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## American National Standards

### Call for comment on proposals listed

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

#### Ordering Instructions for "Call-for-Comment" Listings

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

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

\* Standard for consumer products

## Comment Deadline: April 15, 2018

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

#### Addenda

BSR/ASHRAE Addendum d to ANSI/ASHRAE Standard 15-201x, Safety Standard for Refrigeration Systems (addenda to ANSI/ASHRAE Standard 15-2016)

This addendum modifies portions of Standard 15 to incorporate refrigerants with a 2L flammability classification as defined in ASHRAE Standard 34-2016. The 2010 edition of ASHRAE Standard 34 added optional Subclass 2L to the Class 2 flammability classification. A number of refrigerants have been classified as Subclass 2L (refer to ANSI/ASHRAE Standard 34-2016 and addenda). Use of Subclass 2L refrigerants currently requires compliance with Class 2 requirements per ASHRAE Standard 15-2016 (or earlier editions). A broader use of Class 2L refrigerants requires a set of alternative application requirements. Addendum d proposes new requirements for high probability systems used for human comfort applications. This proposal does not change how ASHRAE Standard 15 deals with Class 2L refrigerants in industrial or commercial applications or machinery rooms. Those applications are expected to be handled in separate addenda.

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

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: <https://osr.ashrae.org/default.aspx>

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

#### Addenda

BSR/ASHRAE Addendum e to ANSI/ASHRAE Standard 15-201x, Safety Standard for Refrigeration Systems (addenda to ANSI/ASHRAE Standard 15-2016)

The changes being proposed in this addendum identify the requirements that need to be met when changing the refrigerant, within the same refrigerant safety group per ASHRAE Standard 34. This proposal also lists the restrictions regarding mixing refrigerants from different refrigerant classes so that the original refrigerant safety group does not change. For example, a small amount of A3 refrigerant is added to a product containing an A1 refrigerant in order to improve oil circulation at low temperatures. However, the blend does not change the refrigerant from the original A1 refrigerant class.

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

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: <https://osr.ashrae.org/default.aspx>

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

#### Addenda

BSR/ASHRAE Addendum g to ANSI/ASHRAE Standard 34-201x, Designation and Safety Classification of Refrigerants (addenda to ANSI/ASHRAE Standard 34-2016)

This addendum makes several changes with the intent to make 2L a separate classification of refrigerants. This draft incorporates line 6.1.3.2.a.4 which was inadvertently omitted from the previous public review draft.

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

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: <https://osr.ashrae.org/default.aspx>

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

#### Addenda

BSR/ASHRAE Addendum o to ANSI/ASHRAE Standard 34-201x, Designation and Safety Classification of Refrigerants (addenda to ANSI/ASHRAE Standard 34-2016)

This addendum adds the zeotropic refrigerant blend R-436C in Table 4-2 and Table D-2.

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

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: <https://osr.ashrae.org/default.aspx>

### NSF (NSF International)

#### Revision

BSR/NSF 245-201x (i13r1), Wastewater Treatment Systems - Nitrogen Reduction (revision and redesignation of ANSI/NSF 245-2010 (i4))

This wastewater standard contains minimum requirements for residential wastewater treatment systems having rated treatment capacities of 1514 L/d (400 gal/d) to 5678 L/d (1500 gal/d) that are designed to provide reduction of nitrogen in residential wastewater. Management methods for the treated effluent discharged from these systems are not addressed by this Standard. A system, in the same configuration, must either be demonstrated to have met the Class I requirements of NSF/ANSI 40 or must meet the Class I requirements of NSF/ANSI 40 during concurrent testing for nutrient removal.

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

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

### NSF (NSF International)

#### Revision

BSR/NSF 245-201x (i14r1), Wastewater Treatment Systems - Nitrogen Reduction (revision of ANSI/NSF 245-2013)

This wastewater standard contains minimum requirements for residential wastewater treatment systems having rated treatment capacities of 1514 L/d (400 gal/d) to 5678 L/d (1500 gal/d) that are designed to provide reduction of nitrogen in residential wastewater. Management methods for the treated effluent discharged from these systems are not addressed by this Standard. A system, in the same configuration, must either be demonstrated to have met the Class I requirements of NSF/ANSI 40 or must meet the Class I requirements of NSF/ANSI 40 during concurrent testing for nutrient removal.

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

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

### UL (Underwriters Laboratories, Inc.)

#### Revision

BSR/UL 67-201x, Standard for Safety for Panelboards (revision of ANSI/UL 67-2017)

This proposal covers an update of requirements for Separation of Circuits in Section 18. An initial version of this proposal was published by UL on January 19, 2018.

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

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

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

BSR/UL 360-201X, Standard for Safety for Liquid-Tight Flexible Metal Conduit (revision of ANSI/UL 360-2015)

(1) Changes to the UL 360 Mechanical Water Absorption Test to better align with the Mechanical Water Absorption Test in UL 166.

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

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

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

BSR/UL 1453-201x, Standard for Safety for Electric Booster and Commercial Storage Tank Water Heaters (revision of ANSI/UL 1453-2017)

The following topic is being proposed: (1) Revision of Table 45.1 to provide for a maximum temperature rise for phenolic components used as electrical insulation.

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

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

**Comment Deadline: April 30, 2018****ABYC (American Boat and Yacht Council)****Revision**

BSR/ABYC A-26-201x, LPG and CNG Fueled Appliances (revision of ANSI/ABYC A-26-2012)

This standard is a guide for the design, construction, installation, and maintenance of LPG- and CNG-fueled appliances.

Single copy price: \$50.00

Obtain an electronic copy from: [www.abycinc.org](http://www.abycinc.org)

Order from: [www.abycinc.org](http://www.abycinc.org)

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

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

BSR/ABYC A-30-201x, Cooking Appliances with Integral LPG Cylinders (revision of ANSI/ABYC A-30-2013)

This standard is a guide for the design, construction, installation, and maintenance of cooking appliances with integral LPG cylinders.

Single copy price: \$50.00

Obtain an electronic copy from: [www.abycinc.org](http://www.abycinc.org)

Order from: [www.abycinc.org](http://www.abycinc.org)

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

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

BSR/ASHRAE Addendum h to ANSI/ASHRAE Standard 15-201x, Safety Standard for Refrigeration Systems (addenda to ANSI/ASHRAE Standard 15-2016)

This addendum modifies portions of Standard 15 to incorporate class 2L flammability classification as defined in ASHRAE Standard 34-2016. This addendum is contingent on publication of Addendum G to ASHRAE Standard 34-2016 to make 2L a flammability class rather than a subclass, and to define A2L and B2L as safety groups. This addendum proposes to allow Group A2L refrigerants in applications requiring machinery rooms. This proposal does not change how ASHRAE Standard 15 deals with Group A2L refrigerants in high-probability systems for human comfort, industrial applications, or refrigerated rooms. Those topics are expected to be handled in separate addenda proposals.

Single copy price: \$35.00

Obtain an electronic copy from: <https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts>

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: <https://osr.ashrae.org/default.aspx>

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

BSR/ASHRAE Standard 41.9-201x, Standard Methods for Refrigerant Mass Flow Measurements Using Calorimeters (revision of ANSI/ASHRAE Standard 41.9-2011)

This standard provides recommended practices for measuring the mass flow rate of volatile refrigerants using calorimeters. The most significant changes are in these portions: (a) the criteria for steady-state operation, (b) the lubricant circulation rate measurement methods, and (c) the uncertainty calculation methods.

Single copy price: \$35.00 for hard copy; Free online

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

Order from: [standards.section@ashrae.org](mailto:standards.section@ashrae.org)

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

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

ANSI ATIS 0500002-2008 (R2013), Emergency Services Messaging Interface (ESMI) (withdrawal of ANSI ATIS 0500002-2008 (R2013))

This document contains standards for an Emergency Services Interface to the Emergency Services Network (ESNet). It specifies protocols and message sets for use in the Emergency Services Messaging Interface. The Emergency Services Messaging Interface (ESMI) is the evolution of the Emergency Service Network that provides sophisticated and robust services to the PSAP and other authorized agencies. The Emergency Services Messaging Interface supports a future direction toward a next generation emergency services network.

Single copy price: \$330.00

Obtain an electronic copy from: [ablasgen@atis.org](mailto:ablasgen@atis.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [ablasgen@atis.org](mailto:ablasgen@atis.org)

## ATIS (Alliance for Telecommunications Industry Solutions)

### Withdrawal

ANSI ATIS 0500006-2008 (R2013), Emergency Information Services Interfaces (EISI) ALI Service (withdrawal of ANSI ATIS 0500006-2008 (R2013))

This document contains standards for an Emergency Services Interface (EISI) in the Emergency Services Network (ESNet). It specifies protocols and message sets for used in the ESNet in order to communicate between Entities Consuming Emergency Services (ECES) and Entities Providing Emergency Services (EPES).

Single copy price: \$110.00

Obtain an electronic copy from: [ablasgen@atis.org](mailto:ablasgen@atis.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [ablasgen@atis.org](mailto:ablasgen@atis.org)

## ATIS (Alliance for Telecommunications Industry Solutions)

### Withdrawal

ANSI ATIS 0500007-2008 (R2013), Emergency Information Services Interface (EISI) Implemented with Web Services (withdrawal of ANSI ATIS 0500007-2008 (R2013))

This document contains standards for an Emergency Information Services Interface (EISI) in the Emergency Services Network (ESNet). It specifies protocols and message sets for use in the ESNet in order to communicate between Entities Consuming Emergency Services (ECES) and Entities Providing Emergency Services (EPES). The Emergency Information Services Interface is the evolution of the Emergency Service Network that provides sophisticated and robust services to the PSAP and other authorized agencies through the use of web services. The Emergency Information Services Interface supports a future direction toward a next-generation emergency services network.

Single copy price: \$275.00

Obtain an electronic copy from: [ablasgen@atis.org](mailto:ablasgen@atis.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [ablasgen@atis.org](mailto:ablasgen@atis.org)

## AWS (American Welding Society)

### New Standard

BSR/AWS B2.1-1-018-201x, Standard Welding Procedure Specification (SWPS) for Self-Shielded Flux Cored Arc Welding of Carbon Steel (M-1/P-1, Group 1 or 2) 1/8 inch [3 mm] through 1-1/2 inch [38 mm] Thick, E71T-8, in the As-Welded Condition, Primarily Plate and Structural Applications (new standard)

This standard contains the essential welding variables for carbon steel in the thickness range of 1/8 inch [3 mm] through 1-1/2 inch [38 mm], using semiautomatic self-shielded flux-cored arc welding. It cites the base metals and operating conditions necessary to make the weldment, the filler metal specifications, and the allowable joint designs for fillet and groove welds. This SWPS was developed primarily for plate and structural applications.

Single copy price: \$136.00

Obtain an electronic copy from: [jrosario@aws.org](mailto:jrosario@aws.org)

Order from: Jennifer Rosario, (800) 443-9353, [jrosario@aws.org](mailto:jrosario@aws.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [adavis@aws.org](mailto:adavis@aws.org)

## AWS (American Welding Society)

### Revision

BSR/AWS D1.2/D1.2M-201x, Structural Welding Code - Aluminum (revision of ANSI/AWS D1.2/D1.2M-2013)

This code covers the welding requirements for any type structure made from aluminum structural alloys, except for aluminum pressure vessels and pressure piping. Clauses 1 through 10 constitute a body of rules for the regulation of welding in aluminum construction. A commentary on the code is also included with the document.

Single copy price: \$126.00

Obtain an electronic copy from: [jmolin@aws.org](mailto:jmolin@aws.org)

Order from: Jennifer Molin, (305) 443-9353, [jmolin@aws.org](mailto:jmolin@aws.org)

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

## ESTA (Entertainment Services and Technology Association)

### Revision

BSR E1.1-201x, Entertainment Technology - Construction and Use of Wire Rope Ladders (revision of ANSI E1.1-2012)

This standard describes the construction and use of wire rope ladders in the entertainment industry in order to promote worker safety. The entertainment industry includes, but is not strictly limited to, musical productions, live concerts, live theater, film production, video production, corporate events, and trade shows. Wire rope ladders are used where ladders with rigid rails are impractical to use or would pose a greater danger. It is being revised to update and incorporate referenced standards.

Single copy price: Free

Obtain an electronic copy from: [http://tsp.esta.org/tsp/documents/public\\_review\\_docs.php](http://tsp.esta.org/tsp/documents/public_review_docs.php)

Order from: Karl Ruling, (212) 244-1505, [standards@esta.org](mailto:standards@esta.org)

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

## IES (Illuminating Engineering Society)

### New Standard

BSR/IES TM-30-18-201x, IES Method for Evaluating Light Source Color Rendition (new standard)

This Technical Memorandum describes a method for evaluating light source color rendition that takes an objective and statistical approach, quantifying both average (color fidelity, gamut area) and hue-specific (fidelity, chroma shift, hue shift) properties of a light source using numerical and graphical techniques.

Single copy price: \$25.00

Obtain an electronic copy from: [pmgillicuddy@ies.org](mailto:pmgillicuddy@ies.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org)

## ISDI (ASC MH2) (Industrial Steel Drum Institute)

### New Standard

BSR/ISDI ASC MH2-201x, Standard for Materials Handling (Containers) - Steel Drums and Pails (new standard)

This standard is primarily a dimensional standard for the manufacture of free-standing steel drums and pails having capacities from 5 to 58 gallons. The dimensions for sizes and types most commonly used in domestic and export shipments are included in this standard as well as key construction elements.

Single copy price: \$50.00

Obtain an electronic copy from: [reitenbach@industrialpackaging.org](mailto:reitenbach@industrialpackaging.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [reitenbach@industrialpackaging.org](mailto:reitenbach@industrialpackaging.org)

**NEMA (ASC C8) (National Electrical Manufacturers Association)****New Standard**

BSR ICEA T-31-610-201x, Test Method for Conducting Longitudinal Water Penetration Resistance Tests on Blocked Conductors (new standard)

This test method provides for qualification and production test procedures for determining the effectiveness of water blocking components incorporated into the interstices of the stranded and insulated conductor as an impediment to longitudinal water penetration into the conductor. Cables qualified under previous editions of T-31-610 do not need to be retested.

Single copy price: \$93.00

Order from: [Communications@nema.org](mailto:Communications@nema.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [khaled.masri@nema.org](mailto:khaled.masri@nema.org)

**NEMA (ASC C8) (National Electrical Manufacturers Association)****Reaffirmation**

BSR ICEA S-109-709-2011 (R201x), Standard for Distribution Frame Wire Technical Requirements (reaffirmation of ANSI ICEA S-109-709-2011)

This Standard covers mechanical and electrical requirements for insulated, copper-conductor wires intended primarily for use as a telecommunications central-office distribution frame wire. Depending upon the application, this Standard provides choices for materials.

Single copy price: \$100.00

Order from: [Communications@nema.org](mailto:Communications@nema.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [khaled.masri@nema.org](mailto:khaled.masri@nema.org)

**NEMA (ASC C8) (National Electrical Manufacturers Association)****Revision**

BSR ICEA T-34-664-201x, Test Method for Conducting Longitudinal Water Penetration Resistance Tests on Longitudinal Water Blocked Cables (revision of ANSI ICEA T-34-664-2014)

This test method provides for qualification and production test procedures for determining the effectiveness of non-metallic water barriers incorporated in a cable construction which are designed as an impediment to longitudinal water penetration along the cable interstices.

Single copy price: \$93.00

Obtain an electronic copy from: [Communications@nema.org](mailto:Communications@nema.org)

Order from: [Communications@nema.org](mailto:Communications@nema.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [khaled.masri@nema.org](mailto:khaled.masri@nema.org)

**NEMA (ASC C80) (National Electrical Manufacturers Association)****New Standard**

BSR C80.6-201x, Electrical Intermediate Metal Conduit (new standard)

This standard covers the requirements for steel electrical intermediate metal conduit for use as a raceway for wires or cables of an electrical system. Finished conduit is produced in nominal 10 ft (3.05 m) lengths, threaded on each end with one coupling attached. It is protected on the exterior surface with a metallic zinc coating or an alternate corrosion protection coating (see UL 1242 for alternate corrosion-resistant coating(s) requirements) and on the interior surface with a zinc or organic coating. This standard also covers conduit couplings, elbows, and conduit lengths other than 10 ft (3.05 m). Properly assembled systems of conduit, couplings, elbows and nipples manufactured in accordance with this standard, and other identified fittings, provide for the electrical continuity required of an equipment grounding conductor.

Single copy price: \$76.00

Obtain an electronic copy from: [muhammad.ali@nema.org](mailto:muhammad.ali@nema.org)

Order from: NEMA, 1300 North 17th Street, Suite 900, Rosslyn, VA 22209

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [muhammad.ali@nema.org](mailto:muhammad.ali@nema.org)

**OPEI (Outdoor Power Equipment Institute)****Revision**

BSR/OPEI B71.10-201x, Standard for Off-Road Ground-Supported Outdoor Power Equipment - Gasoline Fuel Systems - Safety Specifications (revision of ANSI/OPEI B71.10-2013)

This standard describes safety specifications and test procedures applicable to the gasoline fuel systems for off-road ground-supported outdoor power equipment with spark ignition engines of less than one liter displacement.

Single copy price: \$180.00

Obtain an electronic copy from: Greg Knott, [gknott@opei.org](mailto:gknott@opei.org)

Order from: Greg Knott, (703) 549-7600, [gknott@opei.org](mailto:gknott@opei.org)

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

**SAAMI (Sporting Arms and Ammunition Manufacturers Institute)****Reaffirmation**

BSR/SAAMI Z299.1-2015 (R201x), Voluntary Industry Performance Standards for Pressure and Velocity of Rimfire Sporting Ammunition for Use by Commercial Manufacturers (reaffirmation of ANSI/SAAMI Z299.1-2015)

In the interests of safety and interchangeability, this Standard provides pressure and velocity performance and dimensional characteristics for rimfire sporting ammunition. Included are procedures and equipment for determining these criteria.

Single copy price: \$35.00 (Members); \$45.00 (Non-members)

Obtain an electronic copy from: Brian Osowiecki, SAAMI, [bosowiecki@saami.org](mailto:bosowiecki@saami.org)

Order from: Brian Osowiecki, SAAMI, 11 Mile Hill Road, Newtown, CT 06470-2359

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Randy Bimson, SAAMI, [rbimson@saami.org](mailto:rbimson@saami.org)

**TIA (Telecommunications Industry Association)****Addenda**

BSR/TIA 102.AABC-D-3-201x, Trunking Control Channel Messages - Addendum 3: Accessory Sensed Emergency (addenda to ANSI/TIA 102.AABC-D-1-2016)

This addendum enhances trunking control channel messages by specifying an "Accessory Sensed Emergency" (ASE) bit in the "Special Information 1" field of the EMRG\_ALARM\_REQ message to convey additional information regarding a specific emergency alarm scenario request.

Single copy price: \$61.00

Obtain an electronic copy from: [standards@tiaonline.org](mailto:standards@tiaonline.org)

Order from: TIA, [standards@tiaonline.org](mailto:standards@tiaonline.org)

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

**TIA (Telecommunications Industry Association)****Addenda**

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

This standard is applicable to premises optical fiber cabling and components. The scope of this addendum includes subject matter on the following topics: (1) Use of OM5 name, (2) Use of OS1a name, (3) Color for OM5 connecting hardware, (4) Connecting hardware color definitions, (5) Reference-grade to standard-grade loss allocation, (6) MPO testing, and (7) Updates based on FOTP-171-B. The justification is to harmonize and update the existing standard.

Single copy price: \$73.00

Obtain an electronic copy from: [standards@tiaonline.org](mailto:standards@tiaonline.org)

Order from: TIA, [standards@tiaonline.org](mailto:standards@tiaonline.org)

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

**UL (Underwriters Laboratories, Inc.)****New Standard**

BSR/UL 142A-201x, Standard for Safety for Special Purpose Aboveground Tanks for Specific Flammable or Combustible Liquids (new standard)

These requirements cover special-purpose steel aboveground tanks for specific fuels or liquids and/or use applications as indicated for each special-purpose tank type, which are intended to address the specific designs, features, limitations, use factors, and other unique characteristics of each type. Types of tanks covered include: (a) Generator base tanks; (b) Work top tanks; (c) Lube oil tanks; (d) Used oil tanks; (e) Day tanks.

Single copy price: Free

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

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

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

BSR/UL 563-201X, Standard for Ice Makers (revision of ANSI/UL 563-2017)

Revise installation and operating instructions, Section 64, by adding requirements covering electronic media instructions; and revise the control requirements in Sections 19A, Motor Protection; 20, Switches and Controllers; and 21, Transformer Protection.

Single copy price: Free

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

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Alan McGrath, (847) 664-3038, [alan.t.mcgrath@ul.com](mailto:alan.t.mcgrath@ul.com)

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

BSR/UL 962-201x, Standard for Household and Commercial Furnishings (revision of ANSI/UL 962-2017)

Clarification of requirements for Class 2 circuits, materials in direct contact with live parts, unassembled furnishing instructions, and entrapment and new requirements for furnishings shipped as subassemblies.

Single copy price: Free

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

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Ritu Madan, (847) 664-3297, [ritu.madan@ul.com](mailto:ritu.madan@ul.com)

**Comment Deadline: May 15, 2018**

Reaffirmations and withdrawals available electronically may be accessed at: [webstore.ansi.org](http://webstore.ansi.org)

**ACCA (Air Conditioning Contractors of America)****New Standard**

BSR/ACCA 15 OBD Standard-201x, On-Board Diagnostic Codes for HVACR Equipment (new standard)

This Standard details a nomenclature naming schema for defining fault and performance codes and terminology associated with heating, ventilating, air-conditioning, and refrigeration (HVAC&R) equipment. This Standard applies to new HVAC&R equipment and components for use in new and existing residential and commercial buildings as well as commercial refrigeration applications.

Single copy price: Free

Obtain an electronic copy from: [www.acca.org/ansi](http://www.acca.org/ansi)

Order from: Danny Halel, (703) 824-8868, [danny.halel@acca.org](mailto:danny.halel@acca.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [standards-sec@acca.org](mailto:standards-sec@acca.org). Comments on this proposed standard are to be submitted on the "ACCA Public Response Form": available on [ACCA.org/ANSI](http://ACCA.org/ANSI) website.

**Correction****Incorrect Listing****BSR/UL 444-201x**

A Call for Comment notice for BSR/UL 444-201x, Standard for Safety for Communications Cables, was mistakenly listed in the 3/9/2018 issue of Standards Action.

## Comment Deadline: March 22, 2018

**The National Fire Protection Association announces the availability of a First Draft Report for NFPA 150 for concurrent review and comment by NFPA and ANSI.**

The disposition of all comments received will be published in the Second Draft Reports, located on the document's information page under the next edition tab. The document's specific URL, [www.nfpa.org/doc#next](http://www.nfpa.org/doc#next) (for example [www.nfpa.org/150next](http://www.nfpa.org/150next)), can easily access the document's information page. All comments on NFPA 150 First Draft Report must be received by March 22, 2018. The First Draft Report for NFPA 150 contains the disposition of public input received. Anyone wishing to review the First Draft Reports for NFPA 150 may do so on the NFPA 150 information page under the next edition tab. The document's specific URL, for example [www.nfpa.org/doc#next](http://www.nfpa.org/doc#next) ([www.nfpa.org/150next](http://www.nfpa.org/150next)), can easily access the document's information page. For more information on the rules and for up-to-date information on schedules and deadlines for processing NFPA Documents, check the NFPA website at <http://www.nfpa.org> or contact NFPA's Codes and Standards Administration, at NFPA, One Batterymarch Park, Quincy, MA, 02269-7471. Those who send comments to NFPA on the related documents are invited to copy ANSI's Board of Standards Review.

### **NFPA (National Fire Protection Association)**

#### ***Revision***

BSR/NFPA 150-201x, Standard on Fire and Life Safety in Animal Housing Facilities (revision of ANSI/NFPA 150-2015)

This standard shall provide the minimum requirements for the design, construction, fire protection, and classification of animal housing facilities. Animal housing facilities shall be designed, constructed, and maintained in accordance with the adopted building, fire, and life safety codes and the requirements in this standard. Where requirements of this standard differ from the adopted fire prevention, life safety, and building codes, the requirements of this standard shall govern the protection of the animal occupants and animal handlers.

# 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.

## ABYC (American Boat and Yacht Council)

**Office:** 613 Third Street, Ste 10  
Annapolis, MD 21403

**Contact:** David Broadbent

**Phone:** (410) 990-4460

**Fax:** (410) 990-4466

**E-mail:** dbroadbent@abycinc.org

BSR/ABYC A-26-201x, LPG and CNG Fueled Appliances (revision of ANSI/ABYC A-26-2012)

BSR/ABYC A-30-201x, Cooking Appliances with Integral LPG Cylinders (revision of ANSI/ABYC A-30-2013)

## EOS/ESD (ESD Association, Inc.)

**Office:** 7900 Turin Rd., Bldg. 3  
Rome, NY 13440

**Contact:** Christina Earl

**Phone:** (315) 339-6937

**Fax:** (315) 339-6793

**E-mail:** cearl@esda.org

BSR/ESD STM7.1-201x, ESD Association Standard Test Method for the Protection of Electrostatic Discharge Susceptible Items - Flooring Systems - Resistive Characterization of Flooring Systems (revision of ANSI/ESD STM7.1-2013)

## IES (Illuminating Engineering Society)

**Office:** 120 Wall St. 17th Floor  
New York, NY 10005

**Contact:** Patricia McGillicuddy

**Phone:** (917) 913-0027

**E-mail:** pmcgillicuddy@ies.org

BSR/IES TM-30-18-201x, IES Method for Evaluating Light Source Color Rendition (new standard)

## NEMA (ASC C8) (National Electrical Manufacturers Association)

**Office:** 1300 North 17th Street  
Rosslyn, VA 22209

**Contact:** Khaled Masri

**Phone:** (703) 841-3278

**Fax:** (703) 841-3398

**E-mail:** Khaled.Masri@nema.org

BSR ICEA S-109-709-2011 (R201x), Standard for Distribution Frame Wire - Technical Requirements (reaffirmation of ANSI ICEA S-109-709-2011)

BSR ICEA T-31-610-201x, Test Method for Conducting Longitudinal Water Penetration Resistance Tests on Blocked Conductors (new standard)

BSR ICEA T-34-664-201x, Test Method for Conducting Longitudinal Water Penetration Resistance Tests on Longitudinal Water Blocked Cables (revision of ANSI ICEA T-34-664-2014)

## NSF (NSF International)

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

**Contact:** Jason Snider

**Phone:** (734) 418-6660

**E-mail:** jsnider@nsf.org

BSR/NSF 245-201x (i13r1), Wastewater Treatment Systems - Nitrogen Reduction (revision and redesignation of ANSI/NSF 245-2010 (i4))

BSR/NSF 245-201x (i14r1), Wastewater Treatment Systems - Nitrogen Reduction (revision of ANSI/NSF 245-2013)

## TIA (Telecommunications Industry Association)

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

**Contact:** Teesha Jenkins

**Phone:** (703) 907-7706

**Fax:** (703) 907-7727

**E-mail:** standards@tiaonline.org

BSR/TIA 102.CCAA-C-201x, Two-Slot Time Division Multiple Access, Transceiver Measurement Methods (revision and redesignation of ANSI/TIA 102.CCAA-B-2016)

BSR/TIA 102.CAAA-F-201x, Digital C4FM/CQPSK Transceiver Measurement Methods (revision and redesignation of ANSI/TIA 102.CAAA-E-2016)

BSR/TIA 102.CAAB-E-201x, Land Mobile Radio Transceiver Performance Recommendations - Digital Radio Technology, C4FM/CQPSK Modulation (revision and redesignation of ANSI/TIA 102.CAAB-D-2013)

BSR/TIA 102.CCAB-B-201x, Two-Slot Time Division Multiple Access Transceiver - Performance Recommendations (revision and redesignation of ANSI/TIA 102.CCAB-A-2014)

BSR/TIA 102.AABC-D-3-201x, Trunking Control Channel Messages - Addendum 3: Accessory Sensed Emergency (addenda to ANSI/TIA 102.AABC-D-1-2016)

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

BSR/TIA 603-F-201x, Land Mobile FM or PM - Communications Equipment - Measurement and Performance Standards (revision and redesignation of ANSI/TIA 603-E-2016,)



**WDMA (Window and Door Manufacturers Association )**

**Office:** 2025 M Street NW, Suite 800  
Washington, DC 20036-3309

**Contact:** *Steve Orlowski*

**Phone:** (202) 367-1157

**E-mail:** sorlowski@wdma.com

BSR/WDMA I.S. 1A-201x, Industry Standard for Interior Architectural  
Wood Flush Doors (revision of ANSI/WDMA I.S. 1A-2013)

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

## **Call for Committee Members**

### **ASC O1 – Safety Requirements for Woodworking Machinery**

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

- General Interest
- Government
- Producer
- User

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

## ASTM (ASTM International)

### New Standard

ANSI/ASTM E1462-2018, Test Methods for Insulation Integrity and Ground Path Continuity of Photovoltaic Modules (new standard): 2/20/2018

### Reaffirmation

ANSI/ASTM F905-2017 (R2018), Practice for Qualification of Polyethylene Saddle-Fused Joints (reaffirmation of ANSI/ASTM F905-2017): 2/20/2018

ANSI/ASTM F1759-2017 (R2018), Practice for Design of High-Density Polyethylene (HDPE) Manholes for Subsurface Applications (reaffirmation of ANSI/ASTM F1759-2017): 2/20/2018

ANSI/ASTM F1973-2017 (R2018), Specification for Factory Assembled Anodeless Risers and Transition Fittings in Polyethylene (PE) and Polyamide 11 (PA11) and Polyamide 12 (PA12) Fuel Gas Distribution Systems (reaffirmation of ANSI/ASTM F1973-2017): 2/20/2018

ANSI/ASTM F2145-2017 (R2018), Specification for Polyamide 11 (PA11) and Polyamide 12 (PA12) Mechanical Fittings for Use on Outside Diameter Controlled Polyamide 11 and Polyamide 12 Pipe and Tubing (reaffirmation of ANSI/ASTM F2145-2017): 3/5/2018

ANSI/ASTM F2600-2017 (R2018), Specification for Electrofusion Type Polyamide-11 Fittings for Outside Diameter Controlled Polyamide -11 Pipe and Tubing (reaffirmation of ANSI/ASTM F2600-2017): 2/20/2018

ANSI/ASTM F2987-2017 (R2018), Specification for Corrugated Polyethylene Pipe and Fittings for Mine Heap Leach Aeration Applications (reaffirmation of ANSI/ASTM F2987-2017): 2/20/2018

### Revision

ANSI/ASTM E84-2018, Test Method for Surface Burning Characteristics of Building Materials (revision of ANSI/ASTM E84-2016): 3/1/2017

ANSI/ASTM E119-2018, Test Methods for Fire Tests of Building Construction and Materials (revision of ANSI/ASTM E119-2016): 3/1/2018

ANSI/ASTM E176-2018, Terminology of Fire Standards (revision of ANSI/ASTM E176-2015): 3/1/2018

ANSI/ASTM E2061-2018, Guide for Fire Hazard Assessment of Rail Transportation Vehicles (revision of ANSI/ASTM E2061-2015): 3/1/2018

ANSI/ASTM E2231-2018, Practice for Specimen Preparation and Mounting of Pipe and Duct Insulation Materials to Assess Surface Burning Characteristics (revision of ANSI/ASTM E2231-2015): 3/1/2018

ANSI/ASTM E2599-2018, Practice for Specimen Preparation and Mounting of Reflective Insulation, Radiant Barrier and Vinyl Stretch Ceiling Materials for Building Applications to Assess Surface Burning Characteristics (revision of ANSI/ASTM E2599-2016): 3/1/2018

ANSI/ASTM E2688-2018, Practice for Specimen Preparation and Mounting of Tapes to Assess Surface Burning Characteristics (revision of ANSI/ASTM E2688-2016): 3/1/2018

ANSI/ASTM F645-2018, Guide for Selection, Design, and Installation of Thermoplastic Water-Pressure Piping Systems (revision of ANSI/ASTM F645-2018): 3/1/2018

ANSI/ASTM F1056-2018, Specification for Socket Fusion Tools for Use in Socket Fusion Joining Polyethylene Pipe or Tubing and Fittings (revision of ANSI/ASTM F1056-2017): 2/20/2018

ANSI/ASTM F1849-2018, Specification for Helmets Used in Short Track Speed Ice Skating (Not to Include Hockey) (revision of ANSI/ASTM F1849-2007 (R2012)): 3/1/2018

ANSI/ASTM F1866-2018, Specification for Poly(Vinyl Chloride) (PVC) Plastic Schedule 40 Drainage and DWV Fabricated Fittings (revision of ANSI/ASTM F1866-2017 (R2017)): 2/20/2018

ANSI/ASTM F2040-2018, Specification for Helmets Used for Recreational Snow Sports (revision of ANSI/ASTM F2040-2011): 3/1/2018

ANSI/ASTM F2788-2018, Specification for Metric and Inch-Sized Crosslinked Polyethylene (PEX) Pipe (revision of ANSI/ASTM F2788-2017): 2/20/2018

### Withdrawal

ANSI/ASTM F2736-2017, Specification for 6 to 30 in. (152 to 762 mm) Polypropylene (PP) Corrugated Single Wall Pipe and Double Wall Pipe (withdrawal of ANSI/ASTM F2736-2017): 2/20/2018

## ECIA (Electronic Components Industry Association)

### New Standard

ANSI/EIA 972-2018, Specification for M12 Power Circular Connector (new standard): 3/8/2018

ANSI/EIA 973-2018, Specification for M12 Hybrid (Data and Power) Circular Connector (new standard): 3/8/2018

## NASPO (North American Security Products Organization)

### New Standard

ANSI/NASPO IDV-2018, Requirements and Implementation Guidelines for Assertion, Resolution, Evidence and Verification of Personal Identity (new standard): 3/8/2018

## NSF (NSF International)

### Revision

ANSI/NSF 14-2018 (i91r1), Plastics Piping System Components and Related Materials (revision of ANSI/NSF 14-2016): 3/11/2018

\* ANSI/NSF 49-2018 (i111r2), Biosafety Cabinetry: Design, Construction, Performance, and Field Certification (revision of ANSI/NSF 49-2016): 3/9/2018

\* ANSI/NSF 50-2018 (i135r1), Equipment for Swimming Pools, Spas, Hot Tubs and Other Recreational Water Facilities (revision of ANSI/NSF 50-2016): 3/11/2018

ANSI/NSF 50-2018 (i135r2), Equipment for Swimming Pools, Spas, Hot Tubs and Other Recreational Water Facilities (revision of ANSI/NSF 50-2016a): 3/11/2018

ANSI/NSF 61-2018 (i140r1), Drinking Water System Components - Health Effects (revision of ANSI/NSF 61-2017): 3/6/2018

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

### ***Revision***

ANSI/UL 248-15-2018, Standard for Safety for Low-Voltage Fuses - Part 15: Class T Fuses (revision of ANSI/UL 248-15-2005 (R2015)): 3/9/2018

ANSI/UL 609-2018, Standard for Local Burglar Alarm Units and Systems (revision of ANSI/UL 609-2015): 3/9/2018

# Project Initiation Notification System (PINS)

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

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

[List of Approved and Proposed ANS](#)

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

## AGMA (American Gear Manufacturers Association)

**Office:** 1001 N Fairfax Street, 5th Floor  
Alexandria, VA 22314-1587

**Contact:** Amir Aboutaleb

**E-mail:** tech@agma.org

BSR/AGMA 1102-201x, Tolerance Specification for Gear Hobs  
(revision of ANSI/AGMA 1102-2013)

Stakeholders: Manufacturers and users of gear hobs.

Project Need: Correct units and remove obsolete normative reference.

This standard provides specifications for nomenclature, dimensions, tolerances, and inspection for gear hobs for modules 0.63 to 40 mm.

## ASC X9 (Accredited Standards Committee X9, Incorporated)

**Office:** 275 West Street  
Suite 107  
Annapolis, MD 21401

**Contact:** Ambria Frazier

**E-mail:** Ambria.frazier@x9.org

BSR X9.24-1-201x, Retail Financial Services - Symmetric Key  
Management - Part 1: Using Symmetric Techniques (revision of  
ANSI X9.24 Part 1-2017)

Stakeholders: Financial institutions, processors, vendors, card companies, auditors, and the like.

Project Need: Continued maintenance and evolution of PIN security requirements to address industry changes, PCI alignment and ISO changes.

This part of this standard covers both the manual and automated management of keying material used for financial services such as point-of-sale (POS) transactions (debit and credit); automated teller machine (ATM) transactions; messages among terminals and financial institutions; and interchange messages among acquirers, switches, and card issuers. This part of this standard deals exclusively with the management of symmetric keys using symmetric techniques.

BSR X9.24-2-201X, Retail Financial Services - Symmetric Key  
Management - Part 2: Using Asymmetric Techniques for the  
Distribution of Symmetric Keys (revision of ANSI X9.24-2-2016)

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

Project Need: Continued maintenance and evolution of PIN security requirements to address industry changes, PCI alignment and ISO changes.

Compliant implementation of the requirements stated in ANS X9.24 Part 1 for the secure management of symmetric TDEA keys requires unique keys per device and strict enforcement of dual control and split knowledge processes for handling the full-length keying material deployed to remote devices or established between communicating pairs. Historically, compliant implementation of key distribution has been a manually performed, physically on-site process that is difficult to manage, costly, and/or non-existent (i.e., not compliant). An automated rather than manual method of distributing symmetric keys could address these issues and could result in improved security.

BSR X9.119-1-201x, Retail Financial Services - Requirements for  
Protection of Sensitive Payment Card Data - Part 1: Using  
Encryption Methods (revision of ANSI X9.119-1-2016)

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

Project Need: Merchants are incurring extraordinary costs in trying to protect this data. A method that protected the data at the device might allow merchants, processors, and acquirers to realize dramatic cost savings with implementation of this standard. This work would provide a way to evaluate existing implementations and as a guide to new implementations.

Theft of sensitive card data during a retail payment transaction is increasingly becoming a major source of financial fraud. Besides an optional encrypted PIN, this data includes magnetic stripe track 2 data: PAN, expiration date, card verification value, and issuer private data. While thefts of this data at all segments of the transaction processing system have been reported, the most vulnerable segments are between the point of transaction device capturing the magnetic stripe data and the processing systems at the acquirer. This document would standardize the security requirements and implementation for a method for protecting this sensitive card data over these segments. Several implementations exist to address this situation. This document would provide guidance for evaluating these implementations.

**ASCE (American Society of Civil Engineers)**

**Office:** 1801 Alexander Bell Dr  
Reston, VA 20191

**Contact:** James Neckel

**E-mail:** jneckel@asce.org

BSR/ASCE/EWRI 56-10/57-10-2014 (R201x), Guidelines for the Physical Security of Water Utilities (reaffirmation of ANSI/ASCE/EWRI 56-10/57-10-2014)

Stakeholders: Utility staff.

Project Need: Guidelines for physical security for facilities used in potable water source, treatment, and distribution systems.

These water utility guidelines recommend physical and electronic security measures for physical protection systems to protect against identified adversaries, referred to as the design basis threats (DBTs), with specified motivation, tools, equipment, and weapons.

BSR/ASCE/EWRI 57-2011 (R201x), Guidelines for the Physical Security of Wastewater/Stormwater Utilities (reaffirmation of ANSI/ASCE/EWRI 57-2011)

Stakeholders: Utility staff.

Project Need: Guidelines for physical security for facilities used in potable water source, treatment, and distribution systems.

These water utility guidelines recommend physical and electronic security measures for physical protection systems to protect against identified adversaries, referred to as the design basis threats (DBTs), with specified motivation, tools, equipment, and weapons.

**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 WK62587-201x, New Specification for Metal Insert Fittings with Factory Assembled Stainless Steel Press Sleeve for SDR9 Cross-linked Polyethylene (PEX) Tubing (new standard)

Stakeholders: Fittings industry.

Project Need: The components covered by this specification are intended for use in residential and commercial, hot and cold, potable water distribution systems as well as sealed central heating, including under-floor heating/cooling systems, and residential fire sprinkler systems.

This specification covers metal insert fittings with factory assembled stainless steel press sleeves incorporating three view holes for use with cross-linked polyethylene (PEX) tubing in 5/16, 3/8, 1/2, 5/8, 3/4, 1, 1-1/4, 1-1/2, and 2 in. nominal diameters that meet the requirements for Specification F876 or F3253. These fittings are intended for use in 100 psi (689.5 kPa) cold- and hot-water distribution systems operating at temperatures up to, and including, 180F (82C). The requirements for materials, workmanship, dimensions, and markings to be used on the fittings and sleeves are also included.

BSR/ASTM WK62588-201x, New Specification for Plastic Press Fittings with Factory Assembled Stainless Steel Press Sleeve for SDR9 Cross-linked Polyethylene (PEX) Tubing (new standard)

Stakeholders: Fittings industry.

Project Need: The components covered by this specification are intended for use in residential and commercial, hot and cold, potable water distribution systems as well as sealed central heating, including under-floor heating/cooling systems, and residential fire sprinkler systems.

This specification covers plastic press fittings with factory-assembled stainless-steel press sleeves incorporating three view holes and a tool locator ring for use with cross-linked polyethylene (PEX) tubing in 3/8, 1/2, 1, 1-1/4, 1-1/2, and 2 nominal diameters that meet the requirements for Specification F876 or F3253. These fittings are intended for use in 100 psi (690 kPa) cold- and hot-water distribution systems operating at temperatures up to and including 180F (82C). Included are the requirements for material, molded part properties, performance, workmanship, dimensions, and markings to be used on the fittings and sleeves.

**EOS/ESD (ESD Association, Inc.)**

**Office:** 7900 Turin Rd., Bldg. 3  
Rome, NY 13440

**Contact:** Christina Earl

**Fax:** (315) 339-6793

**E-mail:** cearl@esda.org

BSR/ESD STM7.1-201x, ESD Association Standard Test Method for the Protection of Electrostatic Discharge Susceptible Items - Flooring Systems - Resistive Characterization of Flooring Systems (revision of ANSI/ESD STM7.1-2013)

Stakeholders: Electronics industry including telecom, consumer, medical, and industrial.

Project Need: This standard test method provides procedures for measuring the electrical resistance of flooring systems used for the control of electrostatic charge and discharge. It also provides test methods for the qualification of flooring systems prior to their installation or application, as well as test methods for acceptance and monitoring of flooring systems after installation or application.

This standard test method establishes procedures for measuring the electrical resistance of flooring systems where protection of ESD susceptible items is required. The resistances measured here are from the top surface of the flooring system to its groundable point (or the ground reference) and from top surface to top surface locations. These resistances are dependent on the full combination of components used in the flooring system and their interactions, such as surface material, adhesive, grounding mechanism, substrate, and any other material in the system required to carry a static charge to ground. See Annex B for some examples of static protective flooring systems and their components.

**HL7 (Health Level Seven)**

**Office:** 3300 Washtenaw Avenue  
Suite 227  
Ann Arbor, MI 48104

**Contact:** Karen Van Hentenryck

**Fax:** (734) 677-6622

**E-mail:** Karenvan@HL7.org

BSR/HL7 FHIR INFR, R4-201x, HL7(R) FHIR(R) Release 4  
Infrastructure (new standard)

Stakeholders: Healthcare applications, middleware, mobile applications.

Project Need: To provide more modern healthcare interoperability mechanisms, particularly supporting mobile solutions

This ballot covers key core content that is fundamental to how FHIR works including the Binary and Bundle resources, most data types, the XML and JSON syntaxes, the functioning of the REST interface and methodology around profiling, extensibility, and inter-version interoperability. A complete list of covered artifacts can be found here: <http://build.fhir.org/ballot-intro.html#infrastructure>. NOTE: Additional "core" content will be submitted for normative consideration in future releases.

BSR/HL7 FHIR R4 INFRASTRUCTURE R1 N1-201x, HL7 FHIR R4  
Infrastructure, Release 1 (new standard)

Stakeholders: Healthcare applications, middleware, mobile applications.

Project Need: To provide more modern healthcare interoperability mechanisms, particularly supporting mobile solutions

This ballot covers key core content that is fundamental to how FHIR works including the Binary and Bundle resources, most data types, the XML and JSON syntaxes, the functioning of the REST interface and methodology around profiling, extensibility and inter-version interoperability. A complete list of covered artifacts can be found here: <http://build.fhir.org/ballot-intro.html#infrastructure>. NOTE: Additional "core" content will be submitted for normative consideration in future releases.

BSR/HL7 FHIR R4 OBS R1 N1-201x, HL7 FHIR R4 Observation,  
Release 1 (new standard)

Stakeholders: Healthcare applications, middleware, mobile applications, lab systems, research systems.

Project Need: To provide more modern healthcare interoperability mechanisms, particularly supporting mobile solutions

This is the first normative ballot of a FHIR clinical resource - Observation. The scope includes the Observation resource and associated code systems and value sets. A complete list of covered artifacts can be found here: <http://build.fhir.org/ballot-intro.html#observation>. NOTE: Additional "observation" content (operations, etc.) will be submitted for normative consideration in future releases.

BSR/HL7 FHIR R4 PATIENT R1 N1-201x, HL7 FHIR R4 Patient,  
Release 1 (new standard)

Stakeholders: Healthcare applications, middleware, mobile applications, and client registry and master patient index solutions.

Project Need: To provide more modern healthcare interoperability mechanisms, particularly supporting mobile solutions.

This is the first normative ballot of a FHIR administrative resource - Patient. The scope includes the Patient resource and associated code systems and value sets. A complete list of covered artifacts can be found here: <http://build.fhir.org/ballot-intro.html#patient>. NOTE: Additional "patient" content (operations, etc.) will be submitted for normative consideration in future releases.

BSR/HL7 FHIR R4 TERMINOLOGY R1 N1-201x, HL7 FHIR R4  
Terminology & Conformance, Release 1 (new standard)

Stakeholders: Healthcare applications, middleware, mobile applications, terminology service providers, standards development organizations.

Project Need: To provide more modern healthcare interoperability mechanisms, particularly supporting mobile solutions.

This ballot covers the resources used to define FHIR system capabilities including resources and data type definitions, profiles, extensions, operations, code systems and value sets along with the code systems and value sets used by those resources. A complete list of covered artifacts can be found here: <http://build.fhir.org/ballot-intro.html#terminology>. NOTE: Additional "terminology & conformance" content will be submitted for normative consideration in future releases.

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

**Office:** 11 Mile Hill Road  
Newtown, CT 06470-2359

**Contact:** Brian Osowiecki

**Fax:** (203) 426-3592

**E-mail:** bosowiecki@saami.org

BSR/SAAMI Z299.2-2015 (R201x), Standard Voluntary Industry  
Performance Standards for Pressure and Velocity of Shotgun  
Ammunition for the Use of Commercial Manufacturers (reaffirmation  
of ANSI/SAAMI Z299.2-2015)

Stakeholders: Commercial manufacturers, test labs, Consumers, government agencies.

Project Need: Provide standards for commercial manufacturers of sporting ammunition.

In the interests of safety and interchangeability, this Standard provides pressure and velocity performance and dimensional characteristics for shotgun sporting ammunition. Included are procedures and equipment for determining these criteria.

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

**Office:** 140 Philips Rd  
Exton, PA 19341

**Contact:** Kim Cooney

**Fax:** (800) 542-5040

**E-mail:** kcooney@scte.org

BSR/SCTE 224-201x, Event Scheduling and Notification Interface  
(revision of ANSI/SCTE 224-2015)

Stakeholders: Cable Telecommunications industry.

Project Need: Update to current technology.

This document defines the Event Scheduling and Notification Interface (ESNI), which is a web interface facilitating the transmission of event and policy information. ESNI provides a functional method for providers to communicate upcoming schedule or signal-based events and corresponding policy to distributors. This interface allows existing content distribution controls traditionally performed via manual control in IRD's by providers to be replaced with a programmatic interface (this standard). ESNI policy enables control of content distributed to audiences based on attributes of that audience including (but not limited to) geographic location and device type.

BSR/SCTE IPS SP 505-201x, Generic Access Platform (new standard)

Stakeholders: Cable Telecommunications industry.

Project Need: Create new standard.

The Generic Access Platform is intended to serve as a set of physical, thermal, mechanical, electrical interfaces for the internals of a node housing or family of node housings. The goal is to allow OEMs to devote their value-adding efforts to the service-generating modules that reside inside the enclosure, rather than expending time and resources on re-developing housings for each new generation of outside plant access equipment. Any module that is compliant with the GAP specification will be able to coexist with other GAP-compliant modules that are physically able to be installed in a GAP-compliant housing. Recognizing that access networks are evolving, the specification should, ideally, remain silent on external size, weight, power dissipation.

#### **TIA (Telecommunications Industry Association)**

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Arlington, VA 22201

**Contact:** Teesha Jenkins

**Fax:** (703) 907-7727

**E-mail:** standards@tiaonline.org

BSR/TIA 102.CAAA-F-201x, Digital C4FM/CQPSK Transceiver Measurement Methods (revision and redesignation of ANSI/TIA 102.CAAA-E-2016)

Stakeholders: Manufacturers and users of TIA-102 and TIA-603 compliant equipment.

Project Need: Update this standard.

This revision will provide updates to general clarifications, modify signal generator VSWR specifications, and add High Signal Strength Intermodulation test.

BSR/TIA 102.CAAB-E-201x, Land Mobile Radio Transceiver Performance Recommendations - Digital Radio Technology - C4FM/CQPSK Modulation (revision and redesignation of ANSI/TIA 102.CAAB-D-2013)

Stakeholders: P25 equipment manufacturers and users.

Project Need: Update this standard.

This revision will provide updates to general clarifications and add performance recommendations for a new High Signal Strength Intermodulation test.

BSR/TIA 102.CCAA-C-201x, Two-Slot Time Division Multiple Access Transceiver - Measurement Methods (revision and redesignation of ANSI/TIA 102.CCAA-B-2016)

Stakeholders: P25 equipment manufacturers and users.

Project Need: Update this standard.

This revision will provide updates on general clarifications and add a new High Signal Strength Intermodulation test.

BSR/TIA 102.CCAB-B-201x, Two-Slot Time Division Multiple Access Transceiver - Performance Recommendations (revision and redesignation of ANSI/TIA 102.CCAB-A-2014)

Stakeholders: P25 equipment manufacturers and users.

Project Need: Update this standard.

This revision will provide updates and add performance recommendations for a new High Signal Strength Intermodulation test.

BSR/TIA 603-F-201x, Land Mobile FM or PM - Communications Equipment - Measurement and Performance Standards (revision and redesignation of ANSI/TIA 603-E-2016,)

Stakeholders: TIA-603 equipment manufacturers and users.

Project Need: Update this standard.

This revision will provide updates to modify signal generator VSWR specs, add a High Signal Strength Intermodulation test and performance recommendations.

#### **WDMA (Window and Door Manufacturers Association )**

**Office:** 2025 M Street NW, Suite 800  
Washington, DC 20036-3309

**Contact:** Steve Orlowski

**E-mail:** sorlowski@wdma.com

BSR/WDMA I.S.1A-201x, Industry Standard for Interior Architectural Wood Flush Doors (revision of ANSI/WDMA I.S. 1A-2013)

Stakeholders: Architectural door manufacturers, wood door suppliers, specifiers and architects.

Project Need: In accordance with ANSI procedures, the document must be revised within 5 years of the last publication.

WDMA I.S.1A-11, Industry Standard for Interior Architectural Wood Flush Doors, defines the aesthetic grades and performance-duty-level requirements for interior wood flush doors used in commercial construction. It provides standard requirements and tests to ensure all products complying with the standard are evaluated on an equal basis, and provides a logical system of references, keyed to a guide specification checklist, to facilitate thorough, precise, and accurate architectural specifications.

BSR/WDMA I.S.6A-201x, Industry Standard for Interior Architectural Wood Stile and Rail Doors (revision of ANSI/WDMA I.S.6A-2013)

Stakeholders: Architectural door manufacturers, wood door suppliers, specifiers and architects.

Project Need: In accordance with ANSI procedures, the document must be revised within 5 years of the last publication.

WDMA I.S.6A-13, Industry Standard for Interior Architectural Wood Stile and Rail Doors, defines the aesthetic grades and performance duty level requirements for interior wood stile and rail doors used in commercial construction. It provides standard requirements and tests to ensure all products complying with the standard are evaluated on an equal basis, and provides a logical system of references, keyed to a guide specification checklist, to facilitate thorough, precise, and accurate architectural specifications.



# American National Standards Maintained Under Continuous Maintenance

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

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

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

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

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

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

# ANSI-Accredited Standards Developers Contact Information

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

<p><b>ABYC</b> American Boat and Yacht Council 613 Third Street, Ste 10 Annapolis, MD 21403 Phone: (410) 990-4460 Fax: (410) 990-4466 Web: <a href="http://www.abycinc.org">www.abycinc.org</a></p>	<p><b>ATIS</b> Alliance for Telecommunications Industry Solutions 1200 G Street NW Suite 500 Washington, DC 20005 Phone: (202) 434-8840 Web: <a href="http://www.atis.org">www.atis.org</a></p>	<p><b>ISDI (ASC MH2)</b> Industrial Steel Drum Institute P.O. Box 790 Severna Park, MD 21146-0790 Phone: (410) 703-7778 Fax: (410) 544-0385 Web: <a href="http://www.whysteeldrums.org">www.whysteeldrums.org</a></p>	<p><b>SAAMI</b> Sporting Arms and Ammunition Manufacturers Institute 11 Mile Hill Road Newtown, CT 06470-2359 Phone: (203) 426-4358 Fax: (203) 426-3592 Web: <a href="http://www.saami.org">www.saami.org</a></p>
<p><b>ACCA</b> Air Conditioning Contractors of America 2800 Shirlington Road Suite 300 Arlington, VA 22206 Phone: (703) 824-8868 Web: <a href="http://www.acca.org">www.acca.org</a></p>	<p><b>AWS</b> American Welding Society 8669 NW 36th Street Suite #130 Miami, FL 33166-6672 Phone: (800) 443-9353 Fax: (305) 443-5951 Web: <a href="http://www.aws.org">www.aws.org</a></p>	<p><b>NASPO</b> North American Security Products Organization 1300 I Street, NW Suite 400E Washington, DC 20005 Phone: (612) 281-7141 Web: <a href="http://www.naspo.info">www.naspo.info</a></p>	<p><b>SCTE</b> Society of Cable Telecommunications Engineers 140 Philips Rd Exton, PA 19341 Phone: (800) 542-5040 Fax: (800) 542-5040 Web: <a href="http://www.scte.org">www.scte.org</a></p>
<p><b>AGMA</b> American Gear Manufacturers Association 1001 N Fairfax Street, 5th Floor Alexandria, VA 22314-1587 Phone: (703) 684-0211 Web: <a href="http://www.agma.org">www.agma.org</a></p>	<p><b>ECIA</b> Electronic Components Industry Association 2214 Rock Hill Road Suite 265 Herndon, VA 20170-4212 Phone: (571) 323-0294 Fax: (571) 323-0245 Web: <a href="http://www.ecianow.org">www.ecianow.org</a></p>	<p><b>NEMA (ASC C8)</b> National Electrical Manufacturers Association 1300 North 17th Street Rosslyn, VA 22209 Phone: (703) 841-3278 Fax: (703) 841-3398 Web: <a href="http://www.nema.org">www.nema.org</a></p>	<p><b>TIA</b> Telecommunications Industry Association 1320 North Courthouse Road Suite 200 Arlington, VA 22201 Phone: (703) 907-7706 Fax: (703) 907-7727 Web: <a href="http://www.tiaonline.org">www.tiaonline.org</a></p>
<p><b>ASC X9</b> Accredited Standards Committee X9, Incorporated 275 West Street Suite 107 Annapolis, MD 21401 Phone: (410) 267-7707 Web: <a href="http://www.x9.org">www.x9.org</a></p>	<p><b>EOS/ESD</b> ESD Association 7900 Turin Rd., Bldg. 3 Rome, NY 13440 Phone: (315) 339-6937 Fax: (315) 339-6793 Web: <a href="http://www.esda.org">www.esda.org</a></p>	<p><b>NEMA (ASC C80)</b> National Electrical Manufacturers Association 1300 North 17th Street Suite 900 Rosslyn, VA 22209 Phone: (703) 841-3288 Fax: (703) 841-3388 Web: <a href="http://www.nema.org">www.nema.org</a></p>	<p><b>UL</b> Underwriters Laboratories, Inc. 47173 Benicia Street Fremont, CA 94538 Phone: (510) 319-4259 Web: <a href="http://www.ul.com">www.ul.com</a></p>
<p><b>ASCE</b> American Society of Civil Engineers 1801 Alexander Bell Dr Reston, VA 20191 Phone: 703-295-6176 Web: <a href="http://www.asce.org">www.asce.org</a></p>	<p><b>ESTA</b> Entertainment Services and Technology Association 630 Ninth Avenue Suite 609 New York, NY 10036-3748 Phone: (212) 244-1505 Fax: (212) 244-1502 Web: <a href="http://www.esta.org">www.esta.org</a></p>	<p><b>NFPA</b> National Fire Protection Association One Batterymarch Park Quincy, MA 02169 Phone: (617) 984-7246 Web: <a href="http://www.nfpa.org">www.nfpa.org</a></p>	<p><b>WDMA</b> Window and Door Manufacturers Association 2025 M Street NW, Suite 800 Washington, DC 20036-3309 Phone: (202) 367-1157 Web: <a href="http://www.wdma.com">www.wdma.com</a></p>
<p><b>ASHRAE</b> American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. 1791 Tullie Circle NE Atlanta, GA 30329 Phone: (678) 539-1209 Fax: (678) 539-2209 Web: <a href="http://www.ashrae.org">www.ashrae.org</a></p>	<p><b>HL7</b> Health Level Seven 3300 Washtenaw Avenue Suite 227 Ann Arbor, MI 48104 Phone: (734) 677-7777 Fax: (734) 677-6622 Web: <a href="http://www.hl7.org">www.hl7.org</a></p>	<p><b>NSF</b> NSF International 789 N. Dixboro Road Ann Arbor, MI 48105-9723 Phone: (734) 418-6660 Web: <a href="http://www.nsf.org">www.nsf.org</a></p>	<p><b>OPEI</b> Outdoor Power Equipment Institute 341 South Patrick Street Alexandria, VA 22314 Phone: (703) 549-7600 Fax: (703) 549-7604 Web: <a href="http://www.opei.org">www.opei.org</a></p>
<p><b>ASTM</b> ASTM International 100 Barr Harbor Drive West Conshohocken, PA 19428-2959 Phone: (610) 832-9744 Fax: (610) 834-3683 Web: <a href="http://www.astm.org">www.astm.org</a></p>	<p><b>IES</b> Illuminating Engineering Society 120 Wall St. 17th Floor New York, NY 10005 Phone: (917) 913-0027 Web: <a href="http://www.ies.org">www.ies.org</a></p>	<p><b>OPEI</b> Outdoor Power Equipment Institute 341 South Patrick Street Alexandria, VA 22314 Phone: (703) 549-7600 Fax: (703) 549-7604 Web: <a href="http://www.opei.org">www.opei.org</a></p>	<p><b>OPEI</b> Outdoor Power Equipment Institute 341 South Patrick Street Alexandria, VA 22314 Phone: (703) 549-7600 Fax: (703) 549-7604 Web: <a href="http://www.opei.org">www.opei.org</a></p>



# ISO & IEC Draft International Standards

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

## Comments

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

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

## Ordering Instructions

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

## ISO Standards

### AGRICULTURAL FOOD PRODUCTS (TC 34)

ISO/DIS 21446, Infant formula and adult nutritionals - Determination of trans and total (cis + trans) vitamin K1 content using normal phase high performance liquid chromatography (HPLC) - 3/31/2018, \$77.00

ISO/DIS 15216-2, Microbiology of the food chain - Horizontal method for determination of hepatitis A virus and norovirus in food using real-time RT-PCR - Part 2: Method for detection - 5/24/2018, \$112.00

### AIR QUALITY (TC 146)

ISO/DIS 22065, Workplace air - Procedures for measuring gases and vapours using pumped samplers - Requirements and test methods - 5/26/2018, \$112.00

ISO/DIS 16000-37, Indoor air - Part 37: Measurement of PM 2.5 mass concentration - 3/31/2018, \$62.00

### ANAESTHETIC AND RESPIRATORY EQUIPMENT (TC 121)

ISO 80601-2-56/DAMd1, Medical electrical equipment - Part 2-56: Particular requirements for basic safety and essential performance of clinical thermometers for body temperature measurement - Amendment 1 - 3/31/2018, \$33.00

ISO/DIS 80601-2-84, Medical electrical equipment - Part 2-84: Particular requirements for basic safety and essential performance of emergency and transport ventilators - 3/31/2018, \$155.00

### APPLICATIONS OF STATISTICAL METHODS (TC 69)

ISO/DIS 16355-3, Applications of statistical and related methods to new technology and product development process - Part 3: Quantitative approaches for the acquisition of voice of customer and voice of stakeholder - 4/1/2018, \$125.00

### CLEANROOMS AND ASSOCIATED CONTROLLED ENVIRONMENTS (TC 209)

ISO/DIS 14644-16, Cleanrooms and associated controlled environments - Part 16: Code of practice for improving energy efficiency in cleanrooms and clean air devices - 5/25/2018, \$112.00

### DENTISTRY (TC 106)

ISO/DIS 16202-1, Dentistry - Nomenclature of oral anomalies - Part 1: Code for the representation of oral anomalies - 5/28/2018, \$29.00

ISO/DIS 16202-2, Dentistry - Nomenclature of oral anomalies - Part 2: Developmental anomalies of teeth - 5/28/2018, \$40.00

### FLUID POWER SYSTEMS (TC 131)

ISO 16889/DAMd1, Hydraulic fluid power - Filters - Multi-pass method for evaluating filtration performance of a filter element - Amendment 1 - 5/25/2018, \$29.00

### HYDROGEN ENERGY TECHNOLOGIES (TC 197)

ISO/DIS 19880-5, Gaseous hydrogen - Fueling stations - Part 5: Hoses and hose assemblies - 5/24/2018, \$82.00

### IMPLANTS FOR SURGERY (TC 150)

ISO/DIS 14117, Active implantable medical devices - Electromagnetic compatibility - EMC test protocols for implantable cardiac pacemakers, implantable cardioverter defibrillators and cardiac resynchronization devices - 5/28/2018, \$175.00

ISO/DIS 14708-2, Implants for surgery - Active implantable medical devices - Part 2: Cardiac pacemakers - 5/28/2018, \$134.00

ISO/DIS 14708-6, Implants for surgery - Active implantable medical devices - Part 6: Particular requirements for active implantable medical devices intended to treat tachyarrhythmia (including implantable defibrillators) - 5/28/2018, \$146.00

### INFORMATION AND DOCUMENTATION (TC 46)

ISO/DIS 8, Information and documentation - Presentation and identification of periodicals - 5/24/2018, \$82.00

**MACHINE TOOLS (TC 39)**

ISO/DIS 3875, Machine tools - Test conditions for external cylindrical centreless grinding machines - Testing of the accuracy - 4/1/2018, \$77.00

**NON-DESTRUCTIVE TESTING (TC 135)**

ISO/DIS 21432, Non-destructive testing - Standard test method for determining residual stresses by neutron diffraction - 5/25/2018, \$112.00

**NUCLEAR ENERGY (TC 85)**

ISO/DIS 9463, Nuclear energy - Nuclear fuel technology - Determination of plutonium in nitric acid solutions by spectrophotometry - 5/28/2018, \$58.00

**OTHER**

ISO/DIS 26082-1, Leather - Physical and mechanical test methods for the determination of soiling - Part 1: Rubbing (Martindale) method - 4/1/2018, \$46.00

**PERSONAL SAFETY - PROTECTIVE CLOTHING AND EQUIPMENT (TC 94)**

ISO/DIS 16972, Respiratory protective devices - Definitions of terms and pictograms - 5/26/2018, \$98.00

**PLASTICS (TC 61)**

ISO/DIS 21746, Composites and metal assemblies - Galvanic corrosion tests of carbon fibre reinforced plastics (CFRPs) related bonded or fastened structures in artificial atmospheres - Salt spray tests - 5/24/2018, \$82.00

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

ISO/DIS 18250-6, Connectors for reservoir delivery systems for healthcare applications - Part 6: Neural applications - 5/28/2018, \$46.00

**ROAD VEHICLES (TC 22)**

ISO/DIS 21441, Road vehicles - Engine EGR cooler - Heat dissipation test methods - 6/1/2018, \$67.00

ISO/DIS 20730-1, Road vehicles - Vehicle roadworthiness interface for electronic Periodical Technical Inspection (ePTI) - Part 1: Communication requirements - 6/1/2018, \$134.00

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

ISO/DIS 127, Rubber, natural latex concentrate - Determination of KOH number - 3/31/2018, \$58.00

ISO/DIS 815-1, Rubber, vulcanized or thermoplastic - Determination of compression set - Part 1: At ambient or elevated temperatures - 5/28/2018, \$62.00

ISO/DIS 815-2, Rubber, vulcanized or thermoplastic - Determination of compression set - Part 2: At low temperatures - 5/28/2018, \$71.00

**SHIPS AND MARINE TECHNOLOGY (TC 8)**

ISO/DIS 13617, Ships and marine technology - Shipboard incinerators - Requirements - 4/1/2018, \$88.00

ISO/DIS 19738, Ships and marine technology - Aquatic nuisance species - In-line sampling method for obtaining representative samples of water systems - 4/1/2018, \$46.00

ISO/DIS 24409-1, Ships and marine technology - Design, location and use of shipboard safety signs, fire control plan signs, safety notices and safety markings - Part 1: Design principles - 5/27/2018, \$77.00

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

ISO/DIS 18747-2, Determination of particle density by sedimentation methods - Part 2: Multi-velocity approach - 3/31/2018, \$71.00

**THERMAL INSULATION (TC 163)**

ISO/DIS 17738-2, Thermal insulation products - Exterior insulation and finish systems (EIFS) - Part 2: Installation - 3/26/2018, \$82.00

**TRADITIONAL CHINESE MEDICINE (TC 249)**

ISO/DIS 21315, Traditional chinese medicine - Ganoderma lucidum fruiting body - 4/1/2018, \$62.00

ISO/DIS 21316, Traditional Chinese medicine - Isatis indigotica root - 4/1/2018, \$53.00

ISO/DIS 21370, Traditional Chinese medicine -Dendrobium officinale stem - 4/1/2018, \$71.00

**ISO/IEC JTC 1, Information Technology**

ISO/IEC DIS 20000-10, Information technology - Service management - Part 10: Concepts and terminology - 4/1/2018, \$98.00

**IEC Standards**

17A/1177/CD, IEC 62271-104 ED3: High-voltage switchgear and controlgear - Part 104: Alternating current switches for rated voltages higher than 52 kV, 2018/6/29

40/2599/FDIS, IEC 60384-26 ED2: Fixed capacitors for use in electronic equipment - Part 26: Sectional specification: Fixed aluminium electrolytic capacitors with conductive polymer solid electrolyte, 2018/4/20

44/813/CD, IEC TR 63074 ED1: Security aspects related to functional safety of safety-related control systems, 018/6/1/

45A/1192/FDIS, IEC 62808/AMD1 ED1: Amendment 1 - Nuclear power plants - Instrumentation and control systems important to safety - Design and qualification of isolation devices, 2018/4/20

45A/1193/FDIS, IEC 62887 ED1: Nuclear power plants - Instrumentation systems important to safety - Pressure transmitters: Characteristics and test methods, 2018/4/20

45B/902/CD, IEC 61098 ED3: Radiation protection instrumentation - Installed personnel surface contamination monitoring assemblies, 018/6/1/

46F/403/CDV, IEC 61169-61 ED1: Radio-frequency connectors - Part 61: Sectional specification for RF coaxial connectors with 9.5mm inner diameter of outer conductor with quick lock coupling series Q4.1-9.5, 018/6/1/

46F/404/CDV, IEC 63137-1 ED1: Standard test radio-frequency connectors - Part 1: Generic specification - General requirements and test methods, 018/6/1/

46F/405/CDV, IEC 63138-1 ED1: Multi-radio frequency channel connectors - Part 1: Generic specification - General requirements and measuring methods, 018/6/1/

47E/595/CDV, IEC 60747-5-5 ED2: Semiconductor devices - Part 5-5: Optoelectronic devices - Photocouplers, 018/6/1/

51/1227/CD, IEC 63093-12 ED1: Ferrite cores - Guidelines on dimensions and the limits of surface irregularities - Part 12: Ring-cores, 018/6/1/

- 55/1636A/CDV, IEC 60317-0-8 ED2: Specifications for particular types of winding wires - Part 0-8: General requirements - Polyester glass-fibre wound unvarnished and fused, or resin or varnish impregnated, bare or enamelled rectangular copper wire, 2018/5/25
- 57/1976/FDIS, IEC 62351-3/AMD1 ED1: Amendment 1 - Power systems management and associated information exchange - Data and communications security - Part 3: Communication network and system security - Profiles including TCP/IP, 2018/4/20
- 61J/695/NP, PNW 61J-695: Household and similar appliances - Part 2-XXX: Particular requirements for automatic floor treatment machines for commercial use, 018/5/4/
- 64/2269/CD, IEC 60364-7-701 ED3: Low-voltage electrical installations - Part 7-701: Requirements for special installations or locations - Locations containing a bath or shower, 018/6/1/
- 65/690/CDV, IEC 62443-3-2 ED1: Security for industrial automation and control systems - Part 3-2: Security risk assessment and system design, 018/6/1/
- 68/595/FDIS, IEC 60404-6 ED3: Magnetic materials - Part 6: Methods of measurement of the magnetic properties of magnetically soft metallic and powder materials at frequencies in the range 20 Hz to 100 kHz by the use of ring specimens, 2018/4/20
- 69/554A/DTS, IEC TS 61980-3 ED1: Electric vehicle wireless power transfer (WPT) systems - Part 3 Specific requirements for the magnetic field wireless power transfer systems, 018/4/6/
- 80/883/CD, IEC 63154 ED1: Maritime navigation and radiocommunication equipment and systems - Cybersecurity - General requirements, methods of testing and required test results, 018/5/4/
- 82/1410/CD, IEC 63092-2 ED1: Photovoltaics in buildings - Part 2: Building integrated photovoltaic systems, 018/6/1/
- 82/1409/CD, IEC 63092-1 ED1: Photovoltaics in buildings - Part 1: Building integrated photovoltaic modules, 018/6/1/
- 86B/4124/FDIS, IEC 61755-6-2 ED1: Fibre optic interconnecting devices and passive components - Connector optical interfaces - Part 6-2: Connection of 50 µm core diameter multimode physically contacting fibres - Non-angled for reference connector application, at wavelength of 850 nm using selected A1a fibre only, 2018/4/20
- 87/679/CD, IEC 63009 ED1: Ultrasonics - Physiotherapy systems - Field specifications and methods of measurement in the frequency range 20 kHz to 0.5 MHz, 018/6/1/
- 88/668/CD, IEC 61400-7 ED1: Wind turbines - Part 7: Safety of wind turbines power converters, 018/6/1/
- 90/400/FDIS, IEC 61788-23 ED1: Superconductivity - Part 23: Residual resistance ratio measurement - Residual resistance ratio of Nb superconductors, 2018/4/20
- 104/798/CD, IEC 60068-2-84 ED1: Environmental testing- Part 2-84: Rapid change of dew condensation, 018/6/1/
- 106/442/NP, PNW 106-442: Determining the power density of the electromagnetic field associated with human exposure to wireless devices operating in close proximity to the head and body using computational techniques and network equipment, 6 GHz to 300 GHz, 018/4/6/
- 106/444/NP, PNW 106-444: Measurement procedure for the assessment of power density of human exposure to radio frequency fields from wireless devices operating in close proximity to the head and body - Frequency range of 6 GHz to 300 GHz, 018/4/6/
- 106/441/NP, PNW 106-441: Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-worn wireless communication devices (Frequency range of 4 MHz to 10 GHz), 018/4/6/
- 110/968/CD, IEC 61747-30-3 ED1: Liquid crystal display devices - Part 30-3: Measuring methods for liquid crystal display modules - Motion artifact measurement of active matrix liquid crystal display modules, 018/5/4/
- 110/969/CD, IEC TR 62629-41-1 ED1: 3D Display devices - Part 41-1: Generic introduction of holographic display, 018/5/4/
- 110/965A/CD, IEC 62977-3-4 ED1: Electronic displays - Part 3-4: Evaluation of optical performances - High dynamic range displays, 018/5/4/
- 114/260/CD, IEC TS 62600-300 ED1: Marine energy - Wave, tidal and other water current converters - Part 300: Electricity producing river energy converters - Power performance assessment, 018/6/1/
- 122/57/DTS, IEC TS 63042-301 ED1: UHV AC transmission systems: Part 301: On-site acceptance tests, 018/6/1/
- SyCSmartCities/38/CD, IEC 63152 ED1: Smart Cities - City Service Continuity against disasters - The role of the electrical supply, 018/6/1/



# 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](http://www.ansi.org). All paper copies are available from Standards resellers (<http://webstore.ansi.org/faq.aspx#resellers>).

## ISO Standards

### AGRICULTURAL FOOD PRODUCTS (TC 34)

[ISO 9233-1:2018](#), Cheese, cheese rind and processed cheese - Determination of natamycin content - Part 1: Molecular absorption spectrometric method for cheese rind, \$103.00

[ISO 9233-2:2018](#), Cheese, cheese rind and processed cheese - Determination of natamycin content - Part 2: High-performance liquid chromatographic method for cheese, cheese rind and processed cheese, \$68.00

### ANAESTHETIC AND RESPIRATORY EQUIPMENT (TC 121)

[IEC 80601-2-49:2018](#), Medical electrical equipment - Part 2-49: Particular requirements for the basic safety and essential performance of multifunction patient monitoring equipment, FREE

### FERTILIZERS AND SOIL CONDITIONERS (TC 134)

[ISO 7409:2018](#), Fertilizers - Marking - Presentation and declarations, \$68.00

### FOOTWEAR (TC 216)

[ISO 20863:2018](#), Footwear - Test methods for stiffeners and toepuffs - Bondability, \$45.00

[ISO 20871:2018](#), Footwear - Test methods for outsoles - Abrasion resistance, \$68.00

[ISO 20873:2018](#), Footwear - Test methods for outsoles - Dimensional stability, \$45.00

### LIGHT AND LIGHTING (TC 274)

[ISO/CIE 8995-3:2018](#), Lighting of work places - Part 3: Lighting requirements for safety and security of outdoor work places, \$68.00

### PIGMENTS, DYESTUFFS AND EXTENDERS (TC 256)

[ISO 18473-3:2018](#), Functional pigments and extenders for special application - Part 3: Fumed silica for silicone rubber application, \$45.00

### PLASTICS (TC 61)

[ISO 11357-6:2018](#), Plastics - Differential scanning calorimetry (DSC) - Part 6: Determination of oxidation induction time (isothermal OIT) and oxidation induction temperature (dynamic OIT), \$68.00

### POWDER METALLURGY (TC 119)

[ISO 4506:2018](#), Hardmetals - Compression test, \$45.00

### ROAD VEHICLES (TC 22)

[ISO 2974:2018](#), Diesel engines - 60° female cones for high-pressure fuel injection components, \$68.00

[ISO 6621-1:2018](#), Internal combustion engines - Piston rings - Part 1: Vocabulary, \$45.00

[ISO 15118-4:2018](#), Road vehicles - Vehicle to grid communication interface - Part 4: Network and application protocol conformance test, \$232.00

[ISO 15118-5:2018](#), Road vehicles - Vehicle to grid communication interface - Part 5: Physical layer and data link layer conformance test, \$232.00

### RUBBER AND RUBBER PRODUCTS (TC 45)

[ISO 9631:2018](#), Rubber seals - Joint rings for pipelines for hot-water supply up to 110°C - Specification for the material, \$103.00

### SAFETY OF TOYS (TC 181)

[ISO 8124-1:2018](#), Safety of toys - Part 1: Safety aspects related to mechanical and physical properties, \$232.00

### SMALL TOOLS (TC 29)

[ISO 10102:2018](#), Assembly tools for screws and nuts - Double-headed open-ended engineers wrenches - Outside dimensions, \$45.00

[ISO 10104:2018](#), Assembly tools for screws and nuts - Double-headed box wrenches, deep offset and modified offset - Outside dimensions, \$45.00

### SURFACE CHEMICAL ANALYSIS (TC 201)

[ISO 20411:2018](#), Surface chemical analysis - Secondary ion mass spectrometry - Correction method for saturated intensity in single ion counting dynamic secondary ion mass spectrometry, \$103.00

### THERMAL INSULATION (TC 163)

[ISO 12570/Amd2:2018](#), Hygrothermal performance of building materials and products - Determination of moisture content by drying at elevated temperature - Amendment 2, \$19.00

[ISO 7345:2018](#), Thermal performance of buildings and building components - Physical quantities and definitions, \$68.00

## ISO Technical Specifications

### AIRCRAFT AND SPACE VEHICLES (TC 20)

[ISO/TS 18667:2018](#), Space systems - Capability-based Safety, Dependability, and Quality Assurance (SD&QA) programme management, \$209.00

## ISO/IEC JTC 1, Information Technology

[ISO/IEC 30136:2018](#), Information technology - Performance testing of biometric template protection schemes, \$138.00

[ISO/IEC 23002-4:2018](#), Information technology - MPEG video technologies - Part 4: Video tool library, \$232.00

[ISO/IEC/IEEE 8802-15-4:2018](#), Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific requirements - Part 15-4: Wireless medium access control (MAC) and physical layer (PHY) specifications for low-rate wireless personal area networks (WPANs), \$232.00

## IEC Standards

### ELECTRICAL ACCESSORIES (TC 23)

[IEC 60799 Ed. 3.0 b:2018](#), Electrical accessories - Cord sets and interconnection cord sets, \$47.00

[IEC 62955 Ed. 1.0 b:2018](#), Residual direct current detecting device (RDC-DD) to be used for mode 3 charging of electric vehicles, \$387.00

[S+ IEC 60799 Ed. 3.0 en:2018 \(Redline version\)](#), Electrical accessories - Cord sets and interconnection cord sets, \$61.00

### ELECTRICAL EQUIPMENT IN MEDICAL PRACTICE (TC 62)

[IEC 80601-2-49 Ed. 1.0 b:2018](#), Medical electrical equipment - Part 2 -49: Particular requirements for the basic safety and essential performance of multifunction patient monitors, \$281.00

### ELECTRICAL INSTALLATIONS OF BUILDINGS (TC 64)

[IEC 60364-7-711 Ed. 2.0 b:2018](#), Low-voltage electrical installations - Part 7-711: Requirements for special installations or locations - Exhibitions, shows and stands, \$82.00

[S+ IEC 60364-7-711 Ed. 2.0 en:2018 \(Redline version\)](#), Low-voltage electrical installations - Part 7-711: Requirements for special installations or locations - Exhibitions, shows and stands, \$107.00

### LAMPS AND RELATED EQUIPMENT (TC 34)

[IEC 62031 Ed. 2.0 b:2018](#), LED modules for general lighting - Safety specifications, \$164.00

[S+ IEC 62031 Ed. 2.0 en:2018 \(Redline version\)](#), LED modules for general lighting - Safety specifications, \$213.00

### MAGNETIC ALLOYS AND STEELS (TC 68)

[IEC 60404-16 Ed. 1.0 b:2018](#), Magnetic materials - Part 16: Methods of measurement of the magnetic properties of Fe-based amorphous strip by means of a single sheet tester, \$199.00

[IEC 60404-8-11 Ed. 1.0 b:2018](#), Magnetic materials - Part 8-11: Specifications for individual materials - Fe-based amorphous strip delivered in the semi-processed state, \$164.00

### POWER SYSTEM CONTROL AND ASSOCIATED COMMUNICATIONS (TC 57)

[IEC 62325-301 Ed. 2.0 b:2018](#), Framework for energy market communications - Part 301: Common information model (CIM) extensions for markets, \$410.00

### SEMICONDUCTOR DEVICES (TC 47)

[IEC 62969-2 Ed. 1.0 b:2018](#), Semiconductor devices - Semiconductor interface for automotive vehicles - Part 2: Efficiency evaluation methods of wireless power transmission using resonance for automotive vehicles sensors, \$47.00

### SOLAR PHOTOVOLTAIC ENERGY SYSTEMS (TC 82)

[IEC 61215-2 Ed. 1.0 b cor.1:2018](#), Corrigendum 1 - Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 2: Test procedures, \$0.00

## IEC Technical Specifications

### HIGH VOLTAGE DIRECT CURRENT (HVDC) TRANSMISSION FOR DC VOLTAGES ABOVE 100 KV (TC 115)

[IEC/TS 63014-1 Ed. 1.0 en:2018](#), High voltage direct current (HVDC) power transmission - System requirements for DC-side equipment - Part 1: Using line-commutated converters, \$352.00

### SOLAR PHOTOVOLTAIC ENERGY SYSTEMS (TC 82)

[IEC/TS 62989 Ed. 1.0 en:2018](#), Primary optics for concentrator photovoltaic systems, \$235.00

# Registration of Organization Names in the United States

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

The following is a list of alphanumeric organization names that have been submitted to ANSI for registration. Alphanumeric names appearing for the first time are printed in bold type. Names with confidential contact information, as requested by the organization, list only public review dates.

## PUBLIC REVIEW

Antech Imaging Services

Public Review: March 9 to June 1, 2018

NOTE: Challenged alphanumeric names are underlined. The Procedures for Registration provide for a challenge process, which follows in brief. For complete details, see Section 6.4 of the Procedures.

A challenge is initiated when a letter from an interested entity is received by the Registration Coordinator. The letter shall identify the alphanumeric organization name being challenged and state the rationale supporting the challenge.

A challenge fee shall accompany the letter. After receipt of the challenge, the alphanumeric organization name shall be marked as challenged in the Public Review list. The Registration Coordinator shall take no further action to register the challenged name until the challenge is resolved among the disputing parties.

# Proposed Foreign Government Regulations

## Call for Comment

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

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

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

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

For further information about the USA TBT Inquiry Point, please visit:

<https://www.nist.gov/standardsgov/what-we-do/trade-regulatory-programs/usa-wto-tbt-inquiry-point>

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



# Information Concerning

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## American National Standards

### Call for Members

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

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

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

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

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

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

### Society of Cable Telecommunications

#### ANSI Accredited Standards Developer

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

SCTE is currently seeking to broaden the membership base of its AN 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](http://www.scte.org) or by e-mail from [standards@scte.org](mailto:standards@scte.org).

### PINS Correction

#### BSR/NFPA 502

BSR/NFPA 502 was mistakenly listed in the PINS section, where it should have only been listed in the Call for Comment section of the March 9, 2018 Standards Action.

## ANSI Accredited Standards Developers

### Scope of ASD Accreditation

#### PLASTICS Industry Association (PLASTICS)

##### Comment Deadline: April 16, 2018

The PLASTICS Industry Association (PLASTICS), an ANSI Accredited Standards Developer (ASD) and organizational member, has updated its informational scope of standards activity on file with ANSI:

Manufacture, integration, care and use of plastics machinery or materials throughout the supply chain

Any comments or questions related to the revised scope should be submitted by April 16, 2018 to: Ms. Megan Hayes, Director, Industry Standards, PLASTICS Industry Association, 1425 K Street NW, Suite 500, Washington, DC 20005; phone: 202.974.5217; e-mail: [mhayes@plasticsindustry.org](mailto:mhayes@plasticsindustry.org) (please copy [ithomps@ansi.org](mailto:ithomps@ansi.org)).

## International Organization for Standardization (ISO)

### Call for U.S. TAG Administrator

#### ISO/TC 34 – Food Products

ANSI has been informed that American Oil Chemists Society (AOCS), the ANSI-accredited U.S. TAG Administrator for ISO/TC 34, wishes to relinquish their role as U.S. TAG Administrator.

ISO/TC 34 operates under the following scope:

Standardization in the field of human and animal foodstuffs, covering the food chain from primary production to consumption, as well as animal and vegetable propagation materials, in particular, but not limited to, terminology, sampling, methods of test and analysis, product specifications, food and feed safety and quality management and requirements for packaging, storage and transportation

Excluded :

- products covered by ISO/TC 54 Essential oils and ISO/TC 93 Starch (including derivatives and by-products).

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

## ISO/TC 34/SC 18 – Cocoa

ANSI has been informed that American Oil Chemists Society (AOCS), the ANSI-accredited U.S. TAG Administrator for ISO/TC 34/SC 18, wishes to relinquish their role as U.S. TAG Administrator.

ISO/TC 34/SC 18 operates under the following scope:

Standardization in the field of cocoa, including, but not limited to, terminology, sampling, product specifications, test methods, and requirements and verification criteria for determination of the sustainability and traceability of cocoa respectively.

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

## ISO/TC 180 – Solar energy

ANSI has been informed that the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (ASHRAE), the ANSI-accredited U.S. TAG Administrator for ISO/TC 180, wishes to relinquish their role as U.S. TAG Administrator.

ISO/TC 180 operates under the following scope:

Standardization in the field of solar energy utilization in space and water heating, cooling, industrial process heating and air conditioning.

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

## Establishment of ISO Project Committee

### ISO/PC 316 – Water efficient products – Banding

A new ISO Project Committee, ISO/PC 316 – Water efficient products – Banding, has been formed. The Secretariat has been assigned to Australia (SA).

ISO/PC 316 operates under the following scope:

Standardization in the field of water efficient products - bandings.

Organizations interested in participating on the U.S. TAG should contact ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)).

## ISO New Work Item Proposal

### Guidelines on Integrating a Business Excellence Framework with ISO Management System Standards

#### Comment Deadline: April 13, 2018

SCC, the ISO member body for Canada, and BSI, the ISO member body for the UK, have jointly submitted to ISO a new work item proposal for the development of an ISO standard on Guidelines on Integrating a Business Excellence Framework with ISO Management System Standards, with the following scope statement:

Organizations implementing single or multiple management systems and simultaneously the Business Excellence framework are faced with the major challenge of lack of alignment. This can be attributed to multiple factors, including but not limited to, organizational design/structure, responsibilities matrix, contextual understanding of the linkages/inter-dependencies, silo mentality and turf protection.

“Guidelines on Integrating a Business Excellence Framework with ISO management system standards” will provide the roadmap on integrating the national/international business excellence frameworks with management system standards for enhancing organizational efficiency, facilitating effective decision-making, and promoting transparency, innovation and continuous improvement.

Scope will exclude the development of an ISO Business Excellence standard and/or development of ISO Management System standard/s. Instead, it will focus on the integration aspects, available best practices, and provision of useful practical tips for better organizational management.

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, April 13, 2018.

### Tableware, Giftware, Jewellery, Luminaries – Glass Clarity – Classification and Test Method

#### Comment Deadline: April 27, 2018

SAC, the ISO member body for China, has submitted to ISO a new work item proposal for the development of an ISO standard on Tableware, Giftware, Jewellery, Luminaries - Glass Clarity - Classification and Test Method, with the following scope statement:

The proposed International Standard will establish requirements for the use of the designations “clear glass” and “ultra-clear glass” for non-coloured glass according to their clarity and iron content. The standard will specify a procedure for measuring the clarity of glass items by means of a spectrophotometer.

The standard will cover:

- mineral glass, and
- glass in items where the glass component is not covered by coating or decoration, and is therefore accessible for sampling.

The scope of this International Standard includes glass used as tableware, giftware, jewellery and luminaries. It excludes glass used in construction work, containers, medicine and laboratories, or in other types of technical applications.

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, April 27, 2018.

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

### Karst

#### Comment Deadline: April 13, 2018

SAC, the ISO member body for China, has submitted to ISO a proposal for a new field of ISO technical activity on Karst, with the following scope statement:

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

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, April 13, 2018.

## Musical Instruments

#### Comment Deadline: April 13, 2018

SAC, the ISO member body for China, has submitted to ISO a proposal for a new field of ISO technical activity on Musical Instruments, with the following scope statement:

Standardization in the field of musical instruments including: standardization of classification, terminology, products, safe use, test methods and conformity assessment rules.

Excluded: Standardization within the scope of IEC/TC 100.

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, April 13, 2018.

# Information Concerning

## ANSI Accreditation Program for Greenhouse Gas Validation/Verification Bodies

### Reaccreditation

### NSF International

### Comment Deadline: April 16, 2018

In accordance with the following ISO standards: ISO 14065:2013 *Greenhouse gases—Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition*

NSF International  
Sara McCleary  
789 N. Dixboro Rd.  
Ann Arbor, MI 48105  
Phone: (734) 769-8010  
E-mail: [smccleary@nsf.org](mailto:smccleary@nsf.org)

On March 12, 2018, ANSI's Greenhouse Gas Validation/Verification Body Accreditation Committee granted NSF International reaccreditation for the following:

Activity and Scope:

*Verification of assertions related to GHG emissions and removals at the organizational level:*

*01 – General*

*02 – Manufacturing*

*03 – Power Generation*

*04 – Electric Power Transactions*

*05 – Mining and Mineral Production*

*06 – Metals Production*

*07 – Chemical Production*

*08 – Oil and gas extraction, production and refining including petrochemicals*

*09 – Waste*

*10 – Agriculture, Forestry and Other Land Use (AFOLU)*

*Validation of assertions related to GHG emission reductions and removals at the project level:*

*1 – GHG emission reductions from fuel combustion*

*2 – GHG emissions reductions from industrial processes (non-combustion, chemical reaction, fugitive and other)*

*5 – Livestock*

*6 – Waste Handling and Disposal*

*Verification of assertions related to GHG emissions reductions and removals at the project level:*

*1 – GHG emission reductions from fuel combustion*

*2 – GHG emissions reductions from industrial processes (non-combustion, chemical reaction, fugitive and other)*

*3 – Land Use and Forestry*

*5 – Livestock*

*6 – Waste Handling and Disposal*

Please send your comments by April 16, 2018 to Ann Howard, Director, Environmental Accreditation Programs, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293-9287 or e-mail: [ahoward@ansi.org](mailto:ahoward@ansi.org).

# Information Concerning International Organization for Standardization (ISO)

## ISO Proposal for a New Field of ISO Technical Activity Transaction Assurance in E-Commerce

### Comment Deadline: April 27, 2018

SAC, the ISO member body for China, and AFNOR, the national standards body for France, have submitted to ISO a proposal for a new field of ISO technical activity on Transaction Assurance in E-Commerce, with the following scope statement:

Standardization in the field of “transaction assurance and upstream/downstream directly related processes in e-commerce”, including the following:

- The assurance of transaction process in e-commerce (including easier access to e-platforms and e-stores);
- The protection of online consumer rights including both prevention of online disputes and resolution process;
- The interoperability and admissibility of commodity quality inspection result in cross-border e-commerce;
- The assurance of e-commerce delivery to the final consumer.

Excluded:

- Management system standards already covered by ISO/TC 176;
- Authenticity, integrity and trust for products and documents standards already covered by ISO/TC 292/WG4;
- Guidelines on consumer warranties and guarantees standards already covered by ISO/PC 303;
- Meta-standards of information interchange standards already covered by ISO/TC 154;
- Cross-border trade of second-hand goods standards already covered by ISO/PC 245;
- Brand evaluation standards already covered by ISO/TC 289;
- Online reputation standards already covered by ISO/TC290;
- Financial services standards already covered by ISO/TC 68;
- Identity management standards already covered by ISO/IEC/JTC1/SC27/WG5;
- Meta-standards of data management and interchange already covered by ISO/IEC/JTC1/SC32;
- Biometrics standards already covered by ISO/IEC/JTC1/SC37.

Since the payment and security of the transaction are very important in e-commerce, the proposed new technical committee will cooperate with ISO/TC 68(Financial services), ISO/IEC/JTC1/SC27 (IT Security techniques)and other TC via a liaison membership. If request for developing new standards for e-commerce in those TCs arose, the proposed new TC would work with them to develop the needed standards.

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, April 27, 2018.



**BSR/ASHRAE Addendum d  
ANSI/ASHRAE Standard 15-2016**

**Public Review Draft**

# **Safety Standard for Refrigeration Systems**

**Third Public Review – ISC (March 2018)  
(Draft shows Independent Substantive Changes to Previous Public Review Draft)**

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at <https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts> and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI.

The appearance of any technical data or editorial material in this public review document does not constitute endorsement, warranty, or guaranty by ASHRAE of any product, service, process, procedure, or design, and ASHRAE expressly disclaims such.

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



ASHRAE Addendum d to ANSI/ASHRAE Standard 15-2016, *Safety Standard for Refrigeration Systems*  
Third Public Review Draft – Independent Substantive Changes

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

5 **FOREWORD**

6 This addendum modifies portions of Standard 15 to incorporate refrigerants with a 2L flammability classification as  
7 defined in ASHRAE Standard 34-2016. The 2010 edition of ASHRAE Standard 34 added optional Subclass 2L to  
8 the Class 2 flammability classification. A number of refrigerants have been classified as Subclass 2L (refer to  
9 ANSI/ASHRAE Standard 34-2016 and addenda). Use of Subclass 2L refrigerants currently requires compliance  
10 with Class 2 requirements per ASHRAE Standard 15-2016 (or earlier editions). A broader use of Class 2L  
11 refrigerants requires a set of alternative application requirements. Addendum d proposes new requirements for high  
12 probability systems used for human comfort applications. This proposal does not change how ASHRAE Standard  
13 15 deals with Class 2L refrigerants in industrial or commercial applications or machinery rooms. Those applications  
14 are expected to be handled in separate addenda.

15 In July 2011 and again in December 2015, ASHRAE SSPC 15 published Advisory Public Review drafts with  
16 proposed changes related to Subclass 2L. In August 2016, Addendum d was published for purposes of a First  
17 Publication Public Review draft. In April 2017 a second public review was conducted. The committee appreciates  
18 the many comments that were received during these reviews, and the technical issues identified. The Committee  
19 reviewed each comment and provided responses to the Commenters. At the same time research has been conducted  
20 that gives a technical basis for some provisions in this proposed addenda. This Third Public Review draft  
21 incorporates changes that are responsive to the First and Second Public Review comments and research results  
22 where appropriate.

23 This addendum is contingent on publication of Addendum G to ASHRAE Standard 34-2016 to make 2L a  
24 flammability class rather than a sub-class, and to define A2L and B2L as safety groups. Also, this addendum makes  
25 use of LFL values that will be published in an addendum to ASHRAE 34 in both I-P and S-I units.

26 Rapid refrigerant leak detection of Class 2L flammable refrigerants, and air movement to enable rapid mixing of  
27 leaked refrigerant, are at the core of the requirements presented in this addendum. Recall that the RCL has a factor  
28 of safety of 4 for flammable refrigerants. That is, when leaked refrigerant is fully mixed in a space, the maximum  
29 refrigerant concentration is 25% of the LFL and cannot ignite. Basic requirements for refrigerant leak detectors  
30 have been included in this draft. However, research and development of refrigerant leak detectors is continuing, and  
31 additional requirements to specify robust and reliable refrigerant leak detection may occur in the future.

32 There was a considerable amount of research into the use of flammable refrigerants that occurred in 2016 and 2017.  
33 The research is expected to continue. Standard 15 must rely on published research at the time any addendum is  
34 published and accordingly future changes may be expected.

35 And finally, Addendum d is relying on product standards for listed products that use Class 2L flammable  
36 refrigerants. It is not intended that this standard repeat the detailed requirements contained in product standards.  
37 Product standards are under development and subject to change. This addendum makes a reasonable attempt to  
38 correlate its requirements with the details provided in the product standards, as they are presently written.

39 ***Note to Reviewers: The draft of Addendum d that was used for the Second Public Review is replaced in its***  
40 ***entirety by this Third Public Review draft. All changes to Standard 15 that were previously proposed through the***  
41 ***First or Second Public Review drafts are in black font with underlining or strikeout and are not open for***  
42 ***comment. All substantive changes to the Second Public Review draft and related new changes to Standard 15 are***  
43 ***indicated by blue colored text and underlining (for additions) and ~~strikethrough~~ (for deletions). Only these***  
44 ***changes in blue are open to comment. Other sections of ASHRAE 15-2016 that are unchanged are also not open***  
45 ***for comment.***

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46 **7. RESTRICTIONS ON REFRIGERANT USE**

47

48 **7.5 Additional Restrictions**

49 **7.5.2 Applications for Human Comfort.** Group A2, A3, B1, B2, B2L and B3 refrigerants shall not  
50 be used in high-probability systems for human comfort. Use of Group A2L refrigerants shall be in  
51 accordance with Section 7.6

52 **Exceptions:**

53 1. ~~This~~ These restrictions do does not apply to sealed absorption and unit systems having  
54 refrigerant quantities less than or equal to those indicated in Table 7.4.

55 2. ~~This~~ These restrictions do does not apply to industrial occupancies.

56

57 **7.6 Group A2L Refrigerants for Human Comfort.** High-probability systems using Group A2L  
58 refrigerants for human comfort applications shall comply with this section.

59 **7.6.1 Refrigerant Concentration Limits.** The requirements of Section 7.2 shall apply:

60 7.6.1.1 Occupied spaces shall comply with Section 7.2.

61 7.6.1.2 Unoccupied spaces with refrigerant containing equipment, including but not limited to  
62 pipng or tubing, shall comply with Section 7.2 except as permitted by Section 7.6.4.

63 **7.6.2 Listing and Installation Requirements.** Refrigeration systems shall be listed and shall be  
64 installed in accordance with listing, the manufacturer's instructions, and any markings on the  
65 equipment restricting the installation.

66 7.6.2.1 The nameplate required by Section 9.15 shall include a symbol indicating that a  
67 flammable refrigerant is used, as specified by the product listing.

68 7.6.2.2 A label indicating a flammable refrigerant is used shall be placed adjacent to service ports  
69 and other locations where service involving components containing refrigerant is performed, as  
70 specified by the product listing.

71 7.6.2.3 A refrigerant detector shall be provided in accordance with Section 7.6.5 where any of  
72 the following apply:

73 a. For commercial, public assembly and large mercantile occupancies, the refrigerant charge  
74 of any independent circuit exceeds 22 lb (10 kg) unless the concentration of refrigerant in  
75 a complete discharge from any independent circuit will not exceed 50% of the RCL.

76 b. For institutional and residential occupancies, the refrigerant charge of any independent  
77 circuit exceeds 6.6 lb (3 kg) unless the concentration of refrigerant in a complete discharge  
78 from any independent circuit will not exceed 50% of the RCL.

79 c. When required by the product listing.

80 d. When using the provisions of Section 7.6.4.

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81 7.6.2.4 When the refrigerant detector senses a rise in refrigerant concentration above the value  
82 specified in Section 7.6.5 b), the following actions shall be taken:

83 a) Turn on the supply air fan. The supply air fan shall deliver the minimum air flow as  
84 defined by the following equation. The minimum air flow rate of the supply air fan shall be  
85 in accordance with the following equation.

86 
$$Q_{\min} = 1,000 \cdot M / \text{LFL} \quad (\text{I-P})$$

87 
$$Q_{\min} = 60,000 \cdot M / \text{LFL} \quad (\text{SI})$$

88 Where  $Q_{\min}$  is the minimum airflow rate in ft<sup>3</sup>/min (m<sup>3</sup>/h)

89  $M$  is the refrigerant charge in lb (kg)

90  $\text{LFL}$  is the lower flammability limit in lb per 1000 ft<sup>3</sup> (g/m<sup>3</sup>)

91 b) Turn off the compressor and all other electrical devices, excluding the control power  
92 transformers, control systems, and the supply air fan. The supply air fan shall continue to  
93 operate for at least ~~5~~ 30 minutes after the refrigerant detector has sensed a drop in the  
94 refrigerant concentration below the value specified in Section 7.6.5 b)

95 c) Any device that controls air flow located within the product or in duct work that supplies  
96 air to the occupied space shall be fully open. Any device that controls air flow shall be listed.

97 d) Turn off any heaters and electrical devices located in the ductwork.

98 7.6.3 Ignition Sources located in Ductwork

99 7.6.3.1 Open flame-producing devices shall not be permanently installed in the ductwork that  
100 serves the space.

101 7.6.3.2 Unclassified electrical devices shall not be located within the ductwork that serves the  
102 space.

103 7.6.3.3 Devices containing hot surfaces exceeding 1290 °F (700 °C) shall not be located in the  
104 ductwork that serves the space unless there is a minimum air flow of 200 ft/min (1.0 m/s) across  
105 the heating device(s) and there is proof of air flow before the heating device(s) is energized.

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106 **7.6.4 Compressors and Pressure Vessel Located Indoors—~~Allowance to Exceed RCL.~~** For  
107 ~~refrigeration compressors and pressure vessels located in an indoor space that is accessible only~~  
108 ~~during service and maintenance it shall be permissible to exceed the RCL if all of the following~~  
109 ~~provisions are met.~~

110 ~~a) The space where the refrigeration compressors and pressure vessels are located is less than the~~  
111 ~~space volume given by the following equation:~~

112 ~~$$V = 200 \cdot M \text{ (I-P)}$$~~

113 ~~$$V = 12.5 \cdot M \text{ (SI)}$$~~

114 ~~Where:  $V$  = space volume  $\text{ft}^3$  ( $\text{m}^3$ )~~

115  ~~$M$  = the largest single circuit charge lb (kg)~~

116 ~~b) The space where compressors and pressure vessels are located shall be mechanically~~  
117 ~~ventilated in accordance with the following equation:~~

118 ~~$$Q_{\min} = 1001.3 \cdot M / \text{LFL} \text{ (I-P)}$$~~

119 ~~$$Q_{\min} = 60,000 \cdot M / \text{LFL} \text{ (SI)}$$~~

120 ~~Where  $Q_{\min}$  is the minimum airflow rate in cfm ( $\text{m}^3/\text{hr}$ )~~

121  ~~$M$  is the refrigerant charge in lbm (kg)~~

122  ~~$\text{LFL}$  is the lower flammability limit in lbm/Mcf ( $\text{g}/\text{m}^3$ )~~

123 ~~a) The largest single circuit charge shall not exceed:~~

124 ~~1. 6.6 lb (3 kg) for Residential and Institutional occupancies.~~

125 ~~2. 22 lb (10 kg) for Commercial and Public / Large Mercantile occupancies.~~

126 ~~b) The space where the equipment is located shall be provided with a mechanical ventilation~~  
127 ~~system in accordance with Section 7.6.4 c) and a refrigerant detector in accordance with Section~~  
128 ~~7.6.5. The mechanical ventilation system shall be started when the refrigerant detector senses~~  
129 ~~refrigerant in accordance with Section 7.6.5. The mechanical ventilation system shall continue to~~  
130 ~~operate for at least 30 minutes after the refrigerant detector has sensed a drop in the refrigerant~~  
131 ~~concentration below the value specified in Section 7.6.5 b).~~

132 ~~c) A mechanical ventilation system shall be provided that will mix air with leaked refrigerant,~~  
133 ~~and remove it from the space where the equipment is located. The space shall be provided with~~  
134 ~~an exhaust fan. The exhaust fan shall remove air from the space where the equipment is located~~  
135 ~~in accordance with the following equation.~~

136 ~~$$Q_{\min} = 1,000 \cdot M / \text{LFL} \text{ (I-P)}$$~~

137 ~~$$Q_{\min} = 60,000 \cdot M / \text{LFL} \text{ (SI)}$$~~

138 ~~Where  $Q_{\min}$  is the minimum airflow rate in  $\text{ft}^3/\text{min}$  ( $\text{m}^3/\text{h}$ )~~

139  ~~$M$  is the refrigerant charge in lb (kg)~~

140  ~~$\text{LFL}$  is the lower flammability limit in lb per 1000  $\text{ft}^3$  ( $\text{g}/\text{m}^3$ )~~

141 ~~e) The ventilation system shall be started when the refrigerant detector senses refrigerant in~~  
142 ~~accordance with Section 7.6.5. The location of the refrigerant detector shall be in accordance~~  
143 ~~with Section 7.6.5. The ventilation system shall continue to operate for at least 30 minutes after~~  
144 ~~the refrigerant detector has sensed a drop in the refrigerant concentration below the value~~  
145 ~~specified in Section 7.6.5 b).~~

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146 d) The ~~ventilation system exhaust~~ air inlet shall be located where refrigerant from a leak is  
147 expected to accumulate. The ~~bottom of the air~~ inlet elevation shall be within 12 inches (30 cm) of  
148 the lowest elevation in the space where the compressor or pressure vessel is located. ~~Provision~~  
149 ~~shall be made for make-up air to replace that being exhausted. Opening(s) for the make-up air~~  
150 ~~shall be positioned such that air will mix with leaked refrigerant.~~

151 e) Air that is exhausted from the ventilation system shall be either:  
152     i. ~~discharged outside of the building envelope, or~~  
153     ii. ~~discharged to an indoor space, provided that the refrigerant concentration will not exceed~~  
154 ~~the limit specified in Section 7.6.1.~~

155 f) ~~In addition to the requirements of Section 7.6.3 there shall be no open flame producing devices~~  
156 ~~that do not contain a flame arrestor or hot surfaces exceeding 1292 °F (700 °C) that are installed~~  
157 ~~within space where the equipment is located.~~

158 ~~7.6.4 Enclosures. Enclosures provided on self-contained equipment that is installed indoors shall~~  
159 ~~either be:~~

160 ~~a. constructed in such a manner that leaked refrigerant can enter the space where such equipment~~  
161 ~~is installed that complies with Section 7.6.1, or~~

162 ~~b. vented to the outdoors by natural or continuously operated mechanical means.~~

163 ~~7.6.4.1 Where compressor and pressure vessels are enclosed in a manner that leaked refrigerant~~  
164 ~~cannot enter the space where the equipment is installed, the enclosure shall be vented to the~~  
165 ~~outdoors by natural or continuously operated mechanical means.~~

166 ~~7.6.5 Refrigerant Detectors. Refrigerant detectors required by Section 7.6.2 shall meet the following~~  
167 ~~requirements:~~

168 ~~a) Refrigerant detectors that are part of the listing shall be evaluated by the testing laboratory as~~  
169 ~~part of the equipment listing.~~

170 ~~b) The refrigerant detector set point to activate the functions required by Section 7.6.2.2 shall be~~  
171 ~~at a value not exceeding the 25% of the lower flammability limit (LFL).~~

172 ~~d) The refrigerant detector as installed, including any sampling tubes, shall cause the functions~~  
173 ~~required by Section 7.6.2.2 within a time not to exceed 15 seconds, after exposure to a refrigerant~~  
174 ~~concentration exceeding 25% of the LFL.~~

175 ~~b) Refrigerant detectors as installed shall be set such they shall cause the functions required by~~  
176 ~~Section 7.6.2.4 within a time not to exceed 15 seconds, after the refrigerant concentration exceeds~~  
177 ~~25% of the lower flammability limit (LFL).~~

178 ~~c) Refrigerant detectors shall be located such that refrigerant will be detected if the refrigerating~~  
179 ~~system is operating, or not operating. Use of more than one refrigerant detector shall be~~  
180 ~~permitted.~~

181 ~~i) For refrigerating systems that are connected to the occupied space through ductwork,~~  
182 ~~refrigerant detectors shall be located within the listed equipment.~~

183 ~~ii) For refrigerating systems that are directly connected to the occupied space without~~  
184 ~~ductwork, the refrigerant detector shall be located in the equipment, or shall be located in~~  
185 ~~the occupied space at a height of not more than 12 inches (30 cm) above the floor and~~  
186 ~~within a horizontal distance of not more ~~6.0~~ 3.3 ft (~~1.8~~ 1.0 m) with a direct line of sight of~~  
187 ~~the unit.~~

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188 ~~d)e) The refrigerant detector~~ *Refrigerant detectors* shall provide a means for an  
189 automatic operational self-test ~~self testing~~ as provided in the product listing. Use of a refrigerant  
190 test gas is not required. If a failure is detected, a trouble alarm shall be activated and the actions  
191 required by Section 7.6.2.4 shall be initiated~~the supply air fan operated continuously.~~

192 ~~e) The refrigerant detector~~ *Refrigerant detectors* shall be tested during installation to verify the  
193 alarm set point and response time as required by Section 7.6.5 b) ~~per 7.6.5 d)~~. After installation,  
194 the refrigerant detector shall be tested to verify the set point and response time annually or at an  
195 interval not exceeding the manufacturer's installation instructions, whichever is less.

196

197 **9. DESIGN AND CONSTRUCTION OF EQUIPMENT AND SYSTEMS**

198 **9.13.1** The following are requirements for unprotected refrigerant containing copper pipe or tubing:

199 c. For Group A2L, A2, A3, B1, B2L, B2, and B3 refrigerants, protective metal enclosures shall  
200 be provided for annealed copper tube erected on the premises.



**BSR/ASHRAE Addendum e  
ANSI/ASHRAE Standard 15-2016**

**First Public Review Draft**

# **Safety Standard for Refrigeration Systems**

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

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at [www.ashrae.org/standards-research--technology/public-review-drafts](http://www.ashrae.org/standards-research--technology/public-review-drafts) and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI.

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



ASHRAE Addendum e to ANSI/ASHRAE Standard 15-2016, *Safety Standard for Refrigeration Systems*  
Publication Public Review Draft

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

## 5 **FOREWORD**

6 The changes being proposed in this addendum identify the requirements that need to be met when changing the  
7 refrigerant, within the same refrigerant safety group per ASHRAE Standard 34. This proposal also lists the  
8 restrictions regarding mixing refrigerants from different refrigerant classes so that the original refrigerant safety  
9 group does not change. For example, a small amount of A3 refrigerant is added to a product containing an A1  
10 refrigerant in order to improve oil circulation at low temperatures. However, the blend does not change the  
11 refrigerant from the original A1 refrigerant class.

12 Throughout the draft line numbers are included in the left margin to assist commenters to identify relevant portions  
13 of text.

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

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19 **3. DEFINITIONS**

20 refrigerant designation: the unique identifying alphanumeric value or refrigerant number assigned to an individual  
21 refrigerant and published in ASHRAE Standard 34.<sup>1</sup>

22

23 ~~5.3 Changing Refrigerant. A change in the type of refrigerant in a system shall not be made without the~~  
24 ~~notification of the AHJ, the user, and due observance of safety requirements. The refrigerant being considered shall~~  
25 ~~be evaluated for suitability.~~

26 5.3 Changing Refrigerant. Changes of refrigerant in an existing system to a refrigerant with a different refrigerant  
27 designation shall only be allowed where in accordance with Sections 5.3.1 through 5.3.4.

28 5.3.1 The change of refrigerant shall be approved by the owner.

29 5.3.2 The change of refrigerant shall be in accordance with one of the following:

30 1. Written instructions of the original equipment manufacturer.

31 2. An evaluation of the system by a registered design professional or by an approved nationally recognized  
32 testing laboratory that validates safety and suitability of the replacement refrigerant.

33 3. Approved by the AHJ.

34 5.3.3 Where the replacement refrigerant is classified into the same safety group, requirements that were applicable to  
35 the existing system shall continue to apply.

36 5.3.4 Where the replacement refrigerant is classified into a different safety group, the system shall comply with the  
37 requirements of this standard for a new installation, and the change of refrigerant shall require AHJ approval.

38

39 **7.5 Additional Restrictions**

40 **7.5.1 All Occupancies.** Sections 7.5.1.1 through 7.5.1.8 apply to all occupancies.

41 **7.5.1.7 Mixing of Refrigerants.** Refrigerants, ~~including refrigerant blends,~~ with different *refrigerant*  
42 *designations* ~~in ASHRAE Standard 34<sup>1</sup>~~ shall ~~not~~ only be mixed in a system in accordance with both of the  
43 following:-

44 **Exception: 1.** ~~The Addition~~ addition of a second refrigerant is allowed ~~where specified~~ by the equipment  
45 manufacturer ~~to improve oil return at low temperatures.~~

46 ~~The refrigerant and amount added shall follow~~ and is in accordance with the manufacturer's written  
47 instructions.

48 2. The resulting mixture does not change the refrigerant safety group.

49

50

51



**BSR/ASHRAE Addendum g to  
ANSI/ASHRAE Standard 34-2016**

**Public Review Draft**

# **Proposed Addendum g to Standard 34-2016, Designation and Safety Classification of Refrigerants**

**Second Public Review (March 2018)  
(Draft shows Independent Substantive Changes to  
previous public review)**

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 <https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts> and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore) or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

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

BSR/ASHRAE Addendum g to ANSI/ASHRAE Standard 34-2016, *Designation and Safety Classification of Refrigerants*

Second 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 makes several changes with the intent to make 2L a separate classification of refrigerants. This draft incorporates line 6.1.3.2.a.4 which was inadvertently omitted from the previous public review draft.*

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

## Addendum g to 34-2016

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### 6.1.3.2 Class 2L (Lower Flammability)

a. A single-compound refrigerant shall be classified as Class 2L if the refrigerant meets all four of the following conditions:

1. Exhibits flame propagation when tested at 140°F (60°C) and 14.7 psia (101.3 kPa).
2. Has an LFL  $>0.0062$  lb/ft<sup>3</sup> (0.10 kg/m<sup>3</sup>) (see Section 6.1.3.5 if the refrigerant has no LFL at 73.4°F [23.0°C] and 14.7 psia [101.3 kPa]).
3. Has a heat of combustion  $<8169$  Btu/lb (19,000 kJ/kg) (see Section 6.1.3.6).
4. Has a maximum burning velocity of  $\leq 3.9$  in./s (10 cm/s) when tested at 73.4°F (23.0°C) and 14.7 psia (101.3 kPa) in dry air



**BSR/ASHRAE Addendum o to  
ANSI/ASHRAE Standard 34-2016**

**Public Review Draft**

# **Proposed Addendum o to Standard 34-2016, Designation and Safety Classification of Refrigerants**

**First Public Review (March 2018)  
(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 <https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts> and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore) or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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

BSR/ASHRAE Addendum o to ANSI/ASHRAE Standard 34-2016, *Designation and Safety Classification of Refrigerants*

First Public Review Draft

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## FOREWORD

*This addendum adds the zeotropic refrigerant blend R-436C 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 underlining (for additions) and ~~striketrough~~ (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 o to 34-2016

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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 = 436C

Composition (Mass %) = R-290 / 600a (95.0 / 5.0)

Composition tolerances = ± 1.2 / ± 1.2

OEL = 990

Safety Group = A3

RCL = 5,000 ppm v/v; 0.57 lb/Mcf; 9.1 g/m<sup>3</sup>

Highly Toxic or Toxic Under Code Classification = Neither

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

Refrigerant Number = 436C

Composition (Mass %) = R-290 / 600a (95.0 / 5.0)

Average Molecular Mass = 44.6 g/mol

Bubble Point (°F) = -42.7

Dew Point (°F) = -39.1

Bubble Point (°C) = -41.5

Dew Point (°C) = -39.5

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## NSF/ANSI 245 – 2013

### Wastewater treatment systems – Nitrogen reduction

- 
- 
- 

#### 5 Design and construction

- 
- 
- 

##### 5.10 Dataplate and service label

**5.10.1** Systems shall have two permanent and legible dataplates. One dataplate shall be affixed to the front of the electrical control box. The second dataplate shall be placed on the tank, aeration equipment assembly, or riser at a location accessed during maintenance cycles and inspections. The dataplates shall include:

- manufacturer's name and address;
- model number;
- serial number (required on one dataplate only);
- rated daily hydraulic capacity of the system; and
- the system classification as determined with the performance testing and evaluation requirements described herein.

**5.10.2** A clearly visible label or plate that provides instructions for obtaining service shall be permanently located near the failure signal.

##### 5.11 Alternate air delivery components

To ensure stabilized air flow conditions are met, proposed alternate air delivery components—either air compressors or blowers—that create air pressure shall be run for a minimum of four hours at the system pressure recorded at the outset of the evaluation of the system as outlined in 8.1.8. The alternate air delivery components must deliver flow in the range of 90-130% of the flow produced by the original air delivery component. Justification for qualifying air delivery components with flows higher than 130% may be considered by the certification body based on sound engineering principles. Air delivery components with flows lower, or higher, than the stated range of 90-130% may be considered for qualification by the certification body based on system performance testing.

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### 8 Performance testing and evaluation

#### 8.1 Preparations for testing and evaluation

**8.1.1** The system shall be assembled, installed, and filled in accordance with the manufacturer's instructions.

**8.1.2** The manufacturer shall inspect the system for proper installation. If no defects are detected and the system is judged to be structurally sound, it shall be placed into operation in accordance with the

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manufacturer’s start-up procedures. If the manufacturer does not provide a start-up procedure, 2/3 of the system’s capacity shall be filled with water and the remaining 1/3 shall be filled with residential wastewater.

**8.1.3** The system shall undergo design loading (see 8.2.2.1) until testing and evaluations are initiated. Sample collection and analysis shall be initiated within three weeks of filling the system and shall continue without interruption until the end of the evaluation period, except as specified in 8.4.2.

**8.1.4** If conditions at the test site preclude installation of the system at its normally prescribed depth, the manufacturer shall be permitted to cover the system with soil to achieve normal installation depth.

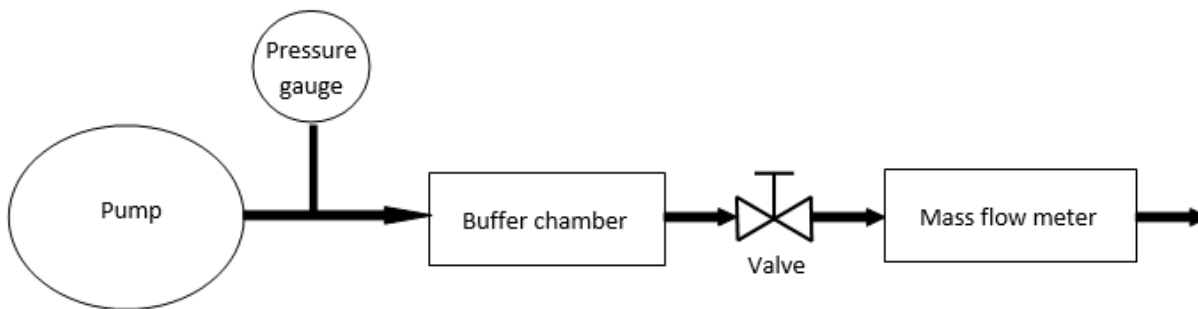
**8.1.5** Performance testing and evaluation of systems shall not be restricted to specific seasons.

**8.1.6** When possible, electrical or mechanical defects shall be repaired to prevent delays. All repairs made during the performance testing and evaluation shall be documented in the final report.

**8.1.7** The system shall be operated in accordance with the manufacturer’s instructions. However, routine service and maintenance of the system shall not be allowed during the testing and evaluation period.

NOTE – The manufacturer may recommend or offer more frequent service and maintenance of the system, but for purpose of performance testing and evaluation, the service and maintenance shall not be performed beyond what is specified in this Standard.

**8.1.8** Prior to initiation of design loading, the air delivery component (if one is utilized)—either air compressor or blower—shall be connected to the system and run for a minimum of four hours. Air pressure shall be measured by a pressure gauge installed near the exhaust port of the air delivery component and that reading recorded. Then the air compressor or blower component shall be disconnected from the system and the air flow measured at the system pressure and recorded.



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**8.3.3 Analyses**

The samples collected as described in 8.3.1 and 8.3.2 shall be analyzed as follows:

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Parameter	Sample type	Sample location		
		Raw influent	Treated effluent	Testing location
BOD <sub>5</sub>	24 h composite	X		Laboratory
CBOD <sub>5</sub>	24 h composite		X	Laboratory
total suspended solids	24 h composite	X	X	Laboratory
pH	Grab	X	X	Test site
temperature (°C)	Grab	X	X	Test site
dissolved oxygen	Grab		X	Test site
alkalinity (as CaCO <sub>3</sub> )	24 h composite	X	X	Laboratory
TKN (as N)	24 h composite	X	X	Laboratory
ammonia-N (as N)	24 h composite	X	X	Laboratory
nitrite/nitrate-N (as N)	24 h composite	X	X	Laboratory

#### 8.3.4 Analytical methods

The appropriate methods in *Standard Methods* shall be used to complete the analyses indicated in 8.3.3.

#### 8.3.5 Pressure and flow

Air pressure shall be measured using a gauge with accuracy of 2% or better. Airflow shall be measured using a flow meter with accuracy of 10% or better.

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### 8.4 Criteria

#### 8.4.1 Testing conditions

If conditions during the testing and evaluation period result in system upset, improper sampling, improper dosing, or influent characteristics outside the ranges specified in 8.2.1, an assessment shall be conducted to determine the extent to which these conditions adversely affected the performance of the system. Based on this assessment, specific data points may be excluded from the averages. Rationale for all data exclusions shall be documented in the final report.

#### 8.4.2 Catastrophic site problems

In the event that a catastrophic site problem not described in the Standard including, but not limited to, influent characteristics, malfunctions of test site apparatus and acts of God, jeopardizes the validity of the performance testing, manufacturers shall be given the choice to:

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



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NOTE – “Pre-existing conditions” shall be defined as the point when the results of 1 wk’s worth of sampling are within 15% of the averages of the samples from the previous 3 wks of sampling.

**8.4.3 Effluent quality**

For purposes of determining system performance, only samples collected during design loading periods, described in 8.2.2, shall be used in the calculations. The data collected during the stress sequences shall not be included in the calculations, but shall be included in the final report.

**8.4.3.1 CBOD<sub>5</sub>**

The average CBOD<sub>5</sub> of all effluent samples shall not exceed 25 mg/L.

**8.4.3.2 TSS**

The average TSS of all effluent samples shall not exceed 30 mg/L.

**8.4.3.3 Total nitrogen**

The average total nitrogen concentration of all effluent samples shall be less than 50% of the average total nitrogen concentration of all influent samples.

**8.4.3.4 pH**

The pH of individual effluent samples shall be between 6.0 and 9.0 SU.

**8.4.4 Air pressure and flow**

There are no criteria for aerator pressure or flow. Pressure and flow are measured for the purpose of qualifying alternate aerators following the test.

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## NSF/ANSI Standard for Residential Wastewater Treatment Systems —

# Nitrogen Reduction

## 1 General

### 1.1 Purpose

The purpose of this Standard is to establish minimum materials, design and construction, and performance requirements for residential wastewater treatment systems providing for nitrogen reduction. This Standard also specifies the minimum literature that manufacturers shall supply to authorized representatives and owners, as well as the minimum service-related obligations that manufacturers shall extend to owners.

### 1.2 Scope

This Standard contains minimum requirements for residential wastewater treatment systems having rated treatment capacities of 1514 L/d (400 gal/d) to 5678 L/d (1500 gal/d) that are designed to provide reduction of nitrogen in residential wastewater. Management methods for the treated effluent discharged from these systems are not addressed by this Standard. A system, in the same configuration, must either be demonstrated to have met the Class I requirements of NSF/ANSI 40 or must meet the Class I requirements of NSF/ANSI 40 during concurrent testing for nutrient removal.

The water chemistry of a site for installation and use of these systems is critical to achieve expected water quality results. Before these systems are installed at a location, the water used within the residence must be analyzed to verify that there is sufficient alkalinity to achieve the system's performance. Refer to Annex A for further explanation.

Natural systems involving features such as vegetation, wetlands, free access or buried sand filters, and soil systems may be evaluated using this protocol as long as effluent samples are representative of all treated effluent discharged from the system, as sampled from a central point of collection of all treated effluent.

## BSR/UL 67, Standard for Safety for Panelboards

### 3. Update of Requirements for Separation of Circuits in Section 18

18.1 Other than as covered in 18.3, conductors or cables of factory- or field-installed Class 2 and Class 3 circuits shall be separated from conductors or cables of factory- or field-installed electric light, power, Class 1, non-power-limited fire alarm circuits, and medium power network-powered broadband communications circuits by:

- a) Barriers complying with the requirements of 8.1.7 – 8.1.10; or
- b) A minimum permanent 1/4 inch (6.4 mm) separation.

Note: Conductors or cables of low-voltage circuits not classified as Class 2 and Class 3 circuits, and conductors or cables of Class 2 and Class 3 circuits reclassified as Class 1 circuits are to be installed as a power circuit.

18.3 In a space where field-installed conductors will not be present, a barrier or 1/4 inch (6.4 mm) separation is not needed for factory-installed conductors or cables of Class 2 or Class 3 circuits (conductors that are integral to circuits that are contained within the panelboard enclosure) if the factory-installed conductors are insulated for the maximum voltage of all circuits that are, or could become, in contact.

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**BSR/UL 360, Standard for *Liquid-Tight Flexible Metal Conduit*,****1. Changes to the UL 360 Mechanical Water Absorption Test to better align with the Mechanical Water Absorption Test in UL 166****PROPOSAL****19 Mechanical Water Absorption Test**

19.1 Specimens of the thermoplastic jacket prepared from finished conduit shall not absorb any more than 25.0 milligrams mass of water per square inch of immersed surface or shall not absorb any more than 3.9 milligrams mass of water per square centimeter of immersed surface during immersion in tap water for 168 hours at a temperature of  $70.0 \pm 1.0^{\circ}\text{C}$  ( $158.0 \pm 1.8^{\circ}\text{F}$ ).

*Exception: A PVC or other material known to be non-hygroscopic need not be subjected to this test.*

~~19.5 The ends of each specimen are to be inserted through two holes in the cover plate with 10 inches (250 mm) of each specimen exposed below the plate. The water level is to be maintained flush with the underside of the cover plate. No water is to touch the ends of the specimens. The specimens shall be totally immersed in the water, and the cover plate shall be placed on the immersion vessel.~~

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## BSR/UL 1453, Standard for Safety for Electric Booster and Commercial Storage Tank Water Heaters

### 1. Revision of Table 45.1 to provide for a maximum temperature rise for phenolic components used as electrical insulation

#### PROPOSAL

**Table 45.1**

**Maximum acceptable temperature rises**

Material or component		°C	(°F)
1.	Any point within a terminal box or wiring compartment of a water heater in which field installed conductors are to be connected, including such conductors themselves, unless the water heater is marked in accordance with 57.14	35	(63)
2.	Any point on a surface adjacent to a water heater, including the surface on which the water heater is mounted or supported, and specified points on test surfaces and enclosures at designated clearances from the water heater; metal surfaces of a water heater at point of contact with the test surfaces and surfaces of a water heater that are recessed within the test enclosure	65	(117)
3.	Fuses other than Classes CC, G, J, T	65	(117)
4.	Classes CC, G, J, T fuses	85	(153)
5.	Fiber employed as electrical insulation	65	(117)
6.	Wood or other combustible material	65	(117)
7.	Class 105 insulation systems on a relay, a transformer, a solenoid, and the like		
	Thermocouple method	65 <sup>a</sup>	(117 <sup>a</sup> )
	Resistance method	85	(153)
8.	Class 130 insulation systems on a relay, a transformer, a solenoid, and the like		
	Thermocouple method	85 <sup>a</sup>	(153 <sup>a</sup> )
	Resistance method	105	(189)
9.	Phenolic components used as electrical insulation or where deterioration of the compound would result in a risk of fire, electric shock, or injury to persons <sup>b</sup>	<u>125</u>	<u>225</u>
10.	Insulated wire or cord	25°C less than its established temperature rating <sup>c</sup>	(45°F) less than its established temperature rating <sup>c</sup>

11.	Sealing compound	d	d
12.	Copper or copper-base alloy conductors:		
	A. Tinned or bare strands having:		
	1. A diameter less than 0.015 inch (0.38 mm)	125	(225)
	2. A diameter of 0.015 inch or more	175	(315)
	B. Plated with nickel, gold, silver, or a combination of these metals	225	(405)
13.	Termination of copper conductors and pressure terminal connectors unless both are tinned, nickel coated, silver plated or otherwise protected	125	(225)
14.	Capacitor		
	A. Electrolytic type	65 <sup>e</sup>	(117 <sup>e</sup> )
	B. Other types	65 <sup>f</sup>	(117 <sup>f</sup> )

<sup>a</sup> At a point on the surface of a coil where the temperature is affected by an external source of heat, the temperature rise measured by means of a thermocouple may be higher than the maximum indicated by the following amount:

Item	Additional Temperature Rise	
7	15°C	(27°F)
8	20°C	(36°F)

provided that the temperature rise of the coil, as measured by the resistance method, is not more than that specified in the table.

<sup>b</sup> The limitation on phenolic composition does not apply to a compound that has been investigated and found to be acceptable for a higher temperature.

<sup>c</sup> Inside a water heater, the temperature rises on a wire or cord may be greater than the specified maximum rise provided that the insulation on each individual conductor is protected by supplementary insulation, such as braid, wrap, tape, or close fitting tubing, that is rated for the temperature and type of insulation involved.

<sup>d</sup> Unless the sealing compound is a thermosetting material, the maximum acceptable temperature, when corrected to a 25°C (77°F) ambient temperature, is 15°C (27°F) less than the softening point of the compound as determined by the Test for Softening Point by Ring-and-Ball Apparatus, ASTM E28..

<sup>e</sup> For other than an electrolytic capacitor that is physically integral with or attached to a motor, the temperature rise on insulating material integral with the capacitor enclosure may be no more than 65°C (117°F).

<sup>f</sup> A capacitor that operates at a temperature rise of more than 65°C (117°F) may be judged on the basis of its marked temperature limit.