VOL. 47, #12 March 18, 2016

### **American National Standards**

### Call for comment on proposals listed

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

Ordering Instructions for "Call-for-Comment" Listings

- 1. Order from the organization indicated for the specific proposal.
- Use the full identification in your order, including the BSR prefix; for example, Electric Fuses BSR/SAE J554.
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- 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

<sup>\*</sup> Standard for consumer products

### **Comment Deadline: April 17, 2016**

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

#### Addenda

BSR/ASHRAE Addendum ab to ANSI/ASHRAE Standard 34-2013, Designation and Safety Classification of Refrigerants (addenda to ANSI/ASHRAE Standard 34-2013)

This addendum adds the single component refrigerant 1130 (E) in Table 4-1 and Table D-1.

### Click here to view these changes in full

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

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

#### Addenda

BSR/ASHRAE Addendum ac to ANSI/ASHRAE Standard 34-2013, Designation and Safety Classification of Refrigerants (addenda to ANSI/ASHRAE Standard 34-2013)

This addendum adds the azeoptropic blend R-514A in Table 4-2 and Table D-2. The component R-1130 (E) is simultaneously out for publication public review as Addendum ab. Publication of Addendum ac is contingent on publication of Addendum ab.

### Click here to view these changes in full

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

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

### Addenda

BSR/ASHRAE Addendum ad to ANSI/ASHRAE Standard 34-2013, Designation and Safety Classification of Refrigerants (addenda to ANSI/ASHRAE Standard 34-2013)

This addendum adds the azeotropic refrigerant blend R-515A in Table 4-2 and Table D-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

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

### Addenda

BSR/ASHRAE Addendum ae to ANSI/ASHRAE Standard 34-2013, Designation and Safety Classification of Refrigerants (addenda to ANSI/ASHRAE Standard 34-2013)

This addendum adds the zeotropic refrigerant blend R-447B in Table 4-2 and Table D-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

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

#### Addenda

BSR/ASHRAE Addendum af to ANSI/ASHRAE Standard 34-2013, Designation and Safety Classification of Refrigerants (addenda to ANSI/ASHRAE Standard 34-2013)

This addendum adds the zeotropic refrigerant blend R-452B in Table 4-2 and Table D-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

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

#### Addenda

BSR/ASHRAE Addendum ag to ANSI/ASHRAE Standard 34-2013, Designation and Safety Classification of Refrigerants (addenda to ANSI/ASHRAE Standard 34-2013)

This addendum adds the zeotropic refrigerant blend R-456A in Table 4-2 and Table D-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

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

### Addenda

BSR/ASHRAE Addendum ah to ANSI/ASHRAE Standard 34-2013, Designation and Safety Classification of Refrigerants (addenda to ANSI/ASHRAE Standard 34-2013)

This addendum adds the zeotropic refrigerant blend R-457A in Table 4-2 and Table D-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

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

### Addenda

BSR/ASHRAE Addendum ai to ANSI/ASHRAE Standard 34-2013, Designation and Safety Classification of Refrigerants (addenda to ANSI/ASHRAE Standard 34-2013)

This addendum adds the zeotropic refrigerant blend R-452C in Table 4-2 and Table D-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

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

#### Addenda

BSR/ASHRAE Addendum aj to ANSI/ASHRAE Standard 34-2013, Designation and Safety Classification of Refrigerants (addenda to ANSI/ASHRAE Standard 34-2013)

This addendum adds the zeotropic refrigerant blend R-458A in Table 4-2 and Table D-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

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

#### Addenda

BSR/ASHRAE Addendum d to ANSI/ASHRAE Standard 160-2009, Criteria for Moisture-Control Design Analysis in Buildings (addenda to ANSI/ASHRAE Standard 160-2009)

This addendum to Standard 160-2009 updates the references in Section 8.

### Click here to view these changes in full

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

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

#### Addenda

BSR/ASHRAE Addendum e to ANSI/ASHRAE Standard 160-2009, Criteria for Moisture-Control Design Analysis in Buildings (addenda to ANSI/ASHRAE Standard 160-2009)

This addendum revises Sections 6.1 and 7.5 and brings the standard more in line with the current state of knowledge about mold growth while providing a less stringent criterion.

### Click here to view these changes in full

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

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

### Addenda

BSR/ASHRAE Addendum g to ANSI/ASHRAE Standard 15-2013, Safety Standard for Refrigeration Systems (addenda to ANSI/ASHRAE Standard 15-2013)

This addendum makes changes to ASHRAE Standard 15-2013. The first change to Section 9.2.1 clarifies the metric unit gage pressure when designing for vacuum. The changes to Section 9.9 give new requirements for the use of pressure-limiting devices. The changes to Section 9.11 clarifies that ASME Section VIII Pressure Vessel Design is not required for the water side of heat exchangers, providing certain other design requirements are met. The changes to Section 9.13 stipulates that other types of compression devices that are not specifically listing in the section may be used for the connection of copper tube, providing they are agency listed for the refrigeration use.

### 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

### **NSF (NSF International)**

### Revision

BSR/NSF 7-201x (i10r4), Commercial Refrigerators and Freezers (revision of ANSI/NSF 7-2014)

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

#### Click here to view these changes in full

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

### **NSF (NSF International)**

### Revision

BSR/NSF 50-201x (i102), Equipment for Swimming Pools, Spas, Hot Tubs and Other Recreational Water Facilities (revision of ANSI/NSF 50-2015)

This Standard covers materials, components, products, equipment, and systems, related to public and residential recreational water facility operation.

### Click here to view these changes in full

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

### **UL (Underwriters Laboratories, Inc.)**

### Revision

BSR/UL 79-201X, Standard for Safety for Power-Operated Pumps for Petroleum Dispensing Products (revision of ANSI/UL 79-2010 (R2014))

This proposal is being issued to revise the Moist Ammonia-Air Stress Cracking Test.

### Click here to view these changes in full

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

### **UL (Underwriters Laboratories, Inc.)**

### Revision

BSR/UL 79A-201x, Standard for Safety for Power-Operated Pumps for Gasoline and Gasoline/Ethanol Blends with Nominal Ethanol Concentrations up to 85 Percent (E0 - E85) (revision of ANSI/UL 79A-2015)

This proposal is being issued to revise the Moist Ammonia-Air Stress Cracking Test.

### Click here to view these changes in full

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

### **UL (Underwriters Laboratories, Inc.)**

### Revision

BSR/UL 79B-201x, Standard for Safety for Power-Operated Pumps for Diesel Fuel, Biodiesel Fuel, Diesel/Biodiesel Blends with Nominal Biodiesel Concentrations up to 20 Percent (B20), Kerosene, and Fuel Oil (revision of ANSI/UL 79B-2015)

Power-Operated Pumps for Diesel Fuel, Biodiesel Fuel, Diesel/Biodiesel Blends with Nominal Biodiesel Concentrations up to 20 Percent (B20), Kerosene, and Fuel Oil.

### Click here to view these changes in full

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

### **UL (Underwriters Laboratories, Inc.)**

#### Revision

BSR/UL 884-201x, Standard for Safety for Underfloor Raceways and Fittings (revision of ANSI/UL 884-2007 (R2011))

Bulletin dated March 18, 2016 proposes the addition of a test program for epoxy coatings and revisions to installation instructions and corrections to Table 6.1.

### Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Paul Lloret, (510) 319 -4269, Paul.E.Lloret@ul.com

### **UL (Underwriters Laboratories, Inc.)**

#### Revision

BSR/UL 1278-201x, Standard for Safety for Movable and Wall- or Ceiling-Hung Electric Room Heaters (revision of ANSI/UL 1278-2014a)

(1) Polymeric materials enclosure requirements. (2) Wire-size AWG for internal wiring based on current.

### Click here to view these changes in full

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

### **UL (Underwriters Laboratories, Inc.)**

#### Revision

BSR/UL 1973-201x, Standard for Batteries for Use In Light Electric Rail (LER) Applications and Stationary Applications (revision of ANSI/UL 1973-2013)

(1) Revision of terminology used in Figures 1.1 and 1.2, addition of new definitions, and deletion of incorrect reference in 40.2. (12) Temperature and Operating Parameters Check Test revisions. (18) Internal Fire Test proposal.

### Click here to view these changes in full

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

### Comment Deadline: May 2, 2016

### AAMI (Association for the Advancement of Medical Instrumentation)

### **New National Adoption**

BSR/AAMI/IEC 60601-2-2-201x, Medical electrical equipment - Part 2-2: Particular requirements for the basic safety and essential performance of high frequency surgical equipment and high frequency surgical accessories (identical national adoption of IEC 60601-2-2 and revision of ANSI/AAMI/IEC 60601-2-2-2009 (R2014))

This international standard applies to the basic safety and essential performance of HF surgical equipment and HF surgical accessories. HF surgical equipment having a rated output power not exceeding 50 W (for example, micro-coagulation, or for use in dentistry or ophthalmology) is exempt from certain of the requirements of this particular standard.

Single copy price: Free

Obtain an electronic copy from: https://standards.aami.

org/kws/public/document?view

Order from: www.aami.org

Send comments (with copy to psa@ansi.org) to: Hae Choe, hchoe@aami.

org

### **AAMI** (Association for the Advancement of Medical Instrumentation)

### Reaffirmation

BSR/AAMI ST81-2004 (R201x), Sterilization of medical devices - Information to be provided by the manufacturer for the processing of resterilizable medical devices (reaffirmation of ANSI/AAMI ST81-2004 (R2010))

Specifies the information to be provided by the medical device manufacturer on the processing of medical devices claimed to be resterilizable and medical devices intended to be sterilized by the processor.

Single copy price: \$66.00 (AAMI members)/\$110.00 (list)

Obtain an electronic copy from: http://my.aami.org/store/SearchResults.aspx?searchterm=st81&searchoption=ALL

Order from: http://my.aami.org/store/SearchResults.aspx?searchterm=st81&searchoption=ALL

Send comments (with copy to psa@ansi.org) to: Jennifer Moyer, (703) 253 -8274, jmoyer@aami.org

### **ABYC (American Boat and Yacht Council)**

### **New Standard**

BSR/ABYC C-1-201x, Primer Bulbs (new standard)

This standard applies to the primer bulb and primer bulb assemblies consisting of the primer bulb, the connecting hose lengths, and the fittings necessary to connect the fuel tank to the engine on outboard engine installations

Single copy price: \$50.00

Obtain an electronic copy from: www.abycinc.org

Order from: www.abycinc.org

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

### **ABYC (American Boat and Yacht Council)**

### Revision

BSR/ABYC A-16-201x, Electric Navigation Lights (revision of ANSI/ABYC A -16-2011)

These standards and recommended practices are guides for the selection, location, installation, and wiring of storage batteries.

Single copy price: \$50.00

Obtain an electronic copy from: www.abycinc.org

Order from: www.abycinc.org

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

### **ANS (American Nuclear Society)**

#### Reaffirmation

BSR/ANS 56.8-2002 (R201x), Containment System Leakage Test Requirements (reaffirmation of ANSI/ANS 56.8-2002 (R2011))

This standard specifies acceptable primary containment leakage rate test requirements to assure valid testing. The scope includes (1) leakage test requirements; (2) test instrumentation; (3) test procedures; (4) test methods; (5) acceptance criteria; (6) data analysis; (7) inspection and recording of test results; and (8) definition and determination of Appendix J Pathways.

Single copy price: \$135.00

Obtain an electronic copy from: scook@ans.org

Order from: scook@ans.org

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

### ASA (ASC S1) (Acoustical Society of America)

#### Revision

BSR/ASA S1.8-201x, Reference Values for Levels Used in Acoustics and Vibrations (revision of ANSI/ASA S1.8-1989 (R2011))

Provides reference values to be used for acoustical and vibratory levels. Levels refer to a descriptor of mathematical calculation in which a ratio is used. The reference value is the denominator of that ratio. Reference values are stated in International System of Units (SI). The descriptor of most acoustical levels is the decibel. Levels are equal to 10 times the common (base-10) logarithm (Ig) of an appropriate nondimensional ratio of a variable quantity to a reference value of the same kind.

Single copy price: \$90.00

Obtain an electronic copy from: asastds@acousticalsociety.org

Order from: Susan Blaeser, (631) 390-0215, asastds@acousticalsociety.org

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

### ASA (ASC S12) (Acoustical Society of America)

### Reaffirmation

BSR/ASA S12.1-1983 (R201x), Guidelines for the Preparation of Standard Procedures to Determine the Noise Emission from Sources (reaffirmation of ANSI/ASA S12.1-1983 (R2011))

Standard contains guidelines for preparation of procedures (standards, test codes, recommended practices, etc.) for determination of noise emission from sources. Included are general questions that need to be considered during development of a measurement procedure. Guidelines on the following subjects are included: prefatory material, measurement conditions, measurement operations, data reduction, preparation of a test report, and guidelines for selection of a descriptor for noise emission.

Single copy price: \$100.00

Obtain an electronic copy from: asastds@acousticalsociety.org

Order from: Susan Blaeser, (631) 390-0215, asastds@acousticalsociety.org

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

### ASA (ASC S12) (Acoustical Society of America)

### Reaffirmation

BSR/ASA S12.3-1985 (R201x), Statistical Methods for Determining and Verifying Stated Noise Emission Values of Machinery and Equipment (reaffirmation of ANSI/ASA S12.3-1985 (R2011))

This standard defines the preferred methods for determining and verifying noise emission values for machinery and equipment, which are stated in product literature or labeled by other means.

Single copy price: \$100.00

Obtain an electronic copy from: asastds@acousticalsociety.org

Order from: Susan Blaeser, (631) 390-0215, asastds@acousticalsociety.org

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

### ASA (ASC S12) (Acoustical Society of America)

### Reaffirmation

BSR/ASA S12.17-1996 (R201x), Impulse Sound Propagation for Environmental Noise Assessment (reaffirmation of ANSI/ASA S12.17-1996 (R2011))

Describes engineering methods to calculate propagation of high-energy impulsive sounds through the atmosphere for purposes of assessment of environmental noise. The methods yield estimates for the mean C-weighted sound exposure level of impulsive sound at distances between source and receiver ranging from 1 to 30 km. Equations to estimate standard deviation about the mean C-weighted sound exposure levels are provided. The methods apply for explosive masses between 50 g and 1000 kg.

Single copy price: \$90.00

Obtain an electronic copy from: asastds@acousticalsociety.org

Order from: Susan Blaeser, (631) 390-0215, asastds@acousticalsociety.org

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

### ASA (ASC S12) (Acoustical Society of America)

### Reaffirmation

BSR/ASA S12.19-1996 (R201x), Measurement of Occupational Noise Exposure (reaffirmation of ANSI/ASA S12.19-1996 (R2011))

The standard presents methods that can be used to measure a person's noise exposure received in a work place. The methods have been developed to provide uniform procedures and repeatable results for the measurement of occupational noise exposure.

Single copy price: \$100.00

Obtain an electronic copy from: asastds@acousticalsociety.org

Order from: Susan Blaeser, (631) 390-0215, asastds@acousticalsociety.org

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

### ASA (ASC S12) (Acoustical Society of America)

### Reaffirmation

BSR/ASA S12.23-1989 (R201x), Method for the Designation of Sound Power Emitted by Machinery and Equipment (reaffirmation of ANSI/ASA S12.23-1989 (R2011))

Standard describes a method for expressing the noise emission of machinery and equipment in a convenient manner. Standard applies to all machinery and equipment that is essentially stationary in nature and for which overall A-weighted sound power is a meaningful descriptor of noise emission. Standard is intended to facilitate preparation of equipment specifications, labels or other documentation that expresses in quantitative terms the noise emission of machinery or equipment.

Single copy price: \$90.00

Obtain an electronic copy from: asastds@acousticalsociety.org

Order from: Susan Blaeser, (631) 390-0215, asastds@acousticalsociety.org

### ASA (ASC S12) (Acoustical Society of America)

### Reaffirmation

BSR/ASA S12.56-2011 / ISO 3746:2010 (R201x), Acoustics - Determination of sound power levels and sound energy levels of noise sources using sound pressure - Survey method using an enveloping measurement surface over a reflecting plane (reaffirmation of ANSI/ASA S12.56-2011/ISO 3746

Methods for determining the sound power level or sound energy level of a noise source from sound pressure levels measured on a surface enveloping a noise source (machinery or equipment) in a test environment for which requirements are given. The sound power level (or, in the case of noise bursts or transient noise emission, the sound energy level) produced by the noise source with frequency A-weighting applied is calculated using those measurements.

Single copy price: \$176.00

Obtain an electronic copy from: asastds@acousticalsociety.org

Order from: Susan Blaeser, (631) 390-0215, asastds@acousticalsociety.org

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

### ASABE (American Society of Agricultural and Biological **Engineers**)

### **New Standard**

BSR/ASABE S620 MONYEAR-201x, Safety for Anhydrous Ammonia Application Equipment (new standard)

This standard to establish the safety requirements for implements of husbandry used in the local transport and application of anhydrous ammonia for agricultural fertilizer. This standard does not cover bulk storage and handling equipment, manufacturing of anhydrous ammonia, or over-the-road bulk transport equipment. This standard is applicable to new equipment manufactured and assembled after the publication of this standard.

Single copy price: \$58.00

Obtain an electronic copy from: walsh@asabe.org

Order from: Jean Walsh, (269) 932-7027, walsh@asabe.org Send comments (with copy to psa@ansi.org) to: Same

### ASABE (American Society of Agricultural and Biological **Engineers**)

### **New Standard**

BSR/ASABE S627 MONYEAR-201x, Weather-Based Landscape Irrigation Control Systems (new standard)

To standardize a test that can be used to evaluate the performance characteristics of irrigation control devices that incorporate the use of sensors or programming technology that responds to real-time environmental conditions to modify irrigation schedules as plant water requirements change based on factors that influence plant growth.

Single copy price: \$58.00

Obtain an electronic copy from: walsh@asabe.org

Order from: Jean Walsh, (269) 932-7027, walsh@asabe.org Send comments (with copy to psa@ansi.org) to: Same

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

### Addenda

BSR/ASHRAE Addendum 55g-201x. Thermal Environmental Conditions for Human Occupancy (addenda to ANSI/ASHRAE Standard 55-2013)

This proposed addendum adds a requirement to calculate the change to thermal comfort resulting from direct solar radiation impacting occupants. A calculation procedure is added in Normative Appendix C that adjusts mean radiant temperature (MRT) due to direct solar radiation so that the comfort zone calculation remains unchanged. With this change, the Graphical Comfort Zone Method is restricted to conditions without direct solar radiation. When direct solar radiation is present and impacts an occupant, the Analytical Comfort Zone Method in Section 5.3.2 must be used and provides prescriptive and performance compliance paths.

Single copy price: \$35.00

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

### Addenda

BSR/ASHRAE Addendum f to ANSI/ASHRAE Standard 15-2013. Safety Standard for Refrigeration Systems (addenda to ANSI/ASHRAE Standard 15

This addendum deletes item d from Section 8.12, moves Table 9.7.8.5 to Normative Appendix D. Allowable Equivalent Length of Discharge Piping, and renames it Table D-2, and adds additional data for Piping Nominal Diameter NPS.DN and Tubing Diameter O.D. (Based on Type L Copper) to Table D-2.

Single copy price: \$35.00

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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-reviewdrafts

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

#### Revision

BSR/ASME B30.18-201x, Stacker Cranes (Top or Under Running Bridge, Multiple Girder with Top or Under Running Trolley Hoist) (revision of ANSI/ASME B30.18-2011)

Volume B30.18 includes provisions that apply to the construction, installation, operation, inspection, and maintenance of hand-powered and power-driven overhead and gantry cranes that have a top- or under-running multiple girder bridge with a vertically guided carriage, with or without a topor under-running trolley. The requirements included in this Volume also apply to stacker cranes having the same fundamental characteristics, such as cantilever gantry and semi-gantry stacker cranes.

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: Kathryn Hyam, (212) 591 -8521, hyamk@asme.org

### ATIS (Alliance for Telecommunications Industry Solutions)

### Reaffirmation

BSR/ATIS 1000044-2011 (R201x), ATIS Identify Management: Requirements and Use Cases Standards (reaffirmation of ANSI/ATIS 1000044-2011)

This standard provides Identity Management (IdM) example use cases and requirements for the Next Generation Network (NGN) and its interfaces. IdM functions and capabilities are used to increase confidence in identity information and support and enhance business and security applications including identity-based services. The requirements provided in this standard are intended for NGN (i.e., managed packet networks) as defined in ATIS 1000018, NGN Architecture, and ITU-T Recommendation Y.2001.

Single copy price: \$330.00

Obtain an electronic copy from: ablasgen@atis.org

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

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

### ATIS (Alliance for Telecommunications Industry Solutions)

### Stabilized Maintenance

BSR/ATIS 0100005-2006 (S201x), Auditory Non-Intrusive Quality Estimation Plus (ANIQUE+) Perceptual Model for Non-Intrusive Estimation of Narrowband Speech Quality (stabilized maintenance of ANSI/ATIS 0100005 -2006 (R2011))

This standard describes a perceptual objective model for non-intrusive estimation of narrow-band speech quality. This standard provides the description of the perceptual objective model, Auditory Non-Intrusive Quality Estimation Plus (ANIQUE+), which estimates the quality of speech without reference speech information.

Single copy price: \$110.00

Obtain an electronic copy from: ablasgen@atis.org

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

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

### ATIS (Alliance for Telecommunications Industry Solutions)

### Stabilized Maintenance

BSR/ATIS 0100302.a-1992 (S201x), Digital Processing of Voice-Band Signals-Line Format for 32kbit/s Adaptive Differential Pulse-Code Modulation (ADPCM) (Channel-Control Templates and Robbed-Bit Signaling Alarm Transmission (stabilized maintenance of ANSI/ATIS 0100302.a-1992 (R2011))

This supplement addresses two oversights of ATIS 0100302.1989 (R2006), Digital Processing of Voice-Band Signals - Line Format for 32-kbit/s Adaptive Differential Pulse-Code Moduation. (Formerly known as T1.302a-1992 (R2006).)

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BSR/ATIS 0100302-1989 (S201x), Digital Processing of Voice-Band Signals-Line Format for 32kbit/s Adaptive Differential Pulse-Code Modulation (ADPCM) (stabilized maintenance of ANSI/ATIS 0100302-1989 (R2011))

This standard applies to Adaptive Differential Pulse-Code Modulation (ADPCM) telecommunications systems where the channel pulse rate is 32 kbit/s. This standard provides for line formats used in Bundle, Transition, and Robbed-Bit Signaling modes for transcoded channels comprising channel pulse rates of 32 kbit/s combined in a line format operating at a pulse rate of 1544 kbit/s. (Formerly known as T1.302-1989.)

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BSR/ATIS 0100312-1991 (S201x), Voice Packetization - Packetized Voice Protocol (stabilized maintenance of ANSI/ATIS 0100312-1991 (R2011))

The purpose of this American National Standard is to standardize the protocol for packetized speech, the Packetized Voice Protocol (PVP). PVP defines formats and procedures for the transport of voice information and channel-associated signaling over a packet network. This is to allow vendors to provide compatible equipment for the U.S. marketplace and to permit both the exchange and interexchange carriers to operate compatibility. (Formerly known as T1.312-1991(R2006).)

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### Stabilized Maintenance

BSR/ATIS 0100503-2002 (S201x), Network Performance Parameters for Dedicated Digital Services - Definitions and Measurements (stabilized maintenance of ANSI/ATIS 0100503-2002 (R2011))

This standard applies to Layer 1, dedicated digital services, which are characterized by established transmission paths (i.e., no access or disengagement functions). Therefore, this standard defines performance parameters relevant to the information transfer phase only. This standard provides a list of the performance parameters and measurement methods needed by users, vendors, and providers of dedicated digital communications services, to characterize the user-observable performance of these services (i.e., it does not address the causes of errors).

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### Stabilized Maintenance

BSR/ATIS 0100506-1997 (S201x), Network Performance - Switched Exchange Access Network Transmission Specifications (stabilized maintenance of ANSI/ATIS 0100506-1997 (R2011))

This standard provides performance specifications for the two-way digital or digital equivalent transmission path between the exchange carrier's end office and an interexchange carrier's point of termination. This set of specifications will enable the provision of quality end-to-end performance for switched voice and voiceband data telephone services. This standard defines analog performance-related transmission parameters and specifies limits. (Formerly known as T1.506-1997(R2006).)

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#### Stabilized Maintenance

BSR/ATIS 0100507-2002 (S201x), Network Performance Parameters for Circuit-Switched Digital Services - Definitions and Measurements (stabilized maintenance of ANSI/ATIS 0100507-2002 (R2011))

This standard applies to circuit-switched digital services, and provides and defines the performance parameters and measurements needed by users, vendors, and providers of circuit-switched digital services, to characterize the user-observable performance of these services (i.e., it does not address the causes of errors). It also includes parameters to be considered in determining whether or not a service is in the available or unavailable state. A given service will only reference those parameters or thresholds applicable to that service. The network-specific parameters are for performance allocation and network control.

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### ATIS (Alliance for Telecommunications Industry Solutions)

### Stabilized Maintenance

BSR/ATIS 0100517-1995 (S201x), Performance Parameters and Objectives for Integrated Services Digital Network (stabilized maintenance of ANSI/ATIS 0100517-1995 (R2011))

The purpose of this standard is to define a comprehensive basis for assessing the performance of Integrated Services Digital Networks (ISDNs) providing telecommunication service in accordance with the American National Standards and ITU-T Recommendations identified herein. This standard: (a) defines parameters that 5 be used to describe the performance of ISDN bearer services and (b) specifies worst-case objectives for the ISDN performance parameters. The parameters and objectives are applicable to circuit-mode and packet-mode ISDN bearer services.

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### ATIS (Alliance for Telecommunications Industry Solutions)

### Stabilized Maintenance

BSR/ATIS 0100801.01-1995 (S201x), Digital Transport of Video Teleconferencing/Video Telephony Signals - Video Test Scenes for Subjective and Objective Performance Assessment (stabilized maintenance of ANSI/ATIS 0100801.01-1995 (R2011))

This standard specifies a collection of test scenes that have been used for subjective assessment and be used in future objective assessment of Video Teleconferencing/Video Telephony (VTC/VT). (Formerly known as T1.801.01-1995 (R2006).)

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BSR/ATIS 0100801.02-1996 (S201x), Digital Transport of Video Teleconferencing/Video Telephony Signals - Performance Terms, Definitions and Examples (stabilized maintenance of ANSI/ATIS 0100801.02-1996 (R2011))

This standard specifies terms useful for describing the performance of video teleconferencing/video telephony systems and gives their definitions. The standard also supplies examples of the terms where appropriate, as an aid to understanding the definitions. (Formerly known as T1.801.02-1996 (R2006).)

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### ATIS (Alliance for Telecommunications Industry Solutions)

### Stabilized Maintenance

BSR/ATIS 0100802.01-1996 (S201x), North American Adaptation for Domestic-International Interfaces of ETSI 300 174 Digital Component Television Signals - Interface and Coding Specifications at DS-3 (stabilized maintenance of ANSI/ATIS 0100802.01-1996 (R2011))

This standard is the North American adaptation for Domestic-International interfaces of the ETSI ETS 300 174 standard for the coding and transmission of digital component television signal at a bit rate of 45 mbit/s. It provides a detailed description of the digital coding algorithm to be implemented in equipment designed to terminate digital transmission systems when those systems are employed to carry ITU-R 601-2 digital television video signals, AES/EBU digital audio signals and ancillary signals such as SMPTE time-code, and SMPTE machine control. Each television signal is formatted to be compatible with the North American DS-3 transport network.

Single copy price: \$275.00

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### ATIS (Alliance for Telecommunications Industry Solutions)

### Stabilized Maintenance

BSR/ATIS 1000007-2006 (S201x), Generic Signaling and Control Plane Security Requirements for Evolving Networks (stabilized maintenance of ANSI/ATIS 1000007-2006 (R2011))

Many security threats exist to the signaling and control plane of a telecommunications network. In addition, new security threats to the signaling and control plane are being introduced as the network evolves. The purpose of this document is to provide generic signaling and control plane security requirements and a general security framework to mitigate security risks in the evolving telecommunications networks.

Single copy price: \$145.00

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### **ATIS (Alliance for Telecommunications Industry** Solutions)

#### Stabilized Maintenance

BSR/ATIS 1000008-2006 (S201x), ANSI Extensions to the Narrowband Signaling Syntax (NSS) - Syntax Definition (stabilized maintenance of ANSI/ATIS 1000008-2006 (R2011))

This Standard describes ANSI parameter, field, and field value extensions to the Q.1980.1, Narrowband Signaling Syntax (NSS) - Syntax Definition, to provide a normalized set of telephony parameters. NSS enables mapping from multiple telephony protocols in use today into a common parameter set.

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### ATIS (Alliance for Telecommunications Industry Solutions)

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BSR/ATIS 1000009-2006 (S201x), IP Network-to-Network Interface (NNI) Standard for VoIP (stabilized maintenance of ANSI/ATIS 1000009-2006

This document defines a standard approach to support IP-IP interconnection for VoIP between carriers.

Single copy price: \$220.00

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### **ATIS (Alliance for Telecommunications Industry** Solutions)

### Stabilized Maintenance

BSR/ATIS 1000012-2006 (S01x), Signaling System No. 7 (SS7) - SS7 Network and NNI Interconnection Security Requirements and Guidelines (stabilized maintenance of ANSI/ATIS 1000012-2006 (R2011))

This document provides security requirements and guidelines for Signaling System No.7 (SS7) network and its network interconnections.

Single copy price: \$175.00

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BSR/ATIS 1000112.a-2006 (S201x). Subsystem Number Assignment Guidelines (stabilized maintenance of ANSI/ATIS 1000112.a-2006 (R2011))

This supplement to ATIS 1000112.2005 reassigns some of the subsystem number code points previously shown as spare to be ANSI Standard. These code points may be used to support applications which require internetwork messaging, but which do not qualify for international standardization. This addendum also provides the administrative procedures for requesting and assigning these subsystem number code points.

Single copy price: \$30.00

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### ATIS (Alliance for Telecommunications Industry Solutions)

### Stabilized Maintenance

BSR/ATIS 1000607.a-2006 (S201x), Supplement to ATIS-1000607 (stabilized maintenance of ANSI/ATIS 1000607.a-2006 (R2011))

Supplement aligns code point values T1.607-2000 (R2004), with corresponding ITU-T Recommendation Q.931 code points for V.32 and V.34 modem types.

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### ATIS (Alliance for Telecommunications Industry Solutions)

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BSR/ATIS 1000634-1993 (S201x), Frame Relaying Service Specific Convergence Sublayer (FR-SSCS) (stabilized maintenance of ANSI/ATIS 1000634-1993 (R2006))

This standard specifies the Frame Relaying Service Specific Convergence Sublayer (FR-SSCS). The FR-SSCS is located in the upper part of the ATM Adaptation Layer on top of the Common Part Convergence Sublayer (CPCS) of AAL type 5, as specified in ITU-T (formerly CCITT) Recommendation I.363, section 6. The FR-SSCS is used at the B-ISDN TE to emulate the Frame Relaying Bearer Service (FRBS) in B-ISDN. It is also used for interworking between a B-ISDN and a Frame Relaying Network. (Formerly known as T1.634-1993 (R2006).)

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### ATIS (Alliance for Telecommunications Industry Solutions)

### Stabilized Maintenance

BSR/ATIS 1000639-1995 (S201x), Calling Name Identification Restriction (stabilized maintenance of ANSI/ATIS 1000639-1995 (R2011))

This standard is one of a series that defines and describes supplementary services. These services can be made available for users with non-ISDN interfaces who access SS7 capable networks and also within the context of an Integrated Services Digital Network (ISDN). This standard describes Calling Name Identification Restriction, which is an originating service that allows a user to alter the network stored or subscribed privacy status associated with the user's Calling Name. The associated switching and signaling specification are also provided. This service can be made available on demand or in a subscription arrangement.

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### ATIS (Alliance for Telecommunications Industry Solutions)

#### Stabilized Maintenance

BSR/ATIS 1000639.a-2001 (S201x), Supplement to Calling Name Identification Restriction (stabilized maintenance of ANSI/ATIS 1000639.a -2001 (R2011))

This supplement revises ATIS 1000639.1995 (R2006) to address certain regulations that may need to be considered by the service provider based on the FCC's orders that were issued as a result of FCC Docket No. 91-281. (Formerly known as T1.639a-2001 (R2006).)

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### ATIS (Alliance for Telecommunications Industry Solutions)

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BSR/ATIS 1000640-2001 (S201x), Broadband ISDN Network Node Interfaces and Inter-Network Interfaces - Rates and Formats Specifications (stabilized maintenance of ANSI/ATIS 1000640-2001 (R2011))

This standard provides specifications of the rates and formats of signals for use at Network Node Interfaces (NNIs) and Inter-Network Interfaces (INIs) in a Broadband Integrated Services Digital Network (B-ISDN).

Single copy price: \$175.00

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

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### ATIS (Alliance for Telecommunications Industry Solutions)

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BSR/ATIS 1000651-1996 (S201x), Mobility Management Application Protocol (MMAP) (stabilized maintenance of ANSI/ATIS 1000651-1996 (R2011))

This standard provides an application layer protocol for the exchange of information between peer applications running in a radio system and other network elements (e.g., mobility management platforms, switching systems, and other radio systems). The basic provisions of the protocol provide the semantics and syntax for operations necessary to support the mobility aspects of telecommunication services and call control in a wireless environment. (Formerly known as T1.651-1996 (R2006).)

Single copy price: \$330.00

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### ATIS (Alliance for Telecommunications Industry Solutions)

#### Stabilized Maintenance

BSR/ATIS 1000651.a-1996 (S201x), Mobility Management Application Protocol (MMAP) - Extensions (stabilized maintenance of ANSI/ATIS 1000651.a-1996 (R2011))

This supplement provides additions and modifications to ATIS 0000651.1996 (R2006). This standard provides an application layer protocol for the exchange of information between peer applications running in a radio system and other network elements (e.g., mobility management platforms, switching systems, and other radio systems). The basic provisions of the protocol provide the semantics and syntax for operations necessary to support the mobility aspects of telecommunication services and call control in a wireless environment.

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### ATIS (Alliance for Telecommunications Industry Solutions)

### Stabilized Maintenance

BSR/ATIS 1000652-1996 (S201x), B-ISDN Signaling ATM Adaptation Layer - Layer Management for SAAL at the NNI (stabilized maintenance of ANSI/ATIS 1000652-1996 (R2011))

This standard specifies the Layer Management functions for the Signaling ATM Adaptation Layer (SAAL) at the Network Node Interface (NNI). These include the interfaces to the Service Specific Connection Oriented Protocol (SSCOP), (ANSI T1.637), to the Service Specific Coordination Function (SSCF) at the NNI (ANSI T1.645), and to systems management.

Single copy price: \$175.00

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### ATIS (Alliance for Telecommunications Industry Solutions)

### Stabilized Maintenance

BSR/ATIS 1000655-2001 (S201x), Signaling System Number 7 (SS7) - Upper Layer Security Capability (stabilized maintenance of ANSI/ATIS 1000655-2001 (R2011))

This standard describes the Security network capability, which allow an end user service in an originating Signalling Point (SP) to invoke various security functions in the originating and/or destination SP. The Security capability can be used for identification and authentication of the communicating entities. It also provides information that supports resource access control, system access control, and encryption and decryption functions.

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### ATIS (Alliance for Telecommunications Industry Solutions)

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BSR/ATIS 1000659-1996 (S201x), Mobility Management Application Protocol (MMAP) RCF-RACF Operations (stabilized maintenance of ANSI/ATIS 1000659-1996 (R2011))

This standard provides an application layer protocol for the exchange of information between peer applications running in a radio system and other network elements (e.g., mobility management platforms, switching systems, and other radio systems). The basic provisions of the protocol provide the semantics and syntax for operations necessary to support the mobility aspects of telecommunication services and call control in a wireless environment.

Single copy price: \$470.00

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BSR/ATIS 1000676-2001 (S201x), BICC IP Bearer Control Protocol (IPBCP) (stabilized maintenance of ANSI/ATIS 1000676-2001 (R2011))

This standard defines BICC IP Bearer Control Protocol. IPBCP is used for the exchange of media stream characteristics, port numbers, and IP addresses of the source and sink of a media stream to establish and allow the modification of IP bearers. The information exchanged with IPBCP is done during BICC call establishment. In addition, it may be exchanged after a call is established. IPBCP uses the Session Description Protocol (SDP) defined in RFC 2327 to encode this information. This standard is based on the ITU-T Recommendation Q.1970, BICC IP Bearer Control Protocol.

Single copy price: \$60.00

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BSR/ATIS 1000677-2001 (S201x), BICC Bearer Control Tunneling Protocol (stabilized maintenance of ANSI/ATIS 1000677-2001 (R2011))

This standard defines the BICC Bearer Control Tunneling Protocol. The BICC Bearer Control Tunneling Protocol is a generic tunneling mechanism for the purpose of tunneling Bearer Control Protocols (BCP).

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### ATIS (Alliance for Telecommunications Industry Solutions)

### Stabilized Maintenance

BSR/ATIS 0100504 (S201x), Packet-Switched Data Communication Service - Performance Parameters, Measurements Methods, and Objectives (stabilized maintenance of ANSI T1.504-1998 (R2002))

The purpose of this standard is to define a set of parameters that may be used in specifying and measuring the performance of packet-switched data communication services provided in accordance with the ITU-T Recommendations X.25 and X.75. (Formerly known as T1.504-1998 (R2006).)

Single copy price: \$275.00

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### AWS (American Welding Society)

### Revision

BSR/AWS A5.36/A5.36M-201x, Specification for Carbon and Low-Alloy Steel Flux Cored Electrodes for Flux Cored Arc Welding and Metal Cored Electrodes for Gas Metal Arc Welding (revision of ANSI/AWS A5.36/A5.36M -2011)

This specification prescribes the requirements for classification of carbon and low-alloy steel flux-cored electrodes for flux-cored arc welding and metal-cored electrodes for gas metal arc welding. The requirements include chemical composition and mechanical properties of the weld metal and certain usability characteristics. Optional, supplemental designators are also included for diffusible hydrogen and to indicate conformance to special mechanical property requirements when the weld metal is deposited using low heat input, fast cooling rate and high heat input, slow cooling rate procedures.

Single copy price: \$36.50

Obtain an electronic copy from: gupta@aws.org

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### **AWS (American Welding Society)**

#### Revision

BSR/AWS B2.2/B2.2M-201X, Specification for Brazing Procedure and Performance Qualification (revision of ANSI/AWS B2.2/B2.2M-2009)

This specification provides the requirements for qualification of brazing procedure specifications, brazers, and brazing operators for manual, mechanized, and automatic brazing. The brazing processes included are torch brazing, furnace brazing, diffusion brazing, resistance brazing, dip brazing, infrared brazing, and induction brazing. Base metals, brazing filler metals, brazing fluxes, brazing atmospheres, and brazing joint clearances are also included.

Single copy price: \$40.00

Obtain an electronic copy from: Jennifer Rosario

Order from: jrosario@aws.org

Send comments (with copy to psa@ansi.org) to: Andrew Davis, (305) 443

-9353, x466, adavis@aws.org

### **AWWA (American Water Works Association)**

#### Revision

BSR/AWWA B405-201x, Sodium Aluminate (revision of ANSI/AWWA B405-2006)

This standard describes sodium aluminate (Na2Al2O4) in both liquid and solid form for use in the treatment of potable water, wastewater, or reclaimed water. Sodium aluminate, according to this standard, is a combination of sodium oxide (Na2O) and aluminum oxide (Al2O3) with sufficient excess causticity (sodium oxide) for stabilization.

Single copy price: \$20.00

Obtain an electronic copy from: vdavid@awwa.org

Order from: Paul Olson, (303) 347-6178, polson@awwa.org; vdavid@awwa.

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### **ECIA (Electronic Components Industry Association)**

### **New Standard**

BSR/EIA 364-118-201x, Thermal Shock for Hermetic Electrical Connectors and Sockets (new standard)

This standard is intended to develop test standards used in military standards not presently covered by an EIA-364 Test Procedure.

Single copy price: \$72.00

Obtain an electronic copy from: global.ihs.com (877) 413-5184

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

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

### ESTA (Entertainment Services and Technology Association)

### **New Standard**

BSR E1.53-201x, Overhead mounting of luminaires, lighting accessories, and other portable devices: Specification and practice (new standard)

The standard covers specifications for the primary and secondary mounting devices for portable stage and studio luminaires and accessories. It also covers these mounting devices for special effects equipment (e.g., fog machines and bubble machines) that are often mounted along with lighting equipment. The standard would give guidance on how to properly affix these mounting devices.

Single copy price: Free

Obtain an electronic copy from: http://tsp.esta. org/tsp/documents/public\_review\_docs.php

Order from: Karl Ruling, (212) 244-1505, standards@esta.org Send comments (with copy to psa@ansi.org) to: Same

### **FCI (Fluid Controls Institute)**

### Revision

BSR/FCI 70-3-201x, Regulator Seat Leakage (revision of ANSI/FCI 70-3 -2015)

This standard establishes a series of seat leakage classes for regulators and defines the production test procedures.

Single copy price: Free

Obtain an electronic copy from: cagi@cagi.org

Order from: Leslie Schraff, (216) 241-7333, cagi@cagi.org Send comments (with copy to psa@ansi.org) to: Same

### **FCI (Fluid Controls Institute)**

### Revision

BSR/FCI 79-1-201x, Standards for Proof of Pressure Rating of Pressure Regulators and Temperature Regulators (revision of ANSI/FCI 79-1-2009)

The purpose of this standard is to create common guidelines for establishing pressure ratings for use by manufacturers, users, specifiers, and approval bodies in order to provide consistent pressure containment integrity.

Single copy price: Free

Obtain an electronic copy from: cagi@cagi.org

Order from: Leslie Schraff, (216) 241-7333, cagi@cagi.org Send comments (with copy to psa@ansi.org) to: Same

### ITSDF (Industrial Truck Standards Development Foundation, Inc.)

### Revision

BSR/ITSDF B56.1-201X, Safety Standard for Low Lift and High Lift Trucks (revision of ANSI/ITSDF B56.1-2012)

This Standard defines the safety requirements relating to the elements of design, operation, and maintenance of low-lift and high-lift powered industrial trucks controlled by a riding or walking operator, and intended for use on compacted, improved surfaces.

Single copy price: Free

Obtain an electronic copy from: itsdf@earthlink.net

Order from: itsdf@earthlink.net

### NPES (ASC CGATS) (Association for Suppliers of Printing, Publishing and Converting Technologies)

### **New National Adoption**

BSR/CGATS/ISO 12646-201x, Graphic technology - Displays for colour proofing - Characteristics (identical national adoption of ISO 12646-2015 and revision of ANSI/CGATS/ISO 12646-2008)

This International Standard specifies requirements for two conformance levels for the characteristics of displays to be used for soft proofing of color images. Included are requirements for uniformity and variations of electro-optical properties with viewing direction for different driving signals.

Single copy price: \$55.00

Obtain an electronic copy from: dorf@npes.org
Order from: Debra Orf, (703) 264-7200, dorf@npes.org
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### **NSF (NSF International)**

### Reaffirmation

BSR/NSF 321-2010 (R201x), Goldenseal Root (Hydrastis canadensis) (reaffirmation of ANSI/NSF 321-2010)

The purpose of this Standard is to serve as an evaluation tool for analyzing the botanical dietary supplement Goldenseal Root (Hydrastis canadensis). NSF/ANSI 321 contains requirements for dietary supplements that contain goldenseal root as an ingredient. It allows for the determination that this botanical ingredient is accurately identified, that the product contains the quantity of dietary ingredients and marker constituents as determined by the American Herbal Pharmacopoeia (AHP), that the ingredient does not contain unacceptable quantities of contaminants, conforms to the compliance criteria of the AHP, and can be used to facilitate GMP compliance.

Single copy price: Free

Obtain an electronic copy from: http://standards.nsf. org/apps/group\_public/download.php/31301/NSF\_ANSI%20321-2010% 20Reaffirmation%20JC%20Memo%20&%20ballot.pdf

Order from: Rachel Brooker, (734) 827-6866, rbrooker@nsf.org

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### **NSF (NSF International)**

#### Revision

BSR/NSF 50-201x (i99r5), Equipment for Swimming Pools, Spas, Hot Tubs and Other Recreational Water Facilities (revision of ANSI/NSF 50-2015)

This Standard covers materials, components, products, equipment and systems, related to public and residential recreational water facility operation.

Single copy price: Free

Obtain an electronic copy from: Lauren Panoff, (734) 769-5197, lpanoff@nsf.

org

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### **SCTE** (Society of Cable Telecommunications Engineers) *Revision*

BSR/SCTE 65-201x, Service Information Delivered Out-Of-Band for Digital Cable Television (revision of ANSI/SCTE 65-2008)

This document defines a standard for Service Information (SI) delivered outof-band on cable. This standard is designed to support "navigation devices" on cable. The current specification defines the syntax and semantics for a standard set of tables providing the data necessary for such a device to discover and access digital and analog services offered on cable.

Single copy price: \$50.00

Obtain an electronic copy from: standards@scte.org

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

ihs.com

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

### SCTE (Society of Cable Telecommunications Engineers) Revision

BSR/SCTE 214-1-201x, MPEG DASH for IP-Based Cable Services - Part 1: MPD Constraints and Extensions (revision of ANSI/SCTE 214-1-2015)

This standard is part of a suite documenting usage of MPEG DASH in IP-based cable networks. It specifies restrictions on MPD and codecs that apply to both MPEG-2 TS and ISO-BMFF segments. Thus, DASH/TS profile is a combination of part 1 (this standard) and Part 2 (which defines aspects specific to MPEG-2 TS), and, analogously, DASH/FF profile is a combination of Part 1 and Part 3 (which defines aspects specific to ISO-BMFF). The DASH/TS profile is also very similar to the adaptive transport stream source description defined in SCTE 215.

Single copy price: \$50.00

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

ihs.com

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

### SCTE (Society of Cable Telecommunications Engineers) Revision

BSR/SCTE 214-2-201x, MPEG DASH for IP-Based Cable Services - Part 2: DASH/TS Profile (revision of ANSI/SCTE 214-2-2015)

This document defines DASH/TS - a profile of MPEG DASH which uses MPEG-2 TS segments. In addition, this profile integrates elements of SCTE specifications, on which define media formats and digital program insertion. This profile is based on of the philosophy of DASH MPEG-2 TS Simple Profile and is similar in its approach to the Common ISO-BMFF Profile.

Single copy price: \$50.00

Obtain an electronic copy from: standards@scte.org

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

ihs.com

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

### TIA (Telecommunications Industry Association)

### Revision

BSR/TIA 1179-A-201x, Healthcare Facility Telecommunications Infrastructure Standard (revision and redesignation of ANSI/TIA 1179-2010)

This Standard specifies requirements for telecommunications infrastructure for healthcare facilities (e.g., hospitals, clinics). It specifies cabling, cabling topologies, and cabling distances. Additionally, pathways and spaces (e.g., sizing and location), and ancillary requirements are addressed.

Telecommunications cabling specified by this standard is intended to support a wide range of healthcare facilities and systems.

Single copy price: \$112.00

Obtain an electronic copy from: TIA, standards@tiaonline.org

Order from: Teesha Jenkins, (703) 907-7706, standards@tiaonline.org

Send comments (with copy to psa@ansi.org) to: Teesha Jenkins, (703) 907

-7706, standards@tiaonline.org

### **UL (Underwriters Laboratories, Inc.)**

### **New National Adoption**

BSR/UL 60335-2-24-201x, Standard for Household and Similar Electrical Appliances - Safety - Part 2-24: Particular Requirements for Refrigerating Appliances, Ice-Cream Appliances and Ice-Makers (national adoption of IEC 60335-2-24 with modifications and revision of ANSI/UL 60335-2-24-2006 (R2011))

(1) The proposed second edition of the harmonized Standard for Household and Similar Electrical Appliances - Safety - Part 2-24: Particular Requirements for Refrigerating Appliances, Ice-Cream Appliances and Ice-Makers, UL 60335-2-24, based on Edition 7.1 of IEC 60335-2-24.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: comm2000

Send comments (with copy to psa@ansi.org) to: Megan Van Heirseele,

 $(847)\ 664\text{-}2881,\ Megan.M.Van Heirseele @ul.com$ 

### **UL (Underwriters Laboratories, Inc.)**

### **New National Adoption**

BSR/UL 62841-2-14-201x, Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery - Safety - Part 2-14: Particular Requirements for Hand-Held Planers (identical national adoption of IEC 62841-2-14)

(1) Proposed adoption of the first edition of IEC 62841-2-14, Standard for Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery - Safety - Part 2-14: Particular Requirements for Hand-Held Planers, as the first edition of UL 62841-2-14.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: comm2000

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

### **UL (Underwriters Laboratories, Inc.)**

### New National Adoption

BSR/UL 62841-3-10-201x, Standard for Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery - Safety - Part 3-10: Particular Requirements for Transportable Cut-Off Machines (identical national adoption of IEC 62841-3-10)

(1) Proposed adoption of the first edition of IEC 62841-3-10, Standard for Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery - Safety - Part 3-10: Particular Requirements for Transportable Cut-Off Machines, as the first edition of UL 62841-3-10.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: comm2000

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

### **UL (Underwriters Laboratories, Inc.)**

#### Reaffirmation

BSR/UL 61215-2012 (R201x), Standard for Crystalline Silicon Terrestrial Photovoltaic (PV) Modules - Design Qualification and Type Approval (reaffirmation of ANSI/UL 61215-2012)

Reaffirmation and continuance of the first edition of the Standard for Crystalline Silicon Terrestrial Photovoltaic (PV) Modules - Design Qualification and Type Approval, UL 61215, as an American National Standard

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: comm2000

Send comments (with copy to psa@ansi.org) to: Susan Malohn, (847) 664 -1725, Susan.P.Malohn@ul.com

### **UL (Underwriters Laboratories, Inc.)**

### Reaffirmation

BSR/UL 61646-2012 (R201x), Standard for Thin-Film Terrestrial Photovoltaic (PV) Modules - Design Qualification and Type Approval (reaffirmation of ANSI/UL 61646-2012)

Reaffirmation and continuance of the first edition of the Standard for Thin-Film Terrestrial Photovoltaic (PV) Modules - Design Qualification and Type Approval, UL 61646, as an American National Standard.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: comm2000

Send comments (with copy to psa@ansi.org) to: Susan Malohn, (847) 664 -1725, Susan.P.Malohn@ul.com

### **UL (Underwriters Laboratories, Inc.)**

#### Reaffirmation

BSR/UL 62108-2012 (R201x), Standard for Concentrator Photovoltaic (CPV) Modules and Assemblies - Design Qualification and Type Approval (reaffirmation of ANSI/UL 62108-2012)

Reaffirmation and continuance of the first edition of the Standard for Concentrator Photovoltaic (CPV) Modules and Assemblies - Design Qualification and Type Approval, UL 62108, as an American National Standard.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: comm2000

Send comments (with copy to psa@ansi.org) to: Susan Malohn, (847) 664 -1725, Susan.P.Malohn@ul.com

### Comment Deadline: May 17, 2016

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

#### **New Standard**

BSR/INCITS 504-3-201x, Information Technology - Generic Identity Command Set - Part 3: GICS Platform Testing Requirements (new standard)

Limited to definition for what testing is required and does not provide technical guidelines on the methodology to be used during the testing and validation of applicable components. Focuses on platform conformance testing of Part 1 and Part 2, and focuses on what needs to be tested to enforce full functionality and interoperability. In particular, instances of brute force, exhaustive, or open-ended negative testing are not specified in the requirements here-in. There are no test requirements for negative testing to determine abnormal behavior with the exception of interrogating access control rules and elicitation of error codes where possible and appropriate. It is expected that test methods, procedures, and environments will be developed by commercial and/or government entities to be available for developers producing GICS-compliant products.

Single copy price: \$60.00

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

Order from: http://webstore.ansi.org

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

incits.org

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

### **New Standard**

BSR/INCITS 515-201x, Information technology - SCSI Architecture Model - 5 (SAM-5) (new standard)

The set of Small Computer System Interface (SCSI) standards consists of this standard and the SCSI implementation standards described in 4.2 of this standard. This standard defines a reference model that specifies common behaviors for SCSI devices, and an abstract structure that is generic to all SCSI I/O system implementations. The set of SCSI standards specifies the interfaces, functions, and operations necessary to ensure interoperability between conforming SCSI implementations. This standard is a functional description. Conforming implementations may employ any design technique that does not violate interoperability. The following concepts from previous versions of this standard are made obsolete by this standard: (a) support for the SPI-5 SCSI transport protocol; (b) Contingent Allegiance; (c) the TARGET RESET task management function; (d) basic task management model; (e) untagged tasks; and (f) linked command function.

Single copy price: \$60.00

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

Order from: http://webstore.ansi.org/

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

incits.org

### **Projects Withdrawn from Consideration**

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

### **API (American Petroleum Institute)**

ANSI/API 560-2006, Fired Heaters for General Refinery Services (identical national adoption of ISO 13705:2006)

Specifies requirements and gives recommendations for the design, materials, fabrication, inspection, testing, preparation for shipment, and erection of fired heaters, air preheaters, fans and burners for general refinery service. This standard is not intended to apply to the design of steam reformers or pyrolysis furnace.

Inquiries may be directed to Nathaniel Wall, (202) 682-8157, walln@api.org

### **API (American Petroleum Institute)**

BSR/API Standard 560-201x, Fired Heaters for General Refinery Service (identical national adoption of ISO 13705 and revision of ANSI/API 560 -2006)

Specifies requirements and gives recommendations for the design, materials, fabrication, inspection, testing, preparation for shipment, and erection of fired heaters, air preheaters, fans and burners for general refinery service. This standard is not intended to apply to the design of steam reformers or pyrolysis furnaces.

### 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: Jennifer Moyer

Phone: (703) 253-8274

Fax: (703) 276-0793

E-mail: jmoyer@aami.org

BSR/AAMI ST81-2004 (R201x), Sterilization of medical devices - Information to be provided by the manufacturer for the processing of resterilizable medical devices (reaffirmation of ANSI/AAMI ST81-2004 (R2010))

Obtain an electronic copy from: http://my.aami.org/store/SearchResults.aspx?searchterm=st81&searchoption=ALL

BSR/AAMI/IEC 60601-2-2-201x, Medical electrical equipment - Part 2-2: Particular requirements for the basic safety and essential performance of high frequency surgical equipment and high frequency surgical accessories (identical national adoption of IEC 60601-2-2 and revision of ANSI/AAMI/IEC 60601-2-2-2009 (R2014))

Obtain an electronic copy from: https://standards.aami. org/kws/public/document?view

### ASA (ASC S1) (Acoustical Society of America)

Office: 1305 Walt Whitman Rd

Suite 300

Melville, NY 11747

Contact: Susan Blaeser
Phone: (631) 390-0215
Fax: (631) 923-2875

E-mail: asastds@acousticalsociety.org

BSR ASA S1.8-201x, Reference Values for Levels Used in Acoustics and Vibrations (revision of ANSI ASA S1.8-1989 (R2011))

Obtain an electronic copy from: asastds@acousticalsociety.org

### ASA (ASC S12) (Acoustical Society of America)

Office: 1305 Walt Whitman Rd

Suite 300

Melville, NY 11747

Contact: Susan Blaeser
Phone: (631) 390-0215
Fax: (631) 923-2875

E-mail: asastds@acousticalsociety.org

BSR/ASA S12.1-1983 (R201x), Guidelines for the Preparation of Standard Procedures to Determine the Noise Emission from Sources (reaffirmation of ANSI/ASA S12.1-1983 (R2011))

Obtain an electronic copy from: asastds@acousticalsociety.org

BSR/ASA S12.3-1985 (R201x), Statistical Methods for Determining and Verifying Stated Noise Emission Values of Machinery and Equipment (reaffirmation of ANSI/ASA S12.3-1985 (R2011))

Obtain an electronic copy from: asastds@acousticalsociety.org

BSR/ASA S12.17-1996 (R201x), Impulse Sound Propagation for Environmental Noise Assessment (reaffirmation of ANSI/ASA S12.17 -1996 (R2011))

Obtain an electronic copy from: asastds@acousticalsociety.org

BSR/ASA S12.19-1996 (R201x), Measurement of Occupational Noise Exposure (reaffirmation of ANSI/ASA S12.19-1996 (R2011))

Obtain an electronic copy from: asastds@acousticalsociety.org

BSR/ASA S12.23-1989 (R201x), Method for the Designation of Sound Power Emitted by Machinery and Equipment (reaffirmation of ANSI/ASA S12.23-1989 (R2011))

Obtain an electronic copy from: asastds@acousticalsociety.org

BSR/ASA S12.56-2011/ISO 3746:2010 (R201x), Acoustics Determination of sound power levels and sound energy levels of
noise sources using sound pressure - Survey method using an
enveloping measurement surface over a reflecting plane
(reaffirmation of ANSI/ASA S12.56-2011/ISO 3746-2010)

Obtain an electronic copy from: asastds@acousticalsociety.org

### **FCI (Fluid Controls Institute)**

Office: 1300 Sumner Avenue

Cleveland, OH 44115

Contact: Leslie Schraff

Phone: (216) 241-7333

Fax: (216) 241-0105

E-mail: fci@fluidcontrolsinstitute.org

BSR/FCI 70-3-201x, Regulator Seat Leakage (revision of ANSI/FCI 70-3

-2015)

Obtain an electronic copy from: FCI

BSR/FCI 79-1-201x, Standards for Proof of Pressure Rating of Pressure Regulators and Temperature Regulators (revision of ANSI/FCI 79-1 -2009)

Obtain an electronic copy from: FCI

### FM (FM Approvals)

Office: 1151 Boston-Providence Turnpike

Norwood, MA 02062

Contact: Josephine Mahnken

Phone: (781) 255-4813

Fax: (781) 762-9375

**E-mail:** josephine.mahnken@fmapprovals.com

BSR/FM 4882-201x, Class 1 Interior Wall and Ceiling Materials or Systems for Smoke Sensitive Occupancies (new standard)

### ISA (International Society of Automation)

Office: 67 Alexander Drive

Research Triangle Park, NC 27709

 Contact:
 Charles Robinson

 Phone:
 (919) 990-9213

 Fax:
 (919) 549-8288

 E-mail:
 crobinson@isa.org

BSR/ISA 84.91.01-201x, Identification and Mechanical Integrity of Safety Controls, Alarms, and Interlocks in the Process Industry (revision of ANSI/ISA 84.91.01-2012)

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

Office: 1101 K Street NW

Suite 610

Washington, DC 20005-3922

 Contact:
 Rachel Porter

 Phone:
 (202) 626-5741

 Fax:
 202-638-4922

 E-mail:
 comments@itic.org

BSR/INCITS 515-201x, Information technology - SCSI Architecture Model - 5 (SAM-5) (new standard)

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

BSR/INCITS/ISO 19101-1:2014, Geographic information - Reference model - Part 1: Fundamentals (revision and redesignation of INCITS/ISO 19101:2002 [R2012])

BSR/INCITS/ISO 19150-2:2015, Geographic information - Ontology - Part 2: Rules for developing ontologies in the Web Ontology Language (OWL) (identical national adoption of ISO 19150-2:2015)

BSR/INCITS/ISO 19103:2015, Geographic information - Conceptual schema language (identical national adoption of ISO 19103:2015)

BSR/INCITS/ISO 19162:2015, Geographic information - Well-known text representation of coordinate reference systems (identical national adoption of ISO 19162:2015)

BSR/INCITS/ISO/IEC 17788:2014, Information technology - Cloud computing - Overview and vocabulary (identical national adoption of ISO/IEC 17788:2014)

BSR/INCITS/ISO/IEC 17789:2014, Information technology - Cloud computing - Reference architecture (identical national adoption of ISO/IEC 17789:2014)

BSR/INCITS/ISO/IEC 17991:2015, Information technology - Office equipment - Method for Measuring Scanning Productivity of Digital Multifunctional Devices (identical national adoption of ISO/IEC 17991:2015)

BSR/INCITS/ISO/IEC 19395:2015, Information technology -Sustainability for and by information technology - Smart data centre resource monitoring and control (identical national adoption of ISO/IEC 19395:2015)

BSR/INCITS/ISO/IEC 28360:2015, Information technology - Office equipment - Determination of chemical emission rates from electronic equipment (identical national adoption of ISO/IEC 28360:2015 and revision of INCITS/ISO/IEC 28360:2012 [2013])

BSR/INCITS/ISO/IEC 29102:2015, Information technology - Office equipment - Method for the determination of ink cartridge photo yield for colour printing with inkjet printers and multi-function devices that contain inkjet printer components (identical national adoption of ISO/IEC 29102:2015 and revision of INCITS/ISO/IEC 29102:2011 [2012])

### NEMA (ASC C84) (National Electrical Manufacturers Association)

Office: 1300 North 17th Street

Suite 900

Rosslyn, VA 22209

 Contact:
 Khaled Masri

 Phone:
 (703) 841-3278

 Fax:
 (703) 841-3367

E-mail: khaled.masri@nema.org

BSR C84.1-201X, Standard for Electric Power Systems and Equipment - Voltage Ratings (60 Hertz) (revision of ANSI C84.1-2011)

### TIA (Telecommunications Industry Association)

Office: 1320 North Courthouse Road

Suite 200

Arlington, VA 22201

Contact: Teesha Jenkins

Phone: (703) 907-7706

Fax: (703) 907-7727

E-mail: standards@tiaonline.org

BSR/TIA 1179-A-201x, Healthcare Facility Telecommunications Infrastructure Standard (revision and redesignation of ANSI/TIA 1179 -2010)

Obtain an electronic copy from: TIA

### **UL (Underwriters Laboratories, Inc.)**

Office: 47173 Benicia Street

Fremont, CA 94538

Contact: Marcia Kawate

E-mail: Marcia.M.Kawate@ul.com

BSR/UL 79-201X, Standard for Safety for Power-Operated Pumps for Petroleum Dispensing Products (revision of ANSI/UL 79-2010

(R2014))

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

### **Call for Members (ANS Consensus Bodies)**

### **AAMI Call for Consensus Body Members**

### IEC 60601-2-2

Please note that IEC 60601-2-2 is undergoing a revision (this is available for public comment at present time), which AAMI will be adopting as a revision to an American National Standard. The committee is looking for further participation from U.S. members. The draft of IEC 60601-2-2 includes significant additional requirements for electrosurgical devices that have a high current mode (drive more than 30 A2S through the patient). It also includes refinement and additions to the defined terms, additional separation of the requirements for high frequency surgical equipment and high frequency surgical accessories, and a new requirement for adult neutral electrodes to be contact quality monitoring neutral electrodes. Industry participation for specific changes to the document as well as participation from the users of this equipment are being sought. Please contact Hae Choe at AAMI (hchoe@aami.org) to get involved or for more information.

### **Call for Members (ANS Consensus Bodies)**

### **Call for Committee Members**

### **ASC 01**

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

- o General Interest
- Government
- o Producer
- o User

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

### **Final Actions on American National Standards**

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

### AGMA (American Gear Manufacturers Association) Reaffirmation

ANSI/AGMA 2001-D04-2010 (R2016), Fundamental Rating Factors and Calculation Methods for Involute Spur and Helical Gear Teeth (reaffirmation of ANSI/AGMA 2001-D04 (R2010)): 3/16/2016

### ANS (American Nuclear Society)

#### Reaffirmation

ANSI/ANS 2.17-2010 (R2016), Evaluation of Subsurface Radionuclide Transport at Commercial Nuclear Power Plants (reaffirmation of ANSI/ANS 2.17-2010): 3/10/2016

### ASABE (American Society of Agricultural and Biological Engineers)

#### Reaffirmation

 \* ANSI/ASAE S483.2 AUG2011 (R2016), Rotary Mower Blade Ductility Test (reaffirmation of ANSI/ASAE S483.2-2011): 3/9/2016

### ASME (American Society of Mechanical Engineers) Reaffirmation

#### Reamirmation

- ANSI/ASME B18.6.1-1981 (R2016), Wood Screws Inch (reaffirmation of ANSI/ASME B18.6.1-1981 (R2008)): 3/9/2016
- ANSI/ASME B18.31.1M-2008 (R2016), Metric Continuous and Double End Studs (reaffirmation of ANSI/ASME B18.31.1M-2008): 3/9/2016
- ANSI/ASME B107.300-2010 (R2016), Torque Instruments (reaffirmation of ANSI/ASME B107.300-2010): 3/9/2016
- ANSI/ASME PTC 30-1991 (R2016), Air Cooled Heat Exchangers (reaffirmation of ANSI/ASME PTC 30-1991 (R2011)): 3/9/2016

### **AWWA (American Water Works Association)**

#### **New Standard**

ANSI/AWWA B507-2016, Phosphoric Acid (new standard): 3/9/2016 *Revision* 

ANSI/AWWA C517-2016, Resilient-Seated Cast-Iron Eccentric Plug Valves (revision of ANSI/AWWA C517-2009): 3/9/2016

### **CSA (CSA Group)**

### Revision

\* ANSI LC 1-2016, Gas Piping Systems Using Corrugated Stainless Steel Tubing (CSST) (same as CSA 6.26-201x) (revision of ANSI LC 1-2013): 3/10/2016

### FM (FM Approvals)

### **New Standard**

ANSI/FM 4477-2016, Vegetative Roof Systems (new standard): 3/9/2016

### ISA (International Society of Automation) Revision

ANSI/ISA 75.08.09-2016, Face-to-Face Dimensions for Sliding Stem Flangeless Control Valves (Classes 150, 300, and 600) (revision of ANSI/ISA 75.08.09-2005 (R2010)): 3/11/2016

### NEMA (ASC C18) (National Electrical Manufacturers Association)

#### **New Standard**

ANSI/ICEA S-83-596-2016, Standard for Indoor Optical Fiber Cable (new standard): 3/14/2016

### **NSF (NSF International)**

#### Revision

- ANSI/NSF 60-2016 (i66r1), Drinking Water Treatment Chemicals (revision of ANSI/NSF 60-2015): 3/6/2016
- \* ANSI/NSF 60-2016 (i72r1), Drinking Water Treatment Chemicals (revision of ANSI/NSF 60-2015): 3/11/2016
- \* ANSI/NSF 61-2016 (i123r1), Drinking Water System Components Health Effects (revision of ANSI/NSF 61-2015): 3/6/2016
- ANSI/NSF 401-2016, Drinking water treatment units Emerging compounds/incidental contaminants (revision of ANSI/NSF 401 -2014 (i1r2.1)): 3/3/2016

### SAAMI (Sporting Arms and Ammunition Manufacturers Institute)

### **New Standard**

ANSI/SAAMI Z299.5-2016, Voluntary Industry Performance Standards Criteria for Evaluation of New Firearms Designs Under Conditions of Abusive Mishandling for the Use of Commercial Manufacturers (new standard): 3/14/2016

### TCNA (ASC A108) (Tile Council of North America) Reaffirmation

- ANSI A108.1C-1999 (R2016), Contractor's Option: Installation of Ceramic Tile in the Wet-Set Method with Portland Cement Mortar or Installation of Ceramic Tile on a Cured Portland Cement Mortar Setting Bed with Dry-Set or Latex-Portland Cement Mortar (reaffirmation of ANSI A108.1C-1999 (R2010)): 3/14/2016
- ANSI A108.11-2010 (R2016), Interior Installation of Cementitious Backer Units (reaffirmation of ANSI A108.11-2010): 3/14/2016
- ANSI A108.13-2005 (R2016), Installation of Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone (reaffirmation of ANSI A108.13-2005 (R2010)): 3/14/2016
- ANSI A108.16-2005 (R2016), Installation of Paper-Faced, Back-Mounted, Edge-Mounted, or Clear Film Face-Mounted Glass Mosaic Tile (reaffirmation of ANSI A108.16-2005 (R2010)): 3/14/2016

- ANSI A108.17-2005 (R2016), Installation of Crack Isolation Membranes for Thin-Set Ceramic Tile and Dimension Stone (reaffirmation of ANSI A108.17-2005 (R2010)): 3/14/2016
- \* ANSI A118.5-1999 (R2016), Standard Specifications for Chemical Resistant Furan Mortars and Grouts for Tile Installation (reaffirmation of ANSI A118.5-1999 (R2010)): 3/14/2016
- \* ANSI A118.6-2010 (R2016), Standard Specifications for Standard Cement Grouts for Tile Installation (reaffirmation of ANSI A118.6 -2010): 3/14/2016
- \* ANSI A118.7-2010 (R2016), Standard Specifications for High Performance Cement Grouts for Tile Installation (reaffirmation of ANSI A118.7-2010): 3/14/2016
- \* ANSI A118.8-1999 (R2016), Standard Specifications for Modified Epoxy Emulsion Mortar/Grout (reaffirmation of ANSI A118.8-1999 (R2010)): 3/14/2016
- \* ANSI A118.9-1999 (R2016), Standard Specifications for Test Methods and Specifications for Cementitious Backer Units (reaffirmation of ANSI A118.9-1999 (R2010)): 3/14/2016

### **UL (Underwriters Laboratories, Inc.)**

### New National Adoption

- \* ANSI/UL 62841-2-2-2016, Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery - Safety -Part 2-2: Particular Requirements for Hand-Held Screwdrivers and Impact Wrenches (national adoption with modifications of IEC 62841 -2-2): 2/26/2016
- \* ANSI/UL 62841-2-9-2016, Standard for Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery -Safety - Part 2-9: Particular Requirements for Hand-Held Tappers and Threaders (national adoption with modifications of IEC 62841-2 -9): 2/26/2016

### Revision

- \* ANSI/UL 507-2016, Standard for Safety for Electric Fans (revision of ANSI/UL 507-2014): 3/9/2016
- \* ANSI/UL 507-2016a, Standard for Safety for Electric Fans (revision of ANSI/UL 507-2014b): 3/9/2016
- ANSI/UL 758-2016, Standard for Safety for Appliance Wiring Material (Proposals dated 1/29/16) (revision of ANSI/UL 758-2015): 3/14/2016
- \* ANSI/UL 817-2016, Standard for Safety for Cord Sets and Power-Supply Cords (Proposal dated 12-04-15) (revision of ANSI/UL 817 -2015): 3/9/2016
- ANSI/UL 844-2016, Standard for Safety for Luminaires for Use in Hazardous (Classified) Locations (Proposal dated 01-22-16) (revision of ANSI/UL 844-2015): 3/11/2016
- ANSI/UL 1370-2016, Standard for Safety for Unvented Alcohol Fuel Burning Decorative Appliances (revision of ANSI/UL 1370-2014): 3/14/2016

### **Project Initiation Notification System (PINS)**

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

Following is a list of proposed actions and new ANS that have been received recently from ASDs. Please also review the section in Standards Action entitled "American National Standards Maintained Under Continuous Maintenance" for additional or comparable information with regard to standards maintained under the continuous maintenance option. To view information about additional standards for which a PINS has been submitted and to search approved ANS, please visit www.NSSN.org, which is a database of standards information. Note that this database is not exhaustive.

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

### **ASTM (ASTM International)**

Office: 100 Barr Harbor Drive

West Conshohocken, PA 19428-2959

Contact: Corice Leonard

Fax: (610) 834-3683

E-mail: accreditation@astm.org

BSR/ASTM WK53565-201x, New Specification for Poured in Place

Padded Pole Vault Plant Box (new standard)

Stakeholders: Pole Vault industry.

Project Need: Dimensional features, Padding and installation

methodology for pole vault plant boxes.

http://www.astm.org/DATABASE.CART/WORKITEMS/WK53565.htm

BSR/ASTM WK53566-201x, New Test Method for Determining Vertical Deformation and Area Deflection (new standard)

Stakeholders: Miscellaneous Playing Surfaces industry.

Project Need: This method covers the quantitative measurement and normalization of deflections generated within a sports surface as an indication of the stability and comfort of the system.

http://www.astm.org/DATABASE.CART/WORKITEMS/WK53566.htm

BSR/ASTM WK53595-201x, New Test Method for Standard Test Method for the Performance of Retherm Ovens (new standard)

Stakeholders: Productivity and Energy Protocol industry.

Project Need: This test method evaluates the energy consumption and cooking performance of retherm ovens. The food service operator can use this evaluation to select a retherm oven and understand its energy consumption.

http://www.astm.org/DATABASE.CART/WORKITEMS/WK53595.htm

### FM (FM Approvals)

Office: 1151 Boston-Providence Turnpike

Norwood, MA 02062 Contact: Josephine Mahnken

**Fax:** (781) 762-9375

**E-mail:** josephine.mahnken@fmapprovals.com

BSR/FM 4882-201x, Class 1 Interior Wall and Ceiling Materials or Systems for Smoke Sensitive Occupancies (new standard)

Stakeholders: Any smoke-sensitive occupancy such as, but not limited to, cleanroom, food preparation and storage, and pharmaceutical manufacturing and storage facilities.

Project Need: To reduce the amount of damage in smoke-sensitive occupanices from smoke resulting from building material or system fires.

This standard applies to interior wall and ceiling materials or systems used in cleanrooms, pharmaceutical manufacturing and storage areas, food preparation and storage areas, and similar occupancies or other occupancies which are susceptible to smoke damage. Wall and ceiling materials or systems which are categorized for use in cleanrooms meet the requirements of ANSI/FM 4910 in addition to the other requirements of this standard. These materials or systems produce low levels of smoke.

#### ISA (International Society of Automation)

Office: 67 Alexander Drive

Research Triangle Park, NC 27709

Contact: Charles Robinson

Fax: (919) 549-8288

E-mail: crobinson@isa.org

BSR/ISA 84.91.01-201x, Identification and Mechanical Integrity of Safety Controls, Alarms, and Interlocks in the Process Industry (revision of ANSI/ISA 84.91.01-2012)

Stakeholders: End users and equipment/system suppliers in the process industries.

Project Need: Update current American National Standard to reflect recent developments.

This standard addresses the instruments that are classified as process safety safeguards by the authority having jurisdiction (typically the owner/operator or local regulatory authority), and establishes requirements for their mechanical integrity, including inspection/testing and documenting the inspection/test results. This standard is specific to process safety risk management in the process industry.

BSR/ISA 62453-1-201x, Field Device Tool (FDT) Interface Specification - Part 1 Overview and Guidance (identical national adoption of IEC 62453-1 and revision of ANSI/ISA 62453-1 (103.00.01)-2011)

Stakeholders: Developers of Field Device Tool (FDT) components. Project Need: Provide American National Standard status for widely used IEC standard.

IEC 62453 provides an interface specification for developers of FDT (Field Device Tool) components to support function control and data access within a client/server architecture. The availability of this standard interface facilitates development of servers and clients by multiple manufacturers and supports open interoperation.

BSR/ISA 62453-2-201x, Field Device Tool (FDT) Interface Specification - Part 2: Concepts and Detailed Description (identical national adoption of IEC 62453-2 and revision of ANSI/ISA 62453-2 (103.00.02)-2011)

Stakeholders: Developers of Field Device Tool (FDT) components. Project Need: Provide American National Standard status for widely used IEC standard.

IEC 62453 provides an interface specification for developers of FDT (Field Device Tool) components to support function control and data access within a client/server architecture. The availability of this standard interface facilitates development of servers and clients by multiple manufacturers and supports open interoperation.

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

Office: 1101 K Street, NW

Suite 610

Washington, DC 20005-3922

Contact: Barbara Bennett

Fax: (202) 638-4922

E-mail: comments@itic.org

BSR/INCITS/ISO 19101-1:2014, Geographic information - Reference model - Part 1: Fundamentals (revision and redesignation of INCITS/ISO 19101:2002 [R2012])

Stakeholders: ICT industry.

Project Need: Adoption of this international standard is beneficial to the ICT industry.

Defines the reference model for standardization in the field of geographic information. This reference model describes the notion of interoperability and sets forth the fundamentals by which this standardization takes place. Although structured in the context of information technology and information technology standards, ISO 19101-1:2014 is independent of any application development method or technology implementation approach.

BSR/INCITS/ISO 19150-2:2015, Geographic information - Ontology - Part 2: Rules for developing ontologies in the Web Ontology Language (OWL) (identical national adoption of ISO 19150-2:2015) Stakeholders: ICT industry.

Project Need: Adoption of this international standard is beneficial to the ICT industry.

Defines rules and guidelines for the development of ontologies to support better the interoperability of geographic information over the Semantic Web. The Web Ontology Language (OWL) is the language adopted for ontologies. It defines the conversion of the UML static view modeling elements used in the ISO geographic information standards into OWL. It further defines conversion rules for describing application schemas based on the General Feature Model defined in ISO 19109 into OWL. It does not define semantics operators and rules for service ontologies, and does not develop any ontology.

BSR/INCITS/ISO 19103:2015, Geographic information - Conceptual schema language (identical national adoption of ISO 19103:2015)

Stakeholders: ICT industry.

Project Need: Adoption of this international standard is beneficial to the ICT industry.

Provides rules and guidelines for the use of a conceptual schema language within the context of geographic information. The chosen conceptual schema language is the Unified Modeling Language (UML). Provides a profile of the Unified Modeling Language (UML). The standardization target type of this standard is UML schemas describing geographic information.

BSR/INCITS/ISO 19162:2015, Geographic information - Well-known text representation of coordinate reference systems (identical national adoption of ISO 19162:2015)

Stakeholders: ICT industry.

Project Need: Adoption of this international standard is beneficial to the ICT industry.

This standard defines the structure and content of a text string implementation of the abstract model for coordinate reference systems described in ISO 19111:2007 and ISO 19111-2:2009. The string defines frequently needed types of coordinate reference systems and coordinate operations in a self-contained form that is easily readable by machines and by humans. The essence is its simplicity; as a consequence, there are some constraints upon the more open content allowed in ISO 19111:2007. To retain simplicity in the well-known text (WKT) description of coordinate reference systems and coordinate operations, the scope of this Standard excludes parameter grouping and pass-through coordinate operations. The text string provides a means for humans and machines to correctly and unambiguously interpret and utilize a coordinate reference system definition with lookups or cross-references only to define coordinate operation mathematics. Because it omits metadata about the source of the data and may omit metadata about the applicability of the information, the WKT string is not suitable for the storage of definitions of coordinate reference systems or coordinate operations.

BSR/INCITS/ISO/IEC 17788:2014, Information technology - Cloud computing - Overview and vocabulary (identical national adoption of ISO/IEC 17788:2014)

Stakeholders: ICT industry.

Project Need: Adoption of this international standard is beneficial to the ICT industry.

Provides an overview of cloud computing along with a set of terms and definitions. It is a terminology foundation for cloud computing standards and is applicable to all types of organizations (e.g., commercial enterprises, government agencies, not-for-profit organizations).

BSR/INCITS/ISO/IEC 17789:2014, Information technology - Cloud computing - Reference architecture (identical national adoption of ISO/IEC 17789:2014)

Stakeholders: ICT industry.

Project Need: Adoption of this international standard is beneficial to the ICT industry.

Specifies the cloud computing reference architecture (CCRA). The reference architecture includes the cloud computing roles, cloud computing activities, and the cloud computing functional components and their relationships.

BSR/INCITS/ISO/IEC 17991:2015, Information technology - Office equipment - Method for Measuring Scanning Productivity of Digital Multifunctional Devices (identical national adoption of ISO/IEC 17991:2015)

Stakeholders: ICT industry.

Project Need: Adoption of this international standard is beneficial to the ICT industry.

Specifies a method for determining scanning productivity by measuring "scanning speed" and "scan to network folder speed". It includes test files, test setup procedure, test procedure, and the reporting requirements for the scanning productivity measurements. This International Standard is applicable to black and white (B&W) as well as color digital multifunctional devices of any underlying marking technology. It is applicable to devices that are able to scan a media size of A4/8,5" × 11", and which have an automatic document feeder (ADF), an ability to scan to network folder, and do not need other application programs on a computer or another devices to do a scanning job. It is not intended to be used for image quality measurement, document or record management of any scanned images.

BSR/INCITS/ISO/IEC 19395:2015, Information technology -Sustainability for and by information technology - Smart data centre resource monitoring and control (identical national adoption of ISO/IEC 19395:2015)

Stakeholders: ICT industry.

Project Need: Adoption of this international standard is beneficial to the ICT industry.

Provides Messages that facilitate integrated or "smart" monitoring and control of Resources in those islands. The Messages are exchanged between the Management Function and Resources. ISO/IEC 19395:2015 acknowledges that those Resources may be composed of other Resources (e.g., a rack may contain servers, ventilators, etc.). In addition, e.g., those servers may be viewed from their computing, energy consumption, or dissipation aspects which ISO/IEC 19395:2015 models as Resource Components and groups into IT, power, and fluid Domains, respectively.

BSR/INCITS/ISO/IEC 28360:2015, Information technology - Office equipment - Determination of chemical emission rates from electronic equipment (identical national adoption of ISO/IEC 28360:2015 and revision of INCITS/ISO/IEC 28360:2012 [2013])

Stakeholders: ICT industry.

Project Need: Adoption of this international standard is beneficial to the ICT industry.

Specifies methods to determine chemical emission rates of analyte from information and communication technology (ICT) and consumer electronics (CE) equipment during intended operation in an Emission Test Chamber (ETC). The methods comprise preparation, sampling (or monitoring) in a controlled ETC, storage and analysis, calculation and reporting of emission rates. Includes specific methods for equipment using consumables, such as printers, and equipment not using consumables, such as monitors and PCs. It also specifies monochrome and color print patterns for use in the operating phase of EUT using consumables (e.g., paper).

BSR/INCITS/ISO/IEC 29102:2015, Information technology - Office equipment - Method for the determination of ink cartridge photo yield for colour printing with inkjet printers and multi-function devices that contain inkjet printer components (identical national adoption of ISO/IEC 29102:2015 and revision of INCITS/ISO/IEC 29102:2011 [2012])

Stakeholders: ICT industry.

Project Need: Adoption of this international standard is beneficial to the ICT industry.

Provides a method to determine the ink cartridge photo yield of ink-containing cartridges (i.e., integrated ink cartridges and ink cartridges without integrated print heads) for color photo printing with color inkjet printers and multifunction devices that contain inkjet printer components. Ink cartridge yields determined on one printer model, paper and cartridge configuration are not applicable to another printer model or cartridge configuration even if the ink jet cartridges used in testing are the same.

### **NEMA (ASC C18) (National Electrical Manufacturers Association)**

Office: 1300 North 17th Street

Suite 900

Rosslyn, VA 22209

Contact: Khaled Masri Fax: (703) 841-3367

E-mail: khaled.masri@nema.org

\* BSR C18.1M, Part 1-201x, Standard for Portable Primary Cells and Batteries with Aqueous Electrolyte - General and Specifications (revision of ANSI C18.1M, Part 1-2015)

Stakeholders: Consumer electronics, testing labs, manufacturers.

Project Need: Replaces existing standard.

This standard applies to portable primary cells and batteries with aqueous electrolyte and a zinc anode (non-lithium). This edition includes the following electrochemical systems: (a) Carbon zinc (Leclanch and zinc chloride types); (b) Alkaline manganese dioxide; (c) Silver oxide: (d) Zinc air; and (e) Nickel oxyhydroxide.

### NEMA (ASC C84) (National Electrical Manufacturers Association)

Office: 1300 North 17th Street

Suite 900

Rosslyn, VA 22209

Contact: Khaled Masri
Fax: (703) 841-3367

E-mail: khaled.masri@nema.org

BSR C84.1-201X, Standard for Electric Power Systems and Equipment - Voltage Ratings (60 Hertz) (revision of ANSI C84.1-2011)

Stakeholders: Utilities and manufacturers.

Project Need: Establishes nominal voltage ratings and operating tolerances for 60-hertz electric power systems above 100 volts.

This standard establishes nominal voltage ratings and operating tolerances for 60-hertz electric power systems above 100 volts. It also makes recommendations to other standardizing groups with respect to voltage ratings for equipment used on power systems and for utilization devices connected to such systems. This standard includes preferred voltage ratings up to and including 1200-kV maximum system voltage, as defined in the standard. In defining maximum system voltage, voltage transients and temporary overvoltages caused by abnormal system conditions such as faults, load rejection, and the like are excluded. However, voltage transients and temporary overvoltages may affect equipment operating performance and are considered in equipment application.

### **UL (Underwriters Laboratories, Inc.)**

Office: 12 Laboratory Drive

Research Triangle Park, NC 27709-3995

Contact: Ross Wilson

Fax: (631) 271-6200

E-mail: Ross.Wilson@ul.com

BSR/UL 60939-3-201X, Standard for Safety for Passive filter units for electromagnetic interference suppression - Part 3: Passive filter units for which safety tests are appropriate (national adoption with modifications of IEC 60939-3)

Stakeholders: Producers of passive filters, end product manufacturers who use these filters in their products, testing and standards companies, consultants, AHJs.

Project Need: To obtain national recognition for UL 60939-3.

This specification covers passive filters used to attenuate unwanted radio-frequency signals (such as noise or interference) generated from electromagnetic sources. Both single and multi-channel filters within one enclosure or which are built on a printed circuit board forming a compact entity are included within the scope of this specification. This specification applies to passive filter units, which will be connected to an a.c. mains or other supply (d.c. or a.c.) with a nominal voltage not exceeding 1000 V a.c., with a nominal frequency not exceeding 400 Hz, or 1500 V d.c.

# American National Standards Maintained Under Continuous Maintenance

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

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

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

- AAMI (Association for the Advancement of Medical Instrumentation)
- AAMVA (American Association of Motor Vehicle Administrators)
- AGA (American Gas Association)
- AGSC (Auto Glass Safety Council)
- ASC X9 (Accredited Standards Committee X9, Incorporated)
- ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)
- ASME (American Society of Mechanical Engineers)
- ASTM (ASTM International)
- GBI (The Green Building Initiative)
- GEIA (Greenguard Environmental Institute)
- HL7 (Health Level Seven)
- IESNA (The Illuminating Engineering Society of North America)
- MHI (ASC MH10) (Material Handling Industry)
- NAHBRC (NAHB Research Center, Inc.)
- NBBPVI (National Board of Boiler and Pressure Vessel Inspectors)
- NCPDP (National Council for Prescription Drug Programs)
- NISO (National Information Standards Organization)
- NSF (NSF International)
- PRCA (Professional Ropes Course Association)
- RESNET (Residential Energy Services Network)
- TIA (Telecommunications Industry Association)
- UL (Underwriters Laboratories, Inc.)

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

Alternatively, you may contact the Procedures & Standards Administration department (PSA) at <a href="mailto:psa@ansi.org">psa@ansi.org</a> 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.

#### AAMI

Association for the Advancement of Medical Instrumentation

4301 N Fairfax Drive Suite 301

Arlington, VA 22203-1633 Phone: (703) 253-8268 Fax: (703) 276-0793 Web: www.aami.org

#### ABYC

American Boat and Yacht Council

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

#### **AGMA**

American Gear Manufacturers
Association

1001 N Fairfax Street, 5th Floor Alexandria, VA 22314-1587 Phone: (703) 684-0211 Web: www.agma.org

#### ANS

American Nuclear Society 555 North Kensington Avenue La Grange Park, IL 60526 Phone: (708) 579-8268 Fax: (708) 579-8248 Web: www.ans.org

### ASA (ASC S12)

Acoustical Society of America 1305 Walt Whitman Rd Suite 300 Melville, NY 11747 Phone: (631) 390-0215 Fax: (631) 923-2875 Web: www.acousticalsociety.org

#### ASABE

American Society of Agricultural and Biological Engineers

2950 Niles Road St Joseph, MI 49085 Phone: (269) 932-7027 Fax: (269) 429-3852 Web: www.asabe.org

### **ASHRAE**

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

1791 Tullie Circle, NE Atlanta, GA 30329 Phone: (678) 539-1214 Fax: (678) 539-2214 Web: www.ashrae.org

### **ASME**

American Society of Mechanical Engineers

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

### **ASTM**

ASTM International 100 Barr Harbor Drive West Conshohocken, PA 19428-2959 Phone: (610) 832-9744 Fax: (610) 834-3683

#### ATIC

Alliance for Telecommunications Industry Solutions

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

Web: www.astm.org

#### AWS

American Welding Society 8669 NW 36th Street Suite #130 Miami, FL 33166-6672 Phone: (800) 443-9353 Fax: (305) 443-5951 Web: www.aws.org

### AWWA

American Water Works Association

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

#### CSA

CSA Group

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

Web: www.csa-america.org

#### ECIA

Electronic Components Industry Association

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

#### **ESTA**

Entertainment Services and Technology Association

Suite 609 New York, NY 10036-3748 Phone: (212) 244-1505 Fax: (212) 244-1502 Web: www.plasa.org

630 Ninth Avenue

#### FC

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

Web: www.fluidcontrolsinstitute.org

#### FM

FM Approvals

1151 Boston-Providence Turnpike Norwood, MA 02062 Phone: (781) 255-4813 Fax: (781) 762-9375 Web: www.fmglobal.com

### ISA (Organization)

International Society of Automation

67 Alexander Drive Research Triangle Park, NC 27709 Phone: (919) 990-9213 Fax: (919) 549-8288

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

1101 K Street, NW

### ITI (INCITS)

InterNational Committee for Information Technology Standards

Suite 610 Washington, DC 20005-3922 Phone: (202) 626-5743 Fax: (202) 638-4922 Web: www.incits.org

#### **ITSDF**

Industrial Truck Standards
Development Foundation, Inc.

1750 K Street NW Suite 460 Washington, DC 20006 Phone: (202) 296-9880 Fax: (202) 296-9884 Web: www.indtrk.org

#### NEMA (ASC C12)

National Electrical Manufacturers
Association

1300 North 17th Street Suite 900 Rosslyn, VA 22209 Phone: (703) 841-3278 Fax: (703) 841-3367 Web: www.nema.org

#### **NEMA (Canvass)**

National Electrical Manufacturers
Association

1300 North 17th Street Arlington, VA 22209 Phone: (703) 841-3299 Web: www.nema.org

### **NPES (ASC CGATS)**

Association for Suppliers of Printing, Publishing and Converting Technologies

1899 Preston White Drive Reston, Virginia 20191 Phone: (1-7) 3-264-7200 Fax: (1-7) 3-620-0994 Web: www.npes.org

#### NSF

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

#### SAAMI

Sporting Arms and Ammunition Manufacturers Institute

11 Mile Hill Road Newtwon, CT 06470-2359 Phone: (203) 610-1435 Fax: (203) 426-3592 Web: www.saami.org

#### SCTE

Society of Cable Telecommunications Engineers

140 Philips Road Exton, PA 19341-1318 Phone: (480) 252-2330 Fax: (610) 363-5898 Web: www.scte.org

### TCNA (ASC A108)

Tile Council of North America 100 Clemson Research Blvd. Anderson, SC 29625 Phone: (864) 646-8453

Fax: (864) 646-2821 Web: www.tileusa.com

### TIA

**Telecommunications Industry** Association

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

Fax: (703) 907-7727 Web: www.tiaonline.org

Underwriters Laboratories, Inc.

12 Laboratory Drive Research Triangle Park, NC 27709

Phone: (919) 549-1511 Fax: (631) 271-6200 Web: www.ul.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); 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**

### **CRANES (TC 96)**

ISO/DIS 8566-5, Cranes - Cabins - Part 5: Overhead travelling and portal bridge cranes - 6/11/2016, \$29.00

### **CRYOGENIC VESSELS (TC 220)**

ISO/DIS 23208, Cryogenic vessels - Cleanliness for cryogenic service - 6/16/2016, \$46.00

#### **DENTISTRY (TC 106)**

ISO/DIS 9917-2, Dentistry - Water-based cements - Part 2: Resinmodified cements - 6/19/2016, \$82.00

### **GRAPHICAL SYMBOLS (TC 145)**

ISO 7001/DAmd98, Symbol PI PF 074: Automatic sensor faucet - 6/16/2016, \$29.00

ISO 7001/DAmd99, PI PF 075: Hand dryer - 6/16/2016, \$29.00

ISO 7001/DAmd100, Graphical symbols - Public information symbols - Amendment 100: PI PF 076: Toilet paper - 6/16/2016, \$29.00

### **MECHANICAL TESTING OF METALS (TC 164)**

ISO/DIS 15653, Metallic materials - Method of test for the determination of quasistatic fracture toughness of welds - 6/12/2016, \$112.00

### **PAINTS AND VARNISHES (TC 35)**

ISO/DIS 12944-4, Paints and varnishes - Corrosion protection of steel structures byprotective paint systems - Part 4: Types of surface and surface preparation - 6/19/2016, \$77.00

ISO/DIS 12944-5, Paints and varnishes - Corrosion protection of steelstructures by protective paint systems - Part 5: Protective paint systems - 6/19/2016, \$93.00

ISO/DIS 12944-8, Paints and varnishes - Corrosion protection of steel structures by protective paint systems - Part 8: Development of specifications for new work and maintenance - 6/19/2016, \$102.00

ISO/DIS 12944-9, Paints and varnishes - Corrosion protection of steel structures by protective paint systems - Part 9: Protective paint systems and laboratory performance test methods for offshore and related structures - 6/19/2016, \$102.00

### **ROAD VEHICLES (TC 22)**

ISO/DIS 8535-1, Diesel engines - Steel tubes for high-pressure fuel injection pipes - Part 1: Requirements for seamless cold-drawn single-wall tubes - 6/16/2016, \$53.00

### SIEVES, SIEVING AND OTHER SIZING METHODS (TC 24)

ISO/DIS 21501-4, Determination of particle size distribution - Single particle light interaction methods - Part 4: Light scattering airborne particle counter for clean spaces - 6/17/2016, \$88.00

### **SPORTS AND RECREATIONAL EQUIPMENT (TC 83)**

ISO/DIS 10256-5, Protective equipment for use in ice hockey - Part 5: Neck laceration protectors for ice hockey players - 3/2/2016, \$77.00

### STEEL WIRE ROPES (TC 105)

ISO/DIS 2408, Steel wire ropes for general purposes - Minimum requirements - 6/16/2016, \$40.00

ISO/DIS 3108, Steel wire ropes - Test method - Determination of measured breaking force - 6/16/2016, \$40.00

### TRACTORS AND MACHINERY FOR AGRICULTURE AND FORESTRY (TC 23)

ISO/DIS 7112, Machinery for forestry - Portable brushcutters and grass-trimmers - Vocabulary - 3/2/2016, \$40.00

### **TRADITIONAL CHINESE MEDICINE (TC 249)**

ISO/DIS 19611, Traditional Chinese medicine - Air exhaust cupping apparatus for medical use - 6/11/2016, \$53.00

ISO/DIS 20333, Traditional chinese medicine - Coding rules for chinese medicines in supply chain management - 4/8/2016, FREE

### ISO/IEC JTC 1, Information Technology

ISO/IEC 23003-2/DAmd4, Information technology - MPEG audio technologies - Part 2: Spatial Audio Object Coding (SAOC) - Amendment 4: SAOC Conformance - 3/2/2016, \$67.00

ISO/IEC DIS 24707, Information technology - Common logic (CL): a framework for a family of logic-based languages - 6/17/2016, \$146.00

ISO/IEC DIS 40180, Information technology - Learning, education and training - Quality for learning, education and training - Fundamentals and reference framework - 4/1/2016, \$175.00

- ISO/IEC DIS 24779-4, Information technology Cross-jurisdictional and societal aspects of implementation of biometric technologies Pictograms, Icons and Symbols for use with Biometric Systems Part 4: Fingerprint Applications 3/2/2016, \$107.00
- ISO/IEC DIS 30122-2, Information technology User interfaces Voice commands Part 2: Constructing and testing 5/28/2016, FREE
- ISO/IEC DIS 15938-14, Information technology Multimedia content description interface Part 14: Reference software, conformance and usage guidelines for compact descriptors for visual search 4/8/2016, FREE

### **IEC Standards**

- 10/997/CD, IEC 61125 Ed.2: Insulating liquids Test methods for oxidation stability - Test method for evaluating of oxidation stability of uninhibited and inhibited insulating liquids (former IEC 61125 Part C), 06/03/2016
- 23B/1208/FDIS, Amendment 1 to IEC 61995-1 Ed.1: Devices for the connection of luminaires for household and similar purposes Part 1: General requirements, 04/22/2016
- 35/1359/FDIS, IEC 60086-3/Ed4: Primary batteries Part 3: Watch batteries. 04/22/2016
- 35/1360/FDIS, IEC 60086-5/Ed4: Primary batteries Part 5: Safety of batteries with aqueous electrolyte, 04/22/2016
- 47A/988/FDIS, IEC 62433-4 Ed.1: EMC IC modelling Part 4: Models of integrated circuits for RF immunity behavioural simulation Conducted immunity modelling (ICIM-CI), 04/22/2016
- 49/1185/FDIS, IEC 60758 Ed.5: Synthetic quartz crystal Specifications and guidelines for use, 04/22/2016
- 56/1674A/CD, IEC 60812/Ed3: Failure Modes and Effects analysis (FMEA), 04/29/2016
- 62A/1079/Q, IEC 60601-1-6, Ed. 3.1, Medical electrical equipment -Part 1-6: General requirements for basic safety and essential performance - Collateral standard: Usability - Proposed ""Short"" List of issues to be addressed in Amendment 2, 06/03/2016
- 62D/1338/FDIS, ISO 80369-3: Small-bore connectors for liquids and gases in healthcare applications Part 3: Connectors for enteral applications, 04/22/2016
- 65A/788/FDIS, IEC 61069-1 Ed. 2.0: Industrial-Process Measurement, Control and Automation - Evaluation of System Properties for the Purpose of System Assessment - Part 1: Terminology and basic concepts, 04/22/2016
- 65B/1040/FDIS, IEC-61003-1 Ed 2: Industrial-Process Control Systems - Instruments with Analogue Inputs and Two- or Multi-Position Outputs - Part 1: Methods for evaluating performance, 04/22/2016
- 77/517/CD, IEC TR 61000-2-5: Electromagnetic Compatibility (EMC) -Part 2-5: Environment - Description and classification of electromagnetic environments, 05/06/2016
- 91/1349/DTR, IEC/TR 63051 Ed.1: Documentation on design automation subjects Mathematical algorithm hardware description languages for system level modeling and verification (HDLMath), 05/13/2016
- 91/1350/FDIS, IEC 61249-2-43 Ed.1: Materials for printed boards and other interconnecting structures Part 2-43: Reinforced base materials clad and unclad Non-halogenated epoxide cellulose paper/woven E-glass reinforced laminate sheets of defined flammability (vertical burning test), copper-clad for lead-free assembly, 04/22/2016
- 91/1351/FDIS, IEC 61249-2-44 Ed.1: Materials for printed boards and other interconnecting structures Part 2-44: Reinforced base materials clad and unclad Non-halogenated epoxide non-woven/woven E-glass reinforced laminate sheets of defined flammability (vertical burning test), copper-clad for lead-free assembly, 04/22/2016

- 95/343/CD, IEC/IEEE 60255-118-1 Ed.1: Measuring relays and protection equipment Part 118-1: Synchrophasor for power systems Measurements, 05/06/2016
- 97/177/NP, PNW 97-177: Electrical installations for lighting and beaconing of aerodromes Connecting devices General requirements and tests, 06/03/2016
- 101/505/FDIS, IEC 61340-5-1 Ed.2: Electrostatics Part 5-1: Protection of electronic devices from electrostatic phenomena -General requirements, 04/22/2016
- 120/68/CD, IEC 62933-1 Ed.1: Electric Energy Storage System -Terminology, 05/06/2016
- 121A/81/CD, IEC 60947-4-1 Ed.4: Low-voltage switchgear and controlgear Part 4-1: Contactors and motor-starters Electromechanical contactors and motor-starters, 06/03/2016
- 121B/40/CDV, IEC 61439-1 Ed.3: Low-voltage switchgear and controlgear assemblies Part 1: General rules, 06/03/2016
- 121B/41/CDV, IEC 61439-2 Ed.3: Low-voltage switchgear and controlgear assemblies Part 2: Power switchgear and controlgear assemblies, 06/03/2016
- CIS/A/1156/DC, Cable arrangement for radiated disturbance measurements in CISPR 16-2-3 and CISPR 11 ed. 6.0, 04/22/2016
- C/1950/DV, ISO/IEC Draft Guide 46, Comparative testing of consumer products and related services General principles, 07/01/2016
- AC(2016)/7/AC, Draft ISO/IEC Guide 14, Product information for consumers, 05/06/2016

### **Newly Published ISO & IEC Standards**



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

### **ISO Standards**

### ISO/IEC JTC 1 Technical Reports

<u>ISO/IEC TR 10182:2016.</u> Information technology - Programming languages, their environments and system software interfaces - Guidelines for language bindings, \$200.00

### **ACOUSTICS (TC 43)**

ISO 1996-1:2016, Acoustics - Description, measurement and assessment of environmental noise - Part 1: Basic quantities and assessment procedures, \$200.00

### **AGRICULTURAL FOOD PRODUCTS (TC 34)**

ISO 7304-1:2016, Durum wheat semolina and alimentary pasta -Estimation of cooking quality of alimentary pasta by sensory analysis - Part 1: Reference method, \$88.00

### **AIRCRAFT AND SPACE VEHICLES (TC 20)**

ISO 10959:2016. Aerospace - MJ threads - Gauging, \$149.00
 ISO 17546:2016. Space systems - Lithium ion battery for space vehicles - Design and verification requirements, \$240.00

### **BANKING AND RELATED FINANCIAL SERVICES (TC 68)**

ISO 9564-4:2016, Financial services - Personal Identification Number (PIN) management and security - Part 4: Requirements for PIN handling in eCommerce for Payment Transactions, \$123.00

### **DENTISTRY (TC 106)**

ISO 3950:2016. Dentistry - Designation system for teeth and areas of the oral cavity, \$51.00

ISO 18739:2016. Dentistry - Vocabulary of process chain for CAD/CAM systems, \$51.00

### **ERGONOMICS (TC 159)**

ISO 27500:2016, The human-centred organization - Rationale and general principles, \$149.00

### FERROUS METAL PIPES AND METALLIC FITTINGS (TC 5)

ISO 16631:2016. Ductile iron pipes, fittings, accessories and their joints compatible with plastic (PVC or PE) piping systems, for water applications and for plastic pipeline connections, repair and replacement, \$200.00

### **GRAPHIC TECHNOLOGY (TC 130)**

ISO 16763:2016, Graphic technology - Post-press - Requirements for bound products, \$149.00

### **HOROLOGY (TC 114)**

ISO 3764:2016, Timekeeping instruments - Movements - Types, dimensions and nomenclature, \$88.00

#### **INFORMATION AND DOCUMENTATION (TC 46)**

ISO 18461:2016, International museum statistics, \$200.00

### **MEASUREMENT OF FLUID FLOW IN CLOSED CONDUITS (TC 30)**

ISO 5167-5:2016. Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full - Part 5: Cone meters, \$123.00

#### **OPTICS AND OPTICAL INSTRUMENTS (TC 172)**

ISO 10685-2:2016. Ophthalmic optics - Spectacle frames and sunglasses electronic catalogue and identification - Part 2: Commercial information, \$123.00

#### OTHER

ISO 80079-36:2016, Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres - Basic method and requirements, \$265.00

ISO 80079-37:2016, Explosive atmospheres - Part 37: Non-electrical equipment for explosive atmospheres - Non-electrical type of protection constructional safety c, control of ignition sources b, liquid immersion k, \$265.00

### PAINTS AND VARNISHES (TC 35)

ISO 7784-1:2016. Paints and varnishes - Determination of resistance to abrasion - Part 1: Method with abrasive-paper covered wheels and rotating test specimen, \$88.00

ISO 7784-2:2016. Paints and varnishes - Determination of resistance to abrasion - Part 2: Method with abrasive rubber wheels and rotating test specimen, \$88.00

ISO 7784-3:2016, Paints and varnishes - Determination of resistance to abrasion - Part 3: Method with abrasive-paper covered wheel and linearly reciprocating test specimen, \$88.00

### PAPER, BOARD AND PULPS (TC 6)

ISO 4046-1:2016. Paper, board, pulps and related terms - Vocabulary - Part 1: Alphabetical index, \$51.00

ISO 4046-2:2016. Paper, board, pulps and related terms - Vocabulary - Part 2: Pulping terminology, \$51.00

ISO 4046-3:2016. Paper, board, pulps and related terms - Vocabulary - Part 3: Paper-making terminology, \$51.00

ISO 4046-4:2016. Paper, board, pulps and related terms - Vocabulary - Part 4: Paper and board grades and converted products, \$51.00

ISO 4046-5:2016, Paper, board, pulps and related terms - Vocabulary - Part 5: Properties of pulp, paper and board, \$51.00

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

ISO 22854:2016, Liquid petroleum products - Determination of hydrocarbon types and oxygenates in automotive-motor gasoline and in ethanol (E85) automotive fuel - Multidimensional gas chromatography method, \$149.00

### QUALITY MANAGEMENT AND CORRESPONDING GENERAL ASPECTS FOR MEDICAL DEVICES (TC 210)

ISO 16142-1:2016, Medical devices - Recognized essential principles of safety and performance of medical devices - Part 1: General essential principles and additional specific essential principles for all non-IVD medical devices and guidance on the selection of standards, \$200.00

#### **ROAD VEHICLES (TC 22)**

ISO 12103-1:2016. Road vehicles - Test contaminants for filter evaluation - Part 1: Arizona test dust, \$123.00

### **RUBBER AND RUBBER PRODUCTS (TC 45)**

ISO 21561-2:2016. Styrene-butadiene rubber (SBR) - Determination of the microstructure of solution-polymerized SBR - Part 2: FTIR with ATR method, \$123.00

### SHIPS AND MARINE TECHNOLOGY (TC 8)

ISO/PAS 19891-1:2016, Ships and marine technology - Specifications for gas detectors intended for use on board ships - Part 1: Portable gas detectors for atmosphere testing of enclosed spaces, \$51.00

#### **SMALL TOOLS (TC 29)**

- ISO 3466:2016. Machine taper pin reamers with parallel shanks, \$51.00
- ISO 10145-2:2016. End mills with brazed helical hardmetal tips Part 2: Dimensions of end mills with 7/24 taper shank, \$51.00
- ISO 10889-2:2016. Tool holders with cylindrical shank Part 2: Type A, shanks for tool holders of special designs, \$51.00
- ISO 10889-3:2016. Tool holders with cylindrical shank Part 3: Type B with rectangular radial seat, \$88.00
- ISO 10889-4:2016. Tool holders with cylindrical shank Part 4: Type C with rectangular axial seat, \$88.00
- ISO 10889-5:2016. Tool holders with cylindrical shank Part 5: Type D with more than one rectangular seat, \$51.00
- ISO 10889-6:2016, Tool holders with cylindrical shank Part 6: Type E with cylindrical seat, \$88.00
- ISO 10889-7:2016. Tool holders with cylindrical shank Part 7: Type F with taper seat, \$51.00

### **SOLID BIOFUELS (TC 238)**

- ISO 17830:2016, Solid biofuels Particle size distribution of disintegrated pellets, \$88.00
- ISO 17827-1:2016. Solid biofuels Determination of particle size distribution for uncompressed fuels - Part 1: Oscillating screen method using sieves with apertures of 3,15 mm and above, \$88.00

### STEEL (TC 17)

- ISO 5003:2016. Flat bottom (Vignole) railway rails 43 kg/m and above, \$265.00
- ISO 11949:2016. Cold-reduced tinmill products Electrolytic tinplate, \$173.00
- ISO 11950:2016, Cold-reduced tinmill products Electrolytic chromium/chromium oxide-coated steel, \$173.00
- ISO 11951:2016, Cold-reduced tinmill products Blackplate, \$149.00

ISO 11970:2016. Specification and qualification of welding procedures for production welding of steel castings, \$123.00

### **TEXTILES (TC 38)**

- ISO 17751-1:2016. Textiles Quantitative analysis of cashmere, wool, other specialty animal fibers and their blends Part 1: Light microscopy method, \$200.00
- ISO 17751-2:2016. Textiles Quantitative analysis of cashmere, wool, other specialty animal fibers and their blends Part 2: Scanning electron microscopy method, \$200.00

### TRACTORS AND MACHINERY FOR AGRICULTURE AND FORESTRY (TC 23)

- ISO 13860:2016. Machinery for forestry Forwarders Terms, definitions and commercial specifications, \$88.00
- ISO 4254-14:2016. Agricultural machinery Safety Part 14: Bale wrappers, \$173.00

### **WATER QUALITY (TC 147)**

- ISO 19820:2016. Water quality Determination of the acute toxicity to the marine rotifer Brachionus plicatilis, \$123.00
- ISO 13165-3:2016, Water quality Radium-226 Part 3: Test method using coprecipitation and gamma-spectrometry, \$123.00

### **WELDING AND ALLIED PROCESSES (TC 44)**

- ISO 17916:2016, Safety of thermal cutting machines, \$173.00
- ISO 15614-8:2016. Specification and qualification of welding procedures for metallic materials Welding procedure test Part 8: Welding of tubes to tube-plate joints, \$123.00

### ISO/IEC JTC 1, Information Technology

- ISO/IEC 17760-102:2016, Information technology AT Attachment Part 102: ATA/ATAPI Command set 2 (ACS-2), \$265.00
- ISO/IEC/IEEE 8802-1Q:2016, Information technology -

Telecommunications and information exchange between systems -Local and metropolitan area networks - Specific requirements - Part 1Q: Bridges and bridged networks, FREE

#### **OTHER**

- ISO/IEC 80079-38:2016. Explosive atmospheres Part 38: Equipment and components in explosive atmospheres in underground mines, \$265.00
- ISO/IEC 80079-20-2:2016, Explosive atmospheres Part 20-2: Material characteristics - Combustible dusts test methods, \$265.00

### **IEC Standards**

### **DEPENDABILITY (TC 56)**

- <u>IEC 61882 Ed. 2.0 b:2016.</u> Hazard and operability studies (HAZOP studies) Application guide, \$339.00
- <u>S+ IEC 61882 Ed. 2.0 en:2016 (Redline version).</u> Hazard and operability studies (HAZOP studies) Application guide, \$407.00

### **SOLAR PHOTOVOLTAIC ENERGY SYSTEMS (TC 82)**

- <u>IEC 61215-1 Ed. 1.0 b:2016.</u> Terrestrial photovoltaic (PV) modules Design qualification and type approval Part 1: Test requirements, \$121.00
- IEC 61215-2 Ed. 1.0 b:2016. Terrestrial photovoltaic (PV) modules Design qualification and type approval Part 2: Test procedures, \$278.00

<u>IEC 61215-1-1 Ed. 1.0 b:2016.</u> Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 1-1: Special requirements for testing of crystalline silicon photovoltaic (PV) modules, \$36.00

### **IEC Technical Specifications**

### SOLAR PHOTOVOLTAIC ENERGY SYSTEMS (TC 82)

<u>IEC/TS 62782 Ed. 1.0 en:2016.</u> Photovoltaic (PV) modules - Cyclic (dynamic) mechanical load testing, \$43.00

### **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 issued 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 report proposed technical regulations that may significantly affect trade to the WTO Secretariat in Geneva, Switzerland. In turn, the Secretariat disseminates the information to all WTO Members. The purpose of this requirement is to provide global trading partners with an opportunity to review and comment on the regulations before they become final.

The National Center for Standards and Certification Information (NCSCI) at the National Institute of Standards and Technology

(NIST), distributes these proposed foreign technical regulations to U.S. stakeholders via an online service, Notify U.S. Notify U.S. is an e-mail and Web service that allows interested U.S. parties to register, obtain notifications, and read full texts of regulations from countries and for industry sectors of interest to them. To register for Notify U.S., please go to Internet URL: <a href="http://www.nist.gov/notifyus/">http://www.nist.gov/notifyus/</a> and click on "Subscribe".

NCSCI is the WTO TBT Inquiry Point for the U.S. and receives all notifications and full texts of regulations to disseminate to U.S. Industry. For further information, please contact: NCSCI, NIST, 100 Bureau Drive, Gaithersburg, MD 20899-2160; Telephone: (301) 975-4040; Fax: (301) 926-1559; E-mail: <a href="mailto:ncsci@nist.gov">ncsci@nist.gov</a> or notifyus@nist.gov.

### **Information Concerning**

### **American National Standards**

### **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 its oversight of programs of its 40+ Technical Committees. Additionally, the INCITS Executive Board exercises international leadership in its role as the US Technical Advisory Group (TAG) to ISO/IEC JTC 1, Information Technology.

The INCITS Executive Board has eleven membership categories that can be viewed at

http://www.incits.org/participation/membership-info.
Membership in all categories is always welcome. INCITS
also seeks to broaden its membership base and looks to
recruit new participants in the following under-represented
membership categories:

#### • Producer - Hardware

This category primarily produces hardware products for the ITC marketplace.

### • Producer - Software

This category primarily produces software products for the ITC marketplace.

#### Distributor

This category is for distributors, resellers or retailers of conformant products in the ITC industry.

#### • Use

This category includes entities that primarily reply on standards in the use of a products/service, as opposed to producing or distributing conformant products/services.

#### Consultants

This category is for organizations whose principal activity is in providing consulting services to other organizations.

### Standards Development Organizations and Consortia

o "Minor" an SDO or Consortia that (a) holds no TAG assignments; or (b) holds no SC TAG assignments, but does hold one or more Work Group (WG) or other subsidiary TAG assignments.

### Academic Institution

This category is for organizations that include educational institutions, higher education schools or research programs.

#### Other

This category includes all organizations who do not meet the criteria defined in one of the other interest categories. 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, please contact Jennifer Garner at 202-626-5737 or jgarner@itic.org. Visit www.INCITS.org for more information regarding INCITS activities.

#### Calls for Members

### Society of Cable Telecommunications

### ANSI Accredited Standards Developer

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

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

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

## ANSI Accredited Standards Developers

### Approval of Reaccreditation

### Clinical and Laboratory Standards Institute (CLSI)

ANSI's Executive Standards Council has approved the reaccreditation of the Clinical and Laboratory Standards Institute (CLSI), an ANSI Member and Accredited Standards Developer, under its recently revised operating procedures for documenting consensus on CLSI-sponsored American National Standards, effective March 11, 2016. For additional information, please contact: Ms. Luann Ochs, MS, Sr. Project Manager, Clinical and Laboratory Standards Institute, 950 West Valley Road, Suite 2500, Wayne, PA 19087; phone: 484.588.5940; e-mail: lochs@clsi.org.

### VMEbus International

ANSI's Executive Standards Council has approved the reaccreditation of the VMEbus International Trade Association (VITA), an ANSI Member and Accredited Standards Developer, under its recently revised operating policies and procedures for documenting consensus on VITA-sponsored American National Standards, effective March 16, 2016. For additional information, please contact: Mr. Jing Kwok, Technical Director, VITA, 929 W. Portobello Avenue, Mesa, AZ 85210; phone: 602.281.4497; e-mail: jing.kwok@vita.com.

# ANSI Accreditation Program for Third Party Product Certification Agencies

Initial Accreditation in Accordance with ISO/IEC 17065

BM TRADA Certification North America, Inc.

Comment Deadline: April 18, 2016

Mr. Mario Vieira - General Manager BM TRADA Certification North America, Inc.

239 New Road, Building B, Suite 207

Parsippany, NJ 07054 Phone: 973-434-7517 Fax: 973-201-0320

E-mail: mvieira@bmtrada.com Web: www.bmtrada-usa.com

On March 10, 2016, BM TRADA Certification North America, Inc., an ANSI-Accredited Certification Body, was granted Initial Accreditation in accordance with ISO/IEC 17065 for the following scheme(s) and scopes:

List of Certification Scheme(s)

SFI 2015-2019 Standards and Rules

Scopes

SFI 2015-2019 Standards and Rules

Section 3 SFI 2015-2019 Fiber Sourcing Standard – Appendix 1: Rules for Use of SFI Certified Sourcing Label

Section 4 SFI 2015-2019 Chain of Custody Standard

Section 5 Rules for Use of SFI On-Product Labels and Off-Product Marks - Parts 1 & 2 and Appendices 1 & 2

Section 9 SFI 2015-2019 Audit Procedures and Auditor Qualifications and Accreditation -Appendix 1: Audits of Multi-site Organizations (Normative)

Please send your comments by April 18, 2016 to Reinaldo Balbino Figueiredo, Senior Program Director, Product Certifier Accreditation, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293 9287, or e-mail: rfigueir@ansi.org, or Nikki Jackson, Senior Program Manager, Product Certifier Accreditation, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293 9287, or e-mail: njackson@ansi.org.

### Bureau Veritas Certification North America, Inc.

Comment Deadline: April 18, 2016

Mr. Shireesh Bhatnagar Certification Manager

Bureau Veritas Certification North America, Inc.

390 Benmar Drive Houston, TX 77060 Phone: 281-310-3115 Fax: 281-986-1357

E-mail: shireesh.bhatnagar@us.bureauveritas.com

Web: www.us.bureauveritas.com

On March 10, 2016, Bureau Veritas Certification North America, Inc., an ANSI-Accredited Certification Body, was granted Initial Accreditation in accordance with ISO/IEC 17065 for the following scheme(s) and scopes:

List of Certification Scheme(s)

SFI 2015-2019 Standards and Rules

Scopes

SFI 2015-2019 Standards and Rules

Section 3 SFI 2015-2019 Fiber Sourcing Standard – Appendix 1: Rules for Use of SFI Certified Sourcing Label

Section 4 SFI 2015-2019 Chain of Custody Standard Section 5 Rules for Use of SFI On-Product Labels and Off-Product Marks - Parts 1 & 2 and Appendices 1 & 2

Section 9 SFI 2015-2019 Audit Procedures and Auditor Qualifications and Accreditation -Appendix 1: Audits of Multi-site Organizations (Normative)

Please send your comments by April 18, 2016 to Reinaldo Balbino Figueiredo, Senior Program Director, Product Certifier Accreditation, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293 9287, or e-mail: rfigueir@ansi.org, or Nikki Jackson, Senior Program Manager, Product Certifier Accreditation, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293 9287, or e-mail: njackson@ansi.org.

### DNV GL Business Assurance USA, Inc.

Comment Deadline: April 18, 2016

Mr. Ismael Belmarez Accreditation Manager

**DNV GL Business Assurance USA, Inc.** 

1400 Ravello Drive Katy, TX 77493 Phone: 956-802-6887

E-mail: Ismael.Belmarez@dnvgl.com

Web: www.dnv.com

On March 10, 2016, DNV GL Business Assurance USA, Inc., an ANSI-Accredited Certification Body, was granted Initial Accreditation in accordance with ISO/IEC 17065 for the following scheme(s) and scopes:

List of Certification Scheme(s)

SFI 2015-2019 Standards and Rules

Scopes

SFI 2015-2019 Standards and Rules

Section 3 SFI 2015-2019 Fiber Sourcing Standard – Appendix 1: Rules for Use of SFI Certified Sourcing Label

Section 4 SFI 2015-2019 Chain of Custody Standard

Section 5 Rules for Use of SFI On-Product Labels and Off-Product Marks - Parts 1 & 2 and Appendices 1 & 2

Section 9 SFI 2015-2019 Audit Procedures and Auditor Qualifications and Accreditation -Appendix 1: Audits of Multi-site Organizations (Normative)

Please send your comments by April 18, 2016 to Reinaldo Balbino Figueiredo, Senior Program Director, Product Certifier Accreditation, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293 9287, or e-mail: rfigueir@ansi.org, or Nikki Jackson, Senior Program Manager, Product Certifier Accreditation, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293 9287, or e-mail: njackson@ansi.org.

## KPMG Performance Registrar, Inc.

Comment Deadline: April 18, 2016

Mr. Craig Roessler - Manager KPMG Performance Registrar, Inc.

777 Dunsmuir Street Vancouver, BC V7Y 1K3 Phone: 604-691-3115 Fax: 604-691-3031 E-mail: croessler@kpmg.ca Web: www.kpmg.com

On March 10, 2016, KPMG Performance Registrar, Inc., an ANSI-accredited certification body, was granted Initial Accreditation in accordance with ISO/IEC 17065 for the following scheme(s) and scopes:

List of Certification Scheme(s)

SFI 2015-2019 Standards and Rules

Scopes

SFI 2015-2019 Standards and Rules

Section 3 SFI 2015-2019 Fiber Sourcing Standard – Appendix 1: Rules for Use of SFI Certified Sourcing Label

Section 4 SFI 2015-2019 Chain of Custody Standard

Section 5 Rules for Use of SFI On-Product Labels and Off-Product Marks - Parts 1 & 2 and Appendices 1 & 2

Section 9 SFI 2015-2019 Audit Procedures and Auditor Qualifications and Accreditation -Appendix 1: Audits of Multi-site Organizations (Normative)

Please send your comments by April 18, 2016 to Reinaldo Balbino Figueiredo, Senior Program Director, Product Certifier Accreditation, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293 9287, or e-mail: rfigueir@ansi.org, or Nikki Jackson, Senior Program Manager, Product Certifier Accreditation, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293 9287, or e-mail: njackson@ansi.org.

#### **NSF International**

Comment Deadline: April 18, 2016

Mr. Craig Morr - Director, Quality

NSF International 789 N. Dixboro Road Ann Arbor, MI 48105 Phone: (734) 769-8010 Fax: (734) 769-0109 E-mail: cmorr@nsf.org Website: www.nsf.org

On March 10, 2016, NSF International, an ANSI-Accredited Certification Body, was granted Initial Accreditation in accordance with ISO/IEC 17065 for the following:

List of Certification Scheme(s)

SFI 2015-2019 Standards and Rules

Scopes

SFI 2015-2019 Standards and Rules

Section 3 SFI 2015-2019 Fiber Sourcing Standard – Appendix 1: Rules for Use of SFI Certified Sourcing Label

Section 4 SFI 2015-2019 Chain of Custody Standard

Section 5 Rules for Use of SFI On-Product Labels and Off-Product Marks - Parts 1 & 2 and Appendices 1 & 2

Section 9 SFI 2015-2019 Audit Procedures and Auditor Qualifications and Accreditation -Appendix 1: Audits of Multi-site Organizations (Normative) Please send your comments by April 18, 2016 to Reinaldo Balbino Figueiredo, Senior Program Director, Product Certifier Accreditation, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293 9287, or e-mail: rfigueir@ansi.org, or Nikki Jackson, Senior Program Manager, Product Certifier Accreditation, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293 9287, or e-mail: njackson@ansi.org.

## Orion Registrar, Inc.

Comment Deadline: April 18, 2016

Mr.Paul Burck - President Orion Registrar, Inc. 7502 W. 80th Avenue, Suite 225 Arvada, CO 80003-2128 Phone: 303-456-6010

E-mail: president@orion4value.com

Web:www.orion4value.com/

On March 10, 2016, Orion Registrar, Inc., an ANSIaccredited certification body, was granted Initial Accreditation in accordance with ISO/IEC 17065 for the following scheme(s) and scopes:

List of Certification Scheme(s)

SFI 2015-2019 Standards and Rules

Scopes

SFI 2015-2019 Standards and Rules

Section 3 SFI 2015-2019 Fiber Sourcing Standard – Appendix 1: Rules for Use of SFI Certified Sourcing Label

Section 4 SFI 2015-2019 Chain of Custody Standard

Section 5 Rules for Use of SFI On-Product Labels and Off-Product Marks - Parts 1 & 2 and Appendices 1 & 2

Section 9 SFI 2015-2019 Audit Procedures and Auditor Qualifications and Accreditation -Appendix 1: Audits of Multi-site Organizations (Normative)

Please send your comments by April 18, 2016 to Reinaldo Balbino Figueiredo, Senior Program Director, Product Certifier Accreditation, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293 9287, or e-mail: rfigueir@ansi.org, or Nikki Jackson, Senior Program Manager, Product Certifier Accreditation, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293 9287, or e-mail: njackson@ansi.org.

# Systems and Services Certification, a Division of SGS North America, Inc.

#### Comment Deadline: April 18, 2016

Mr. Ronald Wald SFI/FSC CoC Product Manager

Systems and Services Certification, a Division of SGS North

America Inc. 201 Rt 17 North Rutherford, NJ 07070 Phone: 201-508-3000 Fax: 201-508-3193

E-mail: Ronald.Wald@sgs.com Web: www.training.us.sgs.com

On March 10, 2016, Systems and Services Certification, a Division of SGS North America Inc., an ANSI-accredited certification body, was granted Initial Accreditation in accordance with ISO/IEC 17065 for the following scheme(s) and scenes:

and scopes:

List of Certification Scheme(s)

SFI 2015-2019 Standards and Rules

Scopes

SFI 2015-2019 Standards and Rules

Section 3 SFI 2015-2019 Fiber Sourcing Standard – Appendix 1: Rules for Use of SFI Certified Sourcing Label

Section 4 SFI 2015-2019 Chain of Custody Standard

Section 5 Rules for Use of SFI On-Product Labels and Off-Product Marks - Parts 1 & 2 and Appendices 1 & 2

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Please send your comments by April 18, 2016 to Reinaldo Balbino Figueiredo, Senior Program Director, Product Certifier Accreditation, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293 9287, or e-mail: rfigueir@ansi.org, or Nikki Jackson, Senior Program Manager, Product Certifier Accreditation, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293 9287, or e-mail: njackson@ansi.org.

# **Timber Products Inspection (TPI)**

Comment Deadline: April 18, 2016

Mr. Jeremy Williams Treated Wood Division Manager Timber Products Inspection (TPI)

41 Sigman Road Conyers, GA 30012 Tel: 770-922-8000 ext 499 Fax: 770-922-1290

E-mail: jwilliams@tpinspection.com Web: www.tpinspection.com

On March 10, 2016, Timber Products Inspection (TPI), an ANSI-accredited certification body, was granted Initial Accreditation in accordance with ISO/IEC 17065 for the following scheme(s) and scopes:

List of Certification Scheme(s)

SFI 2015-2019 Standards and Rules

Scopes

SFI 2015-2019 Standards and Rules

Section 3 SFI 2015-2019 Fiber Sourcing Standard – Appendix 1: Rules for Use of SFI Certified Sourcing Label

Section 4 SFI 2015-2019 Chain of Custody Standard

Section 5 Rules for Use of SFI On-Product Labels and Off-Product Marks - Parts 1 & 2 and Appendices 1 & 2

Section 9 SFI 2015-2019 Audit Procedures and Auditor Qualifications and Accreditation -Appendix 1: Audits of Multi-site Organizations (Normative)

Please send your comments by April 18, 2016 to Reinaldo Balbino Figueiredo, Senior Program Director, Product Certifier Accreditation, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293 9287, or e-mail: rfigueir@ansi.org, or Nikki Jackson, Senior Program Manager, Product Certifier Accreditation, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293 9287, or e-mail: njackson@ansi.org.

# International Organization for Standardization (ISO)

#### **Establishment of ISO Technical Committee**

# ISO/TC 301 – Energy Management and Energy Saving

A new ISO Technical Committee, ISO/TC 301– Energy management and energy saving, has been formed. The Secretariat has been assigned to United States (ANSI) and China (SAC).

ISO/TC 301 operates under the following scope:

Standardization in the field of energy management and energy saving.

Georgia Tech Energy & Sustainability Services has committed to administer the U.S. TAG. Organizations interested in participating on the U.S. TAG should contact ANSI's ISO Team (isot@ansi.org).

# **Establishment of ISO Project Committees**

# ISO/PC 302 – Guidelines for Auditing Management Systems

A new ISO Project Committee, ISO/PC 302 – Guidelines for auditing management systems, has been formed. The Secretariat has been assigned to United States (ANSI).

ISO/PC 302 operates under the following scope:

Standardization in the field of guidelines for auditing management

American Society for Quality (ASQ) has committed to administer the U.S. TAG. Organizations interested in participating on the U.S. TAG should contact ANSI's ISO Team (isot@ansi.org).

# ISO/PC 303 – Guidelines on Consumer Warrantees and Guarantees

A new ISO Project Committee, ISO/PC 303—Guidelines on consumer warrantees and guarantees, has been formed. The Secretariat has been assigned to Malaysia (DSM).

ISO/PC 303 operates under the following scope:

The standard is intended for use by producers or sellers of goods and services to offer best practices and requirements for effective warranties when these are provided with goods and services.

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).

# New Work Item Proposal for a New Field of ISO Technical Activity

# Safety Management of Complex Technical Systems

Comment Deadline: April 8, 2016

GOST R, the ISO member body for the Russian Federation, has submitted to ISO a new work item proposal for a new field of ISO technical activity on Safety Management of Complex Technical Systems, with the following scope statement:

Standardization in the field of complex technical systems, such as aerospace systems, including all their constituent elements (operators, manufacturers of industrial products, industrial infrastructures, maintenance and repair organizations, training centers, etc.) throughout the full Life Cycle – definition, classification of threats and risk factors, procedures for determining Safety Efficiency, including predictive risk modeling; recommendations on the practical application of risk management.

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, April 8, 2016.

# International Electrotechnical Commission (IEC)

Looking for USNC TAG Members

New USNC Technical Advisory Group (TAG) for IEC/SC 61B – Safety of microwave appliances for household and commercial use.

The United States has transitioned from observer status to participating status and has formed a new TAG. Underwriters Laboratories (UL) will serve as TAG Administrator and is in the process of organizing the Technical Advisory Group (TAG) for the USNC.

Title

US TAG for SC 61B - Safety of Microwave Appliances for Household and Commercial Use

Scope

To prepare international safety standards for microwave appliances for household and commercial use.

Anyone interested in joining the USNC TAG for IEC SC61B Safety of microwave appliances for household and commercial use is invited to contact Casey Granata, TAG Secretary <a href="mailto:Casey.Granata@UL.COM">Casey.Granata@UL.COM</a>.

# U.S. Technical Advisory Groups

Withdrawal of Accreditation

U.S. TAG to ISO/TC 225 – Market, Opinion, and Social Research

Comment Deadline: April 18, 2016

As the conditions of the TAG's accreditation have not been maintained and in accordance with clause 2.5.6, Withdrawal of Accreditation of the ANSI International Procedures, the ANSI accreditation of the U.S. Technical Advisory Group to ISO/TC 225, Market, opinion and social research and the status of the Council of American Research Organizations (CASRO) as the ANSI-appointed TAG Administrator will be formally withdrawn, effective April 18, 2016. Please submit any comments on this action to ANSI's ISO Team (isot@ansi.org) by the comment deadline.

# Meeting Notice

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

The ANSI-Accredited U.S. TAG to ISO/TC 229 Nanotechnologies will meet on April 20-21st, 2016, at the Offices of the American Chemistry Council in Washington, DC. For additional information or to join the U.S. TAG, please contact Heather Benko (hbenko@ansi.org) at ANSI.

# **Information Concerning**

# International Organization for Standardization (ISO)

# Call for U.S. TAG Administrator

# ISO/TC 282 (and Subcommittees) – Water Reuse

ANSI has been informed that the American Society of Plumbing Engineers (ASPE), the ANSI-accredited U.S. TAG Administrator for ISO/TC 282 and Subcommittees, wishes to relinquish their role as U.S. TAG Administrator.

ISO/TC 282 operates under the following scope:

Standardisation of water re-use of any kind and for any purpose. It covers both centralised and decentralised or on-site water re-uses, direct and indirect ones as well as intentional and unintentional ones. It includes technical, economic, environmental and societal aspects of water re-use. Water re-use comprises a sequence of the stages and operations involved in uptaking, conveyance, processing, storage, distribution, consumption, drainage and other handling of wastewater, including the water re-use in repeated, cascaded and recycled ways. The scope of ISO/PC 253 (Treated wastewater re-use for irrigation) is merged into the proposed new committee.

#### Excluded:

- the limit of allowable water quality in water re-use, which should be determined by the governments, WHO and other relevant competent organizations.
- all aspects of TC 224 scope (service activities relating to drinking water supply systems and wastewater systems -- Quality criteria of the service and performance indicators)
- methods for the measurement of water quality, which are covered by TC 147.

ISO/TC 282/SC 1 operates under the following scope:

Treated wastewater reuse for Irrigation

ISO/TC 282/SC 2 operates under the following scope:

Standardization in the field of water reuse in urban areas. It addresses wastewater reclamation and reuse in urban areas. It includes guidelines for design and management of water reuse systems taking into consideration safety, reliability and efficiency. It covers both centralized (communitywide) and decentralized (on-site) water reuse systems. The standardization process covers the reclamation, storage and distribution parts of water reuse systems in urban areas.

ISO/TC 282/SC 3 operates under the following scope:

Risk and performance evaluation of water reuse systems

Organizations interested in serving as the U.S. TAG Administrator for any of these committees should contact ANSI's ISO Team (isot@ansi.org).

# **Information Concerning**

# **Meeting Notices**

# Organization Meeting of INCITS/Smart Cities, Call for Members and Contributions, April 21, 2016

The International Committee for Information Technology Standards (INCITS) has approved the establishment of a new Technical Committee on Smart Cities. INCITS/Smart Cities will serve as the US TAG to ISO/IEC JTC 1/WG 11 Smart Cities.

The organizational meeting of INCITS/Smart Cities will be on Thursday, April 21, 2016 from 1:00 pm to 3:00 pm Eastern Time by teleconference and will be convened by Mr. Steve Holbrook of IBM Corporation. Teleconference details will be provided with the two-week agenda.

Membership on INCITS/Smart Cities is open to all directly and materially affected parties. In order to comply with ANSI requirements, while all parties may participate in the discussions, only those organizations domiciled in the US may vote to establish a US position on TAG matters. The committee will operate under the ANSI-accredited procedures of the InterNational Committee for Information Technology Standards (INCITS). All organizations that attend the first meeting or the second meeting and request voting membership will attain voting rights immediately.

The INCITS/Smart Cities area of work will address standardization in the areas assigned to JTC 1/WG 11 "Smart Cities" which include:

- Serve as the focus of and proponent for JTC 1's Smart Cities standardization program.
- Develop foundational standards for the use of ICT in Smart Cities including the Smart City ICT;
- Reference Framework and an Upper Level Ontology for Smart Cities for guiding Smart Cities efforts throughout JTC 1 upon which other standards can be developed;
- Develop a set of ICT related indicators for Smart Cities in collaboration with ISO/TC 268;
- Develop additional Smart Cities' standards and other deliverables that build on these foundational standards;
- Identify JTC 1 (and other organization) subgroups that are developing standards and related material that contribute to Smart Cities, and where appropriate, investigate ongoing and potential new work that contributes to Smart Cities;
- Develop and maintain liaisons with all relevant JTC 1 subgroups;
- Engage with the community outside of JTC 1 to grow the awareness of, and encourage engagement in, JTC 1 Smart Cities standardization efforts within JTC 1, forming liaisons as is needed; and
- Ensure a strong relationship with Smart Cities activities in ISO and IEC.

#### **Requested Actions**

RSVP's for the organizational meeting should be submitted to Ms. Barbara Bennett (bbennett@itic.org) by **April 18, 2016**.

To join this technical committee, please complete the membership request form at <a href="http://www.INCITS.org/kcpm/signup">http://www.INCITS.org/kcpm/signup</a>.

Contributions for the organizational meeting should be submitted by **April 5, 2016** for inclusion on the two-week agenda.



# BSR/ASHRAE Addendum ab to ANSI/ASHRAE Standard 34-2013

# **First Public Review Draft**

# Proposed Addendum ab to Standard 34-2013, Designation and Safety Classification of Refrigerants

First Public Review (March 2016) (Draft shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at <a href="https://www.ashrae.org/standards-research--technology/public-review-drafts">www.ashrae.org/standards-research--technology/public-review-drafts</a> 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 <a href="https://www.ashrae.org/bookstore">www.ashrae.org/bookstore</a> or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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

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BSR/ASHRAE Addendum ab to ANSI/ASHRAE Standard 34-2013, Designation and Safety Classification of Refrigerants

First Public Review Draft

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

# **FOREWORD**

This addendum adds the single component refrigerant 1130 (E) in Table 4-1 and Table D-1.

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

# Addendum ab to 34-2013

Add the following underlined data to Table 4-1 and Table D-1 in the columns indicated.

# **TABLE 4-1 Refrigerant Data and Safety Classifications**

Refrigerant Number = 1130(E)

Chemical Name =  $\frac{\text{trans-1,2-dichloroethene}}{2}$ 

Chemical Formula = <u>CHCI=CHCI</u>

OEL = 200

Safety Group =  $\underline{B2}$ 

RCL = 1,000 ppm v/v; 0.25 lb/Mcf; 4 g/m

Highly Toxic or Toxic Under Code Classification = Neither

# **TABLE D-1 Refrigerant Data**

Refrigerant Number = 1130(E)

Chemical Name = trans-1,2-dichloroethene

Chemical Formula = CHCI=CHCI

Molecular Mass = 96.9 g/mol

Normal Boiling Point ( $^{\circ}$ F) =  $\underline{117.9}$ 

Normal Boiling Point ( $^{\circ}$ C)= 47.7



# BSR/ASHRAE Addendum ac to ANSI/ASHRAE Standard 34-2013

# **First Public Review Draft**

# Proposed Addendum ac to Standard 34-2013, Designation and Safety Classification of Refrigerants

First Public Review (March 2016)
(Draft shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at <a href="https://www.ashrae.org/standards-research--technology/public-review-drafts">www.ashrae.org/standards-research--technology/public-review-drafts</a> 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 <a href="https://www.ashrae.org/bookstore">www.ashrae.org/bookstore</a> or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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

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BSR/ASHRAE Addendum ac to ANSI/ASHRAE Standard 34-2013, Designation and Safety Classification of Refrigerants

First Public Review Draft

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

# **FOREWORD**

This addendum adds the azeotropic refrigerant blend R-514A in Table 4-2 and Table D-2. The component R-1130(E) is simultaneously out for publication public review as Addendum ab. Publication of Addendum ac is contingent on publication of Addendum ab.

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

# Addendum ac to 34-2013

Add the following underlined data to Table 4-2 and Table D-2 in the columns indicated.

#### TABLE 4-2 Data and Safety Classifications for Refrigerant Blends

Refrigerant Number = 514A

Composition (Mass %) = R-1336mzz(Z)/1130 (E) (74.7/25.3)

Composition tolerances =  $\pm 1.5, -0.5 / \pm 0.5, -1.5$ 

OEL = 320

Safety Group = B1

RCL = 2400 ppm v/v; 0.86 lb/Mcf; 14 g/m3

Highly Toxic or Toxic Under Code Classification = Neither

#### **TABLE D-2 Data for Refrigerant Blends**

Refrigerant Number = 514A

Composition (Mass %) = R-1336mzz(Z)/1130 (E) (74.7/25.3)

Azeotropic Molecular Mass =  $\underline{139.6}$  g/mol

Azeotropic Temperature ( $^{\circ}$ F) = 122

Normal Boiling Point (°F)= 84.2

Azeotropic Temperature ( $^{\circ}$ C)= 50.0

Normal Boiling Point ( $^{\circ}$ C)= 29.0



# BSR/ASHRAE Addendum ad to ANSI/ASHRAE Standard 34-2013

# **First Public Review Draft**

# Proposed Addendum ad to Standard 34-2013, Designation and Safety Classification of Refrigerants

First Public Review (March 2016)
(Draft shows Proposed Changes to Current Standard)

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BSR/ASHRAE Addendum ad to ANSI/ASHRAE Standard 34-2013, Designation and Safety Classification of Refrigerants

First Public Review Draft

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# **FOREWORD**

This addendum adds the azeotropic refrigerant blend R-515A in Table 4-2 and Table D-2.

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

# Addendum ad to 34-2013

Add the following underlined data to Table 4-2 and Table D-2 in the columns indicated.

## TABLE 4-2 Data and Safety Classifications for Refrigerant Blends

Refrigerant Number = 515A

Composition (Mass %) = R-1234ze(E)/227ea (88.0/12.0)

Composition tolerances =  $\pm 1.0, -2.0 / \pm 2.0, -1.0$ 

OEL = 810

Safety Group =  $\underline{A1}$ 

RCL = 62,000 ppm v/v; 191b/Mcf; 300 g/m3

Highly Toxic or Toxic Under Code Classification = Neither

#### **TABLE D-2 Data for Refrigerant Blends**

Refrigerant Number = 515A

Composition (Mass %) = R-1234ze(E)/227ea (88.0/12.0)

Azeotropic Molecular Mass =  $\underline{118.7}$  g/mol

Azeotropic Temperature (°F) =  $\underline{140}$ 

Normal Boiling Point ( $^{\circ}F$ )= -2.0

Azeotropic Temperature ( $^{\circ}$ C)= 60.0

Normal Boiling Point (°C)= -18.9



# BSR/ASHRAE Addendum ae to ANSI/ASHRAE Standard 34-2013

# **First Public Review Draft**

# Proposed Addendum ae to Standard 34-2013, Designation and Safety Classification of Refrigerants

First Public Review (March 2016) (Draft shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at <a href="https://www.ashrae.org/standards-research--technology/public-review-drafts">www.ashrae.org/standards-research--technology/public-review-drafts</a> 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 <a href="https://www.ashrae.org/bookstore">www.ashrae.org/bookstore</a> or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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BSR/ASHRAE Addendum ae to ANSI/ASHRAE Standard 34-2013, Designation and Safety Classification of Refrigerants

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# **FOREWORD**

This addendum adds the zeotropic refrigerant blend R-447B in Table 4-2 and Table D-2.

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

# Addendum ae to 34-2013

Add the following underlined data to Table 4-2 and Table D-2 in the columns indicated.

## TABLE 4-2 Data and Safety Classifications for Refrigerant Blends

Refrigerant Number = 447B

Composition (Mass %) = R-32/125/1234ze(E) (68.0/8.0/24.0)

Composition tolerances =  $\pm 1.0. -2.0 / \pm 2.0, -1.0 / \pm 1.0, -2.0$ 

OEL = 970

Safety Group =  $\underline{A2L}$ 

RCL = 30,000 ppm v/v; 23 lb/Mcf; 360 g/m

Highly Toxic or Toxic Under Code Classification = Neither

# **TABLE D-2 Data for Refrigerant Blends**

Refrigerant Number = 447B

Composition (Mass %) = R-32/125/1234ze(E) (68.0/8.0/24.0)

Average Molecular Mass =  $\underline{63.0g}$ /mol

Bubble Point (°F) = -58.2

Dew Point ( $^{\circ}$ F)= -50.8

Bubble Point (°C)=-50.1

Dew Point ( $^{\circ}$ C)= <u>-46.0</u>



# BSR/ASHRAE Addendum af to ANSI/ASHRAE Standard 34-2013

# **First Public Review Draft**

# Proposed Addendum af to Standard 34-2013, Designation and Safety Classification of Refrigerants

First Public Review (March 2016) (Draft shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at <a href="www.ashrae.org/standards-research--technology/public-review-drafts">www.ashrae.org/standards-research--technology/public-review-drafts</a> 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 <a href="www.ashrae.org/bookstore">www.ashrae.org/bookstore</a> or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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BSR/ASHRAE Addendum af to ANSI/ASHRAE Standard 34-2013, Designation and Safety Classification of Refrigerants

First Public Review Draft

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# **FOREWORD**

This addendum adds the zeotropic refrigerant blend R-452B in Table 4-2 and Table D-2.

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

# Addendum af to 34-2013

Add the following underlined data to Table 4-2 and Table D-2 in the columns indicated.

## TABLE 4-2 Data and Safety Classifications for Refrigerant Blends

Refrigerant Number = 452B

Composition (Mass %) = R-32/125/1234yf (67.0/7.0/26.0)

Composition tolerances =  $\pm 2.0/\pm 1.5/\pm 2.0$ 

OEL = 870

Safety Group =  $\underline{A2L}$ 

RCL = 30,000 ppm v/v; 23 lb/Mcf; 360 g/m3

Highly Toxic or Toxic Under Code Classification = Neither

#### **TABLE D-2 Data for Refrigerant Blends**

Refrigerant Number = 452B

Composition (Mass %) = R-32/125/1234yf (67.0/7.0/26.0)

Average Molecular Mass = 63.5g/mol

Bubble Point (°F) =  $\underline{-59.8}$ 

Dew Point ( $^{\circ}$ F)= -58.5

Bubble Point (°C)= -51.0

Dew Point ( $^{\circ}$ C)= -50.3



# BSR/ASHRAE Addendum ag to ANSI/ASHRAE Standard 34-2013

# **First Public Review Draft**

# Proposed Addendum ag to Standard 34-2013, Designation and Safety Classification of Refrigerants

First Public Review (March 2016) (Draft shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at <a href="https://www.ashrae.org/standards-research--technology/public-review-drafts">www.ashrae.org/standards-research--technology/public-review-drafts</a> 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 <a href="https://www.ashrae.org/bookstore">www.ashrae.org/bookstore</a> or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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BSR/ASHRAE Addendum ag to ANSI/ASHRAE Standard 34-2013, Designation and Safety Classification of Refrigerants

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# **FOREWORD**

This addendum adds the zeotropic refrigerant blend R-456A in Table 4-2 and Table D-2.

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

# Addendum ag to 34-2013

Add the following underlined data to Table 4-2 and Table D-2 in the columns indicated.

## TABLE 4-2 Data and Safety Classifications for Refrigerant Blends

Refrigerant Number = 456A

Composition (Mass %) = R-32/134a/1234ze(E) (6.0/45.0/49.0)

Composition tolerances =  $\pm 1.0/\pm 1.0/\pm 1.0$ 

OEL = 900

Safety Group =  $\underline{A1}$ 

RCL = 77,000 ppm v/v; 20 lb/Mcf; 320 g/m

Highly Toxic or Toxic Under Code Classification = Neither

#### **TABLE D-2 Data for Refrigerant Blends**

Refrigerant Number = 456A

Composition (Mass %) = R-32/134a/1234ze (E) (6.0/45.0/49.0)

Average Molecular Mass = 101.4 g/mol

Bubble Point (°F) =  $\underline{-22.7}$ 

Dew Point ( ${}^{\circ}F$ )= <u>-14.1</u>

Bubble Point (°C)=-30.4

Dew Point ( $^{\circ}$ C)= -25.6



# BSR/ASHRAE Addendum ah to ANSI/ASHRAE Standard 34-2013

# **First Public Review Draft**

# Proposed Addendum ah to Standard 34-2013, Designation and Safety Classification of Refrigerants

First Public Review (March 2016)
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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 <a href="www.ashrae.org/standards-research--technology/public-review-drafts">www.ashrae.org/standards-research--technology/public-review-drafts</a> 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 <a href="www.ashrae.org/bookstore">www.ashrae.org/bookstore</a> or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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BSR/ASHRAE Addendum ah to ANSI/ASHRAE Standard 34-2013, Designation and Safety Classification of Refrigerants

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# **FOREWORD**

This addendum adds the zeotropic refrigerant blend R-457A in Table 4-2 and Table D-2.

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

# Addendum ah to 34-2013

Add the following underlined data to Table 4-2 and Table D-2 in the columns indicated.

## TABLE 4-2 Data and Safety Classifications for Refrigerant Blends

Refrigerant Number = 457A

Composition (Mass %) = R-32/1234yf/152a (18.0/70.0/12.0)

Composition tolerances =  $\pm 0.5, -1.5/\pm 0.5, -1.5/\pm 0.1, -1.9$ 

 $OEL = \underline{650}$ 

Safety Group =  $\underline{A2L}$ 

RCL = 15,000 ppm v/v; 25 lb/Mcf; 400 g/m

Highly Toxic or Toxic Under Code Classification = Neither

#### **TABLE D-2 Data for Refrigerant Blends**

Refrigerant Number = 457A

Composition (Mass %) = R-32/1234yf/152a (18.0/70.0/12.0)

Average Molecular Mass = 87.6 g/mol

Bubble Point (°F) = -44.9

Dew Point ( $^{\circ}$ F)= <u>-31.9</u>

Bubble Point (°C)= -42.7

Dew Point ( $^{\circ}$ C)= -35.5



# BSR/ASHRAE Addendum ai to ANSI/ASHRAE Standard 34-2013

# **First Public Review Draft**

# Proposed Addendum ai to Standard 34-2013, Designation and Safety Classification of Refrigerants

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# **FOREWORD**

This addendum adds the zeotropic refrigerant blend R-452C in Table 4-2 and Table D-2.

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

# Addendum ai to 34-2013

Add the following underlined data to Table 4-2 and Table D-2 in the columns indicated.

## TABLE 4-2 Data and Safety Classifications for Refrigerant Blends

Refrigerant Number = 452C

Composition (Mass %) = R-32/125/1234yf (12.5/61.0/26.5)

Composition tolerances =  $\pm 0.5, -1.5/\pm 1.0/+0.5, -1.5$ 

OEL = 800

Safety Group =  $\underline{A1}$ 

RCL = 100,000 ppm v/v; 27 lb/Mcf; 430 g/m

Highly Toxic or Toxic Under Code Classification = Neither

#### **TABLE D-2 Data for Refrigerant Blends**

Refrigerant Number = 452C

Composition (Mass %) = R-32/125/1234yf (12.5/61.0/26.5)

Average Molecular Mass = 101.9 g/mol

Bubble Point (°F) = -53.5

Dew Point ( $^{\circ}$ F)= <u>-47.6</u>

Bubble Point (°C)= -47.5

Dew Point ( $^{\circ}$ C)= -44.2



# BSR/ASHRAE Addendum aj to ANSI/ASHRAE Standard 34-2013

# **First Public Review Draft**

# Proposed Addendum aj to Standard 34-2013, Designation and Safety Classification of Refrigerants

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# **FOREWORD**

This addendum adds the zeotropic refrigerant blend R-458A in Table 4-2 and Table D-2.

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

# Addendum aj to 34-2013

Add the following underlined data to Table 4-2 and Table D-2 in the columns indicated.

## TABLE 4-2 Data and Safety Classifications for Refrigerant Blends

Refrigerant Number = 458A

Composition (Mass %) = R-32/125/134a/227ea/236fa (20.5/4.0/61.4/13.5/0.6)

Composition tolerances =  $\pm 0.5/\pm 0.5/\pm 0.5/\pm 0.5/\pm 0.5/\pm 0.1$ 

OEL = 1,000

Safety Group =  $\underline{A1}$ 

RCL = 76,000 ppm v/v; 18 lb/Mcf; 280 g/m<sup>3</sup>

Highly Toxic or Toxic Under Code Classification = Neither

#### **TABLE D-2 Data for Refrigerant Blends**

Refrigerant Number = 458A

Composition (Mass %) = R-32/125/134a/227ea/236fa (20.5/4.0/61.4/13.5/0.6)

Average Molecular Mass = 89.9 g/mol

Bubble Point ( $^{\circ}$ F) = -39.6

Dew Point ( $^{\circ}$ F)= <u>-26.3</u>

Bubble Point (°C)= -39.8

Dew Point ( $^{\circ}$ C)= -32.4



BSR/ASHRAE Addendum d to ANSI/ASHRAE Standard 160-2009

# **Public Review Draft**

# Proposed Addendum d to Standard 160-2009, Criteria for Moisture-Control Design Analysis in Buildings

First Public Review (March 2016)
(Draft shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at <a href="https://www.ashrae.org/standards-research--technology/public-review-drafts">www.ashrae.org/standards-research--technology/public-review-drafts</a> 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 <a href="https://www.ashrae.org/bookstore">www.ashrae.org/bookstore</a> or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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### **FOREWORD**

This addendum to Standard 160-2009 updates the References in Section 8 as indicated below.

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

# **Addendum d to 160-2009**

# Revise the standard as follows.

#### 8. REFERENCES

- 1. *ANSI/ASHRAE Standard 55-20042013*, *Thermal Environmental Conditions for Human Occupancy*. Atlanta: American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.
- 2. ANSI/ASHRAE Standard 62.2-20072013, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings. Atlanta: American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.



BSR/ASHRAE Addendum e to ANSI/ASHRAE Standard 160-2009

# **Public Review Draft**

# Proposed Addendum e to Standard 160-2009, Criteria for Moisture-Control Design Analysis in Buildings

First Public Review (March 2016)
(Draft shows Proposed Changes to Current Standard)

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# **FOREWORD**

This addendum revises Sections 6.1 and 7.5 as indicated below. Since the publication of Standard 160-2009, it has become apparent that the performance evaluation criteria for mold growth are too stringent. Section 6.1 currently prescribes a simplified criterion that is easy to calculate but difficult to meet: a flat 80% 30-day running average surface RH criterion, bounded by temperatures between 5°C (41°F) and 40°C (104°F). A number of researchers and practitioners have reported to the committee that assemblies that are known to have satisfactory performance in reality are failing the criterion in simulation. Furthermore, the scientific literature indicates that mold growth requires a much more complex description. Mathematical models have been developed that predict mold growth risk as a function of time, surface temperature, and surface relative humidity. Such models can readily use as inputs the hourly outputs of a hygrothermal simulation. The mold growth model selected for implementation in Section 6.1 of Standard 160 by this addendum is empirical and has been validated with experimental data for different materials with varying sensitivities to mold growth. This addendum will bring the standard more in line with the current state of knowledge about mold growth while providing a less stringent criterion. Changes to Section 7.5 bring the reporting requirements in line with the changes to Section 6.1.

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

# **Addendum e to 160-2009**

# Revise Section 6.1 as follows.

6.1 Conditions Necessary to Minimize Mold Growth. In order to minimize problems associated with mold growth on the surfaces of components of building envelope assemblies, the following condition shall be met: a 30-day running average surface RH < 80% when the 30-day running average surface temperature is between 5°C (41°F) and 40°C (104°F) the mold index, calculated in accordance with Equations 6-1 through 6-7, shall not exceed a value of three (3.00). B-22

The building material surface under analysis shall be assigned to one of the following four sensitivity classes: Very Sensitive, Sensitive, Medium Resistant, or Resistant. Materials that are naturally resistant to mold or have been chemically treated to resist mold growth may be able to resist higher surface relative humidities and/or to resist for longer periods as specified by the manufacturer. The eriteria sensitivity class used in the evaluation and the rationale for its selection shall be stated in the report. Table 6.1.1 lists recommended sensitivity classes for various types of materials. B-23

The initial value of the mold index M shall be zero (M = 0 at time t = 0). The mold index shall be accumulated for each hour using the following equation:

$$M_{t} = M_{t-1} + \Delta M \underline{\quad (6-1)}$$

BSR/ASHRAE Addendum e to ANSI/ASHRAE Standard 160-2009, Criteria for Moisture-Control Design Analysis in Buildings

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 $\underline{M_t}$  = mold index for the current hour  $M_{t-1}$  = mold index for the previous hour

 $\Delta M$  = change in mold index, calculated for each hour using Equation 6-4 or Equation 6-7 according to the conditions specified below.

The mold index shall have a minimum value of zero; if  $M_{t-1} + \Delta M$  yields a negative number at any time step, then  $M_t$  shall be set equal to zero at that time step.

If the surface temperature  $T_s$  is greater than 0°C (32°F) at the current hour, then the critical surface relative humidity for mold initiation  $RH_{crit}$  (expressed as a percentage) shall be calculated using Equation 6-2 or 6-3, according to the material sensitivity class (see also Figure 6.1):

Very Sensitive Class or Sensitive Class:

$$RH_{crit} = \begin{cases} -0.00267T_s^3 + 0.160T_s^2 - 3.13T_s + 100 \text{ when } T_s \le 20^{\circ}\text{C} \\ 80 \text{ when } T_s > 20^{\circ}\text{C} \end{cases}$$
(6-2a) ( $T_s \text{ in } {}^{\circ}\text{C}$ )

$$RH_{crit} = \begin{cases} -0.0004578T_s^3 + 0.09333T_s^2 - 6.306T_s + 221.21 \text{ when } T_s \le 68^{\circ}\text{F} \\ 80 \text{ when } T_s > 68^{\circ}\text{F} \end{cases}$$

Medium Resistant Class or Resistant Class:

$$RH_{crit} = \begin{cases} -0.00267T_s^3 + 0.160T_s^2 - 3.13T_s + 100 \text{ when } T_s \le 7^{\circ}\text{C} \\ 85 \text{ when } T_s > 7^{\circ}\text{C} \end{cases}$$
(6-3a) ( $T_s \text{ in } {}^{\circ}\text{C}$ )

$$RH_{crit} = \begin{cases} -0.0004578T_s^3 + 0.09333T_s^2 - 6.306T_s + 221.21 \text{ when } T_s \le 44.6^{\circ}\text{F} \\ 85 \text{ when } T_s > 44.6^{\circ}\text{F} \end{cases}$$

If the relative humidity at the material surface  $RH_s$  (expressed as a percentage) is greater than  $RH_{crit}$  at the current hour, then an increase in the mold index shall be calculated using the following equation:  $^{B-24}$ 

$$\Delta M = \frac{k_1 k_2}{168 \cdot \exp(-0.68 \ln T_s - 13.9 \ln RH_s + 0.14W + 66.02)} \frac{(6-4a) (T_s \text{ in } ^{\circ}\text{C})}{(6-4a) (T_s \text{ in } ^{\circ}\text{C})}$$

$$\Delta M = \frac{k_1 k_2}{168 \cdot \exp\{-0.68 \ln[(T_s - 32)/1.8] - 13.9 \ln RH_s + 0.14W + 66.02\}} \frac{(6-4b) (T_s \text{ in } ^\circ\text{F})}{(6-4b) (T_s \text{ in } ^\circ\text{F})}$$

where

 $\overline{k_l}$  = mold growth intensity factor selected from Table 6.1.2 according to material sensitivity class and current value of M

 $k_2$  = mold index attenuation factor calculated using Equation 6-5

W = parameter selected from Table 6.1.2 according to material sensitivity class

The mold index attenuation factor  $k_2$  shall be calculated using the following equation:

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First Public Review Draft

$$k_2 = \max\{1 - \exp[2.3(M - M_{\text{max}})], 0\}$$
 (6-5)

where  $M_{\text{max}}$  is the maximum mold index corresponding to the surface temperature and relative humidity at the current hour, calculated using the following equation:

$$M_{\text{max}} = A + B \left( \frac{RH_{crit} - RH_s}{RH_{crit} - 100} \right) - C \left( \frac{RH_{crit} - RH_s}{RH_{crit} - 100} \right)^2$$
 (6-6)

where the coefficients A, B, and C are selected from Table 6.1.2 according to material sensitivity class.

If  $T_s \le 0$ °C ( $T_s \le 32$ °F) or  $RH_s \le RH_{crit}$  at the current hour, then a decline in the mold index shall be calculated using the following equation:

$$\Delta M = \begin{cases} -0.00133 \cdot k_3 \text{ when } t_{decl} \le 6\\ 0 \text{ when } 6 < t_{decl} \le 24\\ -0.000667 \cdot k_3 \text{ when } t_{decl} > 24 \end{cases}$$
 (6-7)

where

 $\underline{k_3}$  = mold index decline coefficient specific to the material surface

 $t_{decl}$  = number of hours from the moment when conditions for mold growth changed from favorable ( $T_s$   $\geq 0^{\circ}$ C ( $T_s \geq 32^{\circ}$ F) and  $RH_s \geq RH_{crit}$ ) to unfavorable ( $T_s \leq 0^{\circ}$ C ( $T_s \leq 32^{\circ}$ F) or  $RH_s \leq RH_{crit}$ ).

The mold index decline coefficient used in the evaluation and the rationale for its selection shall be stated in the report. In the absence of specific test data for the material surface, the recommended value of  $k_3$  shall be 0.1. B-25

Table 6.1.1. Recommended Mold Sensitivity Classes for Various Materials

<b>Sensitivity Class</b>	<u>Materials</u>
Very Sensitive	Untreated wood; includes lots of nutrients for biological growth
Sensitive	Planed wood, paper-coated products, wood-based boards
Medium Resistant	Cement or plastic based materials, mineral fibers
Resistant	Glass and metal products, materials with efficient protective compound treatments

Table 6.1.2. Parameters for Equations 6-4 and 6-6

<b>Sensitivity Class</b>	<u>k</u> 1		$\underline{\mathbf{W}}$	<u>A</u>	<u>B</u>	<u>C</u>
	(if M < 1)	$(if M \ge 1)$				
Very Sensitive	<u>1</u>	<u>2</u>	0	<u>1</u>	7	<u>2</u>
Sensitive	0.578	0.386	1	0.3	<u>6</u>	1
Medium Resistant	0.072	0.097	1	0	<u>5</u>	1.5
Resistant	<u>0.033</u>	<u>0.014</u>	<u>1</u>	0	<u>3</u>	<u>1</u>

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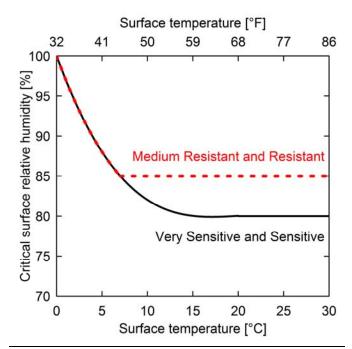


Figure 6.1 Critical surface relative humidity as a function of surface temperature for different material sensitivity classes

#### Revise Section 7.5 as follows.

**7.5** Provide the <u>moisture performance evaluation</u> criteria used and provide results.

If conditions necessary to minimize mold growth are evaluated, provide the following:

- Criteria used (80% surface RH/other)
- Moisture content and coincident temperatures of materials
- Material sensitivity class and rationale for its selection
- Mold index decline coefficient and rationale for its selection
- Time series of surface temperature and surface relative humidity values
- <u>Time series of mold index values</u>
- Outcome (pass/fail)

# If corrosion is evaluated, provide the following:

- Criterion used (80% surface RH/other)
- Time series of surface temperature and surface relative humidity values
- Outcome (pass/fail)



BSR/ASHRAE Addendum g to ANSI/ASHRAE Standard 15-2013

# First Public Review Draft Proposed Addendum g to Standard 15-2013, Safety Standard for Refrigeration Systems

First Public Review (March 2016) (Draft shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at <a href="www.ashrae.org/standards-research--technology/public-review-drafts">www.ashrae.org/standards-research--technology/public-review-drafts</a> 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 <a href="www.ashrae.org/bookstore">www.ashrae.org/bookstore</a> or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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

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

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

# **FOREWORD**

This addendum makes a number of important changes to ASHRAE Standard 15-2013. The first change to Section 9.2.1 clarifies the metric unit gage pressure when designing for vacuum. The changes to Section 9.9 give new requirements for the use of pressure limiting devices. The changes to Section 9.11 clarifies that ASME Section VIII Pressure Vessel Design is not required for the water side of heat exchangers, providing certain other design requirements are met. The changes to Section 9.13 stipulates that other types of compression devices that are not specifically listing in the section may be used for the connection of copper tube providing they are agency listed for the refrigeration use. There is also the addition of Section 9.7.8.6. And finally, the changes to the Normative References in Appendix B remove the notes pertaining to References 6 and 8, making these references required for all users.

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

#### Addendum g to 15-2013

**9.2.1** Design pressures shall not be less than pressure arising under maximum operating, standby, or shipping conditions. When selecting the design pressure, allowance shall be provided for setting pressure-limiting devices and pressure-relief devices to avoid nuisance shutdowns and loss of refrigerant. The *ASME Boiler and Pressure Vessel Code*, Section VIII, Division I, Appendix M, contains information on the appropriate allowances for design pressure.

Refrigerating equipment shall be designed for a vacuum of 29.0 in- Hg (32°F) (3.12 kPa) [737 mm Hg (0°C)]. Design pressure for lithium bromide absorption systems shall not be less than 5 psig gage pressure 5.00 psi (34.5 kPa 34.7 kPa gage). Design pressure for mechanical refrigeration systems shall not be less than gage pressure 15.0 psi 15 psig (103 kPa 103.4 kPa gage) and, except as noted in Sections 9.2.2, 9.2.3, 9.2.4, 9.2.5, and 9.2.6, shall not be less than the saturation pressure (gage) corresponding to the following temperatures:

**9.9.1 When Required.** Pressure-limiting devices <u>complying with Section 9.9</u> shall be provided <u>for compressors</u> on systems operating above atmospheric pressure, <u>except that a pressure limiting device is not required on any factory sealed system containing less than 22 lb (10 kg) of Group A1 refrigerant that has been listed by an approved, nationally recognized testing laboratory and is so identified.</u>

Exception: Pressure-limiting devices are not required for listed-factory-sealed systems containing less than 22 lb (10 kg) of Group A1 refrigerant.

**9.9.2 Setting.** When required by Section 9.9.1, the maximum setting to which a pressure limiting device is capable of being readily set by use of the adjusting means provided shall not exceed the design pressure of the highside of a system that is not protected by a pressure relief device or 90% of the setting of the pressure relief device installed on the highside of a system. The pressure limiting device shall stop the action of the pressure imposing element at a pressure no higher than this maximum setting.

# **9.9.2 Setting.** Pressure-limiting devices shall be set in accordance with one the following:

- 1. For positive-displacement compressors:
  - a. When systems are protected by a high-side pressure relief device, the compressor's pressure-limiting device shall be set at or below 90% of the operating pressure for the high-side pressure relief device.
  - b. When systems are not protected by a high-side pressure relief device, the compressor's pressure-limiting device shall be set at or below the system's high-side design pressure.
- 2. For nonpositive-displacement compressors:
  - a. When systems are protected by a high-side pressure relief device, the compressor's pressure-limiting device shall be set at or below 90% of the operating pressure for the high-side pressure relief device
  - b. When systems are protected by a low-side pressure relief device that is only subject to lowside pressure and is provided with a permanent relief path between the systems' highside and lowside, without intervening valves, the compressor's pressure-limiting device shall be set at or below the system's high-side design pressure.
- **9.9.3 Connection.** Pressure-limiting devices shall be connected between the pressure-imposing element and any stop valve on the discharge side. There shall be no intervening stop valves in the line leading to the pressure limiting device.
- **9.9.3 Location**. Stop valves shall not be installed between the pressure-imposing element and pressure-limiting devices serving compressors.
- **9.9.4 Emergency stop.** Activation of a pressure-limiting device shall stop the action of the pressure-imposing element.

## **9.11.1.** Unchanged

**Exception:** Water-side components <u>designed to operate at a temperature not exceeding 210° F (99°C) shall be</u> exempted from the rules of Section VIII of the *ASME Boiler and Pressure Vessel Code*<sup>6</sup> <u>and</u> shall be designed, constructed, and assembled to have an ultimate strength sufficient to withstand 150 psig (1034 kPa) or two times the design pressure for which it is rated, whichever is greater.

**9.13.1** The following are requirements for unprotected refrigerant-containing copper pipe or tubing 9.13.1 b. Copper tube shall be connected by brazed joints, soldered joints, or compression fittings or fittings listed for refrigeration use.

# Add the following new section.

**9.7.8.6** Different refrigerants shall not be vented into a common relief piping system unless the refrigerants are included in a blend that is recognized by ASHRAE Standard 34<sup>1</sup>.

#### NORMATIVE APPENDIX B NORMATIVE REFERENCES

This appendix contains full citations for normative references. Full citations for references that are solely informative are included in Informative Appendix A. Note that in some locations within the standard, normative references are also used as informative references. References in this standard are numbered in the order in which they appear in the document, so the numbers for the informative references are shown for the convenience of the user.

- 1. ANSI/ASHRAE Standard 34-2001, Designation and Safety Classification of Refrigerants, American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., Atlanta, GA 30329.
- 2. Not a normative reference.
- 3. ARI 700-1999, Specifications for Flourocarbon Refrigerants and ARI Standard 700c-1999, Appendix C to ARI Standard 700—Analytical Procedures for ARI Standard 700-99, Air-Conditioning and Refrigeration Institute, 4100 North Fairfax Drive, Arlington, VA 22203.
- 4. *UL 1995-1995 Heating and Cooling Equipment*, Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062.
- 5. NFPA 70-2002, National Electrical Code<sup>□</sup>, National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02269-9101.

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6. ANSI/ASME Boiler and Pressure Vessel Code, Section VIII, Rules for Construction of Pressure Vessels, Division 1, 2001, American Society of Mechanical Engineers (ASME), 3 Park Avenue, New York, NY 10016-5990.

*Note:* Reference 6 is mandatory for designers, manufacturers, and producers of refrigeration equipment. For all other users, this reference is informative.

- 7. Not a normative reference.
- 8. ANSI//ASME B31.5-2001, Refrigeration Piping and Heat Transfer Components, American Society of Mechanical Engineers (ASME), 3 Park Avenue, New York, NY 10016.

*Note:* Reference 8 is mandatory for designers, manufacturers, and producers of refrigeration equipment. For all other users, this reference is informative.

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

NSF International Standard/ American National Standard for Food Equipment —

# Commercial refrigerators and freezers

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- 9.7 Doors

**9.7.1** In addition to the requirements specified in 5.9, sliding doors on display refrigerators shall be readily removable, or shall be removable and easily cleanable as installed.

**9.7.2** Display refrigerators with automatic lockout shall be equipped with:

- an automatic door lock; and
- self-closing door(s); and
- a feature that would allow the door to be unlocked only by an operator/employee or service person.

NOTE – door may not be self-closing when opened greater than 90 degree arc to facilitate servicing.

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# 9.13 Equipment labeling and literature requirements

- **9.13.1** Beverage coolers shall have a permanently attached label that states: "This equipment is intended for the storage and display of non-potentially-hazardous bottled or canned products only." The label shall be clearly visible to the user after installation of the equipment. This statement shall also appear in the product literature and the product manual.
- **9.13.2** Type I display refrigerators shall have a permanent label indicating that the equipment is intended for use in an area where the environmental conditions are controlled and maintained so that the ambient temperature typically does not exceed 75  $^{\circ}$ F (24  $^{\circ}$ C).

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Type II display refrigerators shall have a permanent label indicating that the equipment is intended for use in an area where the environmental conditions are controlled and maintained so that the ambient temperature typically does not exceed 80 °F (27 °C).

Display refrigerators tested in accordance with 6.10.2 shall have a label indicating that the equipment is for use in ambient temperatures not exceeding 86 °F (30 °C).

- **9.13.3** Display refrigerators intended solely for the display of foods that are not potentially hazardous shall have a permanently attached label that states: "This display refrigerator is not for the display of potentially hazardous foods." The label shall be clearly visible to the user after installation of the equipment.
- **9.13.4** Display refrigerators with automatic lockout shall have a permanently attached label that states "Evaluated and tested for automatic lockout per NSF/ANSI Standard 7". The label shall be clearly visible to the user after installation of the equipment.

9.13.45 Display refrigerators shall have th	e maximum load level cl	learly marke	d on the unit of	or indicated	in
the operating instructions.			This "4" is cro	ssed out	

- **9.13.56** The manufacturer of a display refrigerator shall provide written instructions that include the following:
  - electrical requirements;
  - installation procedures that address setting, pull-up, trimming, assembly, wiring, and special procedures such as properly ventilating the backs of units under special conditions:
  - operational data such as control settings, checking methods, and typical temperatures;
     and
  - maintenance procedures.
- **9.13.67** The manufacturer of a remote refrigerator shall specify the load requirements BTU/hr (kW/hr) and the applicable evaporator temperature for each unit at its test condition.
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# 9.15 Performance -Temperature recovery test

The performance requirements in this section apply only to display refrigerators with automatic lockout.

#### 9.15.1 Performance requirement

Display refrigerators with automatic lockout shall require no more than 30 min to restore the air temperature in its food storage compartment to 41  $^{\circ}$ F (5  $^{\circ}$ C) or below after having its door open for 15 min.

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#### 9.15.2 Test method

An "open door" test shall be conducted to evaluate the ability of display refrigerators with automatic lockout to restore the food storage compartment air temperature to 41 °F (5 °C) or below within 30 min after having its door open for 15 min. The test shall be conducted under no-load conditions. The test shall be conducted in a test chamber in which the following conditions are maintained at the start of the test:

- ambient air temperature of 73 ± 4 °F (23 ± 2 °C); and
- no vertical temperature gradient exceeding 1.5 °F per ft (2.5 °C per m).

Air temperatures within each empty refrigerated compartment shall be monitored using remote temperature-sensing devices (thermocouples) accurate to  $\pm$  1 °F (0.5 °C). The thermocouples shall be positioned as close as possible to the following locations:

**Thermocouple #1**: (when facing the front of the unit)  $5.0 \pm 0.25$  in (130  $\pm 6.4$  mm) from the left interior wall,  $2.0 \pm 0.25$  in (50 mm  $\pm 6.4$  mm) above the bottom horizontal plane of the overhead cooling unit, (for units in which the evaporator is not suspended from the ceiling, the thermocouple shall be placed  $5.0 \pm 0.25$  in [130  $\pm 6.4$  mm] down from the ceiling) and centered front-to-back.

Thermocouple #2: centered front-to-back, centered top-to-bottom, centered left-to-right.

**Thermocouple #3:** (when facing the unit)  $5.0 \pm 0.25$  in  $(130 \pm 6.4 \text{ mm})$  from the right interior wall,  $5.0 \pm 0.25$  in  $(130 \pm 6.4 \text{ mm})$  above the internal floor of the unit, and centered front-to-back.

The thermocouples shall be in thermal contact with the center of a 1.6-oz (45-g) cylindrical brass slug with a diameter and height of  $\frac{3}{4}$  in (0.75 in, 19 mm). The brass slugs shall be placed at least  $\frac{1}{2}$  in (0.50 in, 13 mm) from any heat-conducting surface.

The air temperature in the food storage compartment shall be allowed to stabilize at 41 °F (5 °C) or below before the test is started.

The door to the food storage compartment shall be opened and shall remain open for  $15 \pm 0.5$  min before being closed. The air temperature at each thermocouple location shall be recorded at 1-min intervals for 30 min.

# 9.15.3 Acceptance criteria

At the end of the 30-min recovery period, the air temperature at each thermocouple location shall not exceed 41°F (5 °C).

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# 9.16 Performance - Automatic lockout

The performance requirements in this section apply only to display refrigerators with automatic lockout.

#### 9.16.1 Performance requirement

The automatic door lock shall activate if the air temperature in the food storage compartment is greater than 41 °F (5 °C) for more than 30 min. This requirement does not apply during the 30-min recovery period immediately following filling or servicing.

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# 9.16.2 Test method

An abnormal operation test shall be conducted on display refrigerators with automatic lockout. This test will verify that the automatic door lock will activate when the air temperature of the food storage compartment is greater than 41 °F (5 °C) for more than 30 min. The test shall be conducted under no-load conditions. The tests shall be conducted in a test chamber in which the following conditions are maintained at the start of the test:

- ambient air temperature of 73 ± 4 °F (23 ± 2 °C); and
- no vertical temperature gradient exceeding 1.5 °F per ft (2.5 °C per m).

Air temperatures within each empty refrigerated compartment shall be monitored using remote temperature-sensing devices (thermocouples) accurate to  $\pm$  1 °F (0.5 °C). The thermocouples shall be positioned as close as possible to the following locations:

**Thermocouple #1**: (when facing the front of the unit)  $5.0 \pm 0.25$  in (130  $\pm 6.4$  mm) from the left interior wall,  $2.0 \pm 0.25$  in (50 mm  $\pm 6.4$  mm) above the bottom horizontal plane of the overhead cooling unit, (for units in which the evaporator is not suspended from the ceiling, the thermocouple shall be placed  $5.0 \pm 0.25$  in [130  $\pm 6.4$  mm] down from the ceiling) and centered front-to-back.

Thermocouple #2: centered front-to-back, centered top-to-bottom, centered left-to-right.

**Thermocouple #3:** (when facing the unit)  $5.0 \pm 0.25$  in  $(130 \pm 6.4 \text{ mm})$  from the right interior wall,  $5.0 \pm 0.25$  in  $(130 \pm 6.4 \text{ mm})$  above the internal floor of the unit, and centered front-to-back.

The thermocouples shall be in thermal contact with the center of a 1.6-oz (45-g) cylindrical brass slug with a diameter and height of  $\frac{3}{4}$  in (0.75 in, 19 mm). The brass slugs shall be placed at least  $\frac{1}{2}$  in (0.50 in, 13 mm) from any heat-conducting surface.

The air temperature in the food storage compartment shall be allowed to stabilize at 41 °F (5 °C) or below before the test is started.

The power to the unit shall be interrupted, causing shut down. The air temperature in the food storage compartment shall be monitored. When the temperature of the food storage compartment exceeds 41  $^{\circ}$ F (5  $^{\circ}$ C) for 30 min +/- 30 seconds, an immediate attempt shall be made to open the door.

#### 9.16.3 Acceptance criteria

The door shall not open after the compartment temperature exceeds 41 °F (5 °C) for 30 min +/- 30 seconds.

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#### **NSF/ANSI 50**

Equipment for Swimming Pools, Spas, Hot Tubs and other Recreational Water Facilities

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- •
- 2 Definitions
- •
- •
- **2.x ozone concentration:** The amount of ozone in the gas stream leaving the generator. Concentration can be reported in weight percent, g/m<sub>3</sub>, volume percent, ppm by weight, ppm by volume, and the milligrams of ozone per liter of gas produced. Under this standard, concentration will be reported by weight percent and g/m<sub>3</sub>.
- **2.x coolant flow rate**: The flow rate of the coolant used to remove heat from the reaction chamber(s) of the ozone generator.

NOTE – The critical factor for heat removal is the mass flow rate (kg/hr) of the coolant. The mass flow rate of the coolant is equal to the volumetric flow rate (m<sub>3</sub>/hr, ft<sub>3</sub>/hr) of the coolant times the density (Kg/m<sub>3</sub>, lb/ft<sub>3</sub>) of the coolant.

For liquid cooled systems the density of the coolant (liquid) is virtually independent of temperature and pressure and can be specified as the volumetric flow rate of the cooling liquid (m<sub>3</sub>/hr, ft<sub>3</sub>/hr, gpm, Lpm.)

For gas cooled systems the density (and therefore the mass flow rate) of the coolant gas is dependent on temperature and pressure. For this standard, the pressure and temperature ranges are small. The volumetric flow rate (m³/hr, ft³/hr, lpm, ft³/min, CFM) of the coolant shall be specified. As a practical approximation of the mass flow rate.

- **2.x dew point (dew-point temperature):** The temperature saturation (assuming air pressure and moisture content are constant). For Corona Discharge ozone generation the minimum dew point is –60 °C (–76 °F).
- **2.x feed gas:** The gas (ambient air, dry air or oxygen) delivered to the inlet side of the ozone generator. The required quality and feed gas flow rate is determined by the manufacturer.
- **2.x feed gas flow rate:** The flow rate of the feed gas through the reaction chamber(s) of the ozone generator.
  - NOTE The critical factor for the reaction is the mass flow rate (kg/hr) of the feed gas. The mass flow rate is the volumetric flow rate (m<sub>3</sub>/hr, ft<sub>3</sub>/hr) of the feed gas times the density (kg/m<sub>3</sub>, lb/ft<sub>3</sub>) of the feed gas.

The density of a gas is dependent on the temperature and pressure. Because of the continuous variability of the parameters affecting density and volumetric flow rate in a ozone generator, there is no practical method to determine the true mass flow rate of the feed gas. For this Standard, due to the small range of pressure and temperature, the volumetric flow rate is specified as an approximation of the mass flow rate.

For pressurized systems, the manufacturer specifies the volumetric flow rate and the gauge pressure of the feed gas at the inlet to the ozone generator.

2.x ozone generator cell pressure: The gauge pressure of the feed gas in the reaction chamber(s).

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- **2.78 ozone generator:** A device that causes ozone to be formed. that when supplied with an oxygen containing gas and power, produces an ozone-containing gas. Said ozone generator includes any controls, transformers and frequency generators required to convert a standard electrical supply (as specified) to the electrical characteristics required to operate the generator cell properly.
- **2.x packaged ozone system**: An ozone generator packaged with a gas preparation system, typically on a single skid or otherwise a single unit.
- **2.x ozone output rate:** The mass of ozone produced by an ozone generator in weight per unit time (g/hr, lb/hr). Output rate is the mass of ozone per volume of product gas (g/m<sub>3</sub>, lb/ft<sub>3</sub>) multiplied by the feed gas flow rate (m<sub>3</sub>/hr, lpm, ft<sub>3</sub>/hr, CFM).
- **2.x relative humidity:** The ratio, in percent, of the actual amount of water vapor in a body of air in relation to the maximum amount that the body can hold at a given temperature. Relative humidity varies with temperature for a given amount of water vapor.
- 2.x ozone short cycle or batch system: Systems that are not designed to operate for more than 5 min at a time.

# BSR/UL 79, Standard for Safety for Power-Operated Pumps for Petroleum Dispensing Products

# 1. Revise the Moist Ammonia-Air Stress Cracking Test

#### **PROPOSAL**

5.19 A <u>pressure confining</u> part made of drawn brass or machined from brass rod, and consisting of 15% or more zinc content, shall withstand, without cracking, the <del>10-Day</del> Moist Ammonia-Air Stress Cracking Test, Section 54.

# 54 10 Day Moist Ammonia-Air Stress Cracking Test

- 54.1 After being subjected to the conditions described in 54.2 54.4, a brass part containing more than 15 percent zinc shall show no evidence of cracking when examined using 25× magnification. After being subjected to the conditions described in 54.2 54.4, a pressure confining brass part containing more than 15 percent zinc shall:
  - a) Show no evidence of cracking, delamination, or degradation, or
  - b) Perform as intended when tested as described in 54.4.
- 54.2 Each test sample is to be subjected to the physical stresses normally imposed on or within a part as the result of assembly with other components. Such stresses are to be applied to the sample prior to and maintained during the test. Samples with threads, intended to be used for installing the product in the field, are to have the threads engaged and tightened to the torque specified in Table 42.1. Teflon tape or pipe compound are not to be used on the threads. One test sample of each size is to be subjected to the physical stresses normally imposed on or within a part as the result of assembly with other components. Samples with female threads, intended to be used for installing the product in the field, are to have the threads engaged and tightened as specified in Table 42.1. Samples with female threads other than tapered pipe threads shall be torqued as specified by the manufacturer. Polytetrafluoethylene (PTFE) tape or pipe compound are not to be used on any threads. Samples with male threads are evaluated as received.
- 54.3 Three samples are to be degreased and then continuously exposed in a set position for ten days to a moist ammonia-air mixture maintained in a glass chamber approximately 12 by 12 by 12 inches (305 by 305 by 305 mm) having a glass cover. The samples are then to be tested in accordance with Apparatus, Section 6, Reagents and Materials, Section 7, Test Media, Section 8, Test Sample Preparation (9.3 9.4), Test Procedure (10.1 10.4) of the Standard Test Method for Ammonia Vapor Test for Determining Susceptibility to Stress Corrosion Cracking in Copper Alloys, ASTM B858-06, except the pH level of the test solution shall be High 10.5 ±0.1 and the exposure temperature shall be 25 ±1°C.

54.4 Approximately 600 ml (20.3 ounces) of aqueous ammonia having a specific gravity of 0.94 is to be maintained at the bottom of the glass chamber below the samples. The samples are to 1339 111-1339 11-1339 be positioned 1-1/2 inches (38.1 mm) above the aqueous ammonia solution and supported by an inert tray. The moist ammonia-air mixture in the chamber is to be maintained at atmospheric pressure and at a temperature of 93.2 ±3.6°F (34 ±2°C). After the exposure period, the samples

BSR/UL 79A, Standard for Safety for Power-Operated Pumps for Gasoline and Gasoline/Ethanol Blends with Nominal Ethanol Concentrations up to 85 Percent (E0 -E85)

1. Revise the Moist Ammonia-Air Stress Cracking Test

#### **PROPOSAL**

# 55 10 Day Moist Ammonia-Air Stress Cracking Test

- SionfromUL 55.1 After being subjected to the conditions described in 55.2 - 55.4, a brass part containing more than 15 percent zinc shall show no evidence of cracking when examined using 25x magnification. After being subjected to the conditions described in 55.2 - 55.4, a pressure confining brass part containing more than 15 percent zinc shall:
  - a) Show no evidence of cracking, delamination, or degradation, or
  - b) Perform as intended when tested as described in 55.4.
- 55.2 Each test sample is to be subjected to the physical stresses normally imposed on or within a part as the result of assembly with other components. Such stresses are to be applied to the sample prior to and maintained during the test. Samples with threads, intended to be used for installing the product in the field, are to have the threads engaged and tightened to the torque specified in Table 46.1. Teflon tape or pipe compound are not to be used on the threads. One test sample of each size is to be subjected to the physical stresses normally imposed on or within a part as the result of assembly with other components. Samples with female threads, intended to be used for installing the product in the field, are to have the threads engaged and tightened as specified in Table 46.1. Samples with female threads other than tapered pipe threads shall be torqued as specified by the manufacturer. Polytetrafluoethylene (PTFE) tape or pipe compound are not to be used on any threads. Samples with male threads are evaluated as received.
- 55.3 Three samples are to be degreased and then continuously exposed in a set position for ten days to a moist ammonia-air mixture maintained in a glass chamber approximately 12 by 12 by 12 inches (305 by 305 by 305 mm) having a glass cover. The samples are then to be tested in accordance with Apparatus, Section 6, Reagents and Materials, Section 7, Test Media, Section 8, Test Sample Preparation (9.3 - 9.4), Test Procedure (10.1 - 10.4) of the Standard Test Method for Ammonia Vapor Test for Determining Susceptibility to Stress Corrosion Cracking in Copper Alloys, ASTM B858-06, except the pH level of the test solution shall be High 10.5 ±0.1 and the exposure temperature shall be 25 ±1°C.
- 55.4 Approximately 600 ml (20.3 ounces) of aqueous ammonia having a specific gravity of 0.94 is to be maintained at the bottom of the glass chamber below the samples. The samples are to be positioned 1-1/2 inches (38.1 mm) above the aqueous ammonia solution and supported by an inert tray. The moist ammonia-air mixture in the chamber is to be maintained at atmospheric pressure and at a temperature of 34 ±2°C (94 ±4°F). After the exposure period, the samples are to be examined for cracks or other signs of stress corrosion using a microscope having a magnification of 25X. Pressure-confining parts exhibiting degradation as indicated in 55.1 as a result of the test exposure described in 55.2 and 55.3 shall withstand, without rupture, a hydrostatic test pressure of five times the rated pressure of the valve, for 1 minute.

BSR/UL 79B, Standard for Safety for Power-Operated Pumps for Diesel Fuel, Biodiesel Fuel, Diesel/Biodiesel Blends with Nominal Biodiesel Concentrations up to 20 Percent (B20), Kerosene, and Fuel Oil

1. Revise the Moist Ammonia-Air Stress Cracking Test

#### **PROPOSAL**

# 55 10 Day Moist Ammonia-Air Stress Cracking Test

- isjon from Ult. 55.1 After being subjected to the conditions described in 55.2 - 55.4, a brass part containing more than 15 percent zinc shall show no evidence of cracking when examined using 25x magnification. After being subjected to the conditions described in 55.2 - 55.4, a pressure confining brass part containing more than 15 percent zinc shall:
  - a) Show no evidence of cracking, delamination, or degradation, or
  - b) Perform as intended when tested as described in 55.4.
- 55.2 Each test sample is to be subjected to the physical stresses normally imposed on or within a part as the result of assembly with other components. Such stresses are to be applied to the sample prior to and maintained during the test. Samples with threads, intended to be used for installing the product in the field, are to have the threads engaged and tightened to the torque specified in Table 46.1. Teflon tape or pipe compound are not to be used on the threads. One test sample of each size is to be subjected to the physical stresses normally imposed on or within a part as the result of assembly with other components. Samples with female threads, intended to be used for installing the product in the field, are to have the threads engaged and tightened as specified in Table 46.1. Samples with female threads other than tapered pipe threads shall be torqued as specified by the manufacturer. Polytetrafluoethylene (PTFE) tape or pipe compound are not to be used on any threads. Samples with male threads are evaluated as received.
- 55.3 Three samples are to be degreased and then continuously exposed in a set position for ten days to a moist ammonia-air mixture maintained in a glass chamber approximately 12 by 12 by 12 inches (305 by 305 by 305 mm) having a glass cover. The samples are then to be tested in accordance with Apparatus, Section 6, Reagents and Materials, Section 7, Test Media, Section 8, Test Sample Preparation (9.3 - 9.4), Test Procedure (10.1 - 10.4) of the Standard Test Method for Ammonia Vapor Test for Determining Susceptibility to Stress Corrosion Cracking in Copper Alloys, ASTM B858-06, except the pH level of the test solution shall be High 10.5 ±0.1 and the exposure temperature shall be 25 ±1°C.
- 55.4 Approximately 600 ml (20.3 ounces) of aqueous ammonia having a specific gravity of 0.94 is to be maintained at the bottom of the glass chamber below the samples. The samples are to be positioned 1-1/2 inches (38.1 mm) above the aqueous ammonia solution and supported by an inert tray. The moist ammonia-air mixture in the chamber is to be maintained at atmospheric pressure and at a temperature of 34 ±2°C (94 ±4°F). After the exposure period, the samples are to be examined for cracks or other signs of stress corrosion using a microscope having a magnification of 25X. Pressure-confining parts exhibiting degradation as indicated in 55.1 as a result of the test exposure described in 55.2 and 55.3 shall withstand, without rupture, a hydrostatic test pressure of five times the rated pressure of the valve, for 1 minute.

# BSR/UL 884, Standard for Safety for Underfloor Raceways and Fittings

### **PROPOSALS**

### 1. Addition of Test Program for Epoxy Coatings

#### **PROPOSAL**

#### 5.1 Presets inserts and ducts

- 5.1.1 Each preset insert made of iron or steel and all surfaces of duct that are not specifically excepted in 5.1.2 shall be protected against corrosion by one of the following coatings:
  - a) A coating of zinc (applied by any method) that complies with the test requirements in 14.1;
  - b) A metal coating other than zinc but at least as protective as the coating of zinc that is mentioned in (a);
  - c) A system of organic paint or enamel that evaluation shows to be at least as protective as the coating of zinc mentioned in (a); see 14.2.
  - d) A system of epoxy coating, which upon evaluation demonstrates the same level of protection as the coating of zinc mentioned in (a); see 14.3.
- 5.2.4 At any time up to one year from the time of manufacture, an epoxy coating on a junction box or fitting shall comply with the requirements in 14.3.

# **14.3 Epoxy**

- 14.3.1 An epoxy coating shall be subjected to the requirements required for enamel coatings indicated in 14.2.
- 14.3.2 An epoxy coating that complies with the requirements in the Standard for Organic Coatings for Steel Enclosures for Outdoor Use Electrical Equipment, UL 1332, is not required to comply with 14.2.

# 2. Revision to Installation Instructions

#### **PROPOSAL**

#### 20 Instructions

20.1 Clear and complete instructions shall be provided for the installation of an underfloor raceway system and shall include illustrations of all of the essential features and relationship(s) between all parts.

Alternatively, a statement indicating where to find instructions and illustrations on the manufacturer's website shall be provided so that the intended installation of the underfloor raceway system can be accomplished. Special attention shall be given to items that require any particular care on the part of contractors or workmen.

# 3. Editorial Revision to Table 6.1

# **PROPOSAL**

# (CURRENT) Table 6.1 Minimum acceptable thickness of sheet-steel duct and partitions

ln	nternal measure individual c		single-celled ulticellular du Cross-		Measurement on duct progression after its fall from uncoasteel but addition corrosion progression prog	partition brication sted sheet before on of protection	Measurement on duct or after its fall from zincesheet steed before an coating is	partition brication coated eel but y other
Row	Depth	Area	sectional width	of covering over duct	inch	(mm)	inch	(mm)
Α	Not greater than 4 inches (102 mm)	Not greater than 8 inches <sup>2</sup> (51.6 cm) <sup>2</sup>	Not greater than 4 inches (102 mm)	At least 1- 1/2 inches (38 mm)	0.042 <sup>b,c</sup>	1.07 <sup>b,c</sup>		1.14 <sup>b,d</sup>
В	Any duct that is constructed in accordance with 11.2 and section 12	Not greater than 8 inches (203 mm)	At least 1 inch (25.4 mm) of concrete	et to	0.0425,6	1.07 <sup>b,c</sup>	0.045 <sup>b,d</sup>	1.14 <sup>b,d</sup>
С	Any duct that is whose depth, o thickness of co row A	ross-secti	onal area, wi	th, and/or	0.067	1.70	0.070	1.78
<sup>a</sup> Zinc	applied by any i	method - g	jalvanizing, e	lectroplating, o	or cementatio	n.		
<sup>b</sup> See	19.2.3 - 19.2.5.		The state of the s					
<sup>c</sup> Parti	itions between c	ells are to	be 0.067 inch	n (1.70 mm) th	ick.			
d Parti	itions between c	ells are to	be 0.070 incl	n (1.78 mm) th	ick.			

# (REVISED) Table 6.1 Minimum acceptable thickness of sheet-steel duct and partitions

*	Inte		surements o ual cells in m			Measurem on duct par its fabrica uncoated s but before a corrosion p	tition after tion from heet steel addition of protection	Measurement on duct or after its fall from zinc- sheet ste before an coating is	partition brication coated <sup>a</sup> eel but by other
	Row	Depth	Cross- sectional A-area	Cross- sectional w Width	Thickness of covering over duct	inch	(mm)	inch	(mm)

B   Any duct that is constructed in accordance with 11.2   Inch 25.4   Inch	Α	Not greater than 4 inches (102 mm)	Not greater than 8 inches <sup>2</sup> (51.6 cm) <sup>2</sup>	Not greater than 4 inches (102 mm)	At least 1- 1/2 inches (38 mm)	0.042 <sup>b,c</sup>	1.07 <sup>b,c</sup>	0.045 <sup>b,d</sup>	1.14 <sup>b,d</sup>
C Any duct that is other than indicated in row B and whose depth, cross-sectional area, width, and/or thickness of covering is other than as indicated in row A  a Zinc applied by any method - galvanizing, electroplating, or cementation.  b See 19.2.3 - 19.2.5. c Partitions between cells are to be 0.067 inch (1.70 mm) thick. d Partitions between cells are to be 0.070 inch (1.78 mm) thick.		construct accordan	ted in ace with 11.2 ion 12	than 8 inches (203 mm)	inch (25.4 mm) of concrete				1.14 <sup>b,d</sup>
<sup>a</sup> Zinc applied by any method - galvanizing, electroplating, or cementation. <sup>b</sup> See 19.2.3 - 19.2.5. <sup>c</sup> Partitions between cells are to be 0.067 inch (1.70 mm) thick. <sup>d</sup> Partitions between cells are to be 0.070 inch (1.78 mm) thick.	С	Any duct and whos and/or th indicated	that is other to se depth, crost ickness of covoluments	han indicated s-sectional a vering is othe	d in row B rea, width, r than as	0.067	1.70	0.070	1.78
b See 19.2.3 - 19.2.5. c Partitions between cells are to be 0.067 inch (1.70 mm) thick. d Partitions between cells are to be 0.070 inch (1.78 mm) thick.	<sup>a</sup> Zinc	applied by	y any method	- galvanizing	, electroplatino	g, or cementat	ion.	08/	
<sup>c</sup> Partitions between cells are to be 0.067 inch (1.70 mm) thick. <sup>d</sup> Partitions between cells are to be 0.070 inch (1.78 mm) thick.	<sup>b</sup> See	19.2.3 - 1	9.2.5.					104	
Partitions between cells are to be 0.070 inch (1.78 mm) thick.	<sup>c</sup> Part	itions betw	een cells are	to be 0.067 i	nch (1.70 mm)	thick.	***		
Relial Not authorized for further reproduction who	<sup>d</sup> Part	itions betw	een cells are	to be 0.070 i	nch (1.78 mm)	thick.	" KO		
					FURTHERY	eproducti			

# BSR/UL 1278, Standard for Safety for Movable and Wall- or Ceiling-Hung Electric **Room Heaters**

# 1. Polymeric Materials Enclosure Requirements

- 3.18.1 PRODUCT ENCLOSURES That part of the product that:
- a) Renders inaccessible all or any parts of the equipment that may otherwise present a risk of electric shock, and
  - b) Is subjected to the Enclosure Requirements in UL 746C, Table 4.1 Path II.

- 4. Wire Size AWG for Internal Wiring Based on Current (NEW)

  20.1.1 The internal wiring of a heater shall a that are acceptable for all 20.1.1 The internal wiring of a heater shall consist of wires of a size and type or types that are acceptable for the particular application, when considered with respect to:
  - The temperature and voltage to which the wiring is likely to be subjected, a)
  - Its exposure to oil or grease, b)
  - c) The current carried by the individual wires. Wire size AWG shall be based on the current carried by the internal wire (see Table 20.1 for minimum internal wire size guide), and
  - d) Other conditions of service to which it is likely to be subjected.

**Table 20.1** Minimum internal wire size guide based on current

Current	Nominal cross-sectional area			
(Amps)	mm²			
> 0.2 and ≤ 3	<u>0.519</u>			
> 3 and ≤ 10	0.823			
> 10 and ≤ 16	<u>1.31</u>			

# BSR/UL 1973, Standard for Batteries for Use In Light Electric Rail (LER) Applications and Stationary Applications

- 1. Revision of terminology used in Figures 1.1 and 1.2, addition of new definitions, and deletion of incorrect reference in 40.2.
- 4.4.1 CASCADING The runaway failure or thermal propagation of a battery system or battery module when
  - a) One battery cell is triggered into catastrophic failure and this cell causes the failure of neighboring cells; and/or
  - b) Continued thermal propagation of catastrophic cell failures until part of or entire system is on fire or causing excessive hazardous gas generation or leak of hazardous liquids.
- 4.41.1 THERMAL RUNAWAY The incident when an electrochemical cell increases its temperature through self-heating in an uncontrollable fashion. The thermal runaway progresses when the cell's generation of heat is at a higher rate than the heat it can dissipate. This may lead to fire, explosion and gassing.

# 12. Temperature and Operating Parameters Check Test Revisions.

16.2 A fully discharged DUT (i.e. discharged to EODV) is to be conditioned within a chamber set to the upper limit charging temperature specifications of the DUT. After being stabilized at that temperature (refer to 6.3), the DUT is to be connected to a charging circuit input representative of anticipated maximum charging parameters. The DUT shall then be subjected to maximum normal charging while monitoring voltages and currents on modules until it reaches the manufacturer's specified fully charged condition. Temperatures shall be monitored on temperature sensitive components including cells.

Exception No. 1: If the DUT is unable to be tested in a chamber, it can be tested at an ambient temperature of  $25 \pm 5^{\circ}$ C (77  $\pm 9^{\circ}$ F). If tested at ambient temperatures during the test, the temperature measurement T shall not exceed:

 $T \leq T_{max} - (T_{ma} - T_{amb})$ 

Where:

T is the temperature of the given part measured under the prescribed test.

 $T_{max}$  is the maximum temperature specified for compliance with the test.

 $T_{amb}$  is the ambient temperature during the test.

 $T_{ma}$  is the maximum ambient temperature permitted by the manufacturer's specified or 25°C (77°F), whichever is greater.

Exception No. 2: If the design of the DUT and its controls result in worse case normal charging conditions when testing at ambient (i.e. due to thermostats or other controls lowering the charge levels at elevated ambient), the test is to be conducted at ambient temperature of  $25 \pm 5^{\circ}$ C (77  $\pm 9^{\circ}$ F). Temperatures on temperature sensitive components shall not exceed  $T_{max}$  be calculated as outlined in Exception No. 1 except there is no need to make temperature calculations on the cells.

16.3 While still in the conditioning chamber, the chamber temperature is to be set to the upper limit discharging temperature specifications of the DUT if different from the charging temperature. The fully charged DUT (MOSOC per 6.1) shall then be discharged in accordance with the manufacturer's maximum rate of discharge down to the manufacturer's specified end of discharge condition while monitoring voltage and current on modules. Temperatures shall be monitored on temperature sensitive safety critical components including cells. Temperatures on accessible surfaces are also monitored.

Exception No. 1: If the DUT is unable to be tested in a chamber, it can be tested at an ambient temperature of  $25 \pm 5^{\circ}$ C (77  $\pm 9^{\circ}$ F). If tested at ambient temperatures during the test, the temperature measurement T shall not exceed:

$$T \leq T_{max} - (T_{ma} - T_{amb})$$

Where:

T is the temperature of the given part measured under the prescribed test.

 $T_{max}$  is the maximum temperature specified for compliance with the test.

 $T_{amb}$  is the ambient temperature during the test.

 $T_{ma}$  is the maximum ambient temperature permitted by the manufacturer's specified or 25°C (77°F), whichever is greater.

Exception No. 2: If the design of the DUT and its controls result in worse case normal discharging conditions when testing at ambient (i.e. due to thermostats or other controls lowering the discharge rate at elevated ambient), the test is to be conducted at ambient temperature of  $25 \pm 5^{\circ}$ C (77  $\pm 9^{\circ}$ F). Temperatures on temperature sensitive components shall <u>not exceed  $T_{\text{max}}$  be calculated as outlined in Exception No. 1 except there is no need to make temperature calculations on the cells.</u>

# 18. Internal Fire Test proposal

- 37.1 The electric energy storage system shall be designed to prevent a single cell failure <u>due to thermal runaway</u> within the system from cascading into a fire and explosion of the <u>DUT</u>. <u>The DUT</u> (i.e. battery or module) shall be designed to prevent cascading from propagating beyond the <u>DUT</u> enclosure. This test is applicable to secondary lithium and sodium sulfur technologies.
- 37.2 The fully charged electric energy storage system (MOSOC per 6.1) is to be subjected to the internal fire test which consists of heating one internal cell that is centrally located within the DUT until thermal runaway or otherwise forcing the failure of a cell through any means necessary and determining whether or not that failure remains safely controlled within the DUT does not cause the failure of neighboring cells. If cascading occurs, the cascading shall not propagate beyond the DUT. Regardless of the method used to fail the cell, cell failure is to occur within at least 10-20 min. Once the thermal runaway is initiated, the mechanism used to create thermal runaway is shut off or stopped and the DUT is subjected to a 1-h-24-h observation period.

Exception No. 1: Testing on a cell that is other than centrally located within the DUT may additionally be conducted if it is not clear which is the worst case scenario. The location of the failed cell is to be documented for each test.

Exception No. 2: Testing may be conducted on a representative subassembly consisting of one or more modules and surrounding representative environment, if it can be demonstrated that there is no propagation beyond the subassembly. When testing at the module or subassembly level, consideration needs to be made of the vulnerability to combustion of those components surrounding the module in the final assembly.