, Corrosion of metals and alloys - Accelerated testing involving cyclic exposure to salt mist, dry and wet conditions, $103.00

FLOOR COVERINGS (TC 219)

ISO 23999:2018, Resilient floor coverings - Determination of dimensional stability and curling after exposure to heat, $68.00

FLUID POWER SYSTEMS (TC 131)

ISO 8434-1:2018, Metallic tube connections for fluid power and general use - Part 1: 24° cone connectors, $209.00

GAS CYLINDERS (TC 58)

ISO 17871/Amd1:2018, Gas cylinders - Quick-release cylinder valves - Specification and type testing - Amendment 1, $19.00

LIFTS, ESCALATORS, PASSENGER CONVEYORS (TC 178)

ISO 8100-20:2018, Lifts for the transport of persons and goods - Part 20: Global essential safety requirements (GESRs), $232.00

MECHANICAL VIBRATION AND SHOCK (TC 108)

ISO 2631-5:2018, Mechanical vibration and shock - Evaluation of human exposure to whole-body vibration - Part 5: Method for evaluation of vibration containing multiple shocks, $162.00

MEDICAL DEVICES FOR INJECTIONS (TC 84)

ISO 20698:2018, Catheter systems for neuraxial application - Sterile and single-use catheters and accessories, $138.00

MICROBEAM ANALYSIS (TC 202)

ISO 19463:2018, Microbeam analysis - Electron probe microanalyser (EPMA) - Guidelines for performing quality assurance procedures, $162.00

PACKAGING (TC 122)

ISO 14375:2018, Child-resistant non-reclosable packaging for pharmaceutical products - Requirements and testing, $103.00

ISO 28862:2018, Packaging - Child-resistant packaging - Requirements and testing procedures for non-reclosable packages for non-pharmaceutical products, $103.00

PAINTS AND VARNISHES (TC 35)

ISO 21545:2018, Paints and varnishes - Determination of settling, $45.00

PIGMENTS, DYESTUFFS AND EXTENDERS (TC 256)

ISO 18451-2:2018, Pigments, dyestuffs and extenders - Terminology - Part 2: Classification of colouring materials according to colouristic and chemical aspects, $103.00

PLASTICS (TC 61)

ISO 13586:2018, Plastics - Determination of fracture toughness (GIC and KIC) - Linear elastic fracture mechanics (LEFM) approach, $138.00

ISO 14855-2:2018, Determination of the ultimate aerobic biodegradability of plastic materials under controlled composting conditions - Method by analysis of evolved carbon dioxide - Part 2: Gravimetric measurement of carbon dioxide evolved in a laboratory-scale test, $103.00

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

ISO 11296-3:2018, Plastics piping systems for renovation of underground non-pressure drainage and sewerage networks - Part 3: Lining with close-fit pipes, $103.00

REFRACTORIES (TC 33)

ISO 16169:2018, Preparation of silicon carbide and similar materials for analysis by ISO 12677 X-ray fluorescence (XRF) - Fused cast-bead method, $138.00

ROAD VEHICLES (TC 22)

ISO 8721:2018, Road vehicles - Measurement techniques in impact tests - Optical instrumentation, $185.00

ISO 12405-4:2018, Electrically propelled road vehicles - Test specification for lithium-ion traction battery packs and systems - Part 4: Performance testing, $209.00

ROLLING BEARINGS (TC 4)

ISO 3096:2018, Rolling bearings - Needle rollers - Boundary dimensions, geometrical product specifications (GPS) and tolerance values, $68.00

RUBBER AND RUBBER PRODUCTS (TC 45)

ISO 247-1:2018, Rubber - Determination of ash - Part 1: Combustion method, $68.00

ISO 247-2:2018, Rubber - Determination of ash - Part 2: Thermogravimetric analysis (TGA), $68.00

ISO 6502-1:2018, Rubber - Measurement of vulcanization characteristics using curemeters - Part 1: Introduction, $103.00

ISO 6502-2:2018, Rubber - Measurement of vulcanization characteristics using curemeters - Part 2: Oscillating disc curemeter, $103.00

ISO 6502-3:2018, Rubber - Measurement of vulcanization characteristics using curemeters - Part 3: Rotorless curemeter, $138.00

TYRES, RIMS AND VALVES (TC 31)

ISO 8664:2018, Tyres for agricultural tractors and machines - Code-designated and service-description marked radial drive-wheel tyres, $103.00

ISO Technical Reports

HEALTH INFORMATICS (TC 215)

ISO/TR 20055:2018, Health informatics - Person-owned document repository for PHR applications and health information exchange, $68.00

INDUSTRIAL AUTOMATION SYSTEMS AND INTEGRATION (TC 184)

ISO/TR 18828-1:2018, Industrial automation systems and integration - Standardized procedures for production systems engineering - Part 1: Overview, $68.00

ISO/IEC JTC 1, Information Technology

ISO/IEC 7816-4/Amd1:2018, Identification cards - Integrated circuit cards - Part 4: Organization, security and commands for interchange - Amendment 1: Multiple record handling, $19.00

ISO/IEC 24739-1/Cor1:2013, Information technology - AT Attachment with Packet Interface - 7 - Part 1: Register Delivered Command Set, Logical Register Set (ATA/ATAPI-7 V1) - Corrigendum, FREE

ISO/IEC 21000-22/Amd1:2018, Information technology - Multimedia framework (MPEG-21) - Part 22: User Description - Amendment 1: Reference software for MPEG-21 user description, $19.00

ISO/IEC 18000-4:2018, Information technology - Radio frequency identification for item management - Part 4: Parameters for air interface communications at 2,45 GHz, $232.00

ISO/IEC 18745-1:2018, Test methods for machine readable travel documents (MRTD) and associated devices - Part 1: Physical test methods for passport books (durability), $185.00

ISO/IEC 30140-3:2018, Information technology - Underwater acoustic sensor network (UWASN) - Part 3: Entities and interface, $138.00

ISO/IEC 30140-4:2018, Information technology - Underwater acoustic sensor network (UWASN) - Part 4: Interoperability, $103.00

OTHER

ISO/IEC 80079-20-1/Cor1:2018, Explosive atmospheres - Part 20-1: Material characteristics for gas and vapour classification - Test methods and data - Corrigendum, FREE

IEC Standards

NUCLEAR INSTRUMENTATION (TC 45)

IEC 62138 Ed. 2.0 b:2018, Nuclear power plants - Instrumentation and control systems important to safety - Software aspects for computer-based systems performing category B or C functions, $317.00

S+ IEC 62138 Ed. 2.0 en:2018 (Redline version), Nuclear power plants - Instrumentation and control systems important to safety - Software aspects for computer-based systems performing category B or C functions, $412.00

SAFETY OF MACHINERY - ELECTROTECHNICAL ASPECTS (TC 44)

IEC 60204-11 Ed. 2.0 b:2018, Safety of machinery - Electrical equipment of machines - Part 11: Requirements for equipment for voltages above 1 000 V AC or 1 500 V DC and not exceeding 36 kV, $317.00

S+ IEC 60204-11 Ed. 2.0 en:2018 (Redline version), Safety of machinery - Electrical equipment of machines - Part 11: Requirements for equipment for voltages above 1 000 V AC or 1 500 V DC and not exceeding 36 kV, $412.00

Proposed Foreign Government Regulations

Call for Comment

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

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

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

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

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

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

Information Concerning

American National Standards

Call for Members

INCITS Executive Board – ANSI Accredited SDO and US TAG to ISO/IEC JTC 1, Information Technology

The InterNational Committee for Information Technology Standards (INCITS), an ANSI accredited SDO, is the forum of choice for information technology developers, producers and users for the creation and maintenance of formal de jure IT standards. INCITS' mission is to promote the effective use of Information and Communication Technology through standardization in a way that balances the interests of all stakeholders and increases the global competitiveness of the member organizations.

The INCITS Executive Board serves as the consensus body with oversight of its 40+ Technical Committees. Additionally, the INCITS Executive Board has the international leadership role as the US Technical Advisory Group (TAG) to ISO/IEC JTC 1, Information Technology.

Membership in the INCITS Executive Board is open to all directly and materially affected parties in accordance with INCITS membership rules. To find out more about participating on the INCITS Executive Board, contact Jennifer Garner at jgarner@itic.org or visit http://www.incits.org/participation/membership-info for more information.

Membership in all interest categories is always welcome; however, the INCITS Executive Board seeks to broaden its membership base in the following categories:

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

Society of Cable Telecommunications

ANSI Accredited Standards Developer

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

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

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

ANSI Accredited Standards Developers

Approval of Accreditation as an ANSI ASD

Open-IX Association (OIX)

ANSI's Executive Standards Council has approved the Open-IX Association (OIX), a new ANSI member in December 2017, as an ANSI Accredited Standards Developer (ASD) under its proposed operating procedures for documenting consensus on OIX-sponsored American National Standards, effective August 1, 2018. For additional information, please contact: Mr. Richard Wolfram, Esq., Counsel to Open-IX Association, 750 Third Avenue, 9th Floor, New York, NY 10017; phone: 917.225.3950; e-mail: rwolfram@rwolframlex.com.

Snow and Ice Management Association (SIMA)

ANSI's Executive Standards Council has approved the Snow and Ice Management Association (SIMA), a new ANSI member in 2018, as an ANSI Accredited Standards Developer (ASD) under its proposed operating procedures for documenting consensus on SIMA-sponsored American National Standards, effective August 1, 2018. For additional information, please contact: Mr. Martin Tirado, CEO, Snow and Ice Management Association, 10140 N. Port Washington Road, Milwaukee, WI 53092; phone: 414.375.1940; e-mail: martin@sima.org,

Society of Fire Protection Engineers (SFPE)

ANSI's Executive Standards Council has approved the Society of Fire Protection Engineers (SFPE), a new ANSI member in December 2017, as an ANSI Accredited Standards Developer (ASD) under its proposed operating procedures for documenting consensus on SFPE-sponsored American National Standards, effective August 1, 2018. For additional information, please contact: Mr. Chris Jelenewicz, P.E., Technical Director, Society of Fire Protection Engineers, 9711 Washingtonian Boulevard, Suite 380, Gaithersburg, MD 20878; phone: 301.661.5986; e-mail: chris@sfpe.org.

Approval of Reaccreditation

Compressed Gas Association (CGA)

ANSI's Executive Standards Council has approved the reaccreditation of the Compressed Gas Association (CGA), an ANSI Member and Accredited Standards Developer, under its recently revised operating procedures for documenting consensus on CGA-sponsored American National Standards, effective July 27, 2018. For additional information, please contact: Ms. Kristy Mastromichalis, Committee Project Manager, Compressed Gas Association, 14501 George Carter Way, Suite 103, Chantilly, VA 20151; phone: 703.788.2728; e-mail: Kmastromichalis@cganet.com.

International Organization for Standardization (ISO)

Call for U.S. TAG Administrator

ISO/TC 244 – Industrial Furnaces and Associated Processing Equipment

ANSI has been informed that the Industrial Heating Equipment Association (IHEA), the ANSI-accredited U.S. TAG Administrator for ISO/TC 244, wishes to relinquish their role as U.S. TAG Administrator.

ISO/TC 244 operates under the following scope:

Standardization of the requirements for industrial thermoprocessing equipment (e.g. heated enclosures such as furnaces, ovens, kilns, lehrs and dryers) and associated processing equipment.

The scope includes, but is not limited to, requirements for safety, energy efficiency (including exergy), design, construction, operation, processes and quality control of processed material.

Organizations interested in serving as the U.S. TAG Administrator or participating on a U.S. TAG should contact ANSI's ISO Team (isot@ansi.org).

Establishment of ISO Technical Committee

ISO/TC 319 – Karst

A new ISO Technical Committee, ISO/TC 319 – Karst, has been formed. The Secretariat has been assigned to China (SAC).

ISO/TC 319 operates under the following scope:

Standardization in the field of karst terminology, sustainable development of karst resources, environmental protection and management of karst environment, as well as investigation and assessment (including modeling methods and mapping of karst systems).

Organizations interested in serving as the U.S. TAG Administrator or participating on the U.S. TAG should contact ANSI's ISO Team (isot@ansi.org).

ISO Proposal for a New Field of ISO Technical Activity

Circular Economy

Comment Deadline: August 10, 2018

AFNOR, the ISO member body for France, has submitted to ISO an ISO Proposal for a New Field of ISO Technical Activity on Circular Economy, with the following scope statement:

Standardization in the field of Circular economy to develop requirements, frameworks, guidance and supporting tools related to the implementation of circular economy projects.

The proposed deliverables will apply to any organization or group of organizations wishing to implement circular economy projects, such as commercial organizations, public services and not-for-profit organizations.

Excluded: specification of particular aspects of circular economy already covered by existing TCs, such as ecodesign, life cycle assessment in ISO/TC 207 Environmental management and sustainable procurement (ISO 20400: 2017 – Sustainable procurement — Guidance).

Note: The TC will contribute to sustainable development and especially to the implementation of the UN Sustainable Development Goals.

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team (isot@ansi.org), with a submission of comments to Steve Cornish (scornish@ansi.org) by close of business on Friday, August 10, 2018.

U.S. Technical Advisory Groups

Approval of Reaccreditation

U.S. TAG to ISO/TC 67 – Materials, Equipment and Offshore Structures for Petroleum, Petrochemical and Natural Gas Industries

ANSI's Executive Standards Council has approved the reaccreditation of the U.S. Technical Advisory Group to ISO TC 67, Materials, Equipment and Offshore Structures for Petroleum, Petrochemical and Natural Gas Industries under its recently revised operating procedures, effective July 31, 2018. For additional information, please contact the TAG Administrator of the U.S. TAG to ISO TC 67: Mr. Roland Goodman, Manager, Upstream Standards, American Petroleum Institute, 1220 L Street, NW, Washington, DC 20005-4070; phone: 202.682.8571; e-mail: goodmanr@api.org.

Withdrawal of TAG Accreditation

U.S. TAG to ISO/TC 244 – Industrial Furnaces and Associated Processing Equipment

At the request of its TAG Administrator, the Industrial Heating Equipment Association (IHEA), the accreditation of the U.S. TAG to ISO/TC 244, Industrial Furnaces and Associated Processing Equipment, will be withdrawn, pending 30 days' notice, effective September 3, 2018. Please direct any comments/questions related to this action to isot@ansi.org

Meeting Notices

Accredited Standards Committee (ASC) B109 Standards B109.1, B109.2, B109.3, and B109.4

Meeting Date: October 22, 2018; 8:00 AM – 4:00 PM CST

Meeting Location: Omni Forth Worth Hotel, 1300 Houston Street, Fort Worth, Texas (Teleconference information available upon request)

Purpose: This is the annual ANSI B109 meeting. Updates will be given for each of the B109 standards. Breakout sessions for B109.1, B109.2, B109.3 and B109.4 will follow main meeting.

Please register on line at www.aga.org. For more information, contact Jeff Meyers, jmeyers@aga.org.

ANSI-Accredited U.S. TAG to ISO/TC 229 – Nanotechnologies

The ANSI-Accredited U.S. TAG to ISO/TC 229 Nanotechnologies will meet on September 4-5, 2018, at the American National Standards Institute in Washington, DC. For additional information or to join the U.S. TAG, please contact Heather Benko (hbenko@ansi.org) at ANSI.

Information Concerning

American National Standards

Notice of ITI (INCITS) Standards to Continue as American National Standards (ANS) under Stabilized Maintenance

This announcement is made in accordance with 4.7.3 Stabilized maintenance of American National Standards of the ANSI Essential Requirements (www.ansi.org/essentialrequirements).

INCITS 27-1987 [S2018], Magnetic Tape Labels and File Structure for Information Interchange

INCITS 40-1993 [S2018], Unrecorded Magnetic Tape for Information Interchange (9-Track, 800 CPI, NRZI; 1600 CPI, PE; and 6250 CPI, GCR)

INCITS 72-1981 [S2018], Parallel Recorded Magnetic Tape Cartridge for Information Interchange, 4-Track, 0.250 Inch (6.30 mm), 1600 bpi (63 bpmm), Phase Encoded

INCITS 85-1981 [S2018], 1/2-Inch Magnetic Tape Interchange Using a Self-Loading Cartridge

INCITS 113-1987 [S2018], Information Systems - Programming Language - Full BASIC

INCITS 113a-1989 [S2018], Information Systems - Programming Languages - Modules and Individual Character Input for Full BASIC

INCITS 118-1998 [S2018], Personal Identification Number - PIN Pad

INCITS 157-1987 [S2018], Recorded Magnetic Tape for Information Interchange 0.5 in (12.7 mm), Tape, Nine Track, 3200 CPI (126 CPMM), Phase Encoded

INCITS 158-1987 [S2018], Serial Recorded Magnetic Tape Cassette for Information Interchange - 0.150 in (3.82 mm), 8000 bpi (315 bpmm) Group Code Recording Streaming Mode, Four Tracks

INCITS 228-1993 [S2018], Information Systems - X.25 Data Transfer Phase (DTP) Procedures for Operation with Frame Relay

INCITS 234-1993 [S2018], Information Systems - Test Methods for Media Characteristics - 130-mm Rewritable Optical Disk Data Storage Cartridges with Continuous Composite Servo (CCS)

INCITS X4.6-1979 [S2018], 10-Key Keyboard for Adding and Calculating Machines

INCITS/ISO 8378-3-1986 [S2018], Information Processing - Data Interchange on 130mm (5.25in) flexible disk cartridges using modified frequency modulation recording at 7 958 ftprad, 3,8 tpmm (96tpi) on both sides - Part 3: Track Format B

INCITS/ISO/IEC 7185:1990 [S2018], Programming Language PASCAL

INCITS/ISO/IEC 11576:1994 [S2018], Procedures for the Registration of Algorithms for the Lossless Compression of Data

INCITS/ISO/IEC 9983:1995 [S2018], Information Processing Systems - Designation of Unrecorded Flexible Disk Cartridges

INCITS/ISO/IEC 13422:1994 [S2018], Information technology - 90 mm flexible disk cartridges - 10 MByte capacity using sector servo tracking

BSR/ASHRAE/IES Addendum at
to ANSI/ASHRAE/IES Standard 90.1-2016

Public Review Draft

Proposed Addendum at to Standard 90.1-2016, *Energy Standard for Buildings Except Low-Rise Residential Buildings*

First Public Review (August 2018)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

This new language to create proper energy accounting at buildings that provide fuel or electricity to vehicles. In some areas, certain or all commercial buildings are being required to install electric vehicle supply equipment (EV charging stations). In other cases, more types of retail operations other than traditional "gas stations" are selling fuel to customers.

The language would make 90.1 consistent with the language in the 2018 *International Energy Conservation Code* Section C407 performance path, which has this exception for vehicle refueling and recharging.

Energy that goes into vehicles that are being used off site should not be "counted" as building energy usage or building energy cost. In all cases, the building is purchasing the energy (gasoline, diesel fuel, compressed natural gas, propane, or electricity) and selling (or transferring) the energy to vehicles that are not used for building functions or purposes. Since the amount of vehicle fuel energy and energy cost can be significant (greater than the energy use and energy cost of the building), it should not be part of the ECB method or Appendix G. Examples are shown below:

Convenience Store or Big Box Store with gasoline pumps

According to the National Association of Convenience Stores (NACS), in their *2015 NACS Retail Fuels Report*, available at http://www.convenience.org/YourBusiness/FuelsReports/2015/Documents/2015-NACS-Fuels-Report_full.pdf, as of 2014 there were over 5,200 "big box" stores (e.g., Kroger, Wal-Mart, Costco, Safeway, etc.) selling about 14% of the gasoline in the United States.

Also according to NACS,
at http://www.convenience.org/yourbusiness/fuelsreports/gasprices_2013/pages/statisticsdefinitions.aspx, a typical convenience store in 2011 sold nearly 4,000 gallons of gasoline per day, or about 128,000 gallons of motor fuel per month. For the big box stores, the sales volumes in 2015 were about 278,000 gallons per month, or approximately 9,267 gallons per day.

On an annual basis, based on current gasoline prices for regular gasoline of about $2.50 per gallon
(see https://www.eia.gov/dnav/pet/PET_PRI_GND_DCUS_NUS_M.htm), and a typical retailer margin of $0.19 per gallon, the annual energy cost for just gasoline would be:

Convenience Store: 128,000 gallons per month * 12 months * $2.31 / gallon = $3,548,160 per year

Big Box Store: 278,000 gallons per month * 12 months * $2.31 / gallon = $7,706,160 per year

On per square foot basis or annual energy budget or performance path (e.g., 10,000 square feet for the convenience store and 100,000 square feet for the big box store), these values overwhelm the actual building energy usage or building energy cost per square foot (e.g., $77 to $354 per square foot compared to the April 2017 PNNL national weighted average annual energy cost of $1.21 per square foot for a building built to ASHRAE 90.1-2016).

Truck Stop (convenience store / restaurant) with diesel fuel pumps

According to NATSO, the national trade association representing the travel plaza and truck stop industry,
at https://csnews.com/natso-survey-finds-truck-stop-diesel-volumes-declining, the average diesel volume for a single truck stop location was 812,513 gallons in August 2008, compared with 2007's average volume of 881,203 for the same month. These values occurred during very high fuel prices and the economic recession.

However, using a conservative value of 800,000 gallons per month, and current diesel fuel prices of about $3.00 per gallon (see https://www.eia.gov/dnav/pet/PET_PRI_GND_DCUS_NUS_M.htm), and a typical retailer margin of $0.19 per gallon, the annual energy cost for just diesel fuel would be:

Truck Stop: 800,000 gallons per month * 12 months * $2.81 / gallon = $26,976,000 per year

Again, on a per square foot basis or annual energy budget or performance path, this value overwhelms the actual building energy usage or building energy cost per square foot.

Commercial Building with EVSE (EV charging station)

The amount of energy used and annual costs will depend on the number of EV ports, the kW demand from the vehicle on-board charging systems, and the amount of usage. For example, a vehicle with an on-board charger rated at 3.3 kW using a Level 2 charging system at a 10,000 square foot building for 1,000 hours per year will have an annual energy usage of 3,300 kWh, an annual energy cost of $350.79 (at the ASHRAE 2019 Work Plan rate of $0.1063 per kWh), and a cost per square foot of $0.04/sf.

On the other hand, if multiple vehicles can use a DC Fast Charging system rated at 100 kW at the same 10,000 square foot building for 3,000 hours per year, the annual energy usage is 300,000 kWh per year at an annual cost of $31,890 and a cost per square foot of $3.19/sf.

For all of the examples shown, adding the exceptions in Chapter 11 and Appendix G will ensure that only building energy usage and energy costs are used for these compliance paths.

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Addendum at to 90.1-2016

Revise the Standard as follows (IP and SI Units) Revise the Standard as follows (IP and SI Units)

G1.2.2 Performance Rating Calculation

Exception to G1.2.2

Energy used to recharge or refuel vehicles that are used for off-building site transportation purposes shall not be modeled in the *baseline building performance* or the *proposed building performance*.

11.5 Calculation of Design Energy Cost and Energy Cost Budget

11.5.1

Exception to 11.5.1

Energy used to recharge or refuel vehicles that are used for off-building site transportation purposes shall not be modeled for the *design energy cost* or the *energy cost budget*.

BSR/ASHRAE/IES Addendum au
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FOREWORD

Addendum f to Standard 62.1 created a simplified way of determining outdoor air rates for multiple zone recirculating air handling systems that includes a simple prescriptive requirement for calculating minimum air handler outdoor air rates and minimum setpoints for VAV zones:

6.2.5.2 System Ventilation Efficiency. The system ventilation efficiency (Ev) shall be determined in accordance with Section 6.2.5.3 for the Simplified Procedure or Normative Appendix A for the Alternative Procedure.

6.2.5.3 Simplified Procedure

6.2.5.3.1 System Ventilation Efficiency. System Ventilation Efficiency (Ev) shall be determined in accordance with Equation 6.2.5.3.1A or B.

$$Ev = 0.88*D + 0.22 \text{ for } D<0.60 \qquad (6.2.5.3.1A)$$

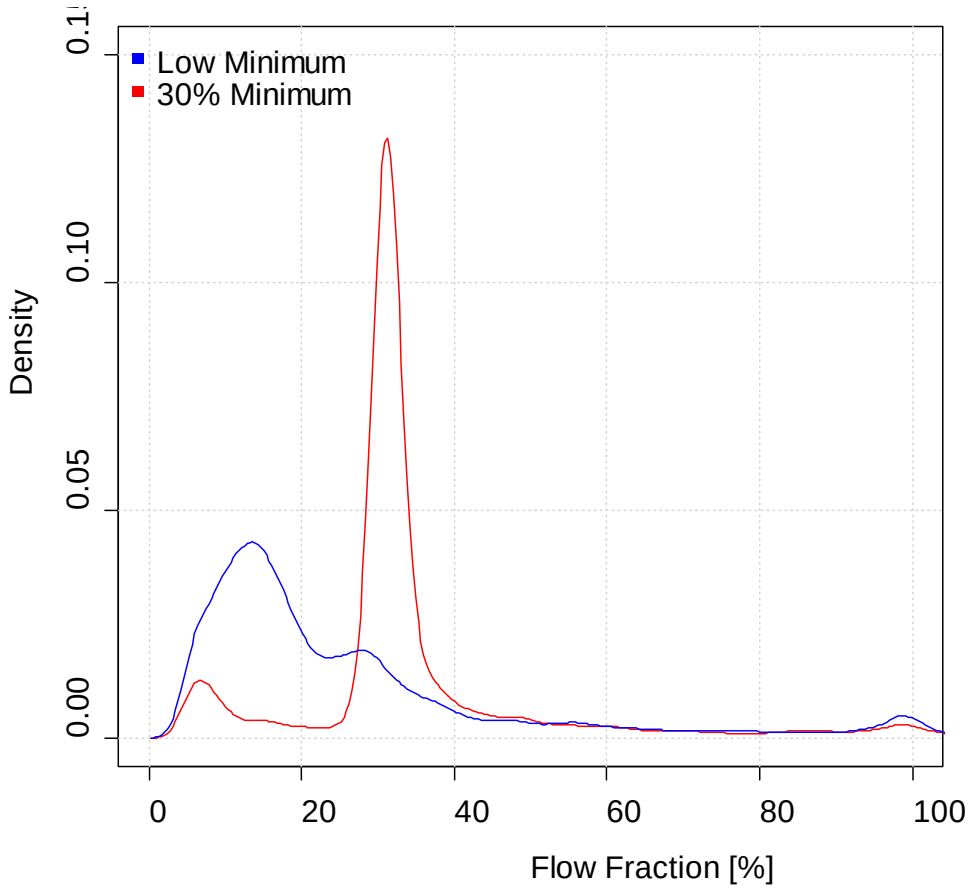
$$Ev = 0.75 \text{ for } D\geq 0.60 \qquad (6.2.5.3.1B)$$

6.2.5.3.2 Zone Minimum Primary Airflow. For each zone, the minimum primary airflow ($V_{pz\text{-}min}$) shall be determined in accordance with equation 6.2.5.3.2.

$$V_{pz\text{-}min} = V_{oz}*1.5 \qquad (6.2.5.3.2)$$

This new minimum primary airflow rate is proposed to replace the current provision in Standard 90.1 that allows VAV box minimum setpoints to be 20% of the design supply air rate. Outdoor air rates are generally much lower than 20% of the maximum rate, but designers felt they needed a higher percentage to meet the requirements of Standard 62.1 for multiple zone systems. With this addendum, designers no longer need to calculate what minimum rates are required using the Multiple Spaces Equation. Moreover, using percentages to determine minimums is problematic because VAV boxes are almost always oversized due to conservative load assumptions for occupants, lights, plug loads, etc. It is not unusual for boxes to be sized 3 or more times larger than they need to be, as was found to be the case in ASHRAE RP-1515 “Thermal and air quality acceptability in buildings that reduce energy by reducing minimum airflow from overhead diffusers.” The figure below from RP-1515 shows measured frequency of airflow rates in 7 California office building using 30% minimums (based on earlier versions of Standard 90.1 and Title 24 Energy Standards) compared to the current “dual maximum” logic required by both Standard 90.1 and Title 24 for systems with DDC using the minimum set to the Title 24 minimum ventilation rate. (The Title 24 minimum ventilation rate is similar to the rates that result from Addendum f to Standard 62.1 shown above.) The figure shows that even if the minimums were set to 20% instead of 30%, excess air would have been supplied due to the oversized cooling

maximum setpoint, wasting fan energy, heating energy, and cooling energy. RP-1515 also demonstrated that high minimums increased discomfort by "pushing" zones into heating mode in summer months, causing overcooling complaints. Thus, based on RP-1515 results, we expect this addendum to both reduce energy costs and improve comfort.



Cost impact. This addendum is not expected to increase the cost of construction. The requirement is simply for existing VAV terminal boxes to be set with a different dead band primary air minimum for dual maximum boxes. In some cases the new simplified minimum may be below the typical VAV box sensor accuracy; however, the addendum allows the maximum deadband airflow to be met on an average basis—in accordance with Standard 62.1, Section 6.2.6.2 Short-Term Conditions—by cycling between a closed damper and a higher minimum that can be sensed by a standard sensor. This means that a higher cost or more accurate sensor is not required, as the average approach allows low minimum airflows to be met with time-limited higher airflows within the sensing range of a standard sensor.

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Addendum au to 90.1-2016

(IP and SI Units)
Revise Exception 2 to Section 6.5.2.1 to the Standard as follows:

6.5.2 Simultaneous Heating and Cooling Limitation

6.5.2.1 Zone Controls

. . .

2. Zones with *DDC* that comply with all of the following:
   a. The airflow rate in *dead band* between heating and cooling does not exceed the larger of the following:
      ~~(1) Twenty percent of the zone design peak supply rate.~~
      (~~2~~1) The minimum primary ~~outdoor~~ airflow rate required to meet the Simplified Procedure ventilation requirements of ASHRAE Standard 62.1 for the zone and is permitted to be the average airflow rate as allowed by ASHRAE Standard 62.1.
      (~~3~~2) Any higher rate that can be demonstrated, to the satisfaction of the authority having jurisdiction, to reduce overall system annual energy use by offsetting reheat/recool energy losses through a reduction in outdoor air intake.
      (43) The airflow rate required to comply with applicable codes or accreditation standards, such as pressure relationships or minimum air change rates.
   b. The airflow rate that is reheated, recooled, or mixed shall be less than 50% of the zone design peak supply rate.
   c. The first stage of heating consists of modulating the zone supply air temperature *set point* up to a maximum *set point* while the airflow is maintained at the *dead band* flow rate.
   d. The second stage of heating consists of modulating the airflow rate from the *dead band* flow rate up to the heating maximum flow rate.

NOTE TO REVIEWERS: No other addenda have changed section 6.5.5.1 since publication of Standard 90.1-2016. Following is how section 6.5.2.1 would appear after this modification.

6.5.2 Simultaneous Heating and Cooling Limitation

6.5.2.1 Zone Controls

Zone *thermostatic controls* shall prevent

a. *reheating*;
b. *recooling*;
c. mixing or simultaneously supplying air that has been previously mechanically heated and air that has been previously cooled, either by *mechanical cooling* or by economizer *systems*; and
d. other simultaneous operation of heating and cooling *systems* to the same zone.

Exceptions to 6.5.2.1

1. Zones for which the volume of air that is reheated, recooled, or mixed is less than the larger of the following:
   a. Twenty percent of the zone design peak supply for *systems* with *DDC* and 30% for other *systems.*
   b. The outdoor airflow rate required to meet the *ventilation* requirements of ASHRAE Standard 62.1 for the zone.

c. Any higher rate that can be demonstrated, to the satisfaction of the *authority having jurisdiction*, to reduce overall *system* annual *energy* use by offsetting *reheat*/*recool energy* losses through a reduction in *outdoor air* intake for the *system.*

d. The airflow rate required to comply with applicable codes or accreditation standards, such as pressure relationships or minimum air change rates.

2. Zones with *DDC* that comply with all of the following:

a. The airflow rate in *dead band* between heating and cooling does not exceed the larger of the following:

(1) The minimum primary airflow rate required to meet the Simplified Procedure ventilation requirements of ASHRAE Standard 62.1 for the zone and is permitted to be the average airflow rate.

(2) Any higher rate that can be demonstrated, to the satisfaction of the authority having jurisdiction, to reduce overall system annual energy use by offsetting reheat/recool energy losses through a reduction in outdoor air intake.

(3) The airflow rate required to comply with applicable codes or accreditation standards, such as pressure relationships or minimum air change rates.

b. The airflow rate that is reheated, recooled, or mixed shall be less than 50% of the zone design peak supply rate.

c. The first stage of heating consists of modulating the zone supply air temperature *set point* up to a maximum *set point* while the airflow is maintained at the *dead band* flow rate.

d. The second stage of heating consists of modulating the airflow rate from the *dead band* flow rate up to the heating maximum flow rate.

3. Laboratory exhaust *systems* that comply with Section 6.5.7.3.

4. Zones where at least 75% of the *energy* for *reheating* or for providing warm air in mixing *systems* is provided from *site-recovered energy* (including condenser heat) or *site-solar energy*.

BSR/ASHRAE/IES Addendum ax
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FOREWORD

This addendum gives the standard user alternatives to compliance with the automatic receptacle control requirement (Section 8.4.2). Per section 5.2.3.2 of "Achieving the 30% Goal: Energy and Cost Savings Analysis of ASHRAE Standard 90.1-2010" automatic receptacle controls were estimated to reduce plug load schedule by more than 7%. The alternative provisions provide more energy savings than the existing requirement. As this is an option to existing requirements, there is no impact on cost effectiveness.

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

Addendum ax to 90.1-2016

Modify the standard as follows (IP and SI Units)

8.4.2 ~~Automatic Receptacle Control~~ Additional Efficiency Provisions

Buildings shall comply with at least one of the following:

1) Automatic receptacle control in accordance with Section 8.4.2.1;
2) A fault detection and diagnostic (FDD) system in accordance with Section 8.4.2.2; or
3) Reduced *lighting power density* in accordance with Section 8.4.2.3

8.4.2.1 Automatic Receptacle Control

The following shall be automatically be controlled:

a. At least 50% of all 125 V, 15 and 20 amp receptacles in all private offices, conference rooms, rooms used primarily for printing and/or copying functions, break rooms, classrooms, and individual workstations.

b. At least 25% of *branch circuit* feeders installed for modular furniture not shown on the *construction documents.*

This *control* shall function on

a. a scheduled basis using a time-of-day operated *control device* that turns receptacles off at specific programmed times—an independent program schedule shall be provided for

controlled areas of no more than 5000 ft^2 and not more than one *floor* (the occupant shall be able to manually override the *control device* for up to two hours);

b. an *occupant sensor* that shall turn receptacles off within 20 minutes of all occupants leaving a *space*; or

c. an automated signal from another *control* or alarm *system* that shall turn receptacles off within 20 minutes after determining that the area is unoccupied.

All controlled receptacles shall be permanently marked to visually differentiate them from uncontrolled receptacles and are to be uniformly distributed throughout the *space*. Plug-in devices shall not be used to comply with Section 8.4.2.1 ~~8.4.2~~.

Exceptions to Section 8.4.2.1

Receptacles for the following shall not require an *automatic control device*:

1. Receptacles specifically designated for *equipment* requiring continuous operation (24/day, 365 days/year).
2. *Spaces* where an *automatic control* would endanger the safety or security of the room or *building* occupants.

8.4.2.2 Fault Detection and Diagnostics (FDD)

An FDD system shall be installed to monitor the performance of the building *HVAC system* and detects fault(s) in the system. The FDD system shall:

1. Include permanently installed devices to monitor *HVAC system* operation;
2. Sample the *HVAC system* performance at least once per hour;
3. Automatically identify, display and report system faults;
4. Automatically notify authorized personnel of identified fault conditions;
5. Automatically provide prioritized recommendations for fault repair.

8.4.2.3 Reduced lighting power density

The *interior lighting power allowance* as required in accordance with Sections 9.2, 9.5, or 9.6 shall be reduced by at least 8%.

==========

Section 8.4.2 is also modified by addendum AC which is not yet published. If addendum AC and this addendum are published, the section will be appear as follows. Text that did not appear in addendum AC or in the previous sections of this draft, are shown below in strikethrough/underline:

8.4.2 Additional Efficiency Provisions

Buildings shall comply with one or more of the following:

1) Automatic receptacle control in accordance with Section 8.4.2.1;
2) A fault detection and diagnostic (FDD) system in accordance with Section 8.4.2.2; or
3) Reduced *lighting power density* in accordance with Section 8.4.2.3

8.4.2.1 Automatic Receptacle Control

The following shall be controlled:

a. At least 50% of all 125 V, 15 and 20 amp receptacles in all private offices, conference rooms, rooms used primarily for printing and/or copying functions, break rooms, classrooms, and individual workstations.

b. At least 25% of *branch circuit* feeders installed for modular furniture not shown on the *construction documents.*

This *control* shall function on

a. a scheduled basis using a time-of-day operated *control device* that turns receptacles off at specific programmed times an independent program schedule shall be provided for controlled areas of no more than 5000 ft^2 and not more than one *floor* (the occupant shall be able to manually override the *control device* for up to two hours);

b. an *occupancy sensor* that shall turn receptacles off within 20 minutes of all occupants leaving a *space*; or

c. an automated signal from another *control* or alarm *system* that shall turn receptacles off within 20 minutes after determining that the area is unoccupied.

All controlled receptacles shall be permanently marked to visually differentiate them from uncontrolled receptacles and are to be uniformly distributed throughout the *space*. Plug-in devices shall not be used to comply with Section 8.4.2.1.

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Receptacles for the following shall not require an *automatic control device*:

1. Receptacles specifically designated for *equipment* requiring continuous operation (24/day, 365 days/year).
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8.4.2.3 Reduced lighting power density

The *interior lighting power allowance* as required in accordance with Sections 9.2, 9.5, or 9.6 shall be reduced by at least 8%.

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FOREWORD

Section 6.5.6.1 contains energy recovery ventilation requirements were developed without consideration given for dwelling units within the scope of 90.1. In an effort to develop rational energy recovery ventilation requirements for dwelling units, building energy simulations were conducted on a nominal 1000 ft2, 2-bedroom apartment dwelling unit in compliance with the prescriptive path of 90.1 across all climate zones. Four ventilation systems were evaluated for outdoor air: exhaust-only (not permitted by the International Mechanical Code, which requires supply or balanced ventilation, but evaluated at the request of the 90.1 Mechanical Subcommittee), dedicated supply, central fan integrated supply, and balanced with energy recovery. Ventilation rates were set in accordance with ASHRAE 62.2.

Cost Effectiveness.
Simulations were run in EnergyPlus. A list of detailed inputs and outputs is also provided in a separate Excel file, with a narrative available in a PowerPoint document. The simulations and accompanying economic analysis resulted in a favorable scalar ratio (all below 4) for dwelling unit energy recovery ventilation systems in all climate zones except for 3C and for small dwelling units (i.e., no more than 500 ft2) in climate zones 0B, 1, 2, 3, 4C, and 5C. Additionally, the proposal exempts all dwelling units in climate zones 0, 1, 2, and 3C from heating energy recovery requirements and climate zones 3C, 4, 5, 6, 7, and 8 from cooling energy recovery requirements based on insignificant savings. The proposal was vetted and developed over several months by TC 5.5 – Air-to-Air Energy Recovery prior to submitting to the 90.1 Mechanical Subcommittee.

Availability of Performance Data for Small ERV.
Some may be concerned that manufactures of residential and small commercial ERV's do not provide the data required to calculate Energy Recovery Ratio. However, it should be noted that this proposal was created with the support of a working group from TC 5.5 – Air-to-Air Energy Recovery, which in turn worked with the Home Ventilating Institute. HVI is a trade association that represents manufacturers of residential and small commercial ERV's. HVI has committed that manufacturers will provide the enthalpy recovery ratio performance data required to implement this addendum

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Addendum ay to 90.1-2016

Add definition in Section 3.2:

nontransient: occupancy of a dwelling unit or sleeping unit for more than 30 days.

Modify Section 6.5.6.1 as follows

6.5.6.1 Exhaust Air Energy Recovery

6.5.6.1.1 Nontransient *dwelling units*

Nontransient dwelling units shall be provided with outdoor air energy recovery ventilation systems. For *nontransient dwelling units*, *energy* recovery *systems* shall result in an *enthalpy recovery ratio* of at least 50% at cooling design condition and at least 60% at heating design condition.

Exceptions to 6.5.6.1

1. *Nontransient dwelling units* in Climate Zone 3C.
2. *Nontransient dwelling units* with no more than 500 ft^2 of conditioned floor area in Climate Zones 0, 1, 2, 3, 4C, and 5C.
3. *Enthalpy recovery ratio* requirements at heating design condition in Climate Zones 0, 1, 2.
4. *Enthalpy recovery ratio* requirements at cooling design condition in Climate Zones 4, 5, 6, 7, and 8.

6.5.6.1.2 Spaces other than nontransient *dwelling units*

Each fan *system* serving spaces other than *nontransient dwelling units* shall have an *energy* recovery *system* where the design supply fan airflow rate exceeds the value listed in Tables 6.5.6.1.2-1 and 6.5.6.1.2-2, based on the climate zone and percentage of *outdoor air* at design airflow conditions. Table 6.5.6.1.2-1 shall be used for all *ventilation systems* that operate less than 8000 hours per year, and Table 6.5.6.1.2-2 shall be used for all *ventilation systems* that operate 8000 or more hours per year.

For spaces other than *nontransient dwelling units*, e~~E~~*nergy* recovery *systems* ~~required by this section~~ shall result in an *enthalpy recovery ratio* of at least 50%. ~~A 50% *Enthalpy recovery ratio* shall mean a change in the enthalpy of the *outdoor air* supply equal to 50% of the difference between the *outdoor air* and entering exhaust air enthalpies at *design conditions*.~~ Provision shall be made to bypass or *control* the *energy* recovery *system* to permit *air economizer* operation as required by Section 6.5.1.1.

Exceptions to 6.5.6.1.2

1. Laboratory *systems* meeting Section 6.5.7.3.
2. *Systems* serving *spaces* that are not cooled and that are heated to less than 60°F.
3. Where more than 60% of the *outdoor air* heating *energy* is provided from *site-recovered energy* or *site-solar energy*.
4. *Enthalpy recovery ratio* requirements at heating design condition ~~Heating *energy* recovery~~ in Climate Zones 0, 1, and 2.
5. *Enthalpy recovery ratio* requirements at cooling design condition ~~Cooling *energy* recovery~~ in Climate Zones 3C, 4C, 5B, 5C, 6B, 7, and 8.
6. Where the sum of the airflow rates exhausted and relieved within 20 ft of each other is less than 75% of the design outdoor air rate, excluding exhaust air that is
   a. used for another *energy* recovery *system*,
   b. not allowed by ASHRAE Standard 170 for use in *energy* recovery *systems* with leakage potential, or
   c. of Class 4 as defined in ASHRAE Standard 62.1.
7. *Systems* requiring dehumidification that employ *energy* recovery in series with the cooling coil.
8. *Systems* expected to operate less than 20 hours per week at the *outdoor air* percentage covered by Table 6.5.6.1.2-1.

Table 6.5.6.1.2-1 Exhaust Air *Energy* Recovery Requirements for *Ventilation Systems* Operating Less than 8000 Hours per Year

(no changes to table)

Table 6.5.6.1.2-2 Exhaust Air *Energy* Recovery Requirements for *Ventilation Systems* Operating Greater than or Equal to 8000 Hours per Year

(no changes to table)

BSR/ASHRAE/IES Addendum az
to ANSI/ASHRAE/IES Standard 90.1-2016
Public Review Draft

Proposed Addendum az to Standard 90.1-2016, Energy Standard for Buildings Except Low-Rise Residential Buildings

First Public Review (August 2018)
(Draft Shows Proposed Changes to Current Standard)

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FOREWORD

The current language implies that a different modeling methodology should be used to model refrigeration equipment in the baseline and proposed design. Since Tables G3.10.1 & 2 list kWh/day based on AHRI 1200 testing procedure, the proposed design usage must also be based on the rated kWh/day of the specified equipment using the same testing procedure.

This addendum impacts an optional performance path in the standard designed to provide increased flexibility and therefore was not subjected to cost effectiveness analysis.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and strikethrough (for deletions) unless the instructions specifically mention some other means of indicating the changes. Only these changes are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed substantive changes.

Addendum az to 90.1-2016

Revise the Standard as follows (IP Units and SI Units)

Table G3.1 Modeling Requirements for Calculating Proposed and Baseline Building Performance

Proposed *Building* Performance	***Baseline Building* Performance**
17. Refrigeration	
Where refrigeration equipment in the proposed design is rated in accordance with AHRI 1200, the rated energy use shall be modeled. Otherwise, the ~~The~~ *proposed design* shall be modeled using the actual *equipment* capacities and efficiencies.	Where refrigeration *equipment* is specified in the *proposed design* and listed in Tables G3.10.1 and G3.10.2, the *baseline building design* shall be modeled as specified in Tables G3.10.1 and G3.10.2 using the actual *equipment* capacities. If the refrigeration *equipment* is not listed in Tables G3.10.1 and G3.10.2, the *baseline building design* shall be modeled the same as the *proposed design*.

BSR/ASHRAE/IES Addendum ba
to ANSI/ASHRAE/IES Standard 90.1-2016
Public Review Draft

Proposed Addendum ba to Standard 90.1-2016, Energy Standard for Buildings Except Low-Rise Residential Buildings

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FOREWORD

This proposed addendum establishes a methodology for determining the baseline flow rates on projects where service water-heating is demonstrated to be reduced by water conservation measures that reduce the physical volume of service water required, such as with low-flow shower heads.

This addendum impacts an optional performance path in the standard designed to provide increased flexibility and therefore was not subjected to cost effectiveness analysis.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and strikethrough (for deletions) unless the instructions specifically mention some other means of indicating the changes. Only these changes are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed substantive changes.

Addendum ba to 90.1-2016

Revise the Standard as follows (IP Units)

Table G3.1 Modeling Requirements for Calculating Proposed and Baseline Building Performance

Proposed *Building* Performance	***Baseline Building* Performance**
11. *Service Water-Heating Systems*	
The *service water-heating system* type and all related performance parameters, such as *equipment* capacities and efficiencies, in the *proposed design* shall be determined as follows: a. Where a complete *service water-heating system* exists, the *proposed design* shall reflect the actual *system* type using actual component capacities and efficiencies. b. Where a *service water-heating system* has been designed and submitted with design documents, the *service water-heating model* shall be consistent with design documents. c. Where no *service water-heating system* exists or has been designed and submitted with design documents but the *building* will have *service water-heating* loads, a *service water-heating system* shall be modeled that matches the *system* type in the *baseline building design*, serves the same *water-heating* loads, and shall comply with but not exceed the requirements of Section 7. d. For *buildings* that will have no *service water-heating* loads, no *service water-heating system* shall be modeled. e. Where a combined *system* has been specified to meet both *space* heating and *service water-heating* loads, the *proposed design* shall reflect the actual *system* type using actual component capacities and efficiencies.	The *service water-heating system* in the *baseline building design* shall be as specified in Table G3.1.1-2 and conform with the following conditions: a. Where a complete *service water-heating system* exists or a new *service water-heating system* has been specified, one *service water-heating system* shall be modeled for each *building* area type in the proposed *building*. Each *system* shall be sized according to the provisions of Section 7.4.1, and the *equipment* shall match the minimum *efficiency* requirements in Section 7.4.2. b. Where no *service water-heating system* exists or has been specified but the *building* will have *service water-heating* loads, one *service water-heating system* shall be modeled for each anticipated *building* area type in the *proposed design*. Each *system* shall meet the minimum *efficiency* requirements of Section 7.4.2 and be modeled identically to the *proposed design*. c. For *buildings* that will have no *service water-heating* loads, no *service water-heating* shall be modeled. d. For large, 24-hour-per-day facilities that meet the prescriptive criteria for use of condenser heat recovery *systems* described in Section 6.5.6.2, a *system* meeting the requirements of that section shall be included in the

f. Piping losses shall not be modeled.	*baseline building design* regardless of the exceptions to Section 6.5.6.2. **Exceptions:** If a condenser heat recovery *system* meeting the requirements described in Section 6.5.6.2 cannot be modeled, the requirement for including such a *system* in the actual *building* shall be met as a prescriptive requirement in accordance with Section 6.5.6.2, and no heat recovery *system* shall be included in the *proposed design* or *baseline building design*. e. *Service water-heating energy* consumption shall be calculated explicitly based upon the volume of *service water heating* required and the entering makeup water and the leaving *service water-heating* temperatures. Entering water temperatures shall be estimated based upon the location. Leaving temperatures shall be based upon the end-use requirements. f. Where recirculation pumps are used to ensure prompt availability of *service water-heating* at the end use, the *energy* consumption of such pumps shall be calculated explicitly. g. Service water loads and use shall be the same for both the *proposed design* and *baseline building design* and shall be documented by the calculation procedures described in Section 7.4.1. **Exceptions:** 1. *Service water-heating* use can be demonstrated to be reduced by documented water conservation measures that reduce the physical volume of service water required. Examples include but are not limited to low-flow shower heads and dishwashers. Such reduction shall be demonstrated by calculations. The baseline flow rates shall be equal to the maximum allowed by the applicable code and the calculation methodology shall be approved by the *authority having jurisdiction*.
11. *Service Water-Heating Systems* (contd.)	
	Exceptions: 2. *Service water-heating energy* consumption can be demonstrated to be reduced by reducing the required temperature of service mixed water, by increasing the temperature, or by increasing the temperature of the entering makeup water. Examples include alternative sanitizing technologies for dishwashing and heat recovery to entering makeup water. Such reduction shall be demonstrated by calculations. 3. *Service water heating* use can be demonstrated to be reduced by reducing the hot fraction of mixed water to achieve required operational temperature. Examples include shower or laundry heat recovery to incoming cold-water supply, reducing the hot-water fraction required to meet required mixed-water temperature. Such reduction shall be demonstrated by calculations. h. Gas storage *water heaters* shall be modeled using natural gas as their *fuel*. **Exceptions:** Where natural gas is not available for the proposed *building* site, as determined by the *rating authority*, gas storage *water heaters* shall be modeled using propane as their *fuel*. i. Piping losses shall not be modeled.

Note to reviewers: Addendum e is also makes changes to item 11 (Service Water-Heating Systems). Below is how the text will appear if this addendum and Addendum e are both published.

11. *Service Water-Heating Systems*	
The *service water-heating system* type and all related performance parameters, such as *equipment* capacities and efficiencies, in the *proposed design* shall be determined as follows: a. Where a complete *service water-heating system* exists, the *proposed design* shall reflect the actual *system* type using actual component capacities and efficiencies. b. Where a *service water-heating system* has been designed and submitted with design documents, the *service water-heating model* shall be consistent with design documents. c. Where no *service water-heating system* exists or has been designed and submitted with design documents but the *building* will have *service water-heating* loads, a *service water-heating system* shall be modeled that matches the *system* type in the *baseline building design*, serves the same *water-heating* loads, and shall comply with but not exceed the requirements of Section 7. d. For *buildings* that will have no *service water-heating* loads, no *service water-heating system* shall be modeled. e. Where a combined *system* has been specified to meet both *space* heating and *service water-heating* loads, the *proposed design* shall reflect the actual *system* type using actual component capacities and efficiencies. f. Piping losses shall not be modeled.	The *service water-heating system* in the *baseline building design* shall be as specified in Table G3.1.1-2 and conform with the following conditions: a. Where a complete *service water-heating system* exists or a new *service water-heating system* has been specified, one *service water-heating system* shall be modeled for each *building* area type in the proposed *building*. Each *system* shall be sized according to the provisions of Section 7.4.1, and the *equipment* shall match the minimum *efficiency* requirements in Section 7.4.2. b. Where no *service water-heating system* exists or has been specified but the *building* will have *service water-heating* loads, one *service water-heating system* shall be modeled for each anticipated *building* area type in the *proposed design*. Each *system* shall meet the minimum *efficiency* requirements of Section 7.4.2 and be modeled identically to the *proposed design*. c. For *buildings* that will have no *service water-heating* loads, no *service water-heating* shall be modeled. d. For large, 24-hour-per-day facilities that meet the prescriptive criteria for use of condenser heat recovery *systems* described in Section 6.5.6.2, a *system* meeting the requirements of that section shall be included in the *baseline building design* regardless of the exceptions to Section 6.5.6.2. **Exceptions:** If a condenser heat recovery *system* meeting the requirements described in Section 6.5.6.2 cannot be modeled, the requirement for including such a *system* in the actual *building* shall be met as a prescriptive requirement in accordance with Section 6.5.6.2, and no heat recovery *system* shall be included in the *proposed design* or *baseline building design*. e. *Service water-heating energy* consumption shall be calculated explicitly based upon the volume of *service water heating* required and the entering makeup water and the leaving *service water-heating* temperatures. Entering water temperatures shall be estimated based upon the location. Leaving temperatures shall be based upon the end-use requirements. f. Where recirculation pumps are used to ensure prompt availability of *service water-heating* at the end use, the *energy* consumption of such pumps shall be calculated explicitly. g. Service water loads and use shall be the same for both the *proposed design* and *baseline building design* and shall be documented by the calculation procedures described in Section 7.4.1. **Exceptions:** 1. *Service water-heating* use can be demonstrated to be reduced by documented water conservation measures that reduce the physical volume of service water required. Examples include but are not limited to low-flow shower heads and dishwashers. Such reduction shall be demonstrated by calculations. The baseline flow rates shall be equal to the maximum allowed by the

	applicable code and the calculation methodology shall be approved by the *authority having jurisdiction*.
11. *Service Water-Heating Systems* (contd.)	
	Exceptions: 2. *Service water-heating energy* consumption can be demonstrated to be reduced by reducing the required temperature of service mixed water, by increasing the temperature, or by increasing the temperature of the entering makeup water. Examples include alternative sanitizing technologies for dishwashing and heat recovery to entering makeup water. Such reduction shall be demonstrated by calculations. 3. *Service water heating* use can be demonstrated to be reduced by reducing the hot fraction of mixed water to achieve required operational temperature. Examples include shower or laundry heat recovery to incoming cold-water supply, reducing the hot-water fraction required to meet required mixed-water temperature. Such reduction shall be demonstrated by calculations. h. Gas storage *water heaters* shall be modeled using natural gas as their *fuel*. **Exceptions:** Where natural gas is not available for the proposed *building* site, as determined by the *rating authority*, gas storage *water heaters* shall be modeled using propane as their *fuel*. i. Piping losses shall not be modeled.

BSR/ASHRAE/IES Addendum bf
to ANSI/ASHRAE/IES Standard 90.1-2016

Public Review Draft

Proposed Addendum bf to Standard 90.1-2016, Energy Standard for Buildings Except Low-Rise Residential Buildings

First Public Review (August 2018)
(Draft Shows Proposed Changes to Current Standard)

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FOREWORD

This proposed addendum provides an alternative to the requirement for vestibules by use of an air curtain that meets specific requirements prescribed in the proposed language. Air curtains have been installed in buildings for over 60 years. The energy savings that air curtains provide has been thoroughly documented in the extensive research conducted by Concordia University. For more than 6 years Concordia University researchers have been studying air curtain energy usage and savings. They have also compared it to the energy savings and losses of vestibules. The results show that air curtains, in fact save more energy than vestibules. As this is an option to the vestibule requirement, this addendum was not subject to cost effectiveness analysis.

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Addendum bf to 90.1-2016

Modify Section 5 as follows (IP and SI Units)

5.4.3.4 Vestibules
Building entrances that separate *conditioned space* from the exterior shall be protected with an enclosed vestibule, with all *doors* opening into and out of the vestibule equipped with self-closing devices. Vestibules shall be designed so that in passing through the vestibule it is not necessary for the interior and exterior *doors* to open at the same time. Interior and exterior *doors* shall have a minimum distance between them of not less than 7 ft when in the closed position. The *floor* area of each vestibule shall not exceed the greater of 50 ft^2 or 2% of the *gross conditioned floor area* for that level of the *building*. The exterior envelope of conditioned vestibules shall comply with the requirements for a *conditioned space*. The interior and exterior envelope of unconditioned vestibules shall comply with the requirements for a *semiheated space*.

Exceptions to 5.4.3.4
1. *Building entrances* with revolving *doors.*
2. *Doors* not intended to be used as a *building entrance.*
3. *Doors* opening directly from a *dwelling unit.*
4. *Building entrances* in *buildings* located in Climate Zone 1 or 2.
5. *Building entrances* in *buildings* that are located in Climate Zone 3, less than four stories above *grade*, and less than 10,000 ft^2 in *gross conditioned floor area.*

6. *Building entrances* in *buildings* that are located in Climate Zone 0, 4, 5, 6, 7, or 8 and are less than 1000 ft^2 in *gross conditioned floor area.*
7. *Doors* that open directly from a *space* that is less than 3000 ft^2 in area and is separate from the *building entrance.*
8. *Semiheated spaces.*
9. Enclosed elevator lobbies for *building entrances* directly from parking garages.
10. Self closing doors in buildings in Climate Zones 0, 3, and 4 that have an air curtain complying with Section 10.4.5.
11. Self closing doors in buildings 15 stories or less in Climate Zones 5 thru 8 that have an air curtain complying with Section 10.4.5.

…

Insert new Section 10.4.5 as follows (IP and SI Units)

10.4.5 Air Curtains. Air curtain units shall be tested in accordance with ANSI/AMCA 220 or ISO 27327-1 and installed and commissioned in accordance with the manufacturer's instructions to ensure proper operation and shall have a jet velocity of not less than 6.6 feet per second (2.0 m/s) at 6.0 in (15 cm) above the floor and direction not less than 20 degrees toward the opening. Automatic controls shall be provided that will operate the air curtain with the opening and closing of the door.

10.4.5~~5~~6 Whole-Building Energy Monitoring……

Renumber following sections

…

Modify Appendix E as follows (IP and SI Units)

AMCA
30 West University Drive
Arlington Heights, IL 60004

Subsection No.	Reference	Title/Source
10.4.5	ISO 27327-1:2009 (R2014) Fans -- Air curtain units -- Part 1: Laboratory methods of testing for aerodynamic performance rating	AMCA
10.4.5	ANSI/AMCA Standard 220-05 (R2012) Laboratory Methods of Testing Air Curtain Units for Aerodynamic Performance Rating	ISO

BSR/ASHRAE/IES Addendum v
to ANSI/ASHRAE/IES Standard 90.1-2016

Public Review Draft

Proposed Addendum v to Standard 90.1-2016, Energy Standard for Buildings Except Low-Rise Residential Buildings

Third Public Review (August 2018)
(Draft Shows Proposed Independent Substantive Changes to Previous Public Review Draft)

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FOREWORD

Most hospitals use reheat HVAC systems with simultaneous heating and cooling. Even with required air or water economizers, there are many hours with simultaneous heating and cooling use. It is generally lower cost to generate heating water with a heat recovery chiller or heat pump when the chilled water generated is useful than it is to use a boiler that complies with 90.1.

Evaluation of a typical hospital in multiple climate zones shows a potential for reasonable recovery with a heat recovery chiller or heat pump that is sized between 7% and 12% of the cooling plant, depending on climate zone. For simplification, the minimum is set at 7% of total cooling load across the board.

An economic analysis was made using the 90.1 scalar method based on installed heat recovery chiller costs of $1,800 per ton. The resulting scalars were all under 10 years for required climate zones vs. a scalar limit of 13 years. The trend of higher savings in warmer climate zones was used to include climate zones 1 and 0 without specific analysis. The payback in Climate Zone 2B was under 5 years.

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

Addendum v to 90.1-2016

Modify the standard as follows (IP and SI Units)

Add new section 6.5.6.3

6.5.6.3 Heat Recovery for Space Conditioning

Where heating water is used for space heating, a condenser heat recovery *system* shall be installed provided all of the following are true:

a. The building is an acute ~~care~~ inpatient hospital, where the building or portion of a building is used on a 24-hour basis for the inpatient medical, obstetric, or surgical care for patients.
b. The total design chilled water capacity for the ~~building~~ acute inpatient hospital, either air cooled or water cooled, required at cooling *design conditions* exceeds 3,600,000 Btu/h (1,100 kW) of cooling.
c. Simultaneous heating and cooling occurs above 60°F (16°C) *outdoor air temperature*.

The required heat recovery *system* shall have a cooling capacity that is at least 7% of the total design chilled water capacity of the acute ~~care~~ inpatient hospital at peak *design conditions*.

Exception to 6.5.6.3

1. Buildings that provide ≥60% of their reheat energy from *on-site renewable energy* or *site-recovered energy*.

2. Buildings in climate zones 5C, 6B, 7, & 8.

BSR/ASHRAE/IES Standard 90.2-2007R
a revision to ANSI/ASHRAE/IES Standard 90.2-2007

3rd Public Review Draft

Proposed Standard 90.2-2007R, *Energy-Efficient Design of Low-Rise Residential Buildings*

Third Public Review (August 2018)

(Draft Shows Proposed Independent Substantive Changes to Previous Public Review Draft)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at www.ashrae.org/standards-research--technology/public-review-drafts 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).

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 proposed revision of ASHRAE Standard 90.2 builds on the last public reviews and includes revisions to gain better alignment between this standard's requirements and marketplace product availability as well as some revisions to improve the document's clarity and internal consistency.

The standard will maintain its new approach to delivered residential building energy performance. This new leadership standard seeks to deliver residential building energy performance that is at least 50% more efficient than the energy efficiency defined by the 2006 IECC. Key to accomplishing this objective is delivery of an accurate, flexible, performance-based tool to enable user creativity in meeting the performance objectives. Cost effectiveness was a critical consideration during the standard's development.

Note: In this public review draft, changes to the previous public review draft are indicated in the text by underlining (for additions) and strikethrough (for deletions) unless the instructions specifically mention some other means of indicating the changes. Only these changes are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed substantive changes.

Modify 3.1 Definitions:

reference design: a version of the proposed design with identical geometry that meets the minimum requirements of ~~the 2006 International Energy Conservation Code as modified by this standard. The reference design is~~ the energy rating reference home in ANSI/RESNET/ICC 301 as modified by this Standard.

Modify Table 5.1:

Table 5-1: Central Air Conditioner and Heat Pump Specifications (IP)

Equipment Type	SEER	EER	HSPF	COP(h)	SCOP	COP(c)
Central Air Conditioners						
Split	16	13				
Packaged	16	12				
Heat Pumps:						
Air Source: Split rated capacity below 50,000 Btuh	16	13	9.0			
Air Source: Split rated capacity at or above 50,000 Btuh	16	13	8.5			

Air Source: Packaged	16	12	8.2			
Geothermal Closed Loop: Water-to-air		17.1		3.6		
Geothermal Open Loop: Water-to-air		21.1		4.1		
Geothermal Closed Loop: Water-to-water		16.1		3.1		
Geothermal Open Loop: Water-to-water		20.1		3.5		
DGX		16.0		3.6		

Table 5-1: Central Air Conditioner and Heat Pump Specifications (SI)

Equipment Type	SEER	EER	HSPF	COP(h)	SCOP	COP(c)
Central Air Conditioners						
Split	16	13			3.81	
Packaged	16	12			3.52	
Heat Pumps:						
Air Source: Split rated capacity below 14.7 kW	16	13	9.0		3.81	
Air Source: Split rated capacity at or above 14.7 kW	16	13	8.5		3.81	
Air Source: Packaged	16	12	8.2		3.52	
Geothermal Closed Loop: Water-to-air		17.1		3.6		5.01
Geothermal Open Loop: Water-to-air		21.1		4.1		6.18
Geothermal Closed Loop: Water-to-water		16.1		3.1		4.72
Geothermal Open Loop: Water-to-water		20.1		3.5		5.89
DGX		16.0		3.6		4.69

Modify sections 7.4.g & 7.4.7 as follows:

7.4.6. Plumbing fixture fittings: Residential plumbing fixtures listed below shall meet the following:
a. Showerheads. Showerheads shall have a maximum flow rate of 2.0 gpm at 80 psi when tested in accordance with ASME A112.18.1/CSA B125.1,
b. Private lavatory faucets. Private lavatory faucets shall have a maximum flow rate of 1.2~~2~~5 gpm at 60 psi when tested in accordance with ASME A112.18.1/CSA B125.1.
7.4.7 Kitchen faucets. Kitchen faucets shall have a maximum flow rate of 1.8 gpm at 60 psi when tested in accordance with ASME A112.18.1/CSA B125.1. Kitchen faucets may temporally increase the flow above the maximum rate, but not to exceed 2.2.gpm at 60 psi, and must automatically default to a maximum flow rate of 1.8 gpm at 60 psi after each use.

Modify Section 7.6.5:

7.6.5. **Indoor Pool and Spa:** When a pool and/or spa located within a home, the mechanical dehumidification, ventilation, heat recovery, and comfort conditioning system shall be designed in accordance with ANSI/ACCA 10 Manual SPS - 2010 (RA 2017) HVAC Design for Swimming Pools and Spas.

Modify Section 7.6.6.4:

7.6.6.4 **Roof and gutter de-icing systems.** Roof and gutter de-icing shall be a self-regulating type with automatic controls. Roof and gutter de-icing systems shall have automatic controls capable of turning off the system when the outdoor temperature is above 50 °F (10 °C). Roof and gutter de-icing systems shall have an automatic or manual control that will allow shutoff when the outdoor temperature is greater than 40 ºF (4.8 ºC).

Modify Section 8.4.1:

8.4.1. The verifier shall visually inspect all *permanently installed* lighting and controls...
… with the following exceptions:
a. Spaces using less than 10W of total lighting power
b. Lighting designed for safety or security
~~c. Unconditioned spaces~~

Modify Section 10. Normative References:

ANSI/ACCA 10 Manual SPS – 2010 (RA2017)	Swimming Pools and Spas

American Society of Mechanical Engineers Two Park Avenue New York, NY 10016-5990	
ASME A112.18.1-2012/CSA B125.1-12 (R2017)	Plumbing Supply Fittings

Modify F3.1:

F3.1 Lighting equipment efficacies shall be in accordance with ~~the more stringent of: 1) U.S. Department of Energy appliance energy conservation standards as shown in the US Code of Federal Regulations, Title 10, Section 430.32 effective January 19, 2017; or 2)~~ Section 7.5.2. Use the required lighting controls in section 7.5.2.

C63.5-2017/Cor 1_D01.4
Draft Standard for Electromagnetic Compatibility - Radiated Emission Measurements in Electromagnetic Interference (EMI) Control - Calibration and Qualification of Antennas (9 kHz to 40 GHz) Corrigendum 1

Accredited Standards Committee C63®—Electromagnetic Compatibility

accredited by the

American National Standards Institute

Secretariat

Institute of Electrical and Electronic Engineers, Inc.

Approved 5 February 2010

American National Standards Institute

Abstract: Methods for determining antenna factors of antennas used for radiated emission measurements in electromagnetic interference (EMI) control from 9 kHz to 40 GHz are provided. Antennas included are linearly polarized antennas such as loops, rods (monopoles), tuned dipoles, biconical dipoles, log-periodic dipole arrays, biconical and log-periodic dipole array hybrids, broadband horns, etc., that are used in measurements prescribed by ANSI C63.4 and ANSI C63.10. The antenna calibration methods include standard site method (i.e., three-antenna method), reference antenna method, equivalent capacitance substitution method, standard transmit loop method, standard antenna method, and standard field method.

Keywords: ANSI C63.5, antenna factors, equivalent capacitance substitution, linearly polarized antennas, near-free space, reference antenna method, standard antenna method, standard site method, standard transmit loop method

The Institute of Electrical and Electronics Engineers, Inc. 3
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Introduction

This introduction is not part of IEEE P C63.5-2017/D01.4, Draft Standard for Electromagnetic Compatibility - Radiated Emission Measurements in Electromagnetic Interference (EMI) Control - Calibration and Qualification of Antennas (9 kHz to 40 GHz).

This corrigendum addresses the selection of attenuation in 5.1.1 e) such that a maximum VSWR of 2:1 is achieved.

C63.5-2017/Cor 1_D01.4
Draft Standard for Electromagnetic Compatibility - Radiated Emission Measurements in Electromagnetic Interference (EMI) Control - Calibration and Qualification of Antennas (9 kHz to 40 GHz) Corrigendum 1

NOTE—The editing instructions contained in this **corrigendum** define how to merge the material contained therein into the existing base standard and its amendments to form the comprehensive standard.

The editing instructions are shown in ***bold italic***. Four editing instructions are used: change, delete, insert, and replace. ***Change*** is used to make corrections in existing text or tables. The editing instruction specifies the location of the change and describes what is being changed by using ~~strikethrough~~ (to remove old material) and underscore (to add new material). ***Delete*** removes existing material. ***Insert*** adds new material without disturbing the existing material. Insertions may require renumbering. If so, renumbering instructions are given in the editing instruction. ***Replace*** is used to make changes in figures or equations by removing the existing figure or equation and replacing it with a new one. Editing instructions, change markings, and this NOTE will not be carried over into future editions because the changes will be incorporated into the base standard.

5.1.1 Basic parameters for SSM antenna calibrations

Change the existing step e) of this subclause as follows.

~~10 dB attenuators, with a return loss of greater than 15 dB, shall be connected to the transmit antenna and receive antenna, for matching purposes between each antenna and cable.~~ When a full two-port calibration (e.g., Open / Short / Load) is performed at the measurement plane where the cables mate to the antenna, matching attenuators at both the transmit antenna and the receive antenna are not required, this applies only to measurement systems using vector-network analyzers. If a full two-port normalization is not performed, matching attenuators that provide a VSWR of 2:1 or less at the mating plane with the antennas shall be used.

Tracking Number 49i118r1
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Revision to NSF/ANSI 49-2016
Issue 118, Draft 1 (July 2018)

[Note – the changes are illustrated below using ~~strikeout~~ for proposed removal of existing text and grey highlights to indicate the proposed new 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 International Standard for Biosafety Cabinetry —

Biosafety Cabinetry: Design, Construction, Performance, and Field Certification

•
•
•

5 Design and construction

•

5.25.3 Type B exhaust alarm

Type B cabinets shall be exhausted by a remote fan. Once the cabinet is set or certified in its acceptable airflow range, audible and visual alarms shall activate within 15 seconds of exhaust volume loss exceeding 20%. The internal cabinet fan(s) shall be interlocked to shut off within 15 seconds of exhaust volume loss exceeding 20%.~~at the *same time* the alarms are activated.~~ Type B cabinets shall not initiate cabinet blower startup until sensors determine appropriate exhaust flow.

•
•
•

Annex F
(normative)

Field tests

•

F.7.3.2.1 Exhaust alarm system – Type B1 or B2

Supply fan interlock on B cabinets:

a) Shall be tested at time of alarm verification.

b) Reduce exhaust volume by at least 20% once the cabinet is set or certified in its acceptable airflow range, and verify that audible and visual alarms indicate a loss of exhaust volume within 15 seconds. The internal cabinet fan(s) shall be interlocked to shut off within 15 seconds of the exhaust volume loss exceeding 20% ~~at the same time the alarms are activated.~~

Rationale: *The term 'same time' is ambiguous within the context of these paragraphs. It has been interpreted as* ***exactly*** *the same time, and electronics do not always have that level of capability. So long as the alarm and interlock occur within the same 15 second period, personal protection is achieved.*

Tracking number 419i7r2
Revision to NSF/ANSI 419 – 2015

Draft 2, Issue 7 (June 2018)

[Note – the changes are seen below using strikeout for removal of old text and gray highlights to show the suggested text. Text highlighted in yellow has changed between revision 1 and revision 2. ONLY the highlighted text is within the scope of this ballot.]

NSF International Standard / American National Standard –

Public Drinking Water Equipment Performance – Membrane Filtration

6 Microfiltration and ultrafiltration membrane modules

6.1 General requirements

6.1.1 A complete description of the microfiltration or ultrafiltration membrane module to be tested shall be provided. The description shall include the following:

- vendor name;
- model name / number of membrane element and vessel (if applicable);
- membrane material;
- mode of operation (cross-flow, dead-end, or either; pressure or vacuum driven);
- type of membrane module configuration (e.g. hollow fiber, spiral wound, etc.);
- water flow through membrane (inside-out or outside-in);
- status of module certification of NSF/ANSI Standard 61, or equivalent; and
- ~~the membrane specifications listed in Table 2.~~
- membrane specifications required in Annex C.

~~**Table 2 – Membrane module specifications**~~

~~**Dimensions: Module Specifications:**~~
~~Membrane media dimensions (e.g., inside and outside diameter and wall thickness, length of hollow-fibers or sheet dimensions, thickness, etc. of spiral-wound filters)~~
~~Membrane media symmetry (e.g., symmetric, asymmetric, composite, etc.)~~
~~Module outside diameter~~
~~Module length~~
~~Module volume (gallons and liters)~~ ~~– volume of pressurized air in module (volume of system)~~
~~Volume of pressurized air in module during direct integrity testing (gallons and liters)~~
~~Nominal and maximum membrane pore size, or molecular weight cutoff rating~~
~~Membrane surface area (feed side)~~
~~Feed side membrane filtration area within a module (ft^2)~~
~~Volumetric Concentration Factor (VCF, dimensionless)~~

~~liquid-membrane contact angle (e, degrees)~~
~~Net Expansion Factor (Y) if used in calculating the ALCR~~
~~Lumen diameter (d, mm) if used in calculating the ALCR~~
~~Potting depth or defect length (l, mm) if used in calculating ALCR~~
~~Pore shape correction factor (K, dimensionless)~~
~~Filtration Flow Direction (i.e., inside-out or outside-in)~~
~~Maximum oxidant tolerance~~
~~Operating temperature range~~
~~Maximum oxidant tolerance~~
~~Operating pH range~~
~~**Target Challenge Test Operating Limits:**~~
~~Hydraulic configuration (i.e., deposition or suspension)~~
~~Maximum design filtrate flux at 20°C~~
~~Flow range per module~~
~~Maximum inlet module pressure~~
~~Maximum transmembrane pressure (TMP) at 20°C~~
~~Maximum transmembrane pressure (TMP) (any temperature)~~
~~Maximum oxidant tolerance~~
~~Total system volume in challenge test skid (V_{sys}, in both gallons and liters) of pressurized air during direct integrity testing.~~
~~Minimum direct integrity test pressure (psi)~~
~~Baseline decay (Dbase)~~
~~Direct integrity test duration (s)~~
~~Non-destructive performance test (NDPT) method (e.g., pressure decay, etc.) and results applied to each module subject to challenge testing.~~
~~Quality Control Release Value (QCRV) applied for each module selected for challenge testing (include QCRV units)~~

Reason: Table 2 removed per JC meeting discussion on 10/27/16 and 6/27/17. These requirements are listed under Annex C and was approved as normative requirements on 10/18/17.

Draft PDS-01, BSR/RESNET/ICC 301-2014 Addendum R-201x Threshold Ratings

Amend Section 5.1.4 as follows to add Threshold Rating to the list of rating types.

5.1.4. Rating Types. There shall be ~~three~~ four Rating Types in accordance with Sections 5.1.4.1 through ~~5.1.4.3.~~5.1.4.4

5.1.4.1. Confirmed Rating. A Rating Type that encompasses one individual dwelling or dwelling unit and is conducted in accordance with Sections 5.1.4.1.1 through 5.1.4.1.3.

5.1.4.1.1. All Minimum Rated Features of the Rated Home shall be field-verified through inspection and testing in accordance with Section 4.4.

5.1.4.1.2. All field-verified Minimum Rated Features of the Rated Home shall be entered into the Approved Software Rating Tool that generates the home energy rating. The home energy rating shall report the Energy Rating Index that comports with these inputs.

5.1.4.1.3. Confirmed Ratings shall be subjected to Quality Assurance requirements equivalent to Section 900 of the *Mortgage Industry National Home Energy Rating Systems Standard*.

5.1.4.2. Sampled Ratings. A Rating Type that encompasses a set of dwellings or dwelling units and is conducted in accordance with Sections 5.1.4.2.1 through 5.1.4.2.3.

5.1.4.2.1. For the set of Rated Homes, all Minimum Rated Features shall be field-verified through inspection and testing of a single home in the set, or distributed across multiple homes in the set, in accordance with requirements equivalent to Section 600 of the *Mortgage Industry National Home Energy Rating Systems Standard*.

5.1.4.2.2. The threshold specifications from the Worst-Case Analysis for the Minimum Rated Features of the set of Rated Homes shall be entered into the Approved Software Rating Tool that generates the home energy rating. The home energy rating shall report the Energy Rating Index that comports with these inputs.

5.1.4.2.3. Sampled Ratings shall be subjected to Quality Assurance requirements equivalent to Section 900 of the *Mortgage Industry National Home Energy Rating Systems Standard*.

5.1.4.3. Projected Ratings. A Rating Type that encompasses one individual dwelling or dwelling unit and is conducted in accordance with Sections 5.1.4.3.1 through 5.1.4.3.5.

5.1.4.3.1. All minimum Rated Features of the Rated Home shall be determined from architectural drawings, threshold specifications, and the planned location and orientation

for a new home or from a site audit and threshold specifications for an existing home that is to be improved. For a new home, if the proposed orientation is unknown, the home shall be analyzed facing each of the four cardinal directions,-North, South, East and West, and the orientation resulting in the largest Energy Rating Index shall be used.

5.1.4.3.2. Projected Ratings shall use either the envelope leakage rate specified as the required performance by the construction documents, the site-measured envelope leakage rate, or the air exchange rate specified for the Energy Rating Reference Home in Table 4.2.2(1).

5.1.4.3.3. Projected Ratings shall use either the distribution system efficiency specified as the required performance by the construction documents, the site-measured distribution system efficiency, or the thermal distribution system efficiency value specified for the Energy Rating Reference Home in Table 4.2.2(1).

5.1.4.3.4. The Minimum Rated Features of Rated Homes that were determined in Sections 5.1.4.3.1 through 5.1.4.3.3 shall be entered into the Approved Software Rating Tool that generates the home energy rating. The home energy rating shall report the Energy Rating Index that comports with these inputs.

5.1.4.3.5. Projected Rating Reports shall contain the following text in no less than 14 point font at the top of the first page of the report: “Projected Rating Based on Plans – Field Confirmation Required.”

5.1.4.4. Threshold Ratings. A rating type that encompasses ~~a set of~~ one individual Dwelling Unit~~s~~ that is conducted in accordance with Sections 5.1.4.4.1 through 5.1.4.4.3

5.1.4.4.1. The Threshold Specifications ~~from~~ used in the Worst-Case Analysis ~~for~~ of the Minimum Rated Features of ~~the set of~~ Threshold Ratings shall be entered into the Approved Software Rating Tool that generates the Energy Rating. The Energy Rating shall report the Energy Rating Index that comports with these inputs.

5.1.4.4.2. ~~For the set of Rated Homes, all~~ All Minimum Rated Features shall be field-verified through inspection and testing of each Dwelling Unit ~~in the set of Threshold Ratings~~ in accordance with ~~requirements adopted by an Approved Rating Provider~~ Section 4.4 to meet or exceed the Threshold Specifications. The field inspection and testing data shall not be used to modify ~~the~~ Threshold Ratings.

5.1.4.4.3. Threshold Ratings shall be subjected to Quality Assurance requirements equivalent to Section 900 of the Mortgage Industry National Home Energy Rating Systems Standard~~Quality Assurance requirements adopted by an Approved Rating Provider~~.

Amend Section 3.2 Definitions as follows to add the definition for Threshold Rating.

Threshold Rating - A Rating accomplished using Threshold Specifications to determine the Energy Rating Index where verification of all Minimum Rated Features is accomplished through field inspections and testing conducted on every home.

~~***Threshold Rating*** - A type of confirmed rating for homes where the HERS Index is calculated using *Threshold Specifications* with field inspections and testing conducted on every home.~~

ANSI/TIA-PN-920.120-C
Draft 2.0
TR41.3.3-18-08-005

Telecommunications

Communications Products

Transmission Requirements for Digital Interface Communications Devices with Speakerphones

Formulated under the cognizance of TIA Subcommittee TR-41.3
Analog and Digital Wireline Terminals

With the approval of TIA Engineering Committee TR-41
Performance and Accessibility for Communications Products

4 TESTING CONSIDERATIONS

4.1 GENERAL

4.1.1 Test Environment

4.1.1.1 Background Noise

The test environment requirements for speakerphone testing are defined in IEEE Std 1329 with one specific requirement of having the background noise level not exceeding 29 dBA. Several of the tests in this standard require a quiet environment. If the difference between the measurement level and the background noise level is less than 10 dB the measurement is not considered to be valid.

Example one

- Background noise = 28 dBA (Lroom)
- Receive noise measurement = 34.5 dBA (Lnoise)
- Lnoise – Lroom = 6.5 dB
- This would not be considered a valid measurement.

Per IEEE Std 1329, if the background noise level cannot be further reduced the test microphone may be repositioned at half the standard test position distance along the ~~50 cm~~measurement axis shown in clause 4.4.3, with the measurement repeated:

Example two

- Background noise = 28 dBA (Lroom) (no change)
- Receive noise measurement = 40.5 dBA (½Lnoise)
- ½Lnoise – Lroom = 12.5 dB
- This would be considered a valid measurement. For reporting, the measurement would be referenced back to the STP by subtracting 6 dB from the measured value.

It should be noted that the low level input tests for SDNR may also be impacted by background noise.

Example three

- Background noise = 28 dBA (Lroom)
- SDNR fundamental measurement = 58 dBSPL (Lfund)
- Notched SDNR noise measurement = 33 dBA (Lmeasure)
- Calculated SNR = 25 dB
- Lmeasure – Lroom = 5 dB
- This would be not considered a valid measurement due to the noise ratio.

4.1.1.2 Reflection-free conditions

IEEE Std ~~1329~~ 269-2010 Clause 4.5.2 Reflection-free conditions: The test environment should be sufficiently free of reflections. There should be no large objects within 1m of the MRP. Small objects such as tripods that are used for positioning may be acceptable.

4.1.2 Acoustic Test Interface Equipment

Only an artificial mouth per ITU-T P.56 and a free field microphone shall be used for the acoustic transmission measurements specified in this standard. The mouth and microphone calibration and the positioning shall be performed according to IEEE Std 1329.

5.3.4 Receive Noise – Idle Channel

The receive idle channel noise of a digital communications device is the 5 second average noise level measured at the output of the speaker.

5.3.4.1 Requirement

1. The overall receive noise shall be less than 34 dBA for the Nominal Volume Control setting.
2. The overall receive noise shall be less than 39 dBA for the volume control setting that meets the requirement as specified in clause 5.3.2 for the -35 dBm0 input signal level.

NOTE: Normal room noise is somewhere between 35 dBA and 50 dBA. Less than 34 dBA noise from the speakerphone would mostly be masked by room noise.

5.3.4.2 Measurement Method

1. Apply a signal corresponding to a decoder quiet code at the digital interface.
2. Measure the acoustic output at the free field microphone for a minimum period of 5 seconds.
3. Determine the A-weighted level over the frequency range of 100 to 8000 Hz.
4. If the measured noise level is less than 10 dB above the background noise level, the free field microphone may be repositioned at half the standard test position distance along the ~~50 cm~~measurement axis (see clause 4.1.1 and IEEE Std 1329). The noise level at this alternate test position should be corrected to the level that would be present at the ~~50 cm~~ standard test position by subtracting 6 dB from the measured result.

5.3.5 Receive Single Frequency Interference (SFI) – Idle Channel

Single frequencies and very narrow bands of noise can be perceived as tonal impairments depending on their level relative to the overall noise level. This test measures the weighted noise level characteristics in narrow bands of not more than 31 Hz and compares them to the overall weighted receive noise level.

5.3.5.1 Requirement

1. If the overall A-weighted receive noise level measured in 5.3.3 does not exceed 25 dBA, SFI testing is not required.
2. Otherwise, the receive A-weighted single frequency interference shall be 10 dB quieter than the overall A-weighted receive noise.

5.3.5.2 Measurement Method

1. Use the same measurement method used in clause 5.3.4.
2. Measure the acoustic output with a selective voltmeter or spectrum analyzer having an effective bandwidth of not more than 31 Hz over the frequency range of 100 to 8000 Hz.
3. If FFT analysis is used, then “Flat Top” windowing shall be employed.
4. Apply A-weighting and determine the largest A-weighted SFI level.
5. Compare the largest A-weighted SFI level to the overall A-weighted receive noise level measured in 5.3.4.

5.4.5 Send Single Frequency Interference (SFI) – Idle Channel

Single frequencies and very narrow bands of noise can be perceived as tonal impairments depending on their level relative to the overall noise level. This test measures the weighted noise level characteristics in narrow bands of not more than 31 Hz.

5.4.5.1 Requirement

The A-weighted send single frequency interference shall be less than -70 dBm0.

5.4.5.2 Measurement Method

1. The measurement method is similar to that ~~Use the same measurement method~~ used in clause 5.4.4.
2. Measure the electrical output with a selective voltmeter or spectrum analyzer having an effective bandwidth of not more than 31 Hz over the frequency range of 100 to 8000 Hz.
3. If FFT analysis is used, then "Flat Top" windowing shall be employed.
4. Apply A-weighting and determine the largest A-weighted SFI level.

5.4.6 Send Noise – With Stimulus

The send noise with stimulus of a digital communications device is the 500 ms average noise level measured at the digital send output beginning no more than 50 ms after the end of speech.

5.4.6.1 Requirement

The overall send noise shall be less than or equal to -63 dBm0, A-weighted.

5.4.6.2 Measurement Method

1. Apply the male real speech test signal at a level of -4.7 dBPa at MRP.
2. Within 100 ms after the end of real speech signal, measure the digital send output over a period of 500 ms over the frequency range of 100 Hz to 8000 Hz for wideband measurements, or over the frequency range from 100 Hz to 4000 Hz for narrowband measurements.
3. Determine the A-weighted level of the results.

5.4.7 Send Distortion and Noise

Send distortion is specified in this standard in terms of Signal-to-Distortion-and-Noise Ratio (SDNR) using a Pulsed Noise (PN) test signal. PN-SDNR is the ratio of the signal power to the total A-weighted distortion and noise power of the signal output expressed in dB. It is measured using a pulsed 1/3 octave pink noise input signal as described in Annex C.

5.4.7.1 Requirement

1. The ratio of the signal power to the total A-weighted distortion and noise power shall be greater than or equal 26 dB when tested over the range of 1/3 octave band center frequencies specified below:
    a. Wideband speakerphones and dual mode speakerphones in the wideband mode:
    Each 1/3 octave band center frequency from 250 Hz to 6300 Hz.
    b. Dual mode speakerphones in the narrowband mode:
    Each 1/3 octave band center frequency from 250 Hz to 3150 Hz
    c. Narrowband only speakerphones:
    Each 1/3 octave band center frequency from 400 Hz to 3150 Hz.
2. If the SDNR results are failing or marginal, it is recommended that the send distortion and noise performance also be confirmed using subjective listening tests, see 5.6.1 for more information.

BSR/UL 51, Standard for Safety for Power-Operated Pumps and Bypass Valves for Anhydrous Ammonia, LP-Gas, and Propylene

1. Addition of Endurance Test for By-Pass Valves

PROPOSAL

5 Glossary

5.2.1 BYPASS VALVE WITH VARIABLE FLOW CONTROL - A bypass valve incorporating an integral flow control valve section operated by a handle or lever, designed to allow controlled increase of return flow through the bypass valve.

PERFORMANCE

18 Endurance Test - Pump

18.1 A drive shaft seal shall not leak after the pump has been subjected to the endurance test described in 18.2 and 18.3.

18.2 This test is to be conducted on a pump sample previously subjected to the Deformation Test, Section 16, and the Leakage Test, Section 17. The test pump is to be connected to an electric motor of sufficient power rating to permit continuous operation of the pump for a total of 300 hours without causing the motor to overheat as follows:

a) 250 hours at pressure differential of 25 psig (170 kPa) and

b) 50 hours at the maximum pressure differential for which the pump is rated.

18.3 During this test, operating parts of a pump are to be kept “wet” by a continuous flow of a suitable test liquid. Other conditions of the test are to simulate, insofar as practicable, those of actual service.

18.4 A Leakage Test, Section 17, on the drive shaft seal is to be conducted immediately after completion of this endurance test.

18A Endurance Test - By-Pass Valve

18A.1 A by-pass valve with a handle or lever shall be capable of complying with the applicable leakage test

requirements of Section 17, after being subjected to 6,000 cycles of opening and closing the handle or lever. This test does not need to be performed on the poppet/spring arrangement of a bypass valve. There shall be no sticking of the valve, nor shall the valve become inoperative. Required corrosion protection shall not be impaired.

18A.2 The samples used for this test are to have previously been subjected to the Deformation Test, Section 16 and the Leakage Test, Section 17.

18A.3 A by-pass valve for use only with LP-Gas that has a pressure rating of 250 psi (1.7 MPa) gauge or higher, or one for use with either LP-Gas or anhydrous ammonia, is to be tested with the valve outlet plugged, the valve body filled with n-hexane, and the valve inlet subjected to a pressure of 250 psi (1.7 MPa) gauge. If the shutoff valve for LP-Gas service has a rating of 125 psig, the test is conducted with n-hexane and the valve inlet subjected to a pressure of 125 psi (0.9 MPa) gauge.

18A.4 A by-pass valve for use only with anhydrous ammonia is tested without a liquid.

18A.5 An endurance test is to be conducted at a rate no faster than 10 times per minute.

18A.6 The Leakage Test, as described under Section 17, is to be conducted immediately following the Endurance Test.

BSR/UL 444, Standard for *Communication Cables,*

1. Addition of Jackets of Expanded Material

PROPOSAL

5.10 Jackets

5.10.1 A jacket consisting of a continuous nonmetallic outer covering ~~consisting~~ of a solid and/or expanded material complying with the requirements of Clauses 5.10.2 - 5.10.8 shall be applied over the cable construction.

5.10.2 The jacket shall be uniform and shall not have any defects (~~bubbles~~, open spots, rips, tears, cuts, or foreign material) that are visible without magnification to normal or corrected-to-normal vision. Voids or bubbles within expanded material are not considered defects. Open voids or bubbles visible on the surface of a jacket of expanded material are considered defects.

5.10.6A Jackets of expanded materials are acceptable if the finished cable complies with the tests described in the Standard. Evaluation of jackets of expanded material shall include crush, impact and abrasion tests.

Table 9

Minimum unaged properties of insulations and jackets

(See Clauses 5.10.8, 7.3.2.1, and 7.8.1.)

Material	Ultimate elongation percent	Tensile strength	
		MPa	lbf/in^2
ECTFE ETFE	100	34.5	5000
FEP	200	17.2	2500
FRPE, FRPP	100	8.3	1200
HDPE	300	16.5	2400
LDPE	350	9.7	1400
MFA, PFA	200	17.2	2500
PP	150	20.7	3000
PTFE	175	27.6	4000
PVC	100	13.8	2000
PVDF	100	24.1	3500
SRPVC	100	20.7	3000

TPE	300	9.65	1400
XL	150	10.3	1500
XLPO	150	13.8	2000

Notes: 1) *All materials shall be tested at 500 ±25 mm/min (20 ±1 in/min) except ECTFE, ETFE, FRPE , FRPP, HDPE, PP, PVDF, and SRPVC. These materials shall be tested at 50 ±5 mm/min (2.0 ±0.2 in/min).*

2) *An insulation or a jacket of a material other than one of those mentioned in the first column of this table may be used, provided that it has been evaluated to verify acceptability for use in the intended application.*

3) *The tensile strength of expanded jacket material meeting the requirements of 5.10.6A shall be determined using a measured cross-sectional area that has been reduced by the percent expansion of the material.*

BSR/UL 834, Standard for Safety for Heating, Water Supply, and Power Boilers - Electric

1. Addition of Medium Voltage Requirements

PROPOSAL

1.1 These requirements cover electric heating, water supply, and power boilers rated at ~~600~~ 15,000 volts or less intended for commercial or industrial applications utilizing hot water or steam. They may also be used for commercial, industrial, or residential use space heating applications.

6.13 MEDIUM VOLTAGE – Voltage greater than 600 V, up to and including 15,000 V.

13.8 Boilers rated greater than 600 V shall not be buss bar connected.

Table 35.1
Minimum acceptable spacings

Voltage rating, V	Minimum spacings							
	Between a live part and the enclosure				Between uninsulated live parts of opposite polarity; and between a rigidly mounted uninsulated live part and a dead metal part that is exposed to contact by persons or that may be grounded[a]			
	Through air		Over surface		Through air		Over surface	
	inch	(mm)	inch	(mm)	inch	(mm)	inch	(mm)
0 - 250 volts	1/2	(12.7)	1/2	(12.7)	1/8	(3.2)	1/4	(6.4)
251 - 600 volts	1/2	(12.7)	1/2	(12.7)	1/4	(6.4)	3/8	(9.5)
2500 volts maximum[b]	2	(50.8)	3	(76.2)	1	(25.4)	2	(50.8)
7200 volts maximum[b]	3	(76.2)	4	(102)	2	(50.8)	3.5	(88.9)
15000 volts maximum[b]	6	(152)	8	(203)	4	(102)	7	(178)

[a] If an uninsulated live part is not rigidly supported, or if a movable dead metal part is in proximity to an uninsulated live part, the construction is to be such that the minimum spacing will be maintained under all operating conditions.

[b] Because of the effect of configuration, spacings in excess of those indicated may be required to meet performance requirements of this standard.

Table 46.1
Dielectric voltage-withstand test conditions

Circuit	Test potential, RMS
Primary circuit to dead metal parts	A. 1000 volts for boilers rated up to 250 volts.
	B. 1000 volts plus twice rated voltage for boilers rated ~~greater than 250~~ between 251 and 600 volts.
	C. 2000 volts plus 2.25 times rated voltage for boilers rated greater than 600 volts.
Primary circuits to secondary circuits of isolation circuits	Same as above
Secondary circuits to dead metal parts	10 times maximum secondary voltage but not less than 500 volts

54.2 The alternating-current test potential is to be:

a) For an appliance rated 250 volts or less, 1200 volts; ~~and~~

b) For an appliance rated between 251 and 600 ~~more than 250~~ volts, 120 percent of the sum of 1000 volts plus twice the rated voltage~~.~~ ;and

c) For an appliance rated greater than 600 volts, 120 percent of the sum of 2000 volts plus 2.25 times the rated voltage.

The test potential is to be applied for 1 second.

Exception: The test potential may be reduced to 5/6 (83-1/3 percent) of the specified value if the time of application is increased to 1 minute.

BSR/UL 1773, Standard for Safety for Termination Boxes

1. Removal of Requirements for Inlet Assemblies for Cord Connections of Generators Used in Conjunction with Transfer Switch Equipment

1.5 ~~These requirements do not cover equipment connected only by bus bars for both input and output circuits, nor equipment containing switching devices, relays, or overcurrent protective devices. These requirements also do not cover busway fittings known as "End Cable Tap Boxes" which are covered by the Standard for Busways, UL 857.~~ This standard specifically does not apply to:

a) Equipment connected only by bus bars for both input and output circuits;

b) Equipment containing switching devices, relays, or overcurrent protective devices;

c) Busway fittings known as "End Cable Tap Boxes" which are covered by the Standard for Busways, UL 857; and

d) Inlet assemblies for cord connection of generators used in conjunction with transfer switch equipment which are covered by the Standard for Transfer Switch Equipment, UL 1008, Annex J, Inlet Assemblies for Transfer Switch Equipment.

10.5.6 Single pole inlet(s) provided for the equipment grounding conductor shall be green or green with yellow stripes unless marked in accordance with ~~26.9.8~~ 26.9.6.

10.5.7 Single pole inlet(s) provided for the grounded circuit conductor shall be white or gray unless marked in accordance with ~~26.9.8~~ 26.9.6.

10.5.8 Equipment shall use a single source of supply only. Equipment with single pole inlets shall not be used for parallel conductors unless marked in accordance with ~~26.9.9~~ 26.9.7.

26.9.6 ~~Enclosed inlets for cord connection of generators shall be marked "For power inlet only. Not for use as an outlet." This marking shall be located so as to be visible when inserting the connector into the inlet.~~ Where single pole inlets are provided for the equipment grounding conductor in accordance with 10.5.6 or the grounded circuit conductor in accordance with 10.5.7 and are not the color specified, all inlet connections shall be marked to indicate the ungrounded, grounded, and equipment grounding terminations.

26.9.7 ~~Enclosed inlets for cord connection of generators shall be provided with instructions or markings stating: "When used to power a structure, this inlet must be used in conjunction with transfer equipment".~~ Termination boxes utilizing single pole inlets intended to have paralleled conductors on a single circuit shall be marked:

"WARNING - Risk of Fire - Not For Multiple Circuits. Single Circuit With Parallel Conductors Only." The marking shall be adjacent to the inlets. The word "WARNING" shall be in minimum 1/8 inch (3.2 mm) high letters and the remaining text in minimum 1/16 inch (1.6 mm) high letters.

26.9.8 ~~Where single pole inlets are provided for the equipment grounding conductor in accordance with 10.5.6 or the grounded circuit conductor in accordance with 10.5.7 and are not the color specified, all inlet connections shall be marked to indicate the ungrounded, grounded, and equipment grounding terminations.~~ All equipment shall be marked with the following or other equivalent marking: "FOR USE BY QUALIFIED PERSONNEL ONLY" and "The routing of inlet conductors, the making and breaking of inlet connectors, and the energization and de-energization of supply shall be performed by qualified personnel only." This marking shall be 1/16 inch (1.6 mm) high letters. The words "FOR USE BY QUALIFIED PERSONNEL ONLY" shall be in minimum 1/8 inch (3.2 mm) high letters.

Exception: The marking is not required on equipment with the following features:

a) The current rating is 150 amperes or less.

b) Inlet connection is through a polarized multi-pole inlet in which the grounding conductor makes contact first and breaks contact last.

26.9.9 ~~Termination boxes utilizing single pole inlets intended to have paralleled conductors on a single circuit shall be marked: "WARNING - Risk of Fire - Not For Multiple Circuits. Single Circuit With Parallel Conductors Only." The marking shall be adjacent to the inlets. The word "WARNING" shall be in minimum 1/8 inch (3.2 mm) high letters and the remaining text in minimum 1/16 inch (1.6 mm) high letters.~~ The intended connection for each pin of a multi-pole inlet shall be marked on the equipment.

~~26.9.10 All equipment shall be marked with the following or other equivalent marking: "FOR USE BY QUALIFIED PERSONNEL ONLY" and "The routing of inlet conductors, the making and breaking of inlet connectors, and the energization and de-energization of supply shall be performed by qualified personnel only." This marking shall be 1/16 inch (1.6 mm) high letters. The words "FOR USE BY QUALIFIED PERSONNEL ONLY" shall be in minimum 1/8 inch (3.2 mm) high letters.~~

~~*Exception: The marking is not required on equipment with the following features:*~~

~~*a) The current rating is 150 amperes or less.*~~

~~*b) Inlet connection is through a polarized multi-pole inlet in which the grounding conductor makes contact first and breaks contact last.*~~

~~26.9.11 The intended connection for each pin of a multi-pole inlet shall be marked on the equipment.~~

BSR/UL 1998, Standard for Safety for Software in Programmable Components

1. Clarification of Scope

1.1 These requirements apply to non-networked embedded software residing in programmable components performing safety-related functions whose failure is capable of resulting in a risk of fire, electric shock, or injury to persons.

2.27 NON-NETWORKED EMBEDDED SOFTWARE - Embedded software that executes on a single microprocessor/microcontroller or on microprocessors/microcontrollers residing in the same physical enclosure, which does not depend on data received or transmitted outside of the enclosure.

5. Addition of Consideration of Programmable Component Errata as a Potential Cause of Microelectronic Hardware Failures

8.4 When available from the programmable component vendor or other sources (e.g. the user community), the manufacturer shall provide erratum for the precise revision/version of the programmable component that the manufacturer intends to use. For each identified error in the erratum, the following evidence shall be provided:

a) The error has been fixed, tested, and approved for distribution by the programmable component vendor in a new release that has been incorporated into the manufacturer's version of the programmable component, or

b) Feature(s) affected by the error have not been used by the manufacturer in the development of safety-related software ~~and do not lead to a risk~~.

15.4 Documentation shall include sufficient information to identify each item that is investigated with the software. For example, identification of software elements shall include the version number, release number, and date. Microelectronic hardware elements shall include the component vendor, part number and revision level ~~of~~ that uniquely identifies the programmable component die ~~, if available~~.

6. Clarification of Requirements for User Cancellation

10.8 If required to do so by the product safety requirements and when determined by the Risk Analysis, the software shall provide for user cancellation of the current operation and return the programmable component to an RA state.

7. Clarification of Requirements for Unique Identifier

15.1 Software shall be traceable to a unique identifier stored in non-volatile memory.

8. Clarification of Applicability of Appendix A

APPENDIX A - EXAMPLES OF MEASURES TO ADDRESS MICROELECTRONIC HARDWARE FAILURE MODES (INFORMATIVE)