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

**Addenda**


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](https://osr.ashrae.org/default.aspx)

Send comments (with copy to psa@ansi.org) to: https://osr.ashrae.org/default.aspx

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

**Addenda**


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](https://osr.ashrae.org/default.aspx)

Send comments (with copy to psa@ansi.org) to: https://osr.ashrae.org/default.aspx

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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](https://osr.ashrae.org/default.aspx)

Send comments (with copy to psa@ansi.org) to: https://osr.ashrae.org/default.aspx

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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](https://osr.ashrae.org/default.aspx)

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

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UL (Underwriters Laboratories, Inc.)

**Revision**


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](https://osr.ashrae.org/default.aspx)

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

Revision
BSR/UL 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) to: Joshua Johnson, (919) 549-1053, Joshua.Johnson@ul.com

UL (Underwriters Laboratories, Inc.)

Revision
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) to: Marcia Kawate, (510) 319-4259, 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
Order from: www.abycinc.org
Send comments (with copy to psa@ansi.org) to: comments@abycinc.org

ABYC (American Boat and Yacht Council)

Revision
BSR/ABYC A-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
Order from: www.abycinc.org
Send comments (with copy to psa@ansi.org) to: comments@abycinc.org

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

Addenda
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) to: https://osr.ashrae.org/default.aspx

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

Revision
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
Send comments (with copy to 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
Send comments (with copy to psa@ansi.org) to: 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 use in the ESNet to provide emergency information services. The ESNet is the emergency information services network for the Public Safety Answering Point (PSAP). It specifies the protocols and message sets for use in the ESNet to communicate between entities consuming emergency services (ECES) and entities providing emergency services (EPES). It also specifies the emergency information services interface (EISI) in the evolution of the Emergency Services Network (ESNet) that provides a future direction toward a next-generation emergency services network.

Single copy price: $110.00

Obtain an electronic copy from: ablasgen@atis.org

Send comments (with copy to psa@ansi.org) to: ablasgen@atis.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 of structure made from aluminum structural alloys, except for aluminum pressure vessels and pressure piping. It also covers 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

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

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

**Revision**

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

This document contains standards for 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

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

Send comments (with copy to 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

Send comments (with copy to psa@ansi.org) to: pmgillicuddy@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 describes the construction and use of 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

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

NEMA (ASC C8) (National Electrical Manufacturers Association)

Reaffirmation
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
Send comments (with copy to psa@ansi.org) to: 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
Order from: Communications@nema.org
Send comments (with copy to psa@ansi.org) to: 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
Order from: NEMA, 1300 North 17th Street, Suite 900, Rosslyn, VA 22209
Send comments (with copy to psa@ansi.org) to: 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
Order from: Greg Knott, (703) 549-7600, gknott@opei.org
Send comments (with copy to psa@ansi.org) to: Same

SAAMI (Sporting Arms and Ammunition Manufacturers Institute)

Reaffirmation
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
Order from: Brian Osowiecki, SAAMI, 11 Mile Hill Road, Newtown, CT 06470 -2359
Send comments (with copy to psa@ansi.org) to: Randy Bimson, SAAMI, rbimson@saami.org
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 entrainment 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) to: Ritu Madan, (847) 664-3297, ritu.madan@ul.com

Comment Deadline: May 15, 2018

Reaffirmations and withdrawals available electronically may be accessed at: 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

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

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

Comments on this proposed standard are to be submitted on the "ACCA Public Response Form": available on 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 (for example 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 (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


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


**IES (Illuminating Engineering Society)**

**Office:** 120 Wall St. 17th Floor  
New York, NY 10006

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


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


Reaffirmation


Revision


Withdrawal


ECIA (Electronic Components Industry Association)

New Standard


NASPO (North American Security Products Organization)

New Standard


NSF (NSF International)

Revision


UL (Underwriters Laboratories, Inc.)

Revision


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
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.

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 X9.119-1-201x, 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.
temperatures up to, and including, 180°F (82°C). The requirements for psi (689.5 kPa) cold- and hot-water distribution systems operating at Specification F876 or F3253. These fittings are intended for use in 100 fittings and sleeves are also included. materials, workmanship, dimensions, and markings to be used on the -1/4, 1-1/2, and 2 in. nominal diameters that meet the requirements for 1 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 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 180°F (82°C). Included are the requirements for material, molded part properties, performance, workmanship, dimensions, and markings to be used on the fittings and sleeves.

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 180°F (82°C). Included are the requirements for material, molded part properties, performance, workmanship, dimensions, and markings to be used on the fittings and sleeves.

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, 180°F (82°C). The requirements for materials, workmanship, dimensions, and markings to be used on the fittings and sleeves are also included.
Additional “patient” content (operations, etc.) will be submitted for normative consideration in future releases. NOTE: Additional “observation” content (operations, etc.) will be submitted for normative consideration in future releases.

BSR/HL7 FHIR 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.
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 Shotshell 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)
Office:  1320 North Courthouse Road
       Suite 200
       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.

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.

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.

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, select “Standards Activities,” click on “Public Review and Comment” and “American National Standards Maintained Under Continuous Maintenance.” This information is also available directly at www.ansi.org/publicreview

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

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

ABYC
American Boat and Yacht Council
613 Third Street, Ste 10
Annapolis, MD 21403
Phone: (410) 990-4460
Fax: (410) 990-4466
Web: www.abycinc.org

ACCA
Air Conditioning Contractors of America
2800 Shirlington Road
Suite 300
Arlington, VA 22206
Phone: (703) 824-8868
Web: www.acca.org

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

ASC X9
Accredited Standards Committee X9, Incorporated
275 West Street
Suite 107
Annapolis, MD 21401
Phone: (410) 267-7707
Web: www.x9.org

ASCE
American Society of Civil Engineers
1801 Alexander Bell Dr
Reston, VA 20191
Phone: 703-295-6176
Web: www.asce.org

ASHRAE
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: www.ashrae.org

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

ATIS
Alliance for Telecommunications Industry Solutions
1200 G Street NW
Suite 500
Washington, DC 20005
Phone: (202) 434-8840
Web: www.atis.org

AWS
American Welding Society
8669 NW 36th Street
Suite #130
Miami, FL 33166-6672
Phone: (800) 443-1553
Fax: (305) 443-5951
Web: www.aws.org

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

EOS/ESD
ESD Association
7900 Turin Rd., Bldg. 3
Rome, NY 13440
Phone: (315) 339-6937
Fax: (315) 339-6793
Web: www.esda.org

ESTA
Entertainment Services and Technology Association
630 Ninth Avenue
Suite 609
New York, NY 10036-3748
Phone: (212) 244-1505
Fax: (212) 244-1502
Web: www.esta.org

HL7
Health Level Seven
3300 Washthenaw Avenue
Suite 227
Ann Arbor, MI 48104
Phone: (734) 677-7777
Fax: (734) 677-6622
Web: www.hl7.org

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

ISDI (ASC MH2)
Industrial Steel Drum Institute
P.O. Box 790
Severna Park, MD 21146-0790
Phone: (410) 703-7778
Fax: (410) 544-0385
Web: www.whysteeldrums.org

NEMA (ASC C8)
National Electrical Manufacturers Association
1300 North 17th Street
Rosslyn, VA 22209
Phone: (703) 841-3278
Fax: (703) 841-3398
Web: www.nema.org

NEMA (ASC C80)
National Electrical Manufacturers Association
1300 North 17th Street
Suite 900
Rosslyn, VA 22209
Phone: (703) 841-3288
Fax: (703) 841-3388
Web: www.nema.org

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

NSF
NSF International
789 N. Dixiboro Road
Ann Arbor, MI 48105-9723
Phone: (734) 418-6660
Web: www.nsf.org

OPEI
Outdoor Power Equipment Institute
341 South Patrick Street
Alexandria, VA 22314
Phone: (703) 549-7600
Fax: (703) 549-7604
Web: www.opei.org

SAAMI
Sporting Arms and Ammunition Manufacturers Institute
11 Mile Hill Road
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Phone: (203) 426-4358
Fax: (203) 426-3592
Web: www.saami.org

SCTE
Society of Cable Telecommunications Engineers
140 Philips Rd
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Fax: (800) 542-5040
Web: www.scte.org

TIA
Telecommunications Industry Association
1320 North Courthouse Road
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Fax: (703) 907-7727
Web: www.tiaonline.org

UL
Underwriters Laboratories, Inc.
47173 Benicia Street
Fremont, CA 94538
Phone: (510) 319-4259
Web: www.ul.com

WDMA
Window and Door Manufacturers Association
2025 M Street NW, Suite 800
Washington, DC 20036-3309
Phone: (202) 367-1157
Web: www.wdma.com

NFP
National Fire Protection Association
One Batterymarch Park
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Phone: (617) 984-7246
Web: www.nfpa.org

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789 N. Dixiboro Road
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Web: www.nsf.org

OPEI
Outdoor Power Equipment Institute
341 South Patrick Street
Alexandria, VA 22314
Phone: (703) 549-7600
Fax: (703) 549-7604
Web: www.opei.org
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

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<th>Standard Number</th>
<th>Title</th>
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<th>Price</th>
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<td>AGRICULTURAL FOOD PRODUCTS (TC 34)</td>
<td>ISO/DIS 21446</td>
<td>Infant formula and adult nutritionals - Determination of trans and total (cis + trans) vitamin K1 content using normal phase high performance liquid chromatography (HPLC)</td>
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<td>ISO/DIS 15216-2</td>
<td>Microbiology of the food chain - Horizontal method for determination of hepatitis A virus and norovirus in food using real-time RT-PCR</td>
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<td>AIR QUALITY (TC 146)</td>
<td>ISO/DIS 22065</td>
<td>Workplace air - Procedures for measuring gases and vapours using pumped samplers - Requirements and test methods</td>
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<td>ISO/DIS 16000-37</td>
<td>Indoor air - Part 37: Measurement of PM 2.5 mass concentration</td>
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<td>ANAESTHETIC AND RESPIRATORY EQUIPMENT (TC 121)</td>
<td>ISO 80601-2-56/DAmd1</td>
<td>Medical electrical equipment - Part 2-56: Particular requirements for basic safety and essential performance of clinical thermometers for body temperature measurement - Amendment 1</td>
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<td>ISO 80601-2-84</td>
<td>Medical electrical equipment - Part 2-84: Particular requirements for basic safety and essential performance of emergency and transport ventilators</td>
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<td>APPLICATIONS OF STATISTICAL METHODS (TC 69)</td>
<td>ISO/DIS 16355-3</td>
<td>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</td>
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<td>CLEANROOMS AND ASSOCIATED CONTROLLED ENVIRONMENTS (TC 209)</td>
<td>ISO/DIS 14644-16</td>
<td>Cleanrooms and associated controlled environments - Part 16: Code of practice for improving energy efficiency in cleanrooms and clean air devices</td>
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<td>HYDROGEN ENERGY TECHNOLOGIES (TC 197)</td>
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<td>Gaseous hydrogen - Fueling stations - Part 5: Hoses and hose assemblies</td>
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<td>IMPLANTS FOR SURGERY (TC 150)</td>
<td>ISO/DIS 14117</td>
<td>Active implantable medical devices - Electromagnetic compatibility - EMC test protocols for implantable cardiac pacemakers, implantable cardioverter defibrillators and cardiac resynchronization devices</td>
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<td>INFORMATION AND DOCUMENTATION (TC 46)</td>
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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
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: Ringcores, 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


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/124/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/
Listed here are new and revised standards recently approved and promulgated by ISO – the International Organization for Standardization – and IEC – the International Electrotechnical Commission. Most are available at the ANSI Electronic Standards Store (ESS) at www.ansi.org. All paper copies are available from Standards resellers (http://webstore.ansi.org/faq.aspx#resellers).

**ISO Standards**

**AGRICULTURAL FOOD PRODUCTS (TC 34)**
- ISO 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)**

**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/IEC JTC 1, Information Technology**
- ISO/IEC 30136:2018, Information technology - Performance testing of biometric template protection schemes, $138.00
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)
expressions 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

Standards Action - March 16, 2018 - Page 23 of 54 pages
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 or notifyus@nist.gov.
Information Concerning

American National Standards

Call for Members

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

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

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

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

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

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

Society of Cable Telecommunications

ANSI Accredited Standards Developer

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

SCTE is currently seeking to broaden the membership base of its 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 or by e-mail from 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 (please copy jthompson@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 IS0/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).
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).

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).

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).

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), with a submission of comments to Steve Cornish (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), with a submission of comments to Steve Cornish (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), with a submission of comments to Steve Cornish (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), with a submission of comments to Steve Cornish (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

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.
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;
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), with a submission of comments to Steve Cornish (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
Third Public Review Draft – Independent Substantive Changes

(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 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.

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

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

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

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

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

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

7.5 Additional Restrictions

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

Exceptions:

1. These restrictions do not apply to sealed absorption and unit systems having refrigerant quantities less than or equal to those indicated in Table 7.4.
2. These restrictions do not apply to industrial occupancies.

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

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

7.6.1.1 Occupied spaces shall comply with Section 7.2.

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

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

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

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

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

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

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

   c. When required by the product listing.

   d. When using the provisions of Section 7.6.4.
7.6.2.4 When the refrigerant detector senses a rise in refrigerant concentration above the value specified in Section 7.6.5 b), the following actions shall be taken:

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

\[
Q_{\text{min}} = 1,000 \cdot \frac{M}{LFL} \quad \text{(I-P)}
\]

\[
Q_{\text{min}} = 60,000 \cdot \frac{M}{LFL} \quad \text{(SI)}
\]

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

M is the refrigerant charge in lb (kg)

LFL is the lower flammability limit in lb per 1000 ft³ (g/m³).

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

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

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

7.6.3 Ignition Sources located in Ductwork

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

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

7.6.3.3 Devices containing hot surfaces exceeding 1290 °F (700 °C) shall not be located in the ductwork that serves the space unless there is a minimum air flow of 200 ft/min (1.0 m/s) across the heating device(s) and there is proof of air flow before the heating device(s) is energized.
7.6.4 Compressors and Pressure Vessel Located Indoors – Allowance to Exceed RCL. For refrigeration compressors and pressure vessels located in an indoor space that is accessible only during service and maintenance it shall be permissible to exceed the RCL if all of the following provisions are met.

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

\[
V = 200 \times M \text{ } \text{ (I-P)} \\
V = 12.5 \times M \text{ } \text{ (SI)} 
\]

Where: \( V \) = space volume ft\(^3\) (m\(^3\))

\( M \) = the largest single circuit charge lb (kg)

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

\[
Q_{min} = 1001.3 \times M / \text{LFL} \text{ } \text{ (I-P)} \\
Q_{min} = 60,000 \times M / \text{LFL} \text{ } \text{ (SI)} 
\]

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

\( M \) = the refrigerant charge in lbm (kg)

\( \text{LFL} \) = the lower flammability limit in lbm/Mcf (gm/m\(^3\))

a) The largest single circuit charge shall not exceed:

1. 6.6 lb (3 kg) for Residential and Institutional occupancies.
2. 22 lb (10 kg) for Commercial and Public / Large Mercantile occupancies.

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

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

\[
Q_{min} = 1,000 \times M / \text{LFL} \text{ } \text{ (I-P)} \\
Q_{min} = 60,000 \times M / \text{LFL} \text{ } \text{ (SI)} 
\]

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

\( M \) = the refrigerant charge in lb (kg)

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

e) The ventilation system shall be started when the refrigerant detector senses refrigerant in accordance with Section 7.6.5. The location of the refrigerant detector shall be in accordance with Section 7.6.5. The ventilation system shall continue to operate for at least 30 minutes after the refrigerant detector has sensed a drop in the refrigerant concentration below the value specified in Section 7.6.5 b).
d) The ventilation system exhaust air inlet shall be located where refrigerant from a leak is expected to accumulate. The bottom of the air inlet elevation shall be within 12 inches (30 cm) of the lowest elevation in the space where the compressor or pressure vessel is located. Provision shall be made for make-up air to replace that being exhausted. Opening(s) for the make-up air shall be positioned such that air will mix with leaked refrigerant.

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

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

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

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

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

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

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

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

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

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

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

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

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

   ii) For refrigerating systems that are directly connected to the occupied space without ductwork, the refrigerant detector shall be located in the equipment, or shall be located in the occupied space at a height of not more than 12 inches (30 cm) above the floor and within a horizontal distance of not more 6.0 3.3 ft (1.8 1.0 m) with a direct line of sight of the unit.
d) The refrigerant detector shall provide a means for an automatic operational self-test as provided in the product listing. Use of a refrigerant test gas is not required. If a failure is detected, a trouble alarm shall be activated and the actions required by Section 7.6.2.4 shall be initiated the supply air fan operated continuously.

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

9. DESIGN AND CONSTRUCTION OF EQUIPMENT AND SYSTEMS

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

c. For Group A2L, A2, A3, B1, B2L, B2, and B3 refrigerants, protective metal enclosures shall 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 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
FOREWORD

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.

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

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

refrigerant designation: the unique identifying alphanumeric value or refrigerant number assigned to an individual refrigerant and published in ASHRAE Standard 34.¹

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

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

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

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

1. Written instructions of the original equipment manufacturer.

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

3. Approved by the AHJ.

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

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

7.5 Additional Restrictions

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

7.5.1.7 Mixing of Refrigerants. Refrigerants, including refrigerant blends, with different refrigerant designations in ASHRAE Standard 34 ¹ shall not only be mixed in a system in accordance with both of the following:

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

The refrigerant and amount added shall follow and is in accordance with the manufacturer’s written instructions.

2. The resulting mixture does not change the refrigerant safety group.
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 or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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

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This 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 strikethrough (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

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/ft³ (0.10 kg/m³) (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 ≤ 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 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

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

FOREWORD

This addendum adds the 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 strikethrough (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Addendum o to 34-2016

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**

<table>
<thead>
<tr>
<th>Refrigerant Number</th>
<th>Composition (Mass %)</th>
<th>Composition tolerances</th>
<th>OEL</th>
<th>Safety Group</th>
<th>RCL</th>
<th>Highly Toxic or Toxic Under Code Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>436C</td>
<td>R-290 / 600a (95.0 / 5.0)</td>
<td>± 1.2 / ± 1.2</td>
<td>990</td>
<td>A3</td>
<td>5,000 ppm v/v; 0.57 lb/Mcf; 9.1 g/m³</td>
<td>Neither</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Refrigerant Number</th>
<th>Composition (Mass %)</th>
<th>Average Molecular Mass</th>
<th>Bubble Point (°F)</th>
<th>Dew Point (°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>436C</td>
<td>R-290 / 600a (95.0 / 5.0)</td>
<td>44.6 g/mol</td>
<td>-42.7</td>
<td>-39.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-41.5</td>
<td>-39.5</td>
</tr>
</tbody>
</table>
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.

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
manufacturer’s start-up procedures. If the manufacturer does not provide a start-up procedure, ⅔ of the system’s capacity shall be filled with water and the remaining ⅓ 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.

8.3.3 Analyses

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

- 
- 
- 

### 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.

---

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Sample type</th>
<th>Raw influent</th>
<th>Treated effluent</th>
<th>Testing location</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD$_5$</td>
<td>24 h composite</td>
<td>X</td>
<td></td>
<td>Laboratory</td>
</tr>
<tr>
<td>CBOD$_5$</td>
<td>24 h composite</td>
<td>X</td>
<td>X</td>
<td>Laboratory</td>
</tr>
<tr>
<td>total suspended solids</td>
<td>24 h composite</td>
<td>X</td>
<td>X</td>
<td>Laboratory</td>
</tr>
<tr>
<td>pH</td>
<td>Grab</td>
<td>X</td>
<td>X</td>
<td>Test site</td>
</tr>
<tr>
<td>temperature (°C)</td>
<td>Grab</td>
<td>X</td>
<td>X</td>
<td>Test site</td>
</tr>
<tr>
<td>dissolved oxygen</td>
<td>Grab</td>
<td>X</td>
<td>X</td>
<td>Test site</td>
</tr>
<tr>
<td>alkalinity (as CaCO$_3$)</td>
<td>24 h composite</td>
<td>X</td>
<td>X</td>
<td>Laboratory</td>
</tr>
<tr>
<td>TKN (as N)</td>
<td>24 h composite</td>
<td>X</td>
<td>X</td>
<td>Laboratory</td>
</tr>
<tr>
<td>ammonia-N (as N)</td>
<td>24 h composite</td>
<td>X</td>
<td>X</td>
<td>Laboratory</td>
</tr>
<tr>
<td>nitrite/nitrate-N (as N)</td>
<td>24 h composite</td>
<td>X</td>
<td>X</td>
<td>Laboratory</td>
</tr>
</tbody>
</table>
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$_5$

The average CBOD$_5$ 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.
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 ±1.0°C (158.0 ±1.8°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.
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

<table>
<thead>
<tr>
<th>Material or component</th>
<th>°C</th>
<th>°F</th>
</tr>
</thead>
<tbody>
<tr>
<td>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</td>
<td>35</td>
<td>(63)</td>
</tr>
<tr>
<td>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</td>
<td>65</td>
<td>(117)</td>
</tr>
<tr>
<td>3. Fuses other than Classes CC, G, J, T</td>
<td>65</td>
<td>(117)</td>
</tr>
<tr>
<td>5. Fiber employed as electrical insulation</td>
<td>65</td>
<td>(117)</td>
</tr>
<tr>
<td>6. Wood or other combustible material</td>
<td>65</td>
<td>(117)</td>
</tr>
<tr>
<td>7. Class 105 insulation systems on a relay, a transformer, a solenoid, and the like</td>
<td>65(^a)</td>
<td>(117(^a))</td>
</tr>
<tr>
<td>Thermocouple method</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resistance method</td>
<td>85</td>
<td>(153)</td>
</tr>
<tr>
<td>8. Class 130 insulation systems on a relay, a transformer, a solenoid, and the like</td>
<td>85(^a)</td>
<td>(153(^a))</td>
</tr>
<tr>
<td>Thermocouple method</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resistance method</td>
<td>105</td>
<td>(189)</td>
</tr>
<tr>
<td>9. Phenolic components used as electrical insulation where deterioration of the compound would result in a risk of fire, electric shock, or injury to persons(^b)</td>
<td>125</td>
<td>225</td>
</tr>
<tr>
<td>10. Insulated wire or cord</td>
<td>25°C less than its established temperature rating(^c)</td>
<td>(45°F) less than its established temperature rating(^c)</td>
</tr>
</tbody>
</table>
11. Sealing compound

<table>
<thead>
<tr>
<th>Copper or copper-base alloy conductors:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Tinned or bare strands having:</td>
</tr>
<tr>
<td>1. A diameter less than 0.015 inch (0.38 mm)</td>
</tr>
<tr>
<td>2. A diameter of 0.015 inch or more</td>
</tr>
<tr>
<td>B. Plated with nickel, gold, silver, or a combination of these metals</td>
</tr>
</tbody>
</table>

12. Termination of copper conductors and pressure terminal connectors unless both are tinned, nickel coated, silver plated or otherwise protected | 125 (225) |

13. Capacitor

| Electrolytic type | 65e (117e) |
| Other types       | 65f (117f) |

a 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:

<table>
<thead>
<tr>
<th>Item</th>
<th>Additional Temperature Rise</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>15°C (27°F)</td>
</tr>
<tr>
<td>8</td>
<td>20°C (36°F)</td>
</tr>
</tbody>
</table>

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

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

c 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.

d 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.

e 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).

f 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.