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## American National Standards

### Call for comment on proposals listed

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

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

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

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

\* Standard for consumer products

## Call for Comment of Limited Substantive Changes to Approved ANS 30-Day Call for Comment Deadline: July 28, 2019

### **(IICRC) The Institute of Inspection, Cleaning and Restoration Certification**

#### **ANSI/IICRC S520:2015**

##### ***Standard for Professional Mold Remediation***

This Standard describes the procedures to be followed and the precautions to be taken when performing mold remediation in residential, commercial and institutional buildings, and the systems and personal property contents of those structures. The Standard explains mold remediation techniques, the principles of which may apply to other microbial remediation projects or services. This Standard assumes that determining and correcting the underlying cause of mold contamination is the responsibility of a property owner and not the remediator, although a property owner may contract with a remediator or other professional to perform these services.

Single copy price: Free

Order from: Mili Washington at [mwashington@iicrcnet.org](mailto:mwashington@iicrcnet.org)

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

Obtain an electronic copy from: Mili Washington at [mwashington@iicrcnet.org](mailto:mwashington@iicrcnet.org)

**Public review is limited to the revisions shown in the linked pages.**

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

#### **ANSI/IICRC S540-2017**

##### ***Standard for Trauma and Crime Scene Cleanup***

This Standard describes the procedures to be followed and the precautions to be taken when performing trauma and crime-scene remediation regardless of surface, item, or location.

Single copy price: Free

Order from: Mili Washington at [mwashington@iicrcnet.org](mailto:mwashington@iicrcnet.org)

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

Obtain an electronic copy from: Mili Washington at [mwashington@iicrcnet.org](mailto:mwashington@iicrcnet.org)

**Public review is limited to the revisions shown in the linked pages.**

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

## Comment Deadline: July 28, 2019

### NSF (NSF International)

#### *New Standard*

BSR/NSF 385-201x (i1r11), Disinfection Mechanics (new standard)

This Standard is intended for use with devices intended to disinfect wastewater after secondary treatment and prior to discharge from residential wastewater treatment systems having rated treatment capacities between 757 L/day (200 gal/day) and 5678 L/day (1500 gal/day) or commercial wastewater treatment systems having a rated treatment capacity exceeding 5678 L/day (1500 gal/day). This also applies to devices intended to be used in water reclamation and reuse. Specific requirements exist for construction and testing of individual disinfection devices based on the specific technology used by the device.

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

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

### NSF (NSF International)

#### *Revision*

BSR/NSC 373-201x (i5r1), Sustainability Assessment Natural Dimension Stone (revision of ANSI/NSC 373-2017)

This sustainability standard establishes criteria to measure the extent to which natural stone has been produced sustainably. The standard applies to all processors of natural stone, from quarry operations through final stone fabrication, and is intended to allow for both domestic and international market participation from natural dimension stone producers. In practice, the facility operator applies this Standard to: quarry operations, stone fabrication, or both.

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

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

### UL (Underwriters Laboratories, Inc.)

#### *Revision*

BSR/UL 147A-201x, Standard for Safety for Nonrefillable (Disposable) Type Fuel Gas Cylinder Assemblies (revision of ANSI/UL 147A-2018)

This proposal is being issued to revise the Fire Test.

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

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

BSR/UL 486C-201x, Standard for Safety for Splicing Wire Connectors (revision of ANSI/UL 486C-2018)

(1) Clarify that aluminum test conductors can be compact, compressed, or concentric stranding; (2) Correction to paragraph 9.2.3 3, Conductor Insulation Type.

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

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

BSR/UL 486A-486B-201x, Standard for Safety for Wire Connectors (revision of ANSI/UL 486A-486B-2018)

(1) Addition to the scope to address use of ferrules and adapters; (2) Define number of samples; (3) Define min and max sample size in table 11; (4) Clarify that aluminum test conductors can be compact, compressed, or concentric stranding; (5) Test B, Flashover Clarification; (6) Clarification of dielectric-withstand test sequence; (7) Conductor insulation types.

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

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

BSR/UL 746C-201x, Standard for Safety for Polymeric Materials - Use in Electrical Equipment Evaluations (revision of ANSI/UL 746C-2018)

This proposal covers the inclusion of a weathering test program for non-enclosure/elastomeric/film materials. A similar version of this proposal was published by UL for ballot on February 15, 2019.

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

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

BSR/UL 2703-201x, Standard for Safety for Mounting Systems, Mounting Devices, Clamping/Retention Devices, and Ground Lugs for Use with Flat-Plate Photovoltaic Modules and Panels (revision of ANSI/UL 2703-2019)

This proposal for UL 2703 covers: (1) Bonding and grounding revisions.

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

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

## Comment Deadline: August 12, 2019

### ASA (ASC S2) (Acoustical Society of America)

#### *New National Adoption*

BSR/ASA S2.73 Amd.1-201x/ISO 10819 Amd.1-2019, Mechanical vibration and shock - Hand-arm vibration - Measurement and evaluation of the vibration transmissibility of gloves at the palm of the hand - Amendment 1 (identical national adoption of ISO 10819 Amd.1:2019)

The baseline nationally adopted international standard specifies a method for laboratory measurement, data analysis, and reporting of the vibration transmissibility of a glove with a vibration-reducing material that covers the palm and the fingers and thumb of the hand, in terms of vibration transmitted from a handle through a glove in the 1/3-octave frequency bands with center frequencies of 25 Hz to 1 250 Hz. The procedure can also be used to measure the vibration transmissibility of a material that is used to cover a handle of a machine. This amendment was recently published to supplement the baseline document, so the national adoption of the amendment is also required.

Single copy price: \$19.00

Obtain an electronic copy from: [asastds@acousticalsociety.org](mailto:asastds@acousticalsociety.org)

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

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

### ASA (ASC S3) (Acoustical Society of America)

#### *Reaffirmation*

BSR/ASA S3.55-2014/Part 5/IEC 60318-5:2006 (MOD) (R201x), Electroacoustics - Simulators of Human Head and Ear - Part 5: 2 cm<sup>3</sup> Coupler for the Measurement of Hearing Aids and Earphones Coupled to the Ear by Means of Ear Inserts (a modified nationally adopted international standard) (reaffirm a national adoption ANSI/ASA S3.55-2014/Part 5/IEC 60318-5:2006 (MOD))

Describes an acoustic coupler for loading an earphone or hearing aid with a specified acoustic impedance when determining its physical performance characteristics, in the frequency range 125 Hz to 8 kHz. It is suitable for air-conduction hearing aids and earphones, coupled to the ear by means of ear inserts, e.g., ear molds or similar devices. The sound pressure developed by an earphone is not, in general, the same in the coupler as in a person's ear. However, it can be used as a simple and ready means for the exchange of specifications and of physical data on hearing aids and for the calibration of specified insert earphones used in audiometry.

Single copy price: \$55.00

Obtain an electronic copy from: [asastds@acousticalsociety.org](mailto:asastds@acousticalsociety.org)

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

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

### ASSP (Safety) (American Society of Safety Professionals)

#### *New Standard*

BSR/ASSP Z490.2-201X, Accepted Practices for E-learning in Safety, Health and Environmental Training (new standard)

This standard establishes criteria for safety, health, and environmental virtual training programs, including program management, development, delivery, evaluation, and documentation. The purpose of this standard is to provide criteria for accepted practices for safety, health, and environmental training programs including development, delivery, evaluation, and program management, which are delivered via virtual means. This standard is recommended for application by virtual training providers of safety, health, and environmental training. If any of the provisions of this standard are not applicable, the other requirements of the standard shall still apply. This standard applies to all occupational safety, health, or environmental training, whether separate or a part of other training being given on a virtual basis.

Single copy price: \$110.00

Order from: [LBauerschmidt@assp.org](mailto:LBauerschmidt@assp.org)

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

**CSA (CSA America Standards Inc.)****Reaffirmation**

BSR Z21.17-1998 (R201x); BSR Z21.17a-2008 (R201x), Standard for Domestic Gas Conversion Burners (same as CSA 2.7-M98; CSA 2.7a) (reaffirmation of ANSI Z21.17-1998 (R2014); ANSI Z21.17a-2008 (R2014))

Details test and examination criteria for domestic conversion burners for use with natural, manufactured, and mixed gases; liquefied petroleum gases; and LP gas-air mixtures

Single copy price: \$614.00

Obtain an electronic copy from: david.zimmerman@csagroup.org

Send comments (with optional copy to psa@ansi.org) to: david.zimmerman@csagroup.org

**HL7 (Health Level Seven)****Reaffirmation**

BSR/HL7 V3IG INFOB, R4-2014 (R201x), HL7 Version 3 Implementation Guide: Context-Aware Knowledge Retrieval Application (Infobutton), Release 4 (reaffirmation of ANSI/HL7 V3IG INFOB, R4-2014)

The Infobutton URL-based Implementation Guide provides a standard mechanism for EHR systems to submit knowledge requests to knowledge resources over the HTTP protocol through a standard using a URL format. Compliance with this specification is required for EHR certification in the US EHR Meaningful Use Program.

Single copy price: Free

Obtain an electronic copy from: Karenvan@HL7.org

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

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

**ISA (International Society of Automation)****New Standard**

BSR/ISA 62443-2-1-201x, Security for industrial automation and control systems - Part 2-1: Security program requirements for IACS asset owners (new standard)

This standard specifies asset owner security program (SP) requirements for an industrial automation and control system (IACS).

Single copy price: \$172.00 (ISA Members; price); \$215.00 (list price)

Obtain an electronic copy from: ebrazda@isa.org

Send comments (with optional copy to psa@ansi.org) to: ebrazda@isa.org

**NEMA (ASC C136) (National Electrical Manufacturers Association)****Reaffirmation**

BSR C136.12-2014 (R201x), Mercury Lamps - Guide for Selection (reaffirmation of ANSI C136.12-2014)

This standard covers the selection of mercury vapor lamps recommended for use in roadway and area lighting equipment.

Single copy price: \$46.00

Obtain an electronic copy from: David.Richmond@nema.org

Order from: David Richmond, (703) 841-3234, David.Richmond@nema.org

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

**NEMA (ASC C136) (National Electrical Manufacturers Association)****Revision**

BSR C136.4-201X, Series Sockets and Series Socket Receptacles (revision of ANSI C136.4-2003 (R2013))

This standard covers the following equipment for roadway and area luminaries: (a) Series sockets having medium impact strength and intended for service at high temperatures; (b) Series sockets having high impact strength and intended for service at limited temperatures; and (c) Series-socket receptacles (called the receptacles in this standard) in the 5000 V classification.

Single copy price: \$66.00

Obtain an electronic copy from: David.Richmond@nema.org

Order from: David Richmond, (703) 841-3234, David.Richmond@nema.org

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

BSR C136.32-201X, Standard for Roadway and Area Lighting Equipment - Enclosed Setback Luminaires and Directional Floodlights (revision of ANSI C136.32-2012)

This standard covers dimensional, maintenance, and electrical features that permit the interchange of similar style enclosed luminaires having the same light distribution classification or type used in roadway or area lighting equipment. Luminaires covered by this standard are generally yoke, trunnion, or tenon mounted. The standard will be updated to include new technologies.

Single copy price: \$60.00

Order from: David Richmond, (703) 841-3234, David.Richmond@nema.org

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

## **NSF (NSF International)**

### ***Revision***

BSR/NSC 373-201x (i4r1), Sustainability Assessment Natural Dimension Stone (revision of ANSI/NSC 373-2017)

This sustainability standard establishes criteria to measure the extent to which natural stone has been produced sustainably. The standard applies to all processors of natural stone, from quarry operations through final stone fabrication, and is intended to allow for both domestic and international market participation from natural dimension stone producers. In practice, the facility operator applies this Standard to: quarry operations, stone fabrication, or both.

Single copy price: Free

Obtain an electronic copy from: [https://standards.nsf.org/apps/group\\_public/download.php/49590/373i4r1%20-%20JC%20Memo%20and%20ballot.pdf](https://standards.nsf.org/apps/group_public/download.php/49590/373i4r1%20-%20JC%20Memo%20and%20ballot.pdf)

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

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

### ***New National Adoption***

BSR/UL 60691-201X, Standard for Thermal-Links - Requirements and Application Guide (identical national adoption of IEC 60691 and revision of ANSI/UL 60691-2016)

Adopting the revisions contained in IEC's Amendment No. 1 of IEC 60691.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

Order from: <http://www.shopulstandards.com>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

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

### ***Reaffirmation***

BSR/UL 391-2006 (R201x), Standard for Safety for Solid-Fuel and Combination-Fuel Central and Supplementary Furnaces (reaffirmation of ANSI/UL 391-2006 (R2014))

Reaffirmation and continuance of the fifth edition of the Standard for Gas Vents, UL 391, as an American National Standard.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

Order from: <http://www.shopulstandards.com>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

BSR/UL 441-2006 (R201x), Standard for Gas Vents (reaffirmation of ANSI/UL 441-2006 (R2014))

Reaffirmation and continuance of the eleventh edition of the Standard for Gas Vents, UL 441, as an American National Standard.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

Order from: <http://www.shopulstandards.com>

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BSR/UL 907-2006 (R201x), Standard for Safety for Fireplace Accessories (reaffirmation of ANSI/UL 907-2006 (R2014))

Reaffirmation and continuance of the fourth edition of the Standard Safety for Fireplace Accessories, UL 907, as an American National Standard.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

Order from: <http://www.shopulstandards.com>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

BSR/UL 959-2006 (R201x), Standard for Safety for Medium Heat Appliance Factory-Built Chimneys (reaffirmation of ANSI/UL 959-2006 (R2014))

Reaffirmation and continuance of the ninth edition of the Standard for Medium Heat Appliance Factory-Built Chimneys, UL 959, as an American National Standard.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

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Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

BSR/UL 60745-2-11-2009 (R201x), Standard for Safety for Hand-Held Motor-Operated Electric Tools - Safety - Part 2-11: Particular Requirements for Reciprocating Saws, (Jig and Sabre Saws) (reaffirmation of ANSI/UL 60745-2-11-2009 (R2014))

This proposal for UL 60745-2-18 covers: (1) Reaffirmation and continuance of the second edition of the Standard for Hand-Held Motor-Operated Electric Tools - Safety - Part 2-11: Particular Requirements for Reciprocating Saws (Jig and Sabre Saws), UL 60745-2-11, as an American National Standard.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

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Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

BSR/UL 60745-2-21-2009 (R201x), Standard for Safety for Hand-Held Motor-Operated Electric Tools - Safety - Part 2-21: Particular Requirements for Drain Cleaners (reaffirmation of ANSI/UL 60745-2-21-2009 (R2014))

This proposal for UL 60745-2-21 covers: (1) Reaffirmation and continuance of the first edition of the Standard for Hand-Held Motor-Operated Electric Tools - Safety - Part 2-21: Particular Requirements for Drain Cleaners, UL 60745-2-21, as an American National Standard.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

Order from: <http://www.shopulstandards.com>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

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

### ***Revision***

BRS/UL 864-201x, Standard for Control Units and Accessories for Fire Alarm Systems (revision of ANSI/UL 864-2018)

The products covered by this standard are intended to be used in combination with other appliances and devices to form a commercial fire alarm system. These products provide all monitoring, control, and indicating functions of the system. An installation document(s) provided with the product describes the various products needed to form a fire alarm system and their intended use and installation. These requirements cover: (a) Discrete electrical control units and accessories for fire alarm systems; (b) Electrically- and electronically-operated amplifiers that provide speech communication and distinctive sounds in conjunction with fire-protective signaling systems; and (c) Commercial stationary and fixed power supplies for fire-protective signaling systems, having input and output ratings of not more than 600 V, direct- and alternating-current (DC and AC).

Single copy price: Free

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Order from: <http://www.shopulstandards.com>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

BSR/UL 217-201x, Standard for Safety for Smoke Alarms (revision of ANSI/UL 217-2016)

Proposed ninth edition of UL 217 containing changes that include revisions to the sensitivity, fire, stability, velocity, cooking nuisance tests and a new Go/No-Go Flaming Polyurethane Foam Test. Additional changes include revisions for nuisance sensor requirements, firmware updates, manufacturer's published instructions, and a new mechanical push test.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

Order from: <http://www.shopulstandards.com>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

## Comment Deadline: August 27, 2019

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

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

#### *New National Adoption*

INCITS/ISO/IEC 20546:2019 [201x], Information technology - Big data - Overview and vocabulary (identical national adoption of ISO/IEC 20546:2019)

Provides a set of terms and definitions needed to promote improved communication and understanding of this area. It provides a terminological foundation for big data-related standards. Provides a conceptual overview of the field of big data, its relationship to other technical areas and standards efforts, and the concepts ascribed to big data that are not new to big data.

Single copy price: \$68.00

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

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

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

### UL (Underwriters Laboratories, Inc.)

#### *New National Adoption*

BSR/UL 60730-2-15-201X, Standard for automatic electrical controls - Part 2-15: Particular requirements for automatic electrical air flow, water flow and water level sensing controls (identical national adoption of IEC 60730-2-15 and revision of ANSI/UL 60730-2-15 -2014)

The third edition of the Standard for Automatic Electrical Controls - Part 2-15: Particular Requirements for Automatic Electrical Air Flow, Water Flow and Water Level Sensing Controls, UL 60730-2-15, would be published.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

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

### UL (Underwriters Laboratories, Inc.)

#### *Reaffirmation*

BSR/UL 1598A-2005 (R201x), Standard for Safety for Supplemental Requirements for Luminaires for Installation on Marine Vessels (reaffirmation of ANSI/UL 1598A-2005 (R2014))

This proposal for UL 1598A covers: Reaffirmation and continuance of the first edition of the Standard for Supplemental Requirements for Luminaires for Installation on Marine Vessels, UL 1598A, as an American National Standard.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

Order from: <https://www.shopulstandards.com/>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Anne Marie Jacobs, (919) 549-0954, [annemarie.jacobs@ul.com](mailto:annemarie.jacobs@ul.com)



## UL (Underwriters Laboratories, Inc.)

### Revision

BSR/UL 9540-201x, Standard for Safety for Energy Storage Systems and Equipment (revision of ANSI/UL 9540-2016)

(1) The proposed second edition of ANSI/CAN/UL 9540 with the following changes: (a) Addition of UL 1973 to Appendix A Component List, (b) Addition of ISO Functional safety standards, (c) Revision of grounding and bonding system construction, (d) Revision of the strength of enclosure walls and supports requirements, (e) References to required signage and instructions, (f) Deletion of non-mandatory language throughout standard, (g) Revision of scope language for clarity, (h) Revisions to the fire detection and suppression section, (i) Proposed addition of new 32.4.6, (j) Revision to mechanical tests for clarification, (k) Clarification of 1.2, (l) Revision of 6.4, harmonization with other existing standards, (m) Enclosure materials for outdoor installations, (n) Short circuit exposure evaluation, (o) Clarification of scope, (p) Clarifications of component and normative reference section, (q) Clarification of corrosion requirements for enclosures, (r) Revisions to make the use of term "energy storage system" consistent throughout entire standard, (s) Clarification of instructions for worker safety, (t) Revisions to clarify intent and application of 11.1 and 12.2, (u) Clarifications of system requirements for where the system is installed, (v) Clarification of the intended environment, (w) Clarification of bonding and grounding requirements, (x) Clarifications of 17.1 and 18.1, (y) Clarification of 21.1, (z) Clarification of 32.2.2, (aa) Clarification of 40.4 and 40.5, (ab) Clarification of 11.2, (ac) Addition of requirements for residential ESS, (ad) Addition of production checks on electronic controls, (ae) Addition of requirements for quality control of production, (af) Additional testing options, (ag) Addition of a wall mount fixture test for wall-mounted ESS, (ah) Addition of Normative Appendix D for alternative lead acid or ni-cad battery system evaluation, (ai) Revision of 12.3 to add short circuit protection, (aj) Addition of Informative Appendix E for Guidance on Capacity and Separation Distance Limits for ESS, (ak) Addition of EMC testing, (al) Revision of utility grid interaction reaction requirements, (am) Clarification of the scope, (an) Clarification of Vapor concentration requirements, (ao) Addition of emergency contact marking, (ap) Clarification of flame test surface area, (aq) Addition of 8.2 and Appendix F 2, Revisions for electrochemical ESS above 20 kWh.

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# Call for Members (ANS Consensus Bodies)

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

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

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BSR/ASA S12.2-201x, Criteria for Evaluating Room Noise (revision of ANSI/ASA S12.2-2019)

## ASA (ASC S2) (Acoustical Society of America)

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BSR/ASA S2.73 Amd.1-201x/ISO 10819 Amd.1-2019, Mechanical vibration and shock - Hand-arm vibration - Measurement and evaluation of the vibration transmissibility of gloves at the palm of the hand - Amendment 1 (identical national adoption of ISO 10819 Amd.1:2019)

## ASA (ASC S3) (Acoustical Society of America)

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BSR/ASA S3.55-2014/Part 5/IEC 60318-5:2006 (MOD) (R201x), Electroacoustics - Simulators of Human Head and Ear - Part 5: 2 cm<sup>3</sup> Coupler for the Measurement of Hearing Aids and Earphones Coupled to the Ear by Means of Ear Inserts (a modified nationally adopted international standard) (reaffirm a national adoption ANSI/ASA S3.55-2014/Part 5/IEC 60318-5:2006 (MOD))

## ASME (American Society of Mechanical Engineers)

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BSR/ASME PSD-1-20XX, Plant Systems Design (new standard)

## ASSP (Safety) (American Society of Safety Professionals)

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BSR/ASSP Z490.2-201X, Accepted Practices for E-learning in Safety, Health and Environmental Training (new standard)

## CTA (Consumer Technology Association)

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BSR/CTA 885-2007 (S201x), Remote Starter Safety (stabilized maintenance of ANSI/CTA 885-2007 (R2013))

## IES (Illuminating Engineering Society)

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New York, NY 10005

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BSR/IES RP-1-201x, Recommended Practice: Lighting Office Spaces (revision of ANSI/IES RP-1-2013)

BSR/IES RP-2-201x, Recommended Practice: Lighting Retail Spaces (new standard)

BSR/IES RP-6-201x, Recommended Practice: Lighting Sports and Recreational Areas (new standard)

BSR/IES RP-29-201x, Recommended Practice: Lighting Hospital and Healthcare Facilities (revision of ANSI/IES RP-29-2016)

BSR/IES RP-30-201x, Recommended Practice: Lighting Museums  
(revision and redesignation of ANSI/IESNA RP-30-2016)

#### ISA (International Society of Automation)

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BSR/ISA 62443-2-1-201x, Security for industrial automation and control systems - Part 2-1: Security program requirements for IACS asset owners (new standard)

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

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INCITS 568-201x, Information technology - Fibre Channel - Switch Fabric - 8 (FC-SW-8) (new standard)

INCITS 569-201x, Information technology - Fibre Channel - Link Services - 5 (new standard)

INCITS/ISO 19115-2:2019 [201x], Geographic information - Metadata - Part 2: Extensions for acquisition and processing (identical national adoption of ISO 19115-2:2019 and revision of INCITS/ISO 19115-2:2009 [R2014])

INCITS/ISO 19112:2019 [201x], Geographic information - Spatial referencing by geographic identifiers (identical national adoption of ISO 19112:2019 and revision of INCITS/ISO 19112:2003 [R2014])

INCITS/ISO/IEC 7811-7:2018 [201x], Identification cards - Recording technique - Part 7: Magnetic stripe: High coercivity, high density (identical national adoption of ISO/IEC 7811-7:2018 and revision of INCITS/ISO/IEC 7811-7:2014 [2014])

INCITS/ISO/IEC 7816-6:2016 [201x], Identification cards - Integrated circuit cards - Part 6: Interindustry data elements for interchange (identical national adoption of ISO/IEC 7816-6:2016 and revision of INCITS/ISO/IEC 7816-6:2004 [R2014])

INCITS/ISO/IEC 7816-8:2016 [201x], Identification cards - Integrated circuit cards - Part 8: Commands and mechanisms for security operations (identical national adoption of ISO/IEC 7816-8:2016 and revision of INCITS/ISO/IEC 7816-8:2004 [R2014])

INCITS/ISO/IEC 7816-9:2017 [201x], Identification cards - Integrated circuit cards - Part 9: Commands for card management (identical national adoption of ISO/IEC 7816-9:2017 and revision of INCITS/ISO/IEC 7816-9:2004 [R2014])

INCITS/ISO/IEC 7816-11:2017 [201x], Identification cards - Integrated circuit cards - Part 11: Personal verification through biometric methods (identical national adoption of ISO/IEC 7816-11:2017 and revision of INCITS/ISO/IEC 7816-11:2004 [R2014])

INCITS/ISO/IEC 7816-15:2016 [201x], Identification cards - Integrated circuit cards - Part 15: Cryptographic information application (identical national adoption of ISO/IEC 7816-15:2016 and revision of INCITS/ISO/IEC 7816-15:2004 [R2014])

INCITS/ISO/IEC 8824-1:2015 [201x], Information technology - Abstract Syntax Notation One (ASN.1): Specification of basic notation (identical national adoption of ISO/IEC 8824-1:2015 and revision of INCITS/ISO/IEC 8824-1:2008 [2014])

INCITS/ISO/IEC 8824-2:2015 [201x], Information technology - Abstract Syntax Notation One (ASN.1): Information object specification (identical national adoption of ISO/IEC 8824-2:2015 and revision of INCITS/ISO/IEC 8824-2:2008 [2014])

INCITS/ISO/IEC 8824-3:2015 [201x], Information technology - Abstract Syntax Notation One (ASN.1): Constraint specification (identical national adoption of ISO/IEC 8824-3:2015 and revision of INCITS/ISO/IEC 8824-3:2008 [2014])

INCITS/ISO/IEC 8824-4:2015 [201x], Information technology - Abstract Syntax Notation One (ASN.1): Parameterization of ASN.1 specifications (identical national adoption of ISO/IEC 8824-4:2015 and revision of INCITS/ISO/IEC 8824-4:2008 [2014])

INCITS/ISO/IEC 8825-1:2015 [201x], Information technology - ASN.1 encoding rules: Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER) and Distinguished Encoding Rules (DER) (identical national adoption of ISO/IEC 8825-1:2015 and revision of INCITS/ISO/IEC 8825-1:2008 [2014])

INCITS/ISO/IEC 8825-2:2015 [201x], Information technology - ASN.1 encoding rules: Specification of Packed Encoding Rules (PER) (identical national adoption of ISO/IEC 8825-2:2015 and revision of INCITS/ISO/IEC 8825-2:2008 [2014])

INCITS/ISO/IEC 8825-3:2015 [201x], Information technology - ASN.1 encoding rules: Specification of Encoding Control Notation (ECN) (identical national adoption of ISO/IEC 8825-3:2015 and revision of INCITS/ISO/IEC 8825-3:2008 [2014])

INCITS/ISO/IEC 8825-4:2015 [201x], Information technology - ASN.1 encoding rules: XML Encoding Rules (XER) (identical national adoption of ISO/IEC 8825-4:2015 and revision of INCITS/ISO/IEC 8825-4:2008 [2014])

INCITS/ISO/IEC 9798-3:2019 [201x], IT Security techniques - Entity authentication - Part 3: Mechanisms using digital signature techniques (identical national adoption of ISO/IEC 9798-3:2019 and revision of INCITS/ISO/IEC 9798-3:1998 [R2014])

INCITS/ISO/IEC 10118-1:2016 [201x], Information technology - Security techniques - Hash-functions - Part 1: General (identical national adoption of ISO/IEC 10118-1:2016 and revision of INCITS/ISO/IEC 10118-1:2000 [R2014])

- INCITS/ISO/IEC 10118-3:2018 [201x], IT Security techniques - Hash-functions - Part 3: Dedicated hash-functions (identical national adoption of ISO/IEC 10118-3:2018 and revision of INCITS/ISO/IEC 10118-3:2004 [R2014])
- INCITS/ISO/IEC 11770-2:2018 [201x], IT Security techniques - Key management - Part 2: Mechanisms using symmetric techniques (identical national adoption of ISO/IEC 11770-2:2018 and revision of INCITS/ISO/IEC 11770-2:2008 [R2014])
- INCITS/ISO/IEC 11770-6:2016 [201x], Information technology - Security techniques - Key management - Part 6: Key derivation (identical national adoption of ISO/IEC 11770-6:2016)
- INCITS/ISO/IEC 11889-1:2015 [201x], Information technology - Trusted platform module library - Part 1: Architecture (identical national adoption of ISO/IEC 11889-1:2015 and revision of INCITS/ISO/IEC 11889-1:2009 [R2014])
- INCITS/ISO/IEC 11889-2:2015 [201x], Information technology - Trusted Platform Module Library - Part 2: Structures (identical national adoption of ISO/IEC 11889-2:2015 and revision of INCITS/ISO/IEC 11889-2:2009 [R2014])
- INCITS/ISO/IEC 11889-3:2015 [201x], Information technology - Trusted Platform Module Library - Part 3: Commands (identical national adoption of ISO/IEC 11889-3:2015 and revision of INCITS/ISO/IEC 11889-3:2009 [R2014])
- INCITS/ISO/IEC 11889-4:2015 [201x], Information technology - Trusted Platform Module Library - Part 4: Supporting Routines (identical national adoption of ISO/IEC 11889-4:2015 and revision of INCITS/ISO/IEC 11889-4:2009 [R2014])
- INCITS/ISO/IEC 13818-1:2019 [201x], Information technology - Generic coding of moving pictures and associated audio information - Part 1: Systems (identical national adoption of ISO/IEC 13818-1:2019 and revision of INCITS/ISO/IEC 13818-1:2013 [2014])
- INCITS/ISO/IEC 14496-11:2015 [201x], Information technology - Coding of audio-visual objects - Part 11: Scene description and application engine (identical national adoption of ISO/IEC 14496-11:2015 and revision of INCITS/ISO/IEC 14496-11:2005 [R2014])
- INCITS/ISO/IEC 14496-12:2015 [201x], Information technology - Coding of audio-visual objects - Part 12: ISO base media file format (identical national adoption of ISO/IEC 14496-12:2015 and revision of INCITS/ISO/IEC 14496-12:2012 [2014])
- INCITS/ISO/IEC 14496-15:2017 [201x], Information technology - Coding of audio-visual objects - Part 15: Carriage of network abstraction layer (NAL) unit structured video in the ISO base media file format (identical national adoption of ISO/IEC 14496-15:2017 and revision of INCITS/ISO/IEC 14496-15:2014 [2014])
- INCITS/ISO/IEC 14496-22:2019 [201x], Information technology - Coding of audio-visual objects - Part 22: Open font format (identical national adoption of ISO/IEC 14496-22:2019 and revision of INCITS/ISO/IEC 14496-22:2009 [2014])
- INCITS/ISO/IEC 15444-1:2016 [201x], Information technology - JPEG 2000 image coding system: Core coding system (identical national adoption of ISO/IEC 15444-1:2016 and revision of INCITS/ISO/IEC 15444-1:2004 [R2015])
- INCITS/ISO/IEC 15444-5:2015 [201x], Information technology - JPEG 2000 image coding system: Reference software (identical national adoption of ISO/IEC 15444-5:2015 and revision of INCITS/ISO/IEC 15444-5:2003 [R2014])
- INCITS/ISO/IEC 18013-1:2018 [201x], Information technology - Personal identification - ISO-compliant driving license - Part 1: Physical characteristics and basic data set (identical national adoption of ISO/IEC 18013-1:2018 and revision of INCITS/ISO/IEC 18013-1:2005 [R2014])
- INCITS/ISO/IEC 18041-4:2016 [201x], Information technology - Computer graphics, image processing and environmental data representation -- Environmental Data Coding Specification (EDCS) language bindings - Part 4: C (identical national adoption of ISO/IEC 18041-4:2016 and revision of INCITS/ISO/IEC 18041-4:2007 [R2014])
- INCITS/ISO/IEC 18370-1:2016 [201x], Information technology - Security techniques - Blind digital signatures - Part 1: General (identical national adoption of ISO/IEC 18370-1:2016)
- INCITS/ISO/IEC 19592-1:2016 [201x], Information technology - Security techniques - Secret sharing - Part 1: General (identical national adoption of ISO/IEC 19592-1:2016)
- INCITS/ISO/IEC 19592-2:2017 [201x], Information technology - Security techniques - Secret sharing - Part 2: Fundamental mechanisms (identical national adoption of ISO/IEC 19592-2:2017)
- INCITS/ISO/IEC 19776-2:2015 [201x], Information technology - Computer graphics, image processing and environmental data representation - Extensible 3D (X3D) encodings - Part 2: Classic VRML encoding (identical national adoption of ISO/IEC 19776-2:2015 and revision of INCITS/ISO/IEC 19776-2:2008 [R2014])
- INCITS/ISO/IEC 19896-1:2018 [201x], IT security techniques - Competence requirements for information security testers and evaluators - Part 1: Introduction, concepts and general requirements (identical national adoption of ISO/IEC 19896-1:2018)
- INCITS/ISO/IEC 19896-2:2018 [201x], IT security techniques - Competence requirements for information security testers and evaluators - Part 2: Knowledge, skills and effectiveness requirements for ISO/IEC 19790 testers (identical national adoption of ISO/IEC 19896-2:2018)
- INCITS/ISO/IEC 19896-3:2018 [201x], IT security techniques - Competence requirements for information security testers and evaluators - Part 3: Knowledge, skills and effectiveness requirements for ISO/IEC 15408 evaluators (identical national adoption of ISO/IEC 19896-3:2018)
- INCITS/ISO/IEC 24709-1:2017 [201x], Information technology - Conformance testing for the biometric application programming interface (BioAPI) - Part 1: Methods and procedures (identical national adoption of ISO/IEC 24709-1:2017 and revision of INCITS/ISO/IEC 24709-1:2007 [R2014])

- INCITS/ISO/IEC 24752-1:2014 [201x], Information technology - User interfaces - Universal remote console - Part 1: General framework (identical national adoption of ISO/IEC 24752-1:2014 and revision of INCITS/ISO/IEC 24752-1:2008 [R2014])
- INCITS/ISO/IEC 24752-2:2014 [201x], Information technology - User interfaces - Universal remote console - Part 2: User interface socket description (identical national adoption of ISO/IEC 24752-2:2014 and revision of INCITS/ISO/IEC 24752-2:2008 [R2014])
- INCITS/ISO/IEC 24752-4:2014 [201x], Information technology - User interfaces - Universal remote console - Part 4: Target description (identical national adoption of ISO/IEC 24752-4:2014 and revision of INCITS/ISO/IEC 24752-4:2008 [R2014])
- INCITS/ISO/IEC 24752-5:2014 [201x], Information technology - User interfaces - Universal remote console - Part 5: Resource description (identical national adoption of ISO/IEC 24752-5:2014 and revision of INCITS/ISO/IEC 24752-5:2008 [R2014])
- INCITS/ISO/IEC 27034-3:2018 [201x], Information technology - Application security - Part 3: Application security management process (identical national adoption of ISO/IEC 27034-3:2018)
- INCITS/ISO/IEC 27034-5:2017 [201x], Information technology - Security techniques - Application security - Part 5: Protocols and application security controls data structure (identical national adoption of ISO/IEC 27034-5:2017)
- INCITS/ISO/IEC 27034-6:2016 [201x], Information technology - Security techniques - Application security - Part 6: Case studies (identical national adoption of ISO/IEC 27034-6:2016)
- INCITS/ISO/IEC 27034-7:2018 [201x], Information technology - Application security - Part 7: Assurance prediction framework (identical national adoption of ISO/IEC 27034-7:2018)
- INCITS/ISO/IEC 27035-1:2016 [201x], Information technology - Security techniques - Information security incident management - Part 1: Principles of incident management (identical national adoption of ISO/IEC 27035-1:2016)
- INCITS/ISO/IEC 27035-2:2016 [201x], Information technology - Security techniques - Information security incident management - Part 2: Guidelines to plan and prepare for incident response (identical national adoption of ISO/IEC 27035-2:2016)
- INCITS/ISO/IEC 27036-1:2014 [201x], Information technology - Security techniques - Information security for supplier relationships - Part 1: Overview and concepts (identical national adoption of ISO/IEC 27036-1:2014)
- INCITS/ISO/IEC 27036-2:2014 [201x], Information technology - Security techniques - Information security for supplier relationships - Part 2: Requirements (identical national adoption of ISO/IEC 27036-2:2014)
- INCITS/ISO/IEC 27036-3:2013 [201x], Information technology - Security techniques - Information security for supplier relationships - Part 3: Guidelines for information and communication technology supply chain security (identical national adoption of ISO/IEC 27036-3:2013)
- INCITS/ISO/IEC 27036-4:2016 [201x], Information technology - Security techniques - Information security for supplier relationships - Part 4: Guidelines for security of cloud services (identical national adoption of ISO/IEC 27036-4:2016)
- INCITS/ISO/IEC 27050-1:2016 [201x], Information technology - Security techniques - Electronic discovery - Part 1: Overview and concepts (identical national adoption of ISO/IEC 27050-1:2016)
- INCITS/ISO/IEC 27050-2:2018 [201x], Information technology - Electronic discovery - Part 2: Guidance for governance and management of electronic discovery (identical national adoption of ISO/IEC 27050-2:2018)
- INCITS/ISO/IEC 29109-5:2019 [201x], Information technology - Conformance testing methodology for biometric data interchange formats defined in ISO/IEC 19794 - Part 5: Face image data (identical national adoption of ISO/IEC 29109-5:2019 and revision of INCITS/ISO/IEC 29109-5:2014 [2014])
- INCITS/ISO/IEC 14492:2019 [201x], Information technology - Lossy/lossless coding of bi-level images (identical national adoption of ISO/IEC 14492:2019 and revision of INCITS/ISO/IEC 14492:2001 [R2017])
- INCITS/ISO/IEC 15414:2015 [201x], Information technology - Open distributed processing - Reference model - Enterprise language (identical national adoption of ISO/IEC 15414:2015 and revision of INCITS/ISO/IEC 15414:2006 [R2014])
- INCITS/ISO/IEC 16963:2017 [201x], Information technology - Digitally recorded media for information interchange and storage - Test method for the estimation of lifetime of optical disks for long-term data storage (identical national adoption of ISO/IEC 16963:2017 and revision of INCITS/ISO/IEC 16963:2011 [2014])
- INCITS/ISO/IEC 20546:2019 [201x], Information technology - Big data - Overview and vocabulary (identical national adoption of ISO/IEC 20546:2019)
- INCITS/ISO/IEC 20889:2018 [201x], Privacy enhancing data de-identification terminology and classification of techniques (identical national adoption of ISO/IEC 20889:2018)
- INCITS/ISO/IEC 27004:2016 [201x], Information technology - Security techniques - Information security management - Monitoring, measurement, analysis and evaluation (identical national adoption of ISO/IEC 27004:2016)
- INCITS/ISO/IEC 27005:2018 [201x], Information technology - Security techniques - Information security risk management (identical national adoption of ISO/IEC 27005:2018)
- INCITS/ISO/IEC 27007:2017 [201x], Information technology - Security techniques - Guidelines for information security management systems auditing (identical national adoption of ISO/IEC 27007:2017 and revision of INCITS/ISO/IEC 27007:2011 [R2017])
- INCITS/ISO/IEC 27011:2016 [201x], Information technology - Security techniques - Code of practice for Information security controls based on ISO/IEC 27002 for telecommunications organizations (identical national adoption of ISO/IEC 27011:2016 and revision of INCITS/ISO/IEC 27011:2008 [R2014])

INCITS/ISO/IEC 27018:2019 [201x], Information technology - Security techniques - Code of practice for protection of personally identifiable information (PII) in public clouds acting as PII processors (identical national adoption of ISO/IEC 27018:2019)

INCITS/ISO/IEC 29101:2018 [201x], Information technology - Security techniques - Privacy architecture framework (identical national adoption of ISO/IEC 29101:2018)

INCITS/ISO/IEC 29121:2018 [201x], Information technology - Digitally recorded media for information interchange and storage - Data migration method for optical disks for long-term data storage (identical national adoption of ISO/IEC 29121:2018 and revision of INCITS/ISO/IEC 29121:2013 [2014])

INCITS/ISO/IEC 29134:2017 [201x], Information technology - Security techniques - Guidelines for privacy impact assessment (identical national adoption of ISO/IEC 29134:2017)

INCITS/ISO/IEC 29146:2016 [201x], Information technology - Security techniques - A framework for access management (identical national adoption of ISO/IEC 29146:2016)

INCITS/ISO/IEC 29147:2018 [201x], Information technology - Security techniques - Vulnerability disclosure (identical national adoption of ISO/IEC 29147:2018)

INCITS/ISO/IEC 18031:2011/AM 1:2017 [201x], Information technology - Security techniques - Random bit generation - Amendment 1: Deterministic random bit generation (identical national adoption of ISO/IEC 18031:2011/Amd 1:2017)

INCITS/ISO/IEC 27011:2016/COR 1:2018 [201x], Information technology - Security techniques - Code of practice for Information security controls based on ISO/IEC 27002 for telecommunications organizations - Technical corrigendum 1 (identical national adoption of ISO/IEC 27011:2016/Cor 1:2018)

INCITS/ISO/IEC 29100:2011/AM1:2018 [201x], Information technology - Security techniques - Privacy framework - Amendment 1: Clarifications (identical national adoption of ISO/IEC 29100:2011/AM1:2018)

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BSR C136.4-201X, Series Sockets and Series Socket Receptacles (revision of ANSI C136.4-2003 (R2013))

BSR C136.12-2014 (R201x), Mercury Lamps - Guide for Selection (reaffirmation of ANSI C136.12-2014)

BSR C136.32-201X, Standard for Roadway and Area Lighting Equipment - Enclosed Setback Luminaires and Directional Floodlights (revision of ANSI C136.32-2012)

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BSR/NSC 373-201x (i4r1), Sustainability Assessment Natural Dimension Stone (revision of ANSI/NSC 373-2017)

BSR/NSC 373-201x (i5r1), Sustainability Assessment Natural Dimension Stone (revision of ANSI/NSC 373-2017)

BSR/NSF 385-201x (i1r11), Disinfection Mechanics (new standard)

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

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BSR/TIA 455-3-C-201x, FOTP-3 Procedure to Measure Temperature Cycling Effects on Optical Fiber Units, Optical Cable, and Other Passive Fiber Components (national adoption with modifications of IEC 60794-1-22, Method F1)

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

### **Call for Committee Members**

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

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

- General Interest
- Government
- Producer
- User

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

# Final Actions on American National Standards

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

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

### *New Standard*

ANSI/ASHRAE Standard 212-2019, Method of Test for Determining Energy Performance and Water-Use Efficiency of Add-On Evaporative Pre-Coolers for Unitary Air Conditioning Equipment (new standard): 6/25/2019

## ASME (American Society of Mechanical Engineers)

### *Reaffirmation*

ANSI/ASME B1.20.5-1991 (R2019), Gaging for Dryseal Pipe Threads (Inch) (reaffirmation of ANSI/ASME B1.20.5-1991 (R2014)): 6/18/2019

ANSI/ASME PTC 12.3-1997 (R2019), Performance Test Code on Deaerators (reaffirmation of ANSI/ASME PTC 12.3-1997 (R2014)): 6/18/2019

### *Revision*

ANSI/ASME B31.5-2019, Refrigeration Piping and Heat Transfer Components (revision of ANSI/ASME B31.5-2016): 6/21/2019

## AWPA (ASC O5) (American Wood Protection Association)

### *Withdrawal*

ANSI O5.6-2010, Solid Sawed Naturally Durable Hardwood Crossarms and Braces - Specifications and Dimensions (withdrawal of ANSI O5.6-2010): 6/21/2019

## HL7 (Health Level Seven)

### *Withdrawal*

ANSI/HL7 IDMP DOSE, R1-2014, Health Informatics - Identification of Medicinal Products - Data Elements and Structures for Unique Identification and Exchange of Regulated Information on Pharmaceutical Dose Forms, Units of Presentations and Routes of Administration (withdrawal of ANSI/HL7 IDMP DOSE, R1-2014): 6/25/2019

ANSI/HL7 IDMP UNITSMEASURE, R1-2014, Health Informatics - Identification of Medicinal Products - Data Elements and Structures for Unique Identification of Units of Measurements, Release 1 (withdrawal of ANSI/HL7 IDMP UNITSMEASURE, R1-2014): 6/25/2019

## IENT (Institute of Environmental Sciences and Technology)

### *New National Adoption*

ANSI/IENT/ISO 14644-16-2019, Cleanrooms and associated controlled environments - Part 16: Energy efficiency in cleanrooms and clean air devices (identical national adoption of ISO 14644-16:2019): 6/21/2019

## NALFA (North American Laminate Flooring Association)

### *New Standard*

ANSI/NALFA LF-03-2019, Flooring Underlayment Specifications and Test Methods (new standard): 6/21/2019

### *Revision*

ANSI/NALFA LF-02-2019, Sustainability Assessment of Laminate Flooring (revision of ANSI/NALFA LF-02-2010): 6/21/2019

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

### *Revision*

\* ANSI C18.3M, Part 1-2019, Portable Lithium Primary Cells and Batteries - General and Specifications (revision of ANSI C18.3M, Part 1-2013): 6/25/2019

## NSF (NSF International)

### *Revision*

ANSI/NSF 2-2019 (i34r3), Food Equipment (revision of ANSI/NSF 2-2018): 6/21/2019

ANSI/NSF 50-2019 (i148r1), Equipment and Chemicals for Swimming Pools, Spas, Hot Tubs, and Other Recreational Water Facilities (revision of ANSI/NSF 50-2017): 6/20/2019

ANSI/NSF/CAN 60-2019 (i80r1), Drinking Water Treatment Chemicals - Health Effects (revision of ANSI/NSF 60-2018): 6/18/2019

ANSI/NSF/CAN 60-2019 (i84r1), Drinking Water Treatment Chemicals - Health Effects (revision of ANSI/NSF 60-2018): 6/20/2019

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

### *Revision*

ANSI A108.02-2019, General Requirements: Materials, Environmental, and Workmanship (revision of ANSI A108.02-2016): 6/18/2019

ANSI A108.15-2019, Alternate Method: Installation of Paper-Faced Glass Mosaic Tile (revision of ANSI A108.15-2005 (R2016)): 6/18/2019

ANSI A118.1-2019, Standard Specifications for Dry-Set Cement Mortar (revision of ANSI A118.1-2018): 6/18/2019

ANSI A118.4-2019, Standard Specifications for Modified Dry-Set Cement Mortar (revision of ANSI A118.4-2018): 6/18/2019

ANSI A118.6-2019, Standard Specifications for Standard Cement Grouts for Tile Installation (revision of ANSI A118.6-2010 (R2016)): 6/18/2019

ANSI A118.7-2019, Standard Specifications for High Performance Cement Grouts for Tile Installation (revision of ANSI A118.7-2010 (R2016)): 6/18/2019



ANSI A118.9-2019, Standard Specifications for Test Methods and Specifications for Cementitious Backer Units (revision of ANSI A118.9-1999 (R2016)): 6/21/2019

ANSI A118.15-2019, Standard Specifications for Improved Modified Dry-Set Cement Mortar (revision of ANSI A118.15-2018): 6/18/2019

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

### ***New National Adoption***

ANSI/UL 60745-2-20-2019, Standard for Safety for Hand-Held Motor-Operated Electric Tools - Safety - Part 2-20: Particular Requirements for Band Saws (identical national adoption of IEC 60745-2-20): 6/11/2019

ANSI/UL 61010-2-010-2019, Safety for Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use - Part 2-010: Particular Requirements for Laboratory Equipment for the Heating of Materials (identical national adoption of IEC 61010-2-010 and revision of ANSI/UL 61010-2-010-2015): 6/18/2019

ANSI/UL 61010-2-051-2019, Standard for Safety for Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use - Part 2-051: Particular Requirements for Laboratory Equipment for Mixing and Stirring (identical national adoption of IEC 61010-2-051 and revision of ANSI/UL 61010-2-051-2015): 6/18/2019

ANSI/UL 61010-2-061-2019, Standard for Safety for Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use - Part 2-061: Particular Requirements for Laboratory Atomic Spectrometers with Thermal Atomization and Ionization (identical national adoption of IEC 61010-2-061 and revision of ANSI/UL 61010-2-061-2015): 6/18/2019

### ***Reaffirmation***

ANSI/UL 60745-2-18-2009 (R2019), Standard for Safety for Hand-Held Motor-Operated Electric Tools - Safety - Part 2-18: Particular Requirements For Strapping Tools (reaffirmation of ANSI/UL 60745-2-18-2009 (R2014)): 6/11/2019

ANSI/UL 60745-2-22-2014 (R2019), Standard for Safety for Hand-Held Motor-Operated Electric Tools - Safety - Part 2-22: Particular Requirements For Cut-Off Machines (reaffirmation of ANSI/UL 60745-2-22-2014): 6/11/2019

### ***Revision***

ANSI/UL 962A-2019a, Standard for Safety for Furniture Power Distribution Units (revision of ANSI/UL 962A-2019): 6/21/2019

ANSI/UL 1581-2019, Standard for Safety for Reference Standard for Electrical Wires, Cables, and Flexible Cords (revision of ANSI/UL 1581-2017): 6/20/2019

ANSI/UL 1678-2019, Standard for Safety for Household, Commercial, and Institutional-Use Carts, Stands and Entertainment Centers for Use with Audio and/or Video Equipment (revision of ANSI/UL 1678-2017): 6/18/2019

# 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.

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

Contact: Caryn Mennigke, (631) 390-0215, [asastds@acousticalsociety.org](mailto:asastds@acousticalsociety.org)  
1305 Walt Whitman Road, Suite 300, Melville, NY 11747

### Revision

BSR/ASA S12.2-201x, Criteria for Evaluating Room Noise (revision of ANSI/ASA S12.2-2019)

Stakeholders: Architects, acoustical consultants, builders, and the general public who occupy buildings.

Project Need: The current standard was produced from an outdated version of ANSI/ASA S12.2-2008 with limited revision. Further updates are necessary to more comprehensively address improvements and changes in the technology.

Provides three primary methods for evaluating room noise: a survey method that employs the A-weighted sound level; an engineering method that employs expanded noise criteria (NC) curves; and a method for evaluating low-frequency fluctuating noise using room noise criterion (RNC) curves.

## ASME (American Society of Mechanical Engineers)

Contact: Mayra Santiago, (212) 591-8521, [ansibox@asme.org](mailto:ansibox@asme.org)  
Two Park Avenue, New York, NY 10016-5990

### New Standard

BSR/ASME AMPE-1-20XX, Construction of Metallic Pressure Retaining Equipment Using Additive Manufacturing Processes (new standard)

Stakeholders: Additive manufacturing is currently used by multiple industry sectors, including automotive, aerospace, power generation (fossil and nuclear), and medical products. All these industrial manufacturers have the need to manufacture pressure equipment.

Project Need: Manufacturers and users of pressure equipment have requested that various additive manufacturing (AM) processes be accepted as a basis for construction of pressure retaining equipment and related components in ASME codes and standards, including those constructed to the Boiler and Pressure Vessel Code (BPV), the B31 Codes for Pressure Piping, and B16 Standards. Additive manufacturing has been recognized as the most effective and economic method for producing some complex designs of pressure components.

This standard will address the construction of metallic pressure-retaining equipment including vessels, boilers, and piping system components using additive manufacturing processes. Elements of construction include materials, design, fabrication, examination, inspection, testing, and quality control.

**BSR/ASME PSD-1-20XX , Plant Systems Design (new standard)**

Stakeholders: Owners and designers of plants and facilities with significant worker and public safety hazards, including but not limited to nuclear, petrochemical, and fossil.

Project Need: This standard will provide safer and more efficient system designs and design alternatives with quantified safety levels; more effective requirements management; and more cost-effective and timely strategies for issue resolution and design maturation; combined risk informed probabilistic design methodologies; design of facility plant systems over the entire life cycle of a plant; and will be system based vs. component based and cover multiple disciplines (i.e., mechanical, electrical, instrumentation & control, ventilation, etc.).

This is a technology-neutral standard which will provide a framework, including requirements and guidance, for design organizations to do the following:

- conduct plant process hazard analysis in early stages of advanced plant technology design that advance as the design matures and provide structure to the initial development of a probabilistic risk assessment;
- incorporate existing systems engineering design processes, practices, and tools with traditional architect engineering design processes, practices, and tools; and
- incorporate risk-informed probabilistic design methodologies with traditional deterministic design methods using reliability and availability targets and integrate them into their existing design processes and procedures.

**CTA (Consumer Technology Association)**

Contact: *Veronica Lancaster, (703) 907-7697, vlancaster@cta.tech*  
*1919 South Eads Street, Arlington, VA 22202*

**Stabilized Maintenance**

BSR/CTA 885-2007 (S201x), Remote Starter Safety (stabilized maintenance of ANSI/CTA 885-2007 (R2013))

Stakeholders: Consumers, manufacturers, and retailers.

Project Need: Stabilize CTA 885.

This document addresses automotive accessories that allow the operator to start a vehicle while away from the vehicle and the safety of such devices.

**IES (Illuminating Engineering Society)**

Contact: *Patricia McGillicuddy, (917) 913-0027, pmcgillicuddy@ies.org*  
*120 Wall Street, Floor 17, New York, NY 10005*

**New Standard**

BSR/IES RP-2-201x, Recommended Practice: Lighting Retail Spaces (new standard)

Stakeholders: Lighting practitioners, architects, electrical engineers, interior designers, regulatory agencies, retail establishment owners/operators, construction industry, the general public.

Project Need: This Recommended Practice is written for designers with varying levels of experience in retail lighting design. The study of this Recommended Practice, including the references and annexes found at the back, should serve as a foundation for good retail and merchandise lighting. For optimum success in lighting retail spaces (or where specialized merchandise lighting is required), the services of a professional specializing in retail merchandise lighting design is recommended. Ideally, this lighting professional should join the design team during the early stages of project development.

RP-2 emphasizes lighting quality and energy efficiency. It will provide an in-depth discussion of the system and the criteria essential to lighting merchandise displays in a variety of retail applications. Specifically, lighting-quality metrics appear in various tables, including horizontal and vertical illuminances along with uniformity measurements.

## BSR/IES RP-6-201x, Recommended Practice: Lighting Sports and Recreational Areas (new standard)

Stakeholders: Lighting practitioners, electrical engineers, architects, environmentalists, regulatory agencies, sports educational groups, the general public.

Project Need: The goal of lighting for sports is to provide an appropriate luminous environment that contributes to the visibility of the playing target (ball), the competitors, and the surrounding backgrounds. To achieve this objective, both quantitative and qualitative factors of illumination should be considered: Quantity of Illumination: The recommended quantity of light is stated in terms of the maintained average horizontal and/or vertical illuminance levels. Quality of Illumination: The recommended quality of illumination is stated in terms of factors such as uniformity ratio (UR), uniformity gradient (UG), and coefficient of variation (CV). In addition, the designer should also consider direct and reflected glare, color rendering index ability (CRI or Rf), color contrast (CC), and modeling.

The purpose of this Recommended Practice (RP) is to provide the reader with recommendations to aid in the design of sports lighting systems. Popular sports such as baseball, tennis, basketball, and football, as well as recreational social activities such as horseshoe pitching and croquet are covered. Venues for spectators of amateur, collegiate, and professional sports are complex facilities that should provide not only for the spectators but also the equipment used in modern sports broadcasting. This document does not address the needs of broadcasting; for this, the reader should look for guidance from the sports league or the project consultant.

**Revision**

## BSR/IES RP-1-201x, Recommended Practice: Lighting Office Spaces (revision of ANSI/IES RP-1-2013)

Stakeholders: Lighting practitioners, electrical engineers, architects, interior designers, regulatory agencies, contractors, people in the construction fields, the general public.

Project Need: For many people, the office is the environment where they spend the majority of their waking adult lives. The expectation is that the time spent in the office will be useful and productive, and that the physical environment will be healthy. The design of the office greatly influences how well the space meets the needs of the workers and their organization. Lighting is a critical element of the design that may enhance or degrade the work experience and affect the well-being of the workers. Beyond supporting worker performance, lighting may also affect the bottom line of the organization by making the best use possible of materials and electricity.

By maintaining a focus on lighting quality and human visual performance, and using the available technology, lighting practitioners can light the workplace more effectively. Their careful attention to the details and willingness to work with and educate other members of the design team (architects, engineers, interior designers, owners, and users) will ensure the best possible use of available resources in design solutions that are cost effective, environmentally sustainable, and yield higher workplace satisfaction and, consequently, enhanced organizational productivity in office environments.

## BSR/IES RP-29-201x, Recommended Practice: Lighting Hospital and Healthcare Facilities (revision of ANSI/IES RP-29-2016)

Stakeholders: Lighting practitioners, architects, interior designers, electrical engineers, healthcare practitioners, construction industry, healthcare standards organizations, regulatory agencies, the general public.

Project Need: The objective of this document is to provide context, define challenges, and identify recommended lighting design practices for healthcare-specific environments. This document is not prescriptive but is intended to provide guidance and to inspire by identifying possibilities that enable designers to develop the appropriate solutions for complex situations and spaces. This document is organized to complement other authoritative references, such as the Guidelines for Design and Construction documents published by the Facility Guidelines Institute (FGI), which is presented in three volumes that address hospitals; outpatient facilities; and residential health, care, and support facilities. Part I of this Recommended Practice provides a brief summary some of lighting fundamentals, forming a foundation for the healthcare-specific information that follows. Part II addresses the many design considerations important for healthcare facilities, while Part III identifies specific room types that have unique lighting needs. These room names and the organization of the sections follow the format found in the FGI Guidelines. Utilizing a common language and approach helps foster integrated, collaborative project teams that include architects, medical planners, interior designers, engineers, and lighting designers.

More than fifty years ago, the Illuminating Engineering Society recognized that healthcare facilities have unique and specialized illumination needs, resulting in the publication of the first version of this recommended practice. Since then, the only constant in both the healthcare and lighting arenas has been change. Technological advances (both within the lighting industry and within the medical equipment industry), changing regulations and guidelines, clinical breakthroughs, and philosophical shifts in healthcare delivery models have created a theme of "health for life".

BSR/IES RP-30-201x, Recommended Practice: Lighting Museums (revision and redesignation of ANSI/IESNA RP-30-2016)

Stakeholders: Lighting practitioners, architects, interior designers, electrical engineers, theatrical designers, museum curators and personnel, construction industry, regulatory agencies, educational practitioners, the general public.

Project Need: Museums and art galleries collect, preserve, and display natural artifacts and/or examples of human achievement. Effective exhibit lighting should balance exhibition presentation goals (which enrich the visitor experience) with conservation techniques (intended to protect artifacts for appreciation by many generations to come.) Decisions regarding museum lighting may be influenced by a number of people with varying educational backgrounds and lighting expertise, including: The curator, who has a story to tell; The exhibit designer, whose aesthetic presentation supports that story; The conservator, whose role is to protect the collection from the ravages of time, heat, humidity, museum visitors, and light. While this document is intended primarily for lighting designers, other decision makers—such as the museum administrator, curator, conservator, and exhibit designer—can use it to improve understanding and communication throughout the exhibition process. The more the exhibition team understands both the aesthetic lighting design rules of thumb and general conservation techniques, the better will be the final presentation.

The purpose of this document is to enhance the decision-making process by providing specific standards for satisfying the special requirements of museums and art galleries. Updated information is included on current lighting techniques and new lighting technology. Exhibition lighting is the focus of this document, though information relating to other museum and art gallery applications is also addressed. Lighting design guidance for museum shops, restaurants, and office spaces is provided in other IES Recommended Practice publications.

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

Contact: Lynn Barra, (202) 737-8888, [comments@standards.incits.org](mailto:comments@standards.incits.org)  
700 K Street NW, Suite 600, Washington, DC 20001

### ***New National Adoption***

INCITS/ISO 19115-2:2019 [201x], Geographic information - Metadata - Part 2: Extensions for acquisition and processing (identical national adoption of ISO 19115-2:2019 and revision of INCITS/ISO 19115-2:2009 [R2014])

Stakeholders: ICT industry.

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

Defines the schema required for an enhanced description of the acquisition and processing of geographic information, including imagery. Included are the properties of measuring systems and the numerical methods and computational procedures used to derive geographic information from the data acquired by them. This document also provides the XML encoding for acquisition and processing metadata, thereby extending the XML schemas defined in ISO/TS 19115-3.

INCITS/ISO 19112:2019 [201x], Geographic information - Spatial referencing by geographic identifiers (identical national adoption of ISO 19112:2019 and revision of INCITS/ISO 19112:2003 [R2014])

Stakeholders: ICT industry.

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

Defines the conceptual schema for spatial references based on geographic identifiers. It establishes a general model for spatial referencing using geographic identifiers and defines the components of a spatial reference system. It also specifies a conceptual scheme for a gazetteer. Spatial referencing by coordinates is addressed in ISO 19111. However, a mechanism for recording complementary coordinate references is included in this document. This document enables producers of data to define spatial reference systems using geographic identifiers and assists users in understanding the spatial references used in datasets. It enables gazetteers to be constructed in a consistent manner and supports the development of other standards in the field of geographic information.

INCITS/ISO/IEC 7811-7:2018 [201x], Identification cards - Recording technique - Part 7: Magnetic stripe: High coercivity, high density (identical national adoption of ISO/IEC 7811-7:2018 and revision of INCITS/ISO/IEC 7811-7:2014 [2014])

Stakeholders: ICT industry.

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

This document specifies requirements for a high-coercivity magnetic stripe (including any protective overlay) on an identification card and encoding technique. It takes into consideration both human and machine aspects and states minimum requirements. Coercivity influences many of the quantities specified in this document but is not itself specified. The main characteristic of the high-coercivity magnetic stripe is its improved resistance to erasure. This is achieved with minimal probability of damage to other magnetic stripes by contact while retaining read compatibility with magnetic stripes as defined in ISO/IEC 7811-2.

INCITS/ISO/IEC 7816-6:2016 [201x], Identification cards - Integrated circuit cards - Part 6: Interindustry data elements for interchange (identical national adoption of ISO/IEC 7816-6:2016 and revision of INCITS/ISO/IEC 7816-6:2004 [R2014])

Stakeholders: ICT industry.

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

Specifies directly or by reference, data elements, including composite data elements that may be used in interindustry interchange. It identifies the following characteristics of each data element: identifier; name; description and reference; format and coding (if not available in other ISO standards or parts of ISO/IEC 7816).

INCITS/ISO/IEC 7816-8:2016 [201x], Identification cards - Integrated circuit cards - Part 8: Commands and mechanisms for security operations (identical national adoption of ISO/IEC 7816-8:2016 and revision of INCITS/ISO/IEC 7816-8:2004 [R2014])

Stakeholders: ICT industry.

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

Specifies interindustry commands that may be used for security operations. This document also provides informative directives on how to construct security mechanisms with ISO/IEC 7816-4 defined commands. The choice and conditions of use of cryptographic mechanism in security operations may affect card exportability. The evaluation of the suitability of algorithms and protocols is outside the scope of this document. It does not cover the internal implementation within the card and/or the outside world.

INCITS/ISO/IEC 7816-9:2017 [201x], Identification cards - Integrated circuit cards - Part 9: Commands for card management (identical national adoption of ISO/IEC 7816-9:2017 and revision of INCITS/ISO/IEC 7816-9:2004 [R2014])

Stakeholders: ICT industry.

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

Specifies interindustry commands for card, file, and other structure management, i.e., data object and security object. These commands cover the entire life cycle of the card and therefore some commands are used before the card has been issued to the cardholder or after the card has expired. For details on record life cycle status, refer to ISO/IEC 7816-4. This standard is not applicable to the internal implementation within the card and/or the outside world.

INCITS/ISO/IEC 7816-11:2017 [201x], Identification cards - Integrated circuit cards - Part 11: Personal verification through biometric methods (identical national adoption of ISO/IEC 7816-11:2017 and revision of INCITS/ISO/IEC 7816-11:2004 [R2014])

Stakeholders: ICT industry.

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

Specifies security-related interindustry commands to be used for personal verification through biometric methods in integrated circuit cards. It also defines the data structure and data access methods for use of the card as a carrier of the biometric reference and/or as the device to perform the verification of the cardholder's biometric probe (on-card biometric comparison). Identification of persons using biometric methods is outside the scope of this document.

INCITS/ISO/IEC 7816-15:2016 [201x], Identification cards - Integrated circuit cards - Part 15: Cryptographic information application (identical national adoption of ISO/IEC 7816-15:2016 and revision of INCITS/ISO/IEC 7816-15:2004 [R2014])

Stakeholders: ICT industry.

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

Specifies an application in a card. This application contains information on cryptographic functionality. This part of ISO/IEC 7816 defines a common syntax and format for the cryptographic information and mechanisms to share this information whenever appropriate.

INCITS/ISO/IEC 8824-1:2015 [201x], Information technology - Abstract Syntax Notation One (ASN.1): Specification of basic notation (identical national adoption of ISO/IEC 8824-1:2015 and revision of INCITS/ISO/IEC 8824-1:2008 [2014])

Stakeholders: ICT industry.

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

Provides a standard notation called Abstract Syntax Notation One (ASN.1) that is used for the definition of data types, values, and constraints on data types. Defines a number of simple types, with their tags, and specifies a notation for referencing these types and for specifying values of these types; defines mechanisms for constructing new types from more basic types, and specifies a notation for defining such types and assigning them tags, and for specifying values of these types; defines character sets (by reference to other Recommendations and/or International Standards) for use within ASN.1.

INCITS/ISO/IEC 8824-2:2015 [201x], Information technology - Abstract Syntax Notation One (ASN.1): Information object specification (identical national adoption of ISO/IEC 8824-2:2015 and revision of INCITS/ISO/IEC 8824-2:2008 [2014])

Stakeholders: ICT industry.

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

Provides notation for specifying information object classes, information objects, and information object sets.

INCITS/ISO/IEC 8824-3:2015 [201x], Information technology - Abstract Syntax Notation One (ASN.1): Constraint specification (identical national adoption of ISO/IEC 8824-3:2015 and revision of INCITS/ISO/IEC 8824-3:2008 [2014])

Stakeholders: ICT industry.

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

Provides notation for specifying user-defined constraints, table constraints, and contents constraints.

INCITS/ISO/IEC 8824-4:2015 [201x], Information technology - Abstract Syntax Notation One (ASN.1): Parameterization of ASN.1 specifications (identical national adoption of ISO/IEC 8824-4:2015 and revision of INCITS/ISO/IEC 8824-4:2008 [2014])

Stakeholders: ICT industry.

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

Defines notation for parameterization of ASN.1 specifications.

INCITS/ISO/IEC 8825-1:2015 [201x], Information technology - ASN.1 encoding rules: Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER) and Distinguished Encoding Rules (DER) (identical national adoption of ISO/IEC 8825-1:2015 and revision of INCITS/ISO/IEC 8825-1:2008 [2014])

Stakeholders: ICT industry.

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

Specifies a set of basic encoding rules that may be used to derive the specification of a transfer syntax for values of types defined using the notation specified in Rec. ITU-T X.680 | ISO/IEC 8824-1, Rec. ITU-T X.681 | ISO/IEC 8824-2, Rec. ITU-T X.682 | ISO/IEC 8824-3, and Rec. ITU-T X.683 | ISO/IEC 8824-4, collectively referred to as Abstract Syntax Notation One or ASN.1. These basic encoding rules are also to be applied for decoding such a transfer syntax in order to identify the data values being transferred. It also specifies a set of canonical and distinguished encoding rules that restrict the encoding of values to just one of the alternatives provided by the basic encoding rules.

INCITS/ISO/IEC 8825-2:2015 [201x], Information technology - ASN.1 encoding rules: Specification of Packed Encoding Rules (PER) (identical national adoption of ISO/IEC 8825-2:2015 and revision of INCITS/ISO/IEC 8825-2:2008 [2014])

Stakeholders: ICT industry.

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

Specifies a set of Packed Encoding Rules that may be used to derive a transfer syntax for values of types defined in Rec. ITU-T X.680 | ISO/IEC 8824-1. These Packed Encoding Rules are also to be applied for decoding such a transfer syntax in order to identify the data values being transferred.

INCITS/ISO/IEC 8825-3:2015 [201x], Information technology - ASN.1 encoding rules: Specification of Encoding Control Notation (ECN) (identical national adoption of ISO/IEC 8825-3:2015 and revision of INCITS/ISO/IEC 8825-3:2008 [2014])

Stakeholders: ICT industry.

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

Defines a notation for specifying encodings of ASN.1 types or of parts of types. It provides several mechanisms for such specification, including: direct specification of the encoding using standardized notation; specification of the encoding by reference to standardized encoding rules; specification of the encoding of an ASN.1 type by reference to an encoding structure; and specification of the encoding using non-ECN notation. It also provides the means to link the specification of encodings to the type definitions to which they are to be applied.

INCITS/ISO/IEC 8825-4:2015 [201x], Information technology - ASN.1 encoding rules: XML Encoding Rules (XER) (identical national adoption of ISO/IEC 8825-4:2015 and revision of INCITS/ISO/IEC 8825-4:2008 [2014])

Stakeholders: ICT industry.

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

Specifies a set of basic XML Encoding Rules (BASIC-XER) that may be used to derive a transfer syntax for values of types defined in Rec. ITU-T X.680 | ISO/IEC 8824-1 and Rec. ITU-T X.681 | ISO/IEC 8824-2. This Recommendation | International Standard also specifies a set of Canonical XML Encoding Rules (CXER) which provide constraints on the basic XML Encoding Rules and produce a unique encoding for any given ASN.1 value. This Recommendation | International Standard further specifies a set of extended XML Encoding Rules (EXTENDED-XER) which adds further encoders options, and also allows the ASN.1 specifier to vary the encoding that would be produced by BASIC-XER. It is implicit in the specification of these encoding rules that they are also used for decoding.

INCITS/ISO/IEC 9798-3:2019 [201x], IT Security techniques - Entity authentication - Part 3: Mechanisms using digital signature techniques (identical national adoption of ISO/IEC 9798-3:2019 and revision of INCITS/ISO/IEC 9798-3:1998 [R2014])

Stakeholders: ICT industry.

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

This document specifies entity authentication mechanisms using digital signatures based on asymmetric techniques. A digital signature is used to verify the identity of an entity. Ten mechanisms are specified in this document. The first five mechanisms do not involve an on-line trusted third party and the last five make use of on-line trusted third parties. In both of these two categories, two mechanisms achieve unilateral authentication and the remaining three achieve mutual authentication.

INCITS/ISO/IEC 10118-1:2016 [201x], Information technology - Security techniques - Hash-functions - Part 1: General (identical national adoption of ISO/IEC 10118-1:2016 and revision of INCITS/ISO/IEC 10118-1:2000 [R2014])

Stakeholders: ICT industry.

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

Specifies hash-functions and is therefore applicable to the provision of authentication, integrity, and non-repudiation services. Hash-functions map strings of bits of variable (but usually upper-bounded) length to fixed-length strings of bits, using a specified algorithm.

INCITS/ISO/IEC 10118-3:2018 [201x], IT Security techniques - Hash-functions - Part 3: Dedicated hash-functions (identical national adoption of ISO/IEC 10118-3:2018 and revision of INCITS/ISO/IEC 10118-3:2004 [R2014])

Stakeholders: ICT industry.

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

Specifies dedicated hash-functions, i.e., specially designed hash-functions. The hash-functions in this document are based on the iterative use of a round-function. Distinct round-functions are specified, giving rise to distinct dedicated hash-functions. The use of Dedicated Hash-Functions 1, 2, and 3 in new digital signature implementations is deprecated.

INCITS/ISO/IEC 11770-2:2018 [201x], IT Security techniques - Key management - Part 2: Mechanisms using symmetric techniques (identical national adoption of ISO/IEC 11770-2:2018 and revision of INCITS/ISO/IEC 11770-2:2008 [R2014])

Stakeholders: ICT industry.

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

Document defines key establishment mechanisms using symmetric cryptographic techniques. Addresses three environments for the establishment of keys: Point-to-Point, Key Distribution Centre (KDC), and Key Translation Centre (KTC). It describes the required content of messages which carry keying material or are necessary to set up the conditions under which the keying material can be established. This document does not indicate other information which can be contained in the messages or specify other messages such as error messages. The explicit format of messages is not within the scope of this document.

INCITS/ISO/IEC 11770-6:2016 [201x], Information technology - Security techniques - Key management - Part 6: Key derivation (identical national adoption of ISO/IEC 11770-6:2016)

Stakeholders: ICT industry.

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

Specifies key derivation functions, i.e., functions which take secret information and other (public) parameters as input and output one or more "derived" secret keys. Key derivation functions based on MAC algorithms and on hash-functions are specified.



INCITS/ISO/IEC 11889-1:2015 [201x], Information technology - Trusted platform module library - Part 1: Architecture (identical national adoption of ISO/IEC 11889-1:2015 and revision of INCITS/ISO/IEC 11889-1:2009 [R2014])

Stakeholders: ICT industry.

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

Defines the architectural elements of the Trusted Platform Module (TPM), a device which enables trust in computing platforms in general. Some TPM concepts are explained adequately in the context of the TPM itself. Other TPM concepts are explained in the context of how a TPM helps establish trust in a computing platform. When describing how a TPM helps establish trust in a computing platform, ISO/IEC 11889-1:2015 provides some guidance for platform requirements. However, the scope of ISO/IEC 11889 is limited to TPM requirements.

INCITS/ISO/IEC 11889-2:2015 [201x], Information technology - Trusted Platform Module Library - Part 2: Structures (identical national adoption of ISO/IEC 11889-2:2015 and revision of INCITS/ISO/IEC 11889-2:2009 [R2014])

Stakeholders: ICT industry.

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

Contains the definitions of the constants, flags, structure, and union definitions used to communicate with the TPM. Values defined in ISO/IEC 11889-2:2015 are used by the TPM commands defined in ISO/IEC 11899-3 and by the functions in ISO/IEC 11889-4.

INCITS/ISO/IEC 11889-3:2015 [201x], Information technology - Trusted Platform Module Library - Part 3: Commands (identical national adoption of ISO/IEC 11889-3:2015 and revision of INCITS/ISO/IEC 11889-3:2009 [R2014])

Stakeholders: ICT industry.

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

Contains the definitions of the Trusted Platform Module (TPM) commands. These commands make use of the constants, flags, structures, and union definitions defined in ISO/IEC 11889-2.

INCITS/ISO/IEC 11889-4:2015 [201x], Information technology - Trusted Platform Module Library - Part 4: Supporting Routines (identical national adoption of ISO/IEC 11889-4:2015 and revision of INCITS/ISO/IEC 11889-4:2009 [R2014])

Stakeholders: ICT industry.

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

Contains C code that describes the algorithms and methods used by the command code in ISO/IEC 11889-3. The code in ISO/IEC 11889-4:2015 augments ISO/IEC 11889-2 and ISO/IEC 11889-3 to provide a complete description of a TPM, including the supporting framework for the code that performs the command actions.

INCITS/ISO/IEC 13818-1:2019 [201X], Information technology - Generic coding of moving pictures and associated audio information - Part 1: Systems (identical national adoption of ISO/IEC 13818-1:2019 and revision of INCITS/ISO/IEC 13818-1:2013 [2014])

Stakeholders: ICT industry.

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

Specifies the system layer of the coding. It was developed principally to support the combination of the video and audio coding methods defined in Parts 2 and 3 of ISO/IEC 13818. The system layer supports six basic functions: the synchronization of multiple compressed streams on decoding; the interleaving of multiple compressed streams into a single stream; the initialization of buffering for decoding start up; continuous buffer management; time identification; and multiplexing and signalling of various components in a system stream.

INCITS/ISO/IEC 14496-11:2015 [201x], Information technology - Coding of audio-visual objects - Part 11: Scene description and application engine (identical national adoption of ISO/IEC 14496-11:2015 and revision of INCITS/ISO/IEC 14496-11:2005 [R2014])

Stakeholders: ICT industry.

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

Specifies the coded representation of the spatio-temporal positioning of audio-visual objects as well as their behavior in response to interaction (scene description); the Extensible MPEG-4 Textual (XMT) format, a textual representation of the multimedia content described in ISO/IEC 14496 using the Extensible Markup Language (XML); and a system level description of an application engine (format, delivery, lifecycle, and behavior of downloadable Java byte code applications).

INCITS/ISO/IEC 14496-12:2015 [201x], Information technology - Coding of audio-visual objects - Part 12: ISO base media file format (identical national adoption of ISO/IEC 14496-12:2015 and revision of INCITS/ISO/IEC 14496-12:2012 [2014])

Stakeholders: ICT industry.

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

Specifies the ISO base media file format, which is a general format forming the basis for a number of other more specific file formats. This format contains the timing, structure, and media information for timed sequences of media data, such as audio-visual presentations. ISO/IEC 14496-12:2015 is applicable to MPEG-4, but its technical content is identical to that of ISO/IEC 15444-12, which is applicable to JPEG 2000.

INCITS/ISO/IEC 14496-15:2017 [201x], Information technology - Coding of audio-visual objects - Part 15: Carriage of network abstraction layer (NAL) unit structured video in the ISO base media file format (identical national adoption of ISO/IEC 14496-15:2017 and revision of INCITS/ISO/IEC 14496-15:2014 [2014])

Stakeholders: ICT industry.

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

Specifies the storage format for streams of video that is structured as NAL units, such as AVC (ISO/IEC 14496-10) and HEVC (ISO/IEC 23008-2) video streams.

INCITS/ISO/IEC 14496-22:2019 [201x], Information technology - Coding of audio-visual objects - Part 22: Open Font Format (identical national adoption of ISO/IEC 14496-22:2019 and revision of INCITS/ISO/IEC 14496-22:2009 [2014])

Stakeholders: ICT industry.

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

Specifies the Open Font Format (OFF) specification, including the TrueType and Compact Font Format (CFF) outline formats. Many references to both TrueType and PostScript exist throughout this document, as Open Font Format fonts combine the two technologies. The document defines data structures for various font tables, and provides the necessary details for developers to build a font rendering and text layout/shaping engines in compliance with this document.

INCITS/ISO/IEC 15444-1:2016 [201x], Information technology - JPEG 2000 image coding system: Core coding system (identical national adoption of ISO/IEC 15444-1:2016 and revision of INCITS/ISO/IEC 15444-1:2004 [R2015])

Stakeholders: ICT industry.

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

Defines a set of lossless (bit-preserving) and lossy compression methods for coding bi-level, continuous-tone grey-scale, palletized color, or continuous-tone color digital still images.

INCITS/ISO/IEC 15444-5:2015 [201x], Information technology - JPEG 2000 image coding system: Reference software (identical national adoption of ISO/IEC 15444-5:2015 and revision of INCITS/ISO/IEC 15444-5:2003 [R2014])

Stakeholders: ICT industry.

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

Defines a set of lossless and lossy compression methods for coding continuous-tone, bi-level, greyscale, or color digital still images. This Recommendation | International Standard provides three independently created software reference implementations of Rec. ITU-T T.800 | ISO/IEC 15444-1, in order to assist implementers of Rec. ITU-T T.800 | ISO/IEC 15444-1 in testing and understanding its content. The packages are JASPER, JJ2000, and OPENJPEG.

INCITS/ISO/IEC 18013-1:2018 [201x], Information technology - Personal identification - ISO-compliant driving license - Part 1: Physical characteristics and basic data set (identical national adoption of ISO/IEC 18013-1:2018 and revision of INCITS/ISO/IEC 18013-1:2005 [R2014])

Stakeholders: ICT industry.

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

Establishes guidelines for the design format and data content of an ISO-compliant driving license (IDL) in regard to both visual human-readable features and ISO machine-readable technologies. It creates a common basis for international use and mutual recognition of the IDL without impeding individual national/community/regional motor vehicle authorities in taking care of their specific needs.

INCITS/ISO/IEC 18041-4:2016 [201x], Information technology - Computer graphics, image processing and environmental data representation - Environmental Data Coding Specification (EDCS) language bindings - Part 4: C (identical national adoption of ISO/IEC 18041-4:2016 and revision of INCITS/ISO/IEC 18041-4:2007 [R2014])

Stakeholders: ICT industry.

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

Specifies the binding of the application programming interface (API) defined in ISO/IEC 18025 to the C programming language.

INCITS/ISO/IEC 18370-1:2016 [201x], Information technology - Security techniques - Blind digital signatures - Part 1: General (identical national adoption of ISO/IEC 18370-1:2016)

Stakeholders: ICT industry.

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

Specifies principles, including a general model, a set of entities, a number of processes, and general requirements for blind digital signature mechanisms, as well as the following variants of blind digital signature mechanisms: blind signature mechanisms with partial disclosure; blind signature mechanisms with selective disclosure; and traceable blind signature mechanisms. It also contains terms, definitions, abbreviated terms, and figure elements that are used in all parts of ISO/IEC 18370. See Annex A for a comparison on the blind digital signature mechanisms.

INCITS/ISO/IEC 19592-1:2016 [201x], Information technology - Security techniques - Secret sharing - Part 1: General (identical national adoption of ISO/IEC 19592-1:2016)

Stakeholders: ICT industry.

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

Specifies cryptographic secret sharing schemes and their properties. This document defines the parties involved in a secret sharing scheme, the terminology used in the context of secret sharing schemes, and the parameters and the properties of such a scheme.

INCITS/ISO/IEC 19592-2:2017 [201x], Information technology - Security techniques - Secret sharing - Part 2: Fundamental mechanisms (identical national adoption of ISO/IEC 19592-2:2017)

Stakeholders: ICT industry.

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

Specifies cryptographic secret sharing schemes.

INCITS/ISO/IEC 19776-2:2015 [201x], Information technology - Computer graphics, image processing and environmental data representation - Extensible 3D (X3D) encodings - Part 2: Classic VRML encoding (identical national adoption of ISO/IEC 19776-2:2015 and revision of INCITS/ISO/IEC 19776-2:2008 [R2014])

Stakeholders: ICT industry.

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

Defines a system that integrates 3D graphics and multimedia. Conceptually, each X3D file is a 3D time-based space that contains graphic and aural objects that can be dynamically modified through a variety of mechanisms. This part of ISO/IEC 19776 defines a mapping of the abstract objects in X3D to a specific encoding using the technique defined in ISO/IEC 14772, Virtual reality modeling language (VRML).

INCITS/ISO/IEC 19896-1:2018 [201x], IT security techniques - Competence requirements for information security testers and evaluators - Part 1: Introduction, concepts and general requirements (identical national adoption of ISO/IEC 19896-1:2018)

Stakeholders: ICT industry.

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

Defines terms and establishes an organized set of concepts and relationships to understand the competency requirements for information security assurance conformance-testing and evaluation specialists, thereby establishing a basis for shared understanding of the concepts and principles central to the ISO/IEC 19896 series across its user communities. It provides fundamental information to users of the ISO/IEC 19896 series.

INCITS/ISO/IEC 19896-2:2018 [201x], IT security techniques - Competence requirements for information security testers and evaluators - Part 2: Knowledge, skills and effectiveness requirements for ISO/IEC 19790 testers (identical national adoption of ISO/IEC 19896-2:2018)

Stakeholders: ICT industry.

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

Provides the minimum requirements for the knowledge, skills, and effectiveness requirements of individuals performing testing activities for a conformance scheme using ISO/IEC 19790 and ISO/IEC 24759.

INCITS/ISO/IEC 19896-3:2018 [201x], IT security techniques - Competence requirements for information security testers and evaluators - Part 3: Knowledge, skills and effectiveness requirements for ISO/IEC 15408 evaluators (identical national adoption of ISO/IEC 19896-3:2018)

Stakeholders: ICT industry.

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

Provides the specialized requirements to demonstrate competence of individuals in performing IT product security evaluations in accordance with ISO/IEC 15408 (all parts) and ISO/IEC 18045.

INCITS/ISO/IEC 24709-1:2017 [201x], Information technology - Conformance testing for the biometric application programming interface (BioAPI) - Part 1: Methods and procedures (identical national adoption of ISO/IEC 24709-1:2017 and revision of INCITS/ISO/IEC 24709-1:2007 [R2014])

Stakeholders: ICT industry.

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

Specifies the concepts, framework, test methods, and criteria required to test conformity of biometric products claiming conformance to BioAPI (see ISO/IEC 19784-1). Guidelines for specifying BioAPI conformance test suites, writing test assertions, and defining procedures to be followed during the conformance testing are provided. ISO/IEC 24709-1:2017 is concerned with conformance testing of biometric products claiming conformance to BioAPI (see ISO/IEC 19784-1). It is not concerned with testing other characteristics of biometric products or other types of testing of biometric products (i.e., acceptance, performance, robustness, security, etc.). Testing by means of test methods, which are specific to particular biometric products, are not the subject of ISO/IEC 24709-1:2017.

INCITS/ISO/IEC 24752-1:2014 [201x], Information technology - User interfaces - Universal remote console - Part 1: General framework (identical national adoption of ISO/IEC 24752-1:2014 and revision of INCITS/ISO/IEC 24752-1:2008 [R2014])

Stakeholders: ICT industry.

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

Defines a framework of components that combine to enable remote user interfaces and remote control of network-accessible electronic devices and services through a universal remote console (URC). It provides an overview of the URC framework and its components.

INCITS/ISO/IEC 24752-2:2014 [201x], Information technology - User interfaces - Universal remote console - Part 2: User interface socket description (identical national adoption of ISO/IEC 24752-2:2014 and revision of INCITS/ISO/IEC 24752-2:2008 [R2014])

Stakeholders: ICT industry.

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

Defines a user interface socket as an abstract user interface that describes the functionality and state of a device or service (target) in a machine-interpretable manner that is independent of presentation and input capabilities of a user interaction device. This part of ISO/IEC 24752 defines an Extensible Markup Language (XML)-based language for describing a user interface socket.

INCITS/ISO/IEC 24752-4:2014 [201x], Information technology - User interfaces - Universal remote console - Part 4: Target description (identical national adoption of ISO/IEC 24752-4:2014 and revision of INCITS/ISO/IEC 24752-4:2008 [R2014])

Stakeholders: ICT industry.

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

Defines an extensible markup language (XML)-based language for the description of targets, as used within the universal remote console framework for discovery purposes. A document conforming to this language is a target description.

INCITS/ISO/IEC 24752-5:2014 [201x], Information technology - User interfaces - Universal remote console - Part 5: Resource description (identical national adoption of ISO/IEC 24752-5:2014 and revision of INCITS/ISO/IEC 24752-5:2008 [R2014])

Stakeholders: ICT industry.

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

Defines syntax and semantics for describing atomic resources, resource sheets, groupings, and grouping sheets relevant to the user interface of a device or service ("target").

INCITS/ISO/IEC 27034-3:2018 [201x], Information technology - Application security - Part 3: Application security management process (identical national adoption of ISO/IEC 27034-3:2018)

Stakeholders: ICT industry.

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

Provides a detailed description and implementation guidance for the application security management process.

INCITS/ISO/IEC 27034-5:2017 [201x], Information technology - Security techniques - Application security - Part 5: Protocols and application security controls data structure (identical national adoption of ISO/IEC 27034-5:2017)

Stakeholders: ICT industry.

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

Outlines and explains the minimal set of essential attributes of ASCs and details the activities and roles of the Application Security Life Cycle Reference Model (ASLCRM).

INCITS/ISO/IEC 27034-6:2016 [201x], Information technology - Security techniques - Application security - Part 6: Case studies (identical national adoption of ISO/IEC 27034-6:2016)

Stakeholders: ICT industry.

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

Provides usage examples of ASCs for specific applications.

INCITS/ISO/IEC 27034-7:2018 [201x], Information technology - Application security - Part 7: Assurance prediction framework (identical national adoption of ISO/IEC 27034-7:2018)

Stakeholders: ICT industry.

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

Describes the minimum requirements when the required activities specified by an Application Security Control (ASC) are replaced with a Prediction Application Security Rationale (PASR). The ASC mapped to a PASR defines the Expected Level of Trust for a subsequent application. In the context of an Expected Level of Trust, there is always an original application where the project team performed the activities of the indicated ASC to achieve an Actual Level of Trust. The use of Prediction Application Security Rationales (PASRs), defined by this document, is applicable to project teams which have a defined Application Normative Framework (ANF) and an original application with an Actual Level of Trust.

INCITS/ISO/IEC 27035-1:2016 [201x], Information technology - Security techniques - Information security incident management - Part 1: Principles of incident management (identical national adoption of ISO/IEC 27035-1:2016)

Stakeholders: ICT industry.

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

Presents basic concepts and phases of information security incident management and combines these concepts with principles in a structured approach to detecting, reporting, assessing, and responding to incidents; and applying lessons learnt.

INCITS/ISO/IEC 27035-2:2016 [201x], Information technology - Security techniques - Information security incident management - Part 2: Guidelines to plan and prepare for incident response (identical national adoption of ISO/IEC 27035-2:2016)

Stakeholders: ICT industry.

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

Provides the guidelines to plan and prepare for incident response. The guidelines are based on the "Plan and Prepare" phase and the "Lessons Learned" phase of the "Information security incident management phases" model presented in ISO/IEC 27035-1. The principles given in this part of ISO/IEC 27035 are generic and intended to be applicable to all organizations, regardless of type, size, or nature. Organizations can adjust the guidance given in this part of ISO/IEC 27035 according to their type, size, and nature of business in relation to the information security risk situation. This part of ISO/IEC 27035 is also applicable to external organizations providing information security incident management services.

INCITS/ISO/IEC 27036-1:2014 [201x], Information technology - Security techniques - Information security for supplier relationships - Part 1: Overview and concepts (identical national adoption of ISO/IEC 27036-1:2014)

Stakeholders: ICT industry.

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

Provides an overview of the guidance intended to assist organizations in securing their information and information systems within the context of supplier relationships. It also introduces concepts that are described in detail in the other parts of ISO/IEC 27036. ISO/IEC 27036-1:2014 addresses perspectives of both acquirers and suppliers.

INCITS/ISO/IEC 27036-2:2014 [201x], Information technology - Security techniques - Information security for supplier relationships - Part 2: Requirements (identical national adoption of ISO/IEC 27036-2:2014)

Stakeholders: ICT industry.

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

Specifies fundamental information security requirements for defining, implementing, operating, monitoring, reviewing, maintaining, and improving supplier and acquirer relationships. These requirements cover any procurement and supply of products and services, such as manufacturing or assembly, business process procurement, software and hardware components, knowledge process procurement, and Build-Operate-Transfer and cloud computing services.

INCITS/ISO/IEC 27036-3:2013 [201x], Information technology - Security techniques - Information security for supplier relationships - Part 3: Guidelines for information and communication technology supply chain security (identical national adoption of ISO/IEC 27036-3:2013)

Stakeholders: ICT industry.

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

Provides product and service acquirers and suppliers in the information and communication technology (ICT) supply chain.

INCITS/ISO/IEC 27036-4:2016 [201x], Information technology - Security techniques - Information security for supplier relationships - Part 4: Guidelines for security of cloud services (identical national adoption of ISO/IEC 27036-4:2016)

Stakeholders: ICT industry.

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

Provides cloud service customers and cloud service providers with guidance on gaining visibility into the information security risks associated with the use of cloud services and managing those risks effectively, and responding to risks specific to the acquisition or provision of cloud services that can have an information security impact on organizations using these services. The scope of this standard is to define guidelines supporting the implementation of information security management for the use of cloud services.

INCITS/ISO/IEC 27050-1:2016 [201x], Information technology - Security techniques - Electronic discovery - Part 1: Overview and concepts (identical national adoption of ISO/IEC 27050-1:2016)

Stakeholders: ICT industry.

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

Defines related terms and describes the concepts, including, but not limited to, identification, preservation, collection, processing, review, analysis, and production of ESI. This document also identifies other relevant standards (e.g., ISO/IEC 27037) and how they relate to, and interact with, electronic discovery activities. This standard is relevant to both non-technical and technical personnel involved in some or all of the electronic discovery activities, and it is not intended to contradict or supersede local jurisdictional laws and regulations, so exercise care to ensure compliance with the prevailing jurisdictional requirements.

INCITS/ISO/IEC 27050-2:2018 [201x], Information technology - Electronic discovery - Part 2: Guidance for governance and management of electronic discovery (identical national adoption of ISO/IEC 27050-2:2018)

Stakeholders: ICT industry.

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

Provides guidance for technical and non-technical personnel at senior management levels within an organization, including those with responsibility for compliance with statutory and regulatory requirements and industry standards. It describes how such personnel can identify and take ownership of risks related to electronic discovery, set policy, and achieve compliance with corresponding external and internal requirements. It also suggests how to produce such policies in a form which can inform process control. Furthermore, it provides guidance on how to implement and control electronic discovery in accordance with the policies.

INCITS/ISO/IEC 29109-5:2019 [201x], Information technology - Conformance testing methodology for biometric data interchange formats defined in ISO/IEC 19794 - Part 5: Face image data (identical national adoption of ISO/IEC 29109-5:2019 and revision of INCITS/ISO/IEC 29109-5:2014 [2014])

Stakeholders: ICT industry.

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

Specifies elements of conformance testing methodology, test assertions, and test procedures as applicable to two-dimensional face images defined in the ISO/IEC 19794-5:2005 biometric data interchange format standard for face image data. Establishes test assertions of the structure of the face image data format as specified in ISO/IEC 19794-5:2005 (Type A Level 1 as defined in ISO/IEC 29109-1:2009) and test assertions of internal consistency by checking the types of values that may be contained within each field (Type A Level 2 as defined in ISO/IEC 29109-1:2009).

INCITS/ISO/IEC 14492:2019 [201x], Information technology - Lossy/lossless coding of bi-level images (identical national adoption of ISO/IEC 14492:2019 and revision of INCITS/ISO/IEC 14492:2001 [R2017])

Stakeholders: ICT industry.

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

Defines methods for coding bi-level images and sets of images (documents consisting of multiple pages). It is particularly suitable for bi-level images consisting of text and dithered (halftone) data.

INCITS/ISO/IEC 15414:2015 [201x], Information technology - Open distributed processing - Reference model - Enterprise language (identical national adoption of ISO/IEC 15414:2015 and revision of INCITS/ISO/IEC 15414:2006 [R2014])

Stakeholders: ICT industry.

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

Provides: (a) a language (the enterprise language) comprising concepts, structures, and rules for developing, representing, and reasoning about a specification of an ODP system from the enterprise viewpoint (as defined in Rec. ITU-T X.903 | ISO/IEC 10746 -3); (b) rules which establish correspondences between the enterprise language and the other viewpoint languages (defined in Rec. ITU-T X.903 | ISO/IEC 10746-3) to ensure the overall consistency of a specification.

INCITS/ISO/IEC 16963:2017 [201x], Information technology - Digitally recorded media for information interchange and storage - Test method for the estimation of lifetime of optical disks for long-term data storage (identical national adoption of ISO/IEC 16963:2017 and revision of INCITS/ISO/IEC 16963:2011 [2014])

Stakeholders: ICT industry.

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

Specifies an accelerated ageing test method for estimating the lifetime of the retrievability of information stored on recordable or rewritable optical disks. The method is based on the theoretical assumption that the lifetime of data recorded on an optical disk has a log-normal distribution. Detailed testing is specified for the following formats: DVD-R/RW/RAM disks, +R/+RW disks, CD-R/RW disks, and BD recordable/rewritable disks.

INCITS/ISO/IEC 20889:2018 [201x], Privacy enhancing data de-identification terminology and classification of techniques (identical national adoption of ISO/IEC 20889:2018)

Stakeholders: ICT industry.

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

Provides a description of privacy-enhancing data de-identification techniques, to be used to describe and design de-identification measures in accordance with the privacy principles in ISO/IEC 29100. In particular, this document specifies terminology, a classification of de-identification techniques according to their characteristics, and their applicability for reducing the risk of re-identification. This document is applicable to all types and sizes of organizations, including public and private companies, government entities, and not-for-profit organizations, that are PII controllers or PII processors acting on a controller's behalf, implementing data de-identification processes for privacy-enhancing purposes.

INCITS/ISO/IEC 27004:2016 [201x], Information technology - Security techniques - Information security management - Monitoring, measurement, analysis and evaluation (identical national adoption of ISO/IEC 27004:2016)

Stakeholders: ICT industry.

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

Provides guidelines intended to assist organizations in evaluating the information security performance and the effectiveness of an information security management system in order to fulfill the requirements of ISO/IEC 27001:2013, 9.1. It establishes: (a) the monitoring and measurement of information security performance, (b) the monitoring and measurement of the effectiveness of an information security management system (ISMS) including its processes and controls, and (c) the analysis and evaluation of the results of monitoring and measurement. Is applicable to all types and sizes of organizations.

INCITS/ISO/IEC 27005:2018 [201x], Information technology - Security techniques - Information security risk management (identical national adoption of ISO/IEC 27005:2018)

Stakeholders: ICT industry.

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

Provides guidelines for information security risk management. This document supports the general concepts specified in ISO/IEC 27001 and is designed to assist the satisfactory implementation of information security based on a risk-management approach. Knowledge of the concepts, models, processes, and terminologies described in ISO/IEC 27001 and ISO/IEC 27002 is important for a complete understanding of this document.

INCITS/ISO/IEC 27007:2017 [201x], Information technology - Security techniques - Guidelines for information security management systems auditing (identical national adoption of ISO/IEC 27007:2017 and revision of INCITS/ISO/IEC 27007:2011 [R2017])

Stakeholders: ICT industry.

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

Provides guidance on managing an information security management system (ISMS) audit program, on conducting audits, and on the competence of ISMS auditors, in addition to the guidance contained in ISO 19011:2011. ISO/IEC 27007 is applicable to those needing to understand or conduct internal or external audits of an ISMS or to manage an ISMS audit program.

INCITS/ISO/IEC 27011:2016 [201x], Information technology - Security techniques - Code of practice for Information security controls based on ISO/IEC 27002 for telecommunications organizations (identical national adoption of ISO/IEC 27011:2016 and revision of INCITS/ISO/IEC 27011:2008 [R2014])

Stakeholders: ICT industry.

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

Defines guidelines supporting the implementation of information security controls in telecommunications organizations. Adoption will allow telecommunications organizations to meet baseline information security management requirements of confidentiality, integrity, availability, and any other relevant security property.

INCITS/ISO/IEC 27018:2019 [201x], Information technology - Security techniques - Code of practice for protection of personally identifiable information (PII) in public clouds acting as PII processors (identical national adoption of ISO/IEC 27018:2019)

Stakeholders: ICT industry.

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

Establishes commonly accepted control objectives, controls, and guidelines for implementing measures to protect Personally Identifiable Information (PII) in line with the privacy principles in ISO/IEC 29100 for the public cloud computing environment. In particular, this document specifies guidelines based on ISO/IEC 27002, taking into consideration the regulatory requirements for the protection of PII which can be applicable within the context of the information security risk environment(s) of a provider of public cloud services.

INCITS/ISO/IEC 29101:2018 [201x], Information technology - Security techniques - Privacy architecture framework (identical national adoption of ISO/IEC 29101:2018)

Stakeholders: ICT industry.

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

Defines a privacy architecture framework that: specifies concerns for ICT systems that process PII; lists components for the implementation of such systems; and provides architectural views contextualizing these components. This document is applicable to entities involved in specifying, procuring, architecting, designing, testing, maintaining, administering, and operating ICT systems that process PII. It focuses primarily on ICT systems that are designed to interact with PII principals.

INCITS/ISO/IEC 29121:2018 [201x], Information technology - Digitally recorded media for information interchange and storage - Data migration method for optical disks for long-term data storage (identical national adoption of ISO/IEC 29121:2018 and revision of INCITS/ISO/IEC 29121:2013 [2014])

Stakeholders: ICT industry.

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

Specifies the data migration method for DVD-R, DVD-RW, DVD-RAM, +R, +RW, CD-R, CD-RW, BD Recordable and BD Rewritable disks for long-term data storage. By applying this document for information storage, digital data can be migrated to a next new disk without loss from the present disk as long as data errors are completely corrected before and during the migration and provided copying of the data is allowed.

INCITS/ISO/IEC 29134:2017 [201x], Information technology - Security techniques - Guidelines for privacy impact assessment (identical national adoption of ISO/IEC 29134:2017)

Stakeholders: ICT industry.

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

Guidelines for a process on privacy impact assessments, and a structure and content of a PIA report. It is applicable to all types and sizes of organizations, including public companies, private companies, government entities, and not-for-profit organizations. This standard is relevant to those involved in designing or implementing projects, including the parties operating data processing systems and services that process PII.

INCITS/ISO/IEC 29146:2016 [201x], Information technology - Security techniques - A framework for access management (identical national adoption of ISO/IEC 29146:2016)

Stakeholders: ICT industry.

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

Defines and establishes a framework for access management (AM) and the secure management of the process to access information and Information and Communications Technologies (ICT) resources, associated with the accountability of a subject within some context. Provides concepts, terms, and definitions applicable to distributed access management techniques in network environments. Provides explanations about related architecture, components, and management functions. The subjects involved in access management might be uniquely recognized to access information systems, as defined in ISO/IEC 24760.

INCITS/ISO/IEC 29147:2018 [201x], Information technology - Security techniques - Vulnerability disclosure (identical national adoption of ISO/IEC 29147:2018)

Stakeholders: ICT industry.

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

Provides requirements and recommendations to vendors on the disclosure of vulnerabilities in products and services. Vulnerability disclosure enables users to perform technical vulnerability management as specified in ISO/IEC 27002:2013, 12.6.1. Vulnerability disclosure helps users protect their systems and data, prioritize defensive investments, and better assess risk. The goal of vulnerability disclosure is to reduce the risk associated with exploiting vulnerabilities. Coordinated vulnerability disclosure is especially important when multiple vendors are affected.



INCITS/ISO/IEC 18031:2011/AM 1:2017 [201x], Information technology - Security techniques - Random bit generation - Amendment 1: Deterministic random bit generation (identical national adoption of ISO/IEC 18031:2011/Amd 1:2017)

Stakeholders: ICT industry.

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

Amendment 1 to ISO/IEC 18031:2011.

INCITS/ISO/IEC 27011:2016/COR 1:2018 [201x], Information technology - Security techniques - Code of practice for Information security controls based on ISO/IEC 27002 for telecommunications organizations - Technical corrigendum 1 (identical national adoption of ISO/IEC 27011:2016/Cor 1:2018)

Stakeholders: ICT industry.

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

Technical Corrigendum 1 to ISO/IEC 27011:2016.

INCITS/ISO/IEC 29100:2011/AM1:2018 [201x], Information technology - Security techniques - Privacy framework - Amendment 1: Clarifications (identical national adoption of ISO/IEC 29100:2011/AM1:2018)

Stakeholders: ICT industry.

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

Amendment 1 to ISO/IEC 29100:2011.

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

Contact: Rachel Porter, (202) 737-8888, [comments@standards.incits.org](mailto:comments@standards.incits.org)  
700 K Street NW, Suite 600, Washington, DC 20001

### **New Standard**

INCITS 568-201x, Information technology - Fibre Channel - Switch Fabric - 8 (FC-SW-8) (new standard)

Stakeholders: ICT industry.

Project Need: There are additional operational and management functions that need to be defined to allow more flexible and interoperable Fibre Channel Switch Fabric deployment. Examples of these functions may include: (1) support for congestion management; (2) support for higher bandwidths; and (3) any other items deemed necessary during development.

This project proposal recommends the development of a set of technical additions and clarifications to INCITS 547, Fibre Channel - Switch Fabric - 7 (FC-SW-7).

INCITS 569-201x, Information technology - Fibre Channel - Link Services - 5 (new standard)

Stakeholders: ICT industry.

Project Need: Current Fibre Channel Extended Link Services are defined in the FC-LS-4 standard. Requests for additional and enhanced Extended Link Services functions are coming from existing and new implementation areas of Fibre Channel.

Fibre Channel Extended Link Services provide an invaluable service for management and control of Fibre Channel systems. This project proposal recommends the development of additional and enhanced Extended Link Services functions to the Extended Link Services defined in the FC-LS-4 standard. The specific goals of the FC-LS-5 standard are to (a) specify new ELSs for Fabric congestion detection and avoidance and (b) specify new and/or amended Link Services as required.

## **NSF (NSF International)**

Contact: Monica Leslie, (734) 827-5643, [mleslie@nsf.org](mailto:mleslie@nsf.org)  
789 N. Dixboro Road, Ann Arbor, MI 48105-9723

### **New Standard**

BSR/NSF 502-201x, High Efficiency Hydromechanical Grease Inceptors (new standard)

Stakeholders: Certification bodies/3rd party test labs, HGI manufacturers, and local health departments/municipalities.

Project Need: Sanitary sewer overflows (SSOs) are a major public health risk. The EPA estimates that 47% of blockages that cause SSOs are a product of fats, oils, and grease (FOG) discharge from food service establishments. The EPA's guidelines for FOG effluent limits are currently at odds with the allowable efficiency in the existing testing standards for HGIs. Increasing the efficiency of HGIs will reduce the amount of FOG discharged into city sewers saving taxpayers millions of dollars, while also protecting public health by reducing the pathogens pushed up into the street when SSOs occur.

This standard will cover the evaluation of hydromechanical grease interceptors (HGIs) to a high efficiency rating of 99%.

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

Contact: *Katelyn Simpson, (864) 646-8453, KSimpson@tileusa.com*  
*100 Clemson Research Blvd., Anderson, SC 29625*

### ***New Standard***

BSR A118.17-201x, Standard Specifications for Field Fabricated Shower Tiling Kits (new standard)

Stakeholders: Ceramic tile installers, contractors, and builders (labor interest category), related material manufacturers (manufacturing interest category), distributors, retailers and consumers (user interest category), and affiliated industries and other general interest users of this standard (general interest category).

Project Need: Various stakeholders have suggested that a new specification for field-fabricated shower tiling kits be created.

This specification describes the test methods and minimum requirements for field fabricated shower tiling kits.

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

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

### ***New National Adoption***

BSR/TIA 455-3-C-201x, FOTP-3 Procedure to Measure Temperature Cycling Effects on Optical Fiber Units, Optical Cable, and Other Passive Fiber Components (national adoption with modifications of IEC 60794-1-22, Method F1)

Stakeholders: Users of optical fiber such as optical fiber cable manufacturers and their customers, optical fiber transmission and test equipment manufacturers, specifiers of optical fiber and cable such as telecommunications companies and standards bodies that define transmission protocols.

Project Need: Update standard.

This document is to revise ANSI/TIA-455-3B to: (1) Harmonize rate of temperature change with IEC 60794-1-22, Method F1 2. Harmonize temperature precision with IEC 60794-1-22, Method F1.

# 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)
- ITI (InterNational Committee for Information Technology Standards)
- MHI (Material Handling Industry)
- NAHBRC (NAHB Research Center, Inc.)
- NBBPVI (National Board of Boiler and Pressure Vessel Inspectors)
- NCPDP (National Council for Prescription Drug Programs)
- NEMA (National Electrical Manufacturers Association)
- NISO (National Information Standards Organization)
- NSF (NSF International)
- PRCA (Professional Ropes Course Association)
- RESNET (Residential Energy Services Network, Inc.)
- SAE (SAE International)
- TCNA (Tile Council of North America)
- TIA (Telecommunications Industry Association)
- UL (Underwriters Laboratories, Inc.)

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

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

# ANSI-Accredited Standards Developers Contact Information

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

## ASA (ASC S12)

Acoustical Society of America  
1305 Walt Whitman Road  
Suite 300  
Melville, NY 11747  
Phone: (631) 390-0215  
Web: [www.acousticalsociety.org](http://www.acousticalsociety.org)

## ASA (ASC S2)

Acoustical Society of America  
1305 Walt Whitman Road  
Suite 300  
Melville, NY 11747  
Phone: (631) 390-0215  
Web: [www.acousticalsociety.org](http://www.acousticalsociety.org)

## ASA (ASC S3)

Acoustical Society of America  
1305 Walt Whitman Road  
Suite 300  
Melville, NY 11747  
Phone: (631) 390-0215  
Web: [www.acousticalsociety.org](http://www.acousticalsociety.org)

## ASHRAE

American Society of Heating,  
Refrigerating and Air-Conditioning  
Engineers, Inc.  
1791 Tullie Circle, NE  
Atlanta, GA 30329  
Phone: (404) 636-8400  
Web: [www.ashrae.org](http://www.ashrae.org)

## ASME

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

## ASSP (Safety)

American Society of Safety  
Professionals  
520 N. Northwest Hwy  
Park Ridge, IL 60068  
Phone: (847) 768-3475  
Web: [www.assp.org](http://www.assp.org)

## AWPA (ASC O5)

American Wood Protection  
Association  
P.O. Box 361784  
Birmingham, AL 35236-1784  
Phone: (205) 733-4077  
Web: [www.awpa.com](http://www.awpa.com)

## CSA

CSA America Standards Inc.  
Phone: (416) 747-4317  
Web: [www.csagroup.org](http://www.csagroup.org)

## CTA

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

## HL7

Health Level Seven  
3300 Washtenaw Avenue  
Suite 227  
Ann Arbor, MI 48104  
Phone: (734) 677-7777  
Web: [www.hl7.org](http://www.hl7.org)

## IES

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

## IEST

Institute of Environmental Sciences  
and Technology  
1827 Walden Office Square  
Suite 400  
Schaumburg, IL 60173  
Phone: (847) 981-0100  
Web: [www.iest.org](http://www.iest.org)

## ISA (Organization)

International Society of Automation  
67 Alexander Drive  
Research Triangle Park, NC 27709  
Phone: (919) 990-9228  
Web: [www.isa.org](http://www.isa.org)

## ITI (INCITS)

InterNational Committee for  
Information Technology Standards  
1101 K Street NW  
Suite 610  
Washington, DC 20005-3922  
Phone: (202) 737-8888  
Web: [www.incits.org](http://www.incits.org)

## NALFA

North American Laminate Flooring  
Association  
1747 Pennsylvania Avenue, NW  
Suite 1000  
Washington, DC 20006  
Phone: (202) 785-9500  
Web: [www.nalfa.com](http://www.nalfa.com)

## NEMA (ASC C136)

National Electrical Manufacturers  
Association  
1300 North 17th Street  
Suite 900  
Rosslyn, VA 22209  
Phone: (703) 841-3234  
Web: [www.nema.org](http://www.nema.org)

## NEMA (ASC C8)

National Electrical Manufacturers  
Association  
1300 North 17th Street  
Rosslyn, VA 22209  
Phone: (703) 841-3278  
Web: [www.nema.org](http://www.nema.org)

## NSF

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

## TCNA (ASC A108)

Tile Council of North America  
100 Clemson Research Blvd.  
Anderson, SC 29625  
Phone: (864) 646-8453  
Web: [www.tcnatile.com](http://www.tcnatile.com)

## TIA

Telecommunications Industry  
Association  
1320 North Courthouse Road  
Suite 200  
Arlington, VA 22201  
Phone: (703) 907-7706  
Web: [www.tiaonline.org](http://www.tiaonline.org)

## UL

Underwriters Laboratories, Inc.  
333 Pfingsten Road  
Northbrook, IL 60062-2096  
Phone: (847) 664-3038  
Web: [www.ul.com](http://www.ul.com)



# ISO & IEC Draft International Standards

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

## Comments

Comments regarding ISO documents should be sent to ANSI's ISO Team (isot@ansi.org); 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

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

ISO/DIS 23351-1, Acoustics - Measurement of speech level reduction of furniture ensembles and enclosures - Part 1: Laboratory method - 7/14/2019, \$67.00

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

ISO/DIS 11036, Sensory analysis - Methodology - Texture profile - 7/11/2019, \$67.00

### **DIMENSIONAL AND GEOMETRICAL PRODUCT SPECIFICATIONS AND VERIFICATION (TC 213)**

ISO/DIS 8062-3, Geometrical product specifications (GPS) - Dimensional and geometrical tolerances for moulded parts - Part 3: General dimensional and geometrical tolerances and machining allowances for castings - 7/12/2019, \$93.00

### **DOCUMENT IMAGING APPLICATIONS (TC 171)**

ISO/DIS 32000-2, Document management - Portable document format - Part 2: PDF 2.0 - 11/4/2000, \$323.00

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

ISO/DIS 16134, Ductile iron pipelines - Earthquake and subsidence resistant design - 12/27/2029, \$107.00

ISO/DIS 21051, Construction and installation of ductile iron pipeline system - 7/12/2019, \$107.00

### **FIRE SAFETY (TC 92)**

ISO/DIS 23693-1, Determination of the resistance to gas explosions of passive fire protection materials - Part 1: General Requirements - 7/14/2019, \$40.00

### **FLUID POWER SYSTEMS (TC 131)**

ISO/DIS 9110-1, Hydraulic fluid power - Measurement techniques - Part 1: General measurement principles - 7/11/2019, \$77.00

ISO/DIS 9110-2, Hydraulic fluid power - Measurement techniques - Part 2: Measurement of average steady-state pressure in a closed conduit - 7/11/2019, \$53.00

### **INDUSTRIAL TRUCKS (TC 110)**

ISO/DIS 21262, Industrial trucks - Safety rules for application, operation and maintenance - 7/12/2019, \$88.00

### **INNOVATION MANAGEMENT (TC 279)**

ISO/DIS 56005, Innovation management - Tools and methods for intellectual property management - Guidance - 9/8/2019, \$112.00

### **NUCLEAR ENERGY (TC 85)**

ISO/DIS 11929-4, Determination of the characteristic limits (decision threshold, detection limit and limits of the coverage interval) for measurements of ionizing radiation - Part 4: Guidelines to applications - 7/12/2019, \$165.00

### **OTHER**

ISO/DIS 27587, Leather - Chemical tests - Determination of the free formaldehyde in process auxiliaries - 7/11/2019, \$46.00

ISO/DIS 5402-1, Leather - Determination of flex resistance - Part 1: Flexometer method - 9/8/2019, \$53.00

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

ISO 13688/DAMd1, Protective clothing - General requirements - Amendment 1 - 9/8/2019, \$33.00

ISO/DIS 18527-3, Eye and face protection for sports use - Part 3: Requirements and test methods for eyewear intended to be used for surface swimming - 9/7/2019, \$82.00

### **PLASTICS (TC 61)**

ISO/DIS 22836, Carbon fibre-reinforced composites - Method for accelerated moisture absorption and supersaturated conditioning by moisture using sealed pressure vessel - 7/12/2019, \$62.00

ISO/DIS 26842-1, Adhesives - Test methods for the evaluation and selection of adhesives for indoor wood products - Part 1: Resistance to delamination in non-severe environments - 7/13/2019, \$46.00

ISO/DIS 26842-2, Adhesives - Test methods for the evaluation and selection of adhesives for indoor wood products - Part 2: Resistance to delamination in severe environments - 7/13/2019, \$46.00

### **REFRIGERATION (TC 86)**

ISO 5149-2/DAMd1, Refrigerating systems and heat pumps - Safety and environmental requirements - Part 2: Design, construction, testing, marking and documentation - Amendment 1 - 9/9/2019, \$46.00

**ROAD VEHICLES (TC 22)**

- ISO 18868/DAMd1, Commercial road vehicles - Coupling equipment between vehicles in multiple vehicle combinations - Strength requirements - Amendment 1 - 9/7/2019, \$29.00
- ISO/DIS 3584, Road vehicles - Drawbar couplings - Interchangeability - 9/8/2019, \$58.00

**SCREW THREADS (TC 1)**

- ISO 68-1/DAMd1, ISO general purpose screw threads - Basic profile - Part 1: Metric screw threads - Amendment 1 - 9/9/2019, \$29.00
- ISO 68-2/DAMd1, ISO general-purpose screw threads - Basic profile - Part 2: Inch screw threads - Amendment 1 - 9/9/2019, \$29.00

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

- ISO/DIS 23055, Ships and marine technology - Design requirements for international ballast water transfer connection flange - 7/12/2019, \$46.00

**STEEL (TC 17)**

- ISO/DIS 4947, Steel and cast iron - Determination of vanadium content - Potentiometric titration method - 9/9/2019, \$53.00

**SURFACE CHEMICAL ANALYSIS (TC 201)**

- ISO/DIS 22581, Surface chemical analysis by XPS - Data management and treatment - Near real time information from the X-ray photoelectron spectroscopy survey scan - Rules for identification of, and correction for, the presence of surface contamination by carbon-containing compound - 9/7/2019, \$62.00

**TECHNICAL DRAWINGS, PRODUCT DEFINITION AND RELATED DOCUMENTATION (TC 10)**

- ISO/DIS 128-100, Technical product documentation - General principles of representation - Part 100: Index - 7/14/2019, \$53.00

**TERMINOLOGY (PRINCIPLES AND COORDINATION) (TC 37)**

- ISO/DIS 24617-7, Language resource management - Semantic annotation framework - Part 7: Spatial information - 7/14/2019, \$112.00

**TEXTILES (TC 38)**

- ISO/DIS 20418-3, Textiles - Qualitative and quantitative proteomic analysis of some animal hair fibres - Part 3: Peptide detection using LC-MS without protein reduction - 7/12/2019, \$88.00

**TRANSPORT INFORMATION AND CONTROL SYSTEMS (TC 204)**

- ISO 15784-2/DAMd1, Intelligent transport systems (ITS) - Data exchange involving roadside modules communication - Part 2: Centre to field device communications using SNMP - Amendment 1: Support for SHA2 encryption - 9/8/2019, \$29.00

**TYRES, RIMS AND VALVES (TC 31)**

- ISO/DIS 4209-2, Truck and bus tyres and rims (metric series) - Part 2: Rims - 9/8/2019, \$58.00

**WATER QUALITY (TC 147)**

- ISO/DIS 20596-2, Water quality - Determination of cyclic volatile methylsiloxanes in water - Part 2: Method using liquid-liquid extraction with gas chromatography-mass spectrometry (GC-MS) - 7/11/2019, \$67.00

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

- ISO 15614-1/DAMd2, Specification and qualification of welding procedures for metallic materials - Welding procedure test - Part 1: Arc and gas welding of steels and arc welding of nickel and nickel alloys - Amendment 2 - 9/8/2019, \$29.00

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

- ISO/IEC DIS 23396, Systems and software engineering - Capabilities of review tools - 7/13/2019, \$93.00
- ISO/IEC DIS 18046-2, Information technology - Radio frequency identification device performance test methods - Part 2: Test methods for interrogator performance - 7/12/2019, \$93.00
- ISO/IEC DIS 23003-5, Information technology - MPEG audio technologies - Part 5: Uncompressed audio in MPEG-4 File Format - 7/11/2019, \$33.00

**IEC Standards**

- 8/1517/CD, IEC 60038/AMD1/FRAG3 ED7: Amendment 1 (f3) - Standard voltages for DC and AC traction systems (Proposed horizontal standard), 2019/8/16
- 23A/886/FDIS, IEC 60981 ED3: Extra heavy-duty electrical rigid steel conduits, 019/8/2/
- 34A/2141/CD, IEC 62922/AMD1 ED1: Organic light emitting diode (OLED) panels for general lighting - Performance requirements, 2019/9/13
- 46C/1128/NP, PNW 46C-1128: Hybrid telecommunication cables - Part 3: Outdoor hybrid cables - Sectional specification, 2019/9/13
- 46F/469/FDIS, IEC 61169-64 ED1: Radio Frequency Connectors - Part 64: Sectional specification - RF coaxial connectors with 0,8 mm inner diameter of outer conductor - Characteristic impedance 50 Ω (type 0,8), 019/8/2/
- 48B/2742/FDIS, IEC 61076-3-123 ED1: Connectors for electrical and electronic equipment - Product requirements - Part 3-123: Rectangular connectors - Detail specification for hybrid connectors for industrial environments, for power supply and fibre optic data transmission, with push-pull locking, 019/8/2/
- 49/1308/CD, IEC 63041-3 ED1: Piezoelectric sensors - Part 3: Physical sensors, 2019/9/13
- 61C/798/CDV, IEC 60335-2-118 ED1: Household and similar electrical appliances - Safety - Part 2-118: Particular requirements for professional ice-cream makers, 2019/9/13
- 61C/805/Q, Project IEC 60335-2-24 ED8 Household and similar electrical appliances - Safety - Part 2-24: Particular requirements for refrigerating appliances, ice-cream appliances and ice makers, 019/8/2/
- 62B/1139/CD, IEC 62563-2 ED1: Medical electrical equipment - Medical image display systems - Acceptance and constancy tests, 2019/9/13
- 62D/1696/CDV, ISO 80601-2-69 ED2: Medical electrical equipment - Part 2-69: Particular requirements for basic safety and essential performance of oxygen concentrator equipment, 2019/9/13
- 80/930/CD, IEC 63154 ED1: Maritime navigation and radiocommunication equipment and systems - Cybersecurity - General requirements, methods of testing and required test results, 2019/9/13
- 82/1598/NP, PNW TS 82-1598: Reliability practices for the operation of photovoltaic power systems, 2019/8/16
- 82/1599/NP, PNW TS 82-1599: Extended-stress testing of photovoltaic modules for risk analysis - Part 2: Durability characterization of polymeric component materials and packaging sets., 2019/9/13
- 86A/1948/CD, IEC TR 62362 ED2: Selection of optical fibre cable specifications relative to mechanical, ingress, climatic or electromagnetic characteristics - Guidance, 2019/9/13
- 86B/4210/CDV, IEC 61300-2-4/AMD1 ED2: Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-4: Tests - Fibre or cable retention, 2019/9/13

- 86C/1596/CDV, IEC 62149-11 ED1: Fibre optic active components and devices - Performance standards - Part 11: Multiple channel transmitter/receiver chip scale package with multimode fibre interface, 2019/9/13
- 94/457/CD, IEC 62314 ED2: Solid-state relays, 2019/9/13
- 95/416/CD, IEC 60255-1 ED2: Measuring relays and protection equipment - Part 1: Common requirements, 2019/9/13
- 100/3276/CD, IEC 63087-1 ED1: Measurement method for assistive listening functionality (TA 16), 2019/9/13
- 110/1110/FDIS, IEC 63145-20-20 ED1: Eyewear display - Part 20-20: Fundamental measurement methods - Image quality, 019/8/2/
- 110/1115/CD, IEC TR 62977-5-1 ED1: Electronic displays - Part 5-1: Evaluation of optical performances - Visual assessment based on colour discrimination in dependence of viewing direction, 2019/9/13
- 110/1113/NP, PNW 110-1113: Future IEC 62715-6-5: Flexible display devices - Part 6-5: Mechanical misaligned folding test method, 2019/8/16
- 110/1114/NP, PNW 110-1114: Future IEC 62715-6-7: Flexible display devices - Part 6-7: Crease and waviness measurement methods, 2019/8/16
- 112/452/CD, IEC TS 62836 ED1: Measurement of internal electric field in insulating materials - Pressure wave propagation method, 2019/9/13
- 112/451/CD, IEC 60216-3 ED3: Electrical insulating materials - Thermal endurance properties - Part 3: Instructions for calculating thermal endurance characteristics, 2019/9/13
- 113/478/CD, IEC TS 62607-5-2 ED1: Nanomanufacturing - Key control characteristics - Part 5-2: Thin-film organic/nano electronic devices - Measuring Alternating Current characteristics, 2019/9/13
- 124/63/NP, PNW 124-63 ED1: Wearable electronic devices and technologies - Part 402-2: Performance Measurement of Fitness Wearables - Step Counting, 2019/8/16
- CIS/1/617/FDIS, Amendment 1 - CISPR 32: Electromagnetic compatibility of multimedia equipment - Emission requirements, 019/8/2/
- JTC1-SC25/2890/CD, ISO/IEC 11801-3/AMD1 ED1: Information technology - Generic cabling for customer premises - Part 3: Industrial premises, 2019/9/13
- JTC1-SC41/98/CDV, ISO/IEC 21823-2 ED1: Internet of Things (IoT) - Interoperability for IoT Systems - Part 2: Transport interoperability, 2019/9/13
- JTC1-SC41/99/CDV, ISO/IEC 30142 ED1: Internet of Things (IoT) - Underwater Acoustic Sensor Network (UWASN) - Network management system overview and requirements, 2019/9/13
- JTC1-SC41/107/CD, ISO/IEC 21823-3 ED1: Internet of Things (IoT) - Interoperability for IoT Systems - Part 3: Semantic interoperability, 2019/8/16
- JTC1-SC41/100/CDV, ISO/IEC 30143 ED1: Internet of Things (IoT) - Underwater Acoustic Sensor Network (UWASN) - Application Profiles, 2019/9/13
- JTC1-SC41/106/CD, ISO/IEC 30144 ED1: Internet of Things (IoT) - Wireless sensor network system supporting electrical power substation, 2019/8/16



# Newly Published ISO & IEC Standards

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

## ISO Standards

### CONTROL AND SAFETY DEVICES FOR NON INDUSTRIAL GAS-FIRED APPLIANCES AND SYSTEMS (TC 161)

[ISO 23551-8/Amd1:2019](#), Safety and control devices for gas burners and gas-burning appliances - Particular requirements - Part 8: Multifunctional controls - Amendment 1: Overheating safety devices, \$19.00

### CRYOGENIC VESSELS (TC 220)

[ISO 20421-1:2019](#), Cryogenic vessels - Large transportable vacuum-insulated vessels - Part 1: Design, fabrication, inspection and testing, \$232.00

### FINE CERAMICS (TC 206)

[ISO 21859:2019](#), Fine ceramics (advanced ceramics, advanced technical ceramics) - Test method for plasma resistance of ceramic components in semiconductor manufacturing equipment, \$45.00

### FIRE SAFETY (TC 92)

[ISO 834-2:2019](#), Fire-resistance tests - Elements of building construction - Part 2: Requirements and recommendations for measuring furnace exposure on test samples, \$103.00

### GAS CYLINDERS (TC 58)

[ISO 11513:2019](#), Gas cylinders - Refillable welded steel cylinders containing materials for sub-atmospheric gas packaging (excluding acetylene) - Design, construction, testing, use and periodic inspection, \$138.00

### LIGHT METALS AND THEIR ALLOYS (TC 79)

[ISO 10049:2019](#), Aluminium alloy castings - Visual method for assessing porosity, \$45.00

### OTHER

[ISO 18218-2:2019](#), Leather - Determination of ethoxylated alkylphenols - Part 2: Indirect method, \$103.00

[ISO/CIE 11664-4:2019](#), Colorimetry - Part 4: CIE 1976 L\*a\*b\* colour space, \$68.00

### PAINTS AND VARNISHES (TC 35)

[ISO 2431:2019](#), Paints and varnishes - Determination of flow time by use of flow cups, \$103.00

### PHOTOGRAPHY (TC 42)

[ISO 15781:2019](#), Photography - Digital still cameras - Measuring shooting time lag, shutter release time lag, shooting rate, and start-up time lag, \$185.00

### REFRIGERATION (TC 86)

[ISO 19967-2:2019](#), Heat pump water heaters - Testing and rating for performance - Part 2: Heat pump water heaters for space heating, \$138.00

### RISK MANAGEMENT (TC 262)

[IEC 31010:2019](#), Risk management - Risk assessment techniques, \$232.00

### SHIPS AND MARINE TECHNOLOGY (TC 8)

[ISO 11336-3:2019](#), Large yachts - Strength, weathertightness and watertightness of glazed openings - Part 3: Quality assurance, installation and in-service inspection, \$162.00

### SOIL QUALITY (TC 190)

[ISO 20951:2019](#), Soil Quality - Guidance on methods for measuring greenhouse gases (CO<sub>2</sub>, N<sub>2</sub>O, CH<sub>4</sub>) and ammonia (NH<sub>3</sub>) fluxes between soils and the atmosphere, \$185.00

### TECHNICAL DRAWINGS, PRODUCT DEFINITION AND RELATED DOCUMENTATION (TC 10)

[IEC 81346-2:2019](#), Industrial systems, installations and equipment and industrial products - Structuring principles and reference designations - Part 2: Classification of objects and codes for classes, \$232.00

### TECHNICAL SYSTEMS AND AIDS FOR DISABLED OR HANDICAPPED PERSONS (TC 173)

[ISO 20342-1:2019](#), Assistive products for tissue integrity when lying down - Part 1: General requirements, \$185.00

### TERMINOLOGY (PRINCIPLES AND COORDINATION) (TC 37)

[ISO 24613-1:2019](#), Language resource management - Lexical markup framework (LMF) - Part 1: Core model, \$103.00

### THERMAL INSULATION (TC 163)

[ISO 16535:2019](#), Thermal insulating products for building applications - Determination of long-term water absorption by immersion, \$68.00

### TOBACCO AND TOBACCO PRODUCTS (TC 126)

[ISO 9512:2019](#), Cigarettes - Determination of ventilation - Definitions and measurement principles, \$138.00

## ISO Technical Reports

### TIMBER STRUCTURES (TC 165)

[ISO/TR 19623:2019](#), Timber structures - Glued laminated timber - Assignment of glued laminated timber characteristic values from laminate properties, \$162.00

## ISO Technical Specifications

### HEALTH INFORMATICS (TC 215)

[ISO/TS 21564:2019](#), Health Informatics - Terminology resource map quality measures (MapQual), \$138.00



**NANOTECHNOLOGIES (TC 229)**

[ISO/TS 19807-1:2019](#), Nanotechnologies - Magnetic nanomaterials - Part 1: Specification of characteristics and measurements for magnetic nanosuspensions, \$103.00

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

[ISO/IEC 9075-15:2019](#), Information technology database languages - SQL - Part 15: Multi-dimensional arrays (SQL/MDA), \$232.00

[ISO/IEC 23000-22:2019](#), Information technology - Multimedia application format (MPEG-A) - Part 22: Multi-image application format (MIAF), \$162.00

[ISO/IEC 14543-5-101:2019](#), Information technology - Home electronic systems (HES) architecture - Part 5-101: Intelligent grouping and resource sharing remote AV access profile, \$138.00

**IEC Standards****CAPACITORS AND RESISTORS FOR ELECTRONIC EQUIPMENT (TC 40)**

[IEC 62391-1 Ed. 2.0 b cor.2:2019](#), Corrigendum 2 - Fixed electric double-layer capacitors for use in electric and electronic equipment - Part 1: Generic specification, \$0.00

**ENVIRONMENTAL CONDITIONS, CLASSIFICATION AND METHODS OF TEST (TC 104)**

[IEC 60068-2-85 Ed. 1.0 b:2019](#), Environmental testing - Part 2-85: Tests - Test Fj: Vibration - Long time history replication, \$164.00

**INDUSTRIAL-PROCESS MEASUREMENT AND CONTROL (TC 65)**

[IEC 61158-6-2 Ed. 4.0 en:2019](#), Industrial communication networks - Fieldbus specifications - Part 6-2: Application layer protocol specification - Type 2 elements, \$410.00

[IEC 61158-6-3 Ed. 4.0 en:2019](#), Industrial communication networks - Fieldbus specifications - Part 6-3: Application layer protocol specification - Type 3 elements, \$410.00

[IEC 61158-6-4 Ed. 3.0 en:2019](#), Industrial communication networks - Fieldbus specifications - Part 6-4: Application layer protocol specification - Type 4 elements, \$235.00

[IEC 61158-6-10 Ed. 4.0 en:2019](#), Industrial communication networks - Fieldbus specifications - Part 6-10: Application layer protocol specification - Type 10 elements, \$410.00

[IEC 61158-6-12 Ed. 4.0 en:2019](#), Industrial communication networks - Fieldbus specifications - Part 6-12: Application layer protocol specification - Type 12 elements, \$387.00

[IEC 61158-6-19 Ed. 4.0 en:2019](#), Industrial communication networks - Fieldbus specifications - Part 6-19: Application layer protocol specification - Type 19 elements, \$164.00

[IEC 61158-6-21 Ed. 2.0 en:2019](#), Industrial communication networks - Fieldbus specifications - Part 6-21: Application layer protocol specification - Type 21 elements, \$317.00

[IEC 61158-6-23 Ed. 2.0 en:2019](#), Industrial communication networks - Fieldbus specifications - Part 6-23: Application layer protocol specification - Type 23 elements, \$410.00

[IEC 61158-6-25 Ed. 1.0 en:2019](#), Industrial communication networks - Fieldbus specifications - Part 6-25: Application layer protocol specification - Type 25 elements, \$387.00

[IEC 61158-6-26 Ed. 1.0 en:2019](#), Industrial communication networks - Fieldbus specifications - Part 6-26: Application layer protocol specification - Type 26 elements, \$410.00

**SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES (TC 61)**

[IEC 60335-2-89 Ed. 3.0 b:2019](#), Household and similar electrical appliances - Safety - Part 2-89: Particular requirements for commercial refrigerating appliances and ice-makers with an incorporated or remote refrigerant unit or motor-compressor, \$317.00

**SAFETY OF MEASURING, CONTROL, AND LABORATORY EQUIPMENT (TC 66)**

[IEC 61010-2-032 Ed. 4.0 b:2019](#), Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-032: Particular requirements for hand-held and hand-manipulated current sensors for electrical test and measurement, \$352.00

[IEC 61010-2-033 Ed. 2.0 b:2019](#), Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-033: Particular requirements for hand-held multimeters and other meters for domestic and professional use, capable of measuring mains voltage, \$281.00

[S+ IEC 61010-2-032 Ed. 4.0 en:2019 \(Redline version\)](#), Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-032: Particular requirements for hand-held and hand-manipulated current sensors for electrical test and measurement, \$457.00

[S+ IEC 61010-2-033 Ed. 2.0 en:2019 \(Redline version\)](#), Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-033: Particular requirements for hand-held multimeters and other meters for domestic and professional use, capable of measuring mains voltage, \$366.00

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

[IEC 63202-1 Ed. 1.0 b:2019](#), Photovoltaic cells - Part 1: Measurement of light-induced degradation of crystalline silicon photovoltaic cells, \$47.00

**SURGE ARRESTERS (TC 37)**

[IEC 61643-32 Ed. 1.0 b cor.1:2019](#), Corrigendum 1 - Low-voltage surge protective devices - Part 32: Surge protective devices connected to the d.c. side of photovoltaic installations - Selection and application principles, \$0.00

**SWITCHGEAR AND CONTROLGEAR (TC 17)**

[IEC 62271-214 Ed. 1.0 b:2019](#), High-voltage switchgear and controlgear - Part 214: Internal arc classification for metal-enclosed pole-mounted switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV, \$235.00

# Registration of Organization Names in the United States

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

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

## PUBLIC REVIEW

BDAP

Public Review: March 29, 2019 to June 29, 2019

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

A challenge is initiated when a letter from an interested entity is received by the Registration Coordinator. The letter shall identify the alphanumeric organization name being challenged and state the rationale supporting the challenge. A challenge fee shall accompany the letter. After receipt of the challenge, the alphanumeric organization name shall be marked as challenged in the Public Review list. The Registration Coordinator shall take no further action to register the challenged name until the challenge is resolved among the disputing parties.

# Proposed Foreign Government Regulations

## Call for Comment

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

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

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

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

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

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

# Information Concerning

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## American National Standards

### Call for Members

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

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

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

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

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

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

### Society of Cable Telecommunications

#### ANSI Accredited Standards Developer

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

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

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

## ANSI Accredited Standards Developers

### Application for Accreditation

#### Incentive Federation, Inc. (IFI)

#### Comment Deadline: July 29, 2019

The Incentive Federation Inc. (IFI), a new ANSI member in 2018, has submitted an application for accreditation as an ANSI Accredited Standards Developer (ASD) and proposed operating procedures for documenting consensus on IFI-sponsored American National Standards. IFI's proposed scope of standards activity is as follows:

Standardization in the field of Workforce Incentives, Rewards and Recognition (WIRR) will include classification, terminology and nomenclature, management practices and metrics that comprise the development, delivery, assessment and control of workforce acknowledgement and motivation solutions. Covered subjects would include incentives development, program management, measurement and data analytics, supply chain management, financial management and other related functions where organizational management applies extrinsic methods to acknowledge or motivate employee performance. Incentives, rewards and recognition solutions for performance improvements in sales, safety and other business functional environments are also within scope. Intrinsic incentives, non-material and those unique to the organizational or national cultures are out of scope (i.e. verbal appreciation, physical acknowledgement between parties, gifts of local cultural significance, traditional awards, certificates and trophies.) Out of scope are the normal compensation and benefits programs that organizations provide to remunerate employees for expected performance. Also excluded are any type of consumer awards or incentives.

To obtain a copy of IFI's application and proposed operating procedures or to offer comments, please contact: Mr. Lee S. Webster, Director, Standards Development, Healthcare Management Institute, University of Texas Medical Branch, Shearn – Moody Plaza, #7157, Galveston, TX 77554; phone: 703.867.0721; e-mail: [lsyd@earthlink.net](mailto:lsyd@earthlink.net). Please submit any comments to IFI by July 29, 2019, with a copy to the ExSC Recording Secretary in ANSI's New York Office (e-mail: [jthompso@ANSI.org](mailto:jthompso@ANSI.org)). As the proposed procedures are available electronically, the public review period is 30 days. You may view or download a copy of IFI's proposed operating procedures from ANSI Online during the public review period at the following URL: [www.ansi.org/accredPR](http://www.ansi.org/accredPR).

# International Organization for Standardization (ISO)

## Call for U.S. TAG Administrator

### ISO/TC 249 – Traditional Chinese Medicine

ANSI has been informed that NSF International, the ANSI-accredited U.S. TAG Administrator for ISO/TC 249, wishes to relinquish their role as U.S. TAG Administrator.

ISO/TC 249 operates under the following scope:

Standardization in the field of medical systems derived from ancient Chinese medicine which shall be able to share one common set of standards. Both traditional and modern aspects of these systems are covered. The committee focuses on quality and safety of raw materials, manufactured products and medical devices and of informatics, including service standards limited to involving the safe use and delivery of devices & medicine, but not into the clinical practice or application of those products.

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

### ISO New Work Item Proposal

#### Design and Safety Requirements for Sex Toys

##### Comment Deadline: June 28, 2019

SIS, the ISO member body for Sweden, has submitted to ISO a new work item proposal for the development of an ISO standard on design and safety requirements for sex toys, with the following scope statement:

This document specifies safety and user information requirements relating to the materials and design for products intended for sexual use.

This document covers only products that are intended to come in direct contact with genitals and/or the anus.

This document is not primarily intended for products classified as medical devices or assistive products.

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, June 28.

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

### Audit Data Services

#### Comment Deadline: June 28, 2019

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

Standardization in the field of audit data services covers the content specification as well as the collection, pre-processing, management and analysis techniques for the identification, communication, receipt, preparation and use of audit data.

##### Note:

1. Audit: an official examination of an entity's financial and financial related records in order to check that they are correct. (Source: Longman Dictionary of Contemporary English 4th Edition, modified company has been replaced by entity to cover government auditees and financial related records has been added.)
2. The audit data includes data of different areas including public sector budget, financial report, nonfinancial enterprises, tax and social insurance, for the purpose of government audit, external independent audit, internal audit and other regulators.

##### Excluded:

1. Information system security audit covered by ISO/IEC/JTC 1.
2. Security evaluation criteria and methodology, techniques and guidelines to address both security and privacy aspects covered by ISO/IEC/JTC 1/SC 27.
3. Meta-data standards, E-business standards, database language standards covered by ISO/IEC/JTC 1/SC 32.
4. Meta-standards of electronic data interchange covered by ISO/TC 154.
5. Quality management and quality assurance covered by ISO/TC 176.

Please note that this proposal is to convert ISO Project Committee 295 on audit data services into a technical committee with an extended work program.

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, June 28.

## Laboratory design

### Comment Deadline: June 28, 2019

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

Standardization in the field of laboratory design including site selection and design planning, the functional division of experimental areas, the determination of scientific and technological processes, layouts and design of furniture, and the scientific design of the facility taking into account environmental conditions and impact.

#### Excluded:

- IEC/T 64 (Electrical installations and protection against electric shock);
- IEC/TC 81 (Lightning protection);
- IEC/TC 66 (Safety of measuring, control and laboratory equipment);
- IEC/TC 85 (Measuring equipment for electrical and electromagnetic quantities).

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, June 28.

## Sustainable processes for wood

### Comment Deadline: June 28, 2019

ABNT, the ISO member body for Brazil, has submitted to ISO a proposal for a new field of ISO technical activity on Sustainable processes for wood, with the following scope statement:

Standardization in the field of the wood and wood-based industries, including but not limited to sustainability and renewability aspects, chain of custody, timber tracking and timber measurement, across the entire supply chain from biomass production to the finished wood and wood-based products.

Excluded: those applications covered by ISO/TC 6 "Paper, board and pulps"; ISO/TC 89 "Wood-based panels"; ISO/TC 165 "Timber structures"; ISO/TC 218 "Timber"; and ISO/TC 207 "Environmental management".

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, June 28.

## Meeting Notices

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

Meeting Date: Monday, September 23, 2019- 8:00 AM – 4:00 PM CST

Meeting Location: Peppermill Reno, 2707 S. Virginia St., Reno, Nevada 89502--(Teleconference information available upon request)

Purpose: This is the annual ANSI B109 meeting. Updates will be given for each of the B109 standards.

Please register on line at [www.aga.org](http://www.aga.org). For more information contact Jeff Meyers, [jmeyers@aga.org](mailto:jmeyers@aga.org).

# Information Concerning

## International Organization for Standardization (ISO)

### Call for U.S. TAG Administrators TC 20 Subcommittees – *Aircraft and space vehicles*

There is currently no ANSI-accredited U.S. TAG Administrator for TC 20/SC 1, TC 20/SC 4, TC 20/SC 6, TC 20/SC 8, and TC 20/SC 18, and therefore ANSI is not a member of these committees.

The Secretariats for these committees are currently held by China (SAC) for TC 20/SC 1; Germany (DIN) for TC 20/SC 4; Russia (GOST R) for TC 20/SC 6 and TC 20/SC 8; and France (AFNOR) for TC 20/SC 18.

#### **TC 20/SC 1 operates under the following scope:**

*Aerospace electrical requirements*

#### **TC 20/SC 4 operates under the following scope:**

*Aerospace fastener systems*

#### **TC 20/SC 6 operates under the following scope:**

*Standard atmosphere*

#### **TC 20/SC 8 operates under the following scope:**

*Aerospace terminology*

#### **TC 20/SC 18 operates under the following scope:**

*Standardization of materials and related processes (e.g.: surface treatment/coating, defects in composites...) used by aircraft and engine manufacturers,*

- *Excluded materials: ISO/TC 35 Paints and varnishes, ISO/TC 17 Steel, ISO/TC 25 Cast irons and pig irons, ISO/TC 26 Copper and copper alloys, ISO/TC 45 Rubber and rubber products, ISO/TC 79 Light metals and their alloys, ISO/TC 155 Nickel and nickel alloys, ISO/TC 206 Fine ceramics...*
- *Excluded processes: ISO/TC 44/WG 4 Welding and brazing in aerospace, ISO/TC 107 Metallic and other inorganic coatings, ISO/TC 156 Corrosion of metals and alloys, ISO/TC 244 Industrial furnaces and associated processing equipment, ISO/TC 261 Additive manufacturing.*

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



## American National Standards (ANS) – Where to find Procedures, Guidance, Interpretations and More...

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- *ANSI Essential Requirements: Due process requirements for American National Standards* (always current edition): [www.ansi.org/essentialrequirements](http://www.ansi.org/essentialrequirements)
- ANSI Standards Action (weekly public review announcements of proposed ANS and standards developer accreditation applications, listing of recently approved ANS, and proposed revisions to ANS-related procedures): [www.ansi.org/standardsaction](http://www.ansi.org/standardsaction)
- Accreditation information – for potential developers of American National Standards (ANS): [www.ansi.org/sdoaccreditation](http://www.ansi.org/sdoaccreditation)
- ANS Procedures, ExSC Interpretations and Guidance (including a slide deck on how to participate in the ANS process and the BSR-9 form): [www.ansi.org/asd](http://www.ansi.org/asd)
- Lists of ANSI-Accredited Standards Developers (ASDs), Proposed ANS and Approved ANS: [www.ansi.org/asd](http://www.ansi.org/asd)
- American National Standards Key Steps: [www.ansi.org/anskeysteps](http://www.ansi.org/anskeysteps)
- American National Standards Value: [www.ansi.org/ansvalue](http://www.ansi.org/ansvalue)
- ANS Web Forms for ANSI-Accredited Standards Developers - PINS, BSR8|108, BSR11, Technical Report: [www.ansi.org/PSAWebForms](http://www.ansi.org/PSAWebForms)
- Information about standards Incorporated by Reference (IBR): [www.ansi.org/ibr](http://www.ansi.org/ibr)
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# INCITS Technical Committee on Internet of Things and Related Technologies Seeks Subject Matter Experts

[INCITS/IoT](#), the US Technical Committee for ISO/IEC JTC 1/SC 41 on the Internet of Things and Related Technologies, represents US interests in the development of international standards. The committee is actively working on foundational standards, interoperability, and use cases for the Internet of Things and related technologies that include applications in: industrial IoT, wearables, Smart Cities, utilities & Smart Grid, agriculture, societal and human factors in IoT based services, Integration of IoT and blockchain, Swarm intelligence for IoT, etc.

One of the key activities has been the development of a “Reference Architecture” that will allow developers and users to have a comprehensive view on the Internet of Things (IoT) to deploy or use IoT and related technologies. The development of interoperability standards and use cases will further enable effective IoT implementations.

Members of this group have a unique opportunity to make their voices heard on the development of standards and use cases on IoT and the related technologies and to collaborate with experienced peers, while serving the broad community of service organizations.

Membership also provides the opportunity for international leadership roles. For example, one of the US experts chairs the international Work Group responsible for Foundational Standards, the key for effective IoT implementation.

Members participate in three to four virtual meetings per year and one to two face-to-face meetings per year and are encouraged to contribute comments and reviews of standards. All members are also eligible to attend national and international meetings in person. To learn more about membership in INCITS/IoT, visit <http://www.incits.org/participation/membership-info> or contact Lynn Barra at [Lbarra@itic.org](mailto:Lbarra@itic.org).



## **National Electrical Safety Code (NESC) 2022 Preprint – Opportunity for Public Comment**

The NESC 2022 Preprint contains over 500 change proposals and initial NESC Subcommittee recommendations that form the basis for soliciting public during an 8-month public comment period that opens 1 July 2019 and concludes 1 March 2020. This publication has been prepared to provide all interested persons an opportunity to study and comment on the Proposed Revisions to be incorporated into the 2022 Edition of the National Electrical Safety Code (NESC). The NESC Preprint provides the full text of each proposal to revise the 2017 Edition of the NESC together with the recommendation of the subcommittee that has cognizance of the rule addressed by the Change Proposal (CP). Public comment is invited on the disposition for each initial recommendation.

Several key topics addressed through change proposals include:

- A comprehensive revision of Section 14, Storage Batteries to recognize new battery technologies, applications, and their hazards
- A new section covering new and emerging electric generation station technologies focusing on photovoltaic (PV) generating stations
- Consolidation of antenna rules into a single location to clarify the required antenna rules and to treat antennas as equipment consistently throughout the code
- Clearance rules for guys and guy anchors
- Strength and loading rules addressing wind maps, ice maps, 60-foot exclusion, etc.
- Additive constant (k-Factor)

To submit a public comment(s) on change proposals contained in the NESC Preprint, see <https://standards.ieee.org/products-services/nesc/form.html>. All public comments help to shape final recommendations made by NESC Technical Subcommittees to form the 2022 NESC. Please note that after this initial public comment opportunity, a final public comment period will be announced in ANSI Standards Action.

To obtain a copy of the NESC Preprint, see [https://www.techstreet.com/ieee/products/2072811?utm\\_source=web&utm\\_medium=adpromo&utm\\_campaign=nesc&utm\\_term=ansi&utm\\_content=purchase](https://www.techstreet.com/ieee/products/2072811?utm_source=web&utm_medium=adpromo&utm_campaign=nesc&utm_term=ansi&utm_content=purchase)

**IEEE Member price:**

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## **S520 Substantive Changes – June 2019**

Section 10.4 fifth paragraph: “During the inspection process, the presence of hazardous or regulated materials that might be disturbed during the remediation process shall be determined and documented.”

## S540 Substantive Changes – June 2019

Section 4.1, first sentence: “When it has been determined that an environment is contaminated with blood, body fluids or OPIM, technicians and workers shall be protected from exposure.”

- \_Section 4.1, second sentence: “Only Indoor Environmental Professionals (IEPs) and technicians shall perform a hazard or risk assessment prior to commencing work.”
- \_Section 4.1, fourth sentence: “Appropriate respiratory protection or other personal protective equipment (PPE) shall be used in conjunction with engineering controls to protect technicians and workers when engineering controls are insufficient.”
- \_Section 5.3, third paragraph, fourth sentence: “All employees ~~shall should~~ be properly trained in the PPE being provided, as well proper hazard awareness with respect to the hazard involved.”
- \_Section 5.3.1, first paragraph, second sentence: “If ~~microbial~~ remediation work is being performed, and if the technician determines after the hazard assessment that a breathing hazard existing, then a respirator shall be worn by ~~is required for~~ employees in the contaminated area.”
- \_Section 5.3.1.1, last paragraph, first sentence: “In implementing an RPP, an administrator ~~shall is required to~~ be designated to manage implementation of the plan, provide Quality Assurance/Quality Control (QA/QC) of the plan, track compliance, and annually update the plan.”
- \_Section 5.5, second paragraph, second sentence: “If technicians and workers encounter materials containing asbestos or that are presumed to contain asbestos that has been or potentially will be disturbed during the course of work activities, they shall stop activities that can cause the material to become friable or aerosolized.”
- \_Section 5.6, second paragraph, second sentence: “All personnel ~~Technicians~~ shall follow all applicable federal, state, provincial, and local laws and regulations.”
- \_Section 5.7, second paragraph, fifth sentence: “Technicians and workers shall should be aware of heat-related disorders and be able to recognize the symptoms in themselves as well as others, and be prepared to take action.”
- \_Section 5.8, fourth paragraph, third sentence: “Technicians shall ~~Check check~~ local laws and regulations for the worksite area ~~for verification.~~”
- \_Section 5.9, second paragraph, first sentence: “Technicians ~~Restorers~~ working on multi-employer work sites shall:”
- \_Section 5.10, third sentence: “Technicians ~~Restorers~~ shall be familiar with all applicable laws and regulations that delineate the steps required to prevent accidents associated with hazardous energy.”
- \_Section 5.11, second paragraph, first sentence: “Technicians ~~Restorers~~ shall incorporate the following items into their remediation work procedures where appropriate:”
- \_Section 6.4, last sentence: “The technicians and workers shall comply with all label instructions; i.e., dilution concentration, pH, contact and dwell time, and condition of the surface or material to be treated.”
- \_Section 6.5, second paragraph, first sentence: “Technicians and workers shall only apply federal, state, or provincial government-registered or authorized products.”
- \_Section 6.5, fourth paragraph, last sentence: “Contact with antimicrobial biocides that result in the technicians and workers experiencing a health concern or health risk shall be recorded.”

- Section 6.6.1, first paragraph, first sentence: “All employees ~~The technician~~ shall follow label directions carefully and explicitly.”
- Section 6.6.1, second paragraph, first sentence: “The employer ~~technician~~ shall:”
- Section 6.6.1, second paragraph, third bullet: “ensure employees ~~technicians~~ who are engaged in antimicrobial (biocide) use and application have PPE as prescribed by the SDS; it is properly worn, decontaminated, disposed of and put back into a clean and disinfected service condition.”
- Section 6.6.1, second paragraph, fourth bullet: “employ ~~apply~~ products that have been tested and registered by appropriate government agencies.”
- Section 6.6.2, third paragraph: “Technicians and workers shall wear personal protective equipment as prescribed by the SDS before applying antimicrobial biocides.”
- Section 8.4.1, first sentence: “Companies, technicians, and workers shall comply with their government’s confidentiality and privacy laws and regulations.”
- Section 9.2, second sentence: “The technicians and workers ~~technician~~ shall control both spray and runoff in accordance with local laws and regulations.”
- Section 11.1, second paragraph, third sentence: “Respiratory protection for all persons shall be an essential addition to PPE when dried blood or OPIM is present or suspected.”
- Section 11.7, last sentence: “Technicians and workers shall comply with applicable local, state, provincial, and federal regulations.”
- Section 11.8, first paragraph, first sentence: “Companies ~~Bio-Remediation technicians~~ shall consult the applicable governing bodies in their jurisdictions for exposure incident requirements.”
- Section 11.8, second paragraph: “If confronted with an exposure, employees ~~the employee~~ shall perform immediate first aid if they are ~~he is~~ capable, notify their ~~his~~ supervisor for assistance, and take action to evacuate the contaminated area. If serious injury is associated with the exposure, the technician and worker shall call emergency first responders and evacuate the employee to the nearest medical facility. The company ~~bio-remediation technician~~ shall perform post exposure evaluation and follow-up per applicable governmental regulations and guidance documents.”
- Section 11.9.1, third sentence: “If specialized experts are ~~the qualified professional~~ is subcontracted, it shall be the responsibility of the company ~~technician~~ to ensure that contracted personnel are familiar with this Standard, associated pathogen risks and safe practices.”
- Section 11.10.3, first paragraph, first sentence: “The company ~~technician~~ shall have Safety Data Sheets (SDSs) on location ~~hand from individual suppliers of Detergents, Sanitizers, and Disinfectants for each product for each chemical product (e.g. detergents, sanitizers, and disinfectants)~~ used during the remediation process.”
- Section 11.10.3, first paragraph, fourth sentence: “Companies, technicians, and workers shall ensure products used meet government requirements for the targeted pathogens and be used in accordance with manufacturer’s labeling directions.”
- Section 11.10.3, first paragraph, fifth sentence: “The company shall provide, and ~~all~~ technicians and workers shall be familiar with the safety and health information for the products used.”

- Section 12.1.2, second paragraph: “Any cleaning or remediation contaminated undercarriages shall be done using the proper jacks, lifts or mechanics pits. Due to the nature of this remediation work, technicians and workers ~~the technician~~ shall use proper PPE along with established work practices and engineering controls.”
- Section 12.1.3, first and second sentence: “If power washing of contaminated vehicles is determined to be appropriate, technicians and workers ~~the technician~~ shall set up containment around and beneath the vehicle to prevent cross-contamination of surrounding areas with consideration for wind drift. Technicians and workers ~~the technician~~ shall wear full-body impervious PPE for wet environments.”
- Section 12.2 (section 12.1 in public review draft), third paragraph: “Technicians and workers ~~the technician~~ shall comply with all requirements for confined space and lockout of all energy sources. Technicians ~~the technician~~ shall identify any potential energy storage devices such as capacitors and ensure that they have been de-energized or isolated.”
- Section 13.6.1, first paragraph, second bullet: “Technicians and workers handling or working near contaminated contents shall wear appropriate PPE.”
- Section 14.1, first paragraph, first sentence: “Companies, technicians, and workers ~~The technician~~ shall follow all applicable federal, state, provincial, municipal, and environmental laws regarding how to package, transport, and dispose of medical waste.”
- Section 14.1, first paragraph, third sentence: “In cases where the various laws and regulations conflict, companies, technicians, and workers ~~the technician~~ shall follow the most stringent laws, regulations, or this Standard.”
- Section 14.4, first sentence: “Companies, technicians, and workers ~~The technician~~ shall follow all applicable federal, state, provincial, municipal laws and regulations regarding the transportation of medical waste.”
- Section 14.4, last sentence: “Technicians ~~The technician~~ shall ensure compliance with local transport and landfill regulations.”
- Section 14.5, last sentence: “The company ~~technician~~ shall follow all applicable storage regulations.”
- Section 14.6.1, first sentence: “Companies, technicians, and workers shall follow local, municipal, state, provincial, and federal agency regulations that relate to the disposal of regulated material, biohazardous infectious material, and pathological waste.
- Section 15.2, second sentence: “Technicians and workers shall wear approved eye protection when UV-B and UV-C light is being used.”

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## NSF/ANSI Standard For Wastewater Technology –

# Disinfection Mechanics

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### 1.4 Influent water characteristics

Test data collected on days when the influent water pH and temperature are out of compliance with this section shall be excluded from the results. Any results from days where CBOD<sub>5</sub>, TSS, fecal coliform, *E. coli*, or ammonia influent concentration is less than shown in the table below shall be excluded. Any results from days where UV transmittance is greater than 75% shall be excluded. The certifier shall report results obtained when other influent concentrations exceed the maximum values in the table below for the influent water. Influent water for the biological deactivation testing shall be secondary treated residential wastewater meeting the criteria as shown in Table 1.1

At the manufacturer's discretion, any data collected on days when the influent CBOD<sub>5</sub>, TSS, fecal coliform, *E. coli*, or ammonia concentrations exceed the maximum limits set in table 1.4, may be replaced with data collected from additional sample days for the purpose of determining pass or fail. At the manufacturer's discretion, any data collected on days when the influent UV transmittance is less than 50%, may be replaced with data collected from additional sample days for the purpose of determining pass or fail.

**Table 1.1 - Influent characteristics**

CBOD <sub>5</sub>	≥ 10 and ≤ 25 mg/L
TSS	≥ 10 and ≤ 30 mg/L
<i>E. coli</i>	10 <sup>2</sup> – 10 <sup>6</sup> cfu/100 mL
fecal coliform	10 <sup>4</sup> to 10 <sup>8</sup> organisms/100 mL
pH	6.0 to 9.0
temperature	6 °C to 30 °C (42 °F to 86 °F)
ammonia	≥ 2.0 and ≤ 4.0 mg/L
UV transmittance of influent	50 to 75% per cm

**NOTE**— UV transmittance values in Table 1.1 are for traditional aerobic treatment units. Influent parameters in Table 1.1 shall be measured every time an effluent sample is collected, and corresponding values reported. Ammonia need not be tested for UV technologies and UV transmittance of influent need not be tested for any technology except UV. If the manufacturer is testing for only *E. coli* or fecal coliform as allowed in Section 1.5, then the influent *E. coli* or fecal coliform not required in the effluent monitoring need not be collected.

Temperature, pH, Influent fecal coliform, and *E. coli* shall be based on grab samples collected. Influent water characteristics for all other parameters shall be based on 24-hour composite samples collected. During maximum and, if required, minimum flow testing, the influent samples shall be collected during the time while dosing is active.

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## 1.5 Effluent criteria

### 1.5.1 30-day effluent geometric mean

The geometric mean of all required effluent samples of effluent quality for each 30-day sampling period shall meet one or both of the following criteria, as chosen by the manufacturer:

- fecal coliform  $\leq$  200 organisms/100 mL; or
- E. coli  $\leq$  126 organisms/100 mL.

### 1.5.2 Individual sample maximum values

A minimum of 90% of all required samples of effluent quality over the entire sampling period shall meet one or both of the following criteria, as chosen by the manufacturer:

- fecal coliform  $\leq$  800 organisms/100 mL; or
- E. coli  $\leq$  410 organisms/100 mL

The final report will provide information on the log reduction for fecal coliform or E. coli based on which one is used as the indicator for disinfection.

Failure to meet the above criteria shall be a failure to conform to this Standard. Failure to meet the criteria of NSF/ANSI 350 shall be a failure to conform to that Standard if such was requested. Failure under NSF/ANSI 350 does not preclude conformance under this Standard if the above criteria are met. Additional parameters may be collected and analyzed at the request of the manufacturer.

All samples shall be refrigerated according to *Standard Methods* if not tested within 1 hour of collection.

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## 6 Chlorine disinfection devices

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### 6.5.2.2 Life test microbiological sampling

Extreme care shall be taken in designing a sampling program and sample site for chlorine disinfected water. The sample point shall be immediately adjacent to the outlet flow of the chlorine disinfection device contact chamber. Sterile samples bottles and sterile sample collection techniques shall be used during sample collection.

Microbiological organism samples shall be collected and analyzed three times per week over 30 days. Grab samples shall be collected at least 30 minutes after the start of the loading period for gravity chlorine disinfection devices. Samples shall be rotated in order of the loading periods per 6.5.2.1 so that one third of the samples shall be collected in each of the loading periods (6.5.2.1) for gravity chlorine disinfection devices. Samples shall be collected during times of system discharge for pump dependent chlorine disinfection devices. When the pump is activated by floats, sample collection shall be rotated as close to the 3 different dosing periods as possible. When pumped discharge is based on a timer, samples are collected only during each discharge event, rotating between 5%, 50%, and 95% into the timed pump cycle.

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At the three tests per week ratio, each loading period shall have a minimum of five samples (the final week contains only two days, but three samples shall be collected during that week).

NOTE — The manufacturer may request additional samples per week complying with the above.

Sample containers shall contain disinfection neutralizer sufficient to halt the disinfecting action. Samples shall be refrigerated if not analyzed within one hour of collection. Analysis shall be performed within 6 hours of sample collection.

When samples are lost or invalidated, they shall be replaced with additional sampling during the following week or additional weeks may be added to the life test until a minimum of 15 samples have been successfully analyzed.

### 6.5.2.3 Criteria

The geometric mean of microbiological organism concentration from all grab samples collected and analyzed under 6.5.2.2 shall meet the pass/fail criteria in 1.5.1.

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### 6.5.3.1.2 Fixed feed rate devices

The manufacturer shall specify the maximum and minimum wastewater flow capacity and flow rate, if required, for the chlorine disinfection device. Flow shall be introduced continuously or in evenly spaced doses not exceeding 38 L (10 gal) and the maximum flow rate through the treatment system feeding the test chlorine disinfection device. Fixed feed chlorine disinfection devices shall be tested over 3 dosing periods described in the table below.

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### 6.5.3.1.5 Criteria

At the conclusion of the test, there shall be no visible signs of damage or structural change that adversely affect proper operation of any components of the chlorine disinfection device. The evaluation shall be performed following completion of the microbiological organism deactivation test, as specified in 6.5.3.

The geometric mean of microbiological organism concentration from all grab samples collected and analyzed under 6.5.3.1.4 shall meet the pass/fail criteria in 1.5.1. This is not a true 30-day geometric mean, as these samples are collected over a much shorter period of time, but the pass/fail criteria still apply. No more than 2 samples collected under 6.5.2 and 6.5.3 combined shall exceed the maximum values in 1.5.2.

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## 7 Ultraviolet (UV) disinfection devices

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### 7.6 Performance testing and evaluation

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### 7.6.1.3 Microbiological organism deactivation test

Extreme care shall be taken in designing a sampling program and sample site for UV disinfected water. Since no residual remains when the sample is removed from the UV light exposure, re-growth of organisms and contamination of samples in a testing environment is possible. The sample point shall be immediately adjacent to the outlet flow of the UV disinfection device. Sterile sample bottles and sterile sample collection techniques shall be used during sample collection.

Microbiological organism values shall be collected twice per week where one grab sample is collected beginning 30 minutes after the start of the hydraulic loading period. Samples shall be rotated in order of the hydraulic loading periods per 7.6.1.2 so that one third of the samples shall be in each of the hydraulic loading periods (7.6.1.2). At the two tests per week ratio, each hydraulic loading period shall have a minimum of 17 samples. When this minimum number of samples is not met, additional sampling may be added or the test may be extended until the requirement is met.

NOTE — The manufacturer may request additional samples per week complying with the above.

Samples shall be refrigerated if not analyzed within one hour of collection. Analysis shall be performed within 6 hours of sample collection.

### 7.6.2 Criteria

The geometric mean of microbiological organism concentration from all grab samples collected during the first 13 weeks of the life test shall meet the pass/fail criteria in 1.5. The geometric mean of microbiological organism concentration from all grab samples collected in the final 13 weeks of the life test shall meet the pass/fail criteria in 1.5.

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## 8 Ozone disinfection devices

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### 8.6 Performance testing and evaluation

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#### 8.6.1.2 Microbiological organism deactivation test

Extreme care shall be taken in designing a sampling program and sample site for ozone disinfected water. Since no residual remains when the sample is removed from the ozone exposure, re-growth of organisms and contamination of samples in a testing environment is possible. The sample point shall be immediately adjacent to the outlet flow of the ozone disinfection device contact chamber. Sterile sample bottles and sterile sample collection techniques shall be used during sample collection.

Two microbiological organism samples shall be collected and analyzed per week over 26 weeks. Grab samples shall be collected at least 30 minutes after the start of the loading period. Samples shall be rotated in order of the loading periods per 8.6.1.1 so that one third of the samples shall be collected in each of the loading periods (8.6.1.1). At the two tests per week ratio, each loading period shall have a minimum of 17 samples. When this minimum number of samples is not met, additional sampling may be added or the test may be extended until the requirement is met.

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NOTE — The manufacturer may request additional samples per week complying with the above.

Samples shall be refrigerated if not analyzed within one hour of collection. Analysis shall be performed within 6 hours of sample collection.

#### 8.6.1.3 Criteria

The ~~geometric mean of~~ microbiological organism concentration from all grab samples collected and analyzed under 8.6.1.2 shall meet the pass/fail criteria in 1.5.

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[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by **gray highlighting**. Rationale statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

ANSI/NSC Standard

## Sustainable Production of Natural Dimension Stone

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### 5 Water

#### 5.2 Recycled water (maximum 2 points)

A facility operator shall earn points for water used in manufacturing operations, as detailed below. Operators that do not utilize water in the processing of dimension stone shall qualify for the required criterion as well as for the maximum points allowed under 5.2.2.

##### 5.2.1 Required

A facility operator shall capture and recycle a minimum of **75** ~~25%~~ of the water accounted for in the water inventory in 5.1 ~~for fabrication and quarry operations shall be captured and recycled.~~

Quarry operators that cannot capture and recycle water is exempt from this criterion. Some examples of operations that would qualify for exemption include but are not limited to: non-solid formation pit quarries, facilities ~~quarries~~ that use water only for dust suppression, when 100% of water is used in the process. Evidence must be provided that water used cannot be collected and recycled.

##### 5.2.2 Optional – ~~a minimum of:~~

- a) A facility operator shall capture and recycle a minimum of **85%** ~~26% to 90%~~ of the water accounted for in the water inventory in 5.1 ~~for processing and quarry operations are captured and recycled.~~ (1 point); or
- b) A facility operator shall capture and recycle a minimum of **95%** ~~More than 90%~~ of the water accounted for in the water inventory in 5.1 ~~for processing and quarry operations is captured and recycled.~~ (2 points total).

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**Annex C**  
 (normative)  
**Scorecard**

<b>5 Water</b>							
<b>CHECKLIST</b>			<b>Criteria</b>	<b>Required or Optional</b>	<b>Description</b>	<b>Max possible points</b>	
<b>Yes</b>	<b>No</b>	<b>Comment</b>					
			5.1	Required	Water inventory	R	
			<b>Recycled Water</b> (maximum 2 points) <b>5.2 Facility operator may only earn points from 5.2.2 a) OR 5.2.2 b)</b>				
			5.2.1	Required	A minimum of 25% of the water accounted for in the water inventory (in 5.1) for processing and quarry operations shall be captured and recycled.	R	
			5.2.2 a)	Optional	A facility operator shall capture and recycle a minimum of 85% <del>26% to 90%</del> of the water accounted for in the water inventory in 5.1 for processing and quarry operations are captured and recycled.	1	
			5.2.2 b)	Optional	A facility operator shall capture and recycle a minimum of 95% <del>More than 90%</del> of the water accounted for in the water inventory in 5.1 for processing and quarry operations is captured and recycled.	2	

## BSR/UL 147A, Standard for Safety for Nonrefillable (Disposable) Type Fuel Gas Cylinder Assemblies

### 1. Revisions to the Fire Test

#### PROPOSAL

##### 16 Fire Test

16.1 A nonrefillable cylinder assembly shall be subjected to the heat of a charcoal fire as specified in 16.2 - 16.4. The relief device provided in the cylinder assembly shall operate to ~~reduce the risk of rupture or propulsion of the container from pressure buildup~~ prevent any part of the cylinder from being propelled or thrown from the assembly.

16.2 Nine sample fuel containers, fully charged by the manufacturer, are to be used. A charcoal fire, 24 by 18 by 6 inches (610 by 457 by 152 mm) high, is to be prepared within a 3-sided concrete-block, cinder block or brick enclosure. The top and one long side of the enclosure are to be open for observation.

16.3 A metal grate with minimum 1/2 inch spacings or wire screen with minimum 1/4 inch openings on which the samples are placed, is to be placed on top of the charcoals. The grate or metal wire screen shall be even with the top of the enclosure (described in 16.2). The ~~ambient~~ temperature shall be measured in the air space between the screen and the charcoals, below the sample. The temperature during the test shall be between 1000 and 1200°F (537 and 649°C). Thermocouples may be used to measure the temperature. Thermocouples and related instruments are to be accurate and calibrated in accordance with good laboratory practice. ~~Thermocouple wires are to conform with the requirements specified in the Tolerances on Initial Values of EMF versus Temperature tables in the Standard Specification and Temperature-Electromotive Force (emf) Tables for Standardized Thermocouples, ANSI/ASTM E230/E230M.~~

16.4 The samples shall be individually tested in the charcoal fire. Three samples in various each positions and orientations that shall include of vertical up, vertical down, and horizontal shall be tested. The test shall be conducted until the entire contents of the container have been exhausted.

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## BSR/UL 486C, Standard for Safety for Splicing Wire Connectors

### 1. Clarify that Aluminum Test Conductors can be Compact, Compressed, or Concentric Stranding

7.1.12 Tests conducted on a connector with compact-stranded copper conductors shall be considered representative of concentric and compressed stranded copper conductors of the same size. Tests conducted on a connector with compact, compressed, or concentric-stranded aluminum conductors shall represent tests with compact, concentric, and compressed stranded aluminum conductors of the same size. See Table 9.

### 2. Correction to Paragraph 9.2.3

9.2.3 The current-off times may be reduced after the first 25 cycles of testing to the maximum time it takes any connector to reach a stable temperature during the current-off period. Forced-air cooling may be used to reduce the current-off time with the concurrence of those concerned. This current-off period shall be determined as follows:

a) For all iterations of the first 25 cycles of operation, the time to stabilization for the current-off time shall be recorded.

b) The time to current-off time stabilization during each cycle of the first 25 cycles shall be the time necessary for the test specimen to attain a stable temperature as demonstrated by three readings at 10 min intervals showing no more than a 2°C variation between any two of the readings.

~~b) c)~~ The current-off time for the remaining 475 cycles shall be determined by selecting the cycle with the longest interval of time for current-off time stabilization measured during the first 25 cycles of operation. The current off-time for the remaining 475 cycles shall be the first of the three readings from this longest interval of time.

### 3. Conductor Insulation Type

9.1.5.2 With reference to 9.1.5.1, a connector may be tested with uninsulated conductors or conductors with any type of insulation when the connector assembly does not rely on the conductor insulation, i.e., insulation piercing connector. When using uninsulated conductors, Table 10 shall not be applied.

**Table 10 - Conductor insulation<sup>a</sup>**  
(Clauses 9.1.5.1 and 9.1.5.2)

		AWG (mm <sup>2</sup> )	Type of insulation <sup>b</sup>
Aluminum	Solid and Stranded	12 (3.31) and larger	THHN or T90 THW or TW75 RW90 (1000V) or USE RW90 (600V) or XHHW PE or XLPE thermoset insulation
Copper	Solid and	30 - 24	Thermoplastic at least 0.254 mm (0.010 in) thick

	Stranded	(0.05 - 0.20)	
		22 - 16 (0.32 - 1.31)	Thermoplastic at least 0.762 mm (0.030 in) thick
		14 (2.08) and larger	T90 or THHN THW or TW75 RW90 (1000V) or USE RW90 (600V) or XHHW
Copper-clad aluminum	Solid and stranded	12 (3.31) and larger	THHN THW USE XHHW
<p><sup>a</sup> Table 10 is not applicable when testing with uninsulated wire.</p> <p><sup>b</sup> <u>Type of insulation is not specified when testing with a connector assembly that does not rely on the conductor insulation.</u></p>			

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## BSR/UL 486A-486B, Standard for Safety for Wire Connectors

### 1. Addition to the Scope to Address Use of Ferrules and Adapters

1.1A Connectors covered by this Standard are also suitable for use with conductors that are prepared using ferrules evaluated in accordance with CSA C22.2 No. 291-14/UL 486F, or wire connector adapters evaluated in accordance with this Standard, under the following conditions:

a) Ferrules and adapters are applied in accordance with their ratings and installation instructions.

b) The length of exposed conductive material maintains the strip lengths required by the connector manufacturer.

#### 2.1.3 CSA Standards

CSA C22.2 No. 291  
Bare and Covered Ferrules

#### 2.1.4 UL Standards

UL 486F  
Bare and Covered Ferrules

### 2. Define Number of Samples

#### 8.5 Dielectric withstand

8.5.1 For a connector intended to secure combinations of conductors of different total cross-sectional areas, tests shall be performed on the combination of conductors of the smallest total cross-sectional area and on the combination of largest total cross-sectional area.

8.5.2 For a connector intended to secure single conductors of different sizes, tests shall be performed on specimens with the smallest and largest conductors.

8.5.3 See Table 11 for the number of test specimens.

### 3. Define Min and Max Sample Size in Table 11

**Table 11 - Minimum number of specimens for test**  
**(Clauses 8.1.1, 8.6.1, 8.7.1, 8.9.1, 8.10.1, 8.11.1, 8.12.1, and 8.13.1)**

Clause	Test	Number of specimens
9.2	Current-cycling	4 of each combination of connector and test conductor(s) to be tested
9.3	Static-heating sequence	4 of each combination of connector



		and test conductor(s) to be tested
9.4	Mechanical sequence	4 of each combination of connector and test conductor(s) to be tested
	Dielectric withstand	
	Thermosetting, e.g., porcelain, cold-molded melamine, phenolic, or urea-compound	
9.5.2	Test A - as received	12 <sup>a</sup>
9.5.3	Test B - as received	12 <sup>a</sup>
9.5.4	Test C	
	- as received	6
	Thermoplastic, e.g., vinyl or nylon	
9.5.2	Test A - As received	12 <sup>a</sup>
9.5.3	- After oven conditioning with specimens assembled to conductor before such conditioning	12 <sup>a</sup>
9.5.4	- After oven conditioning with specimens assembled to conductor after such conditioning	12 <sup>a</sup>
9.5.3	Test B	
	- as received	12 <sup>a</sup>
9.5.4	Test C - as received	6
	Secureness of insulation	
9.6.1	As received	6
9.6.3 (a)	a) Unassembled	
	- as received	6
	- after oven conditioning	6
9.6.3 (b)	b) Assembled	
	- as received	12 <sup>a</sup>
	- connected to a conductor before oven conditioning	12 <sup>a</sup>
	- connected to a conductor after oven conditioning	12 <sup>a</sup>
9.7	Drop	
	- as received	12 <sup>a</sup>
	- after oven conditioning	12 <sup>a</sup>
	- after cold conditioning	12 <sup>a</sup>
9.8	Dielectric withstand (after drop)	use same specimens
9.9	Flexing	
	- as received	6 <sup>b</sup>
	- after oven conditioning	6 <sup>b</sup>
	- after cold conditioning	6 <sup>b</sup>

9.10	Low temperature installation	12 <sup>a</sup>
9.11	Moisture absorption	3
9.12 or 9.13	Stress corrosion	3
<sup>a</sup> Six specimens with maximum conductor size and six specimens with minimum conductor size.		
<sup>b</sup> Test with the maximum conductor size.		

#### 4. Clarify that Aluminum Test Conductors can be Compact, Compressed, or Concentric Stranding

7.1.11 Tests conducted on a connector with compact-stranded copper conductors shall represent tests with concentric and compressed stranded copper conductors of the same size. Tests conducted on a connector with compact, compressed, or concentric-stranded aluminum conductors shall represent tests with compact, concentric, and compressed stranded aluminum conductors of the same size. See Table 15.

#### 5. Test B Flashover Clarification

9.5.3.2 With reference to 9.5.1.2 (conducting Test A and Test B on the same specimens), the Test A voltage specified in 9.5.2.4 shall be applied for 1 min. The voltage may be reduced to 0 volts. The connector shall then be repositioned such that the conductor opening is even with the outer electrode. The voltage shall then be rapidly and steadily increased to the maximum test voltage specified in Table 28.

9.5.3.3 With reference to 9.5.3.2, ~~after being held at the required test voltage for 1 min, the connector shall be repositioned and the voltage may be reduced to 0 volts and then rapidly and steadily increased to the maximum test voltage.~~

#### 6. Clarification of Dielectric-withstand Test Sequence

**Table 9 - Dielectric-withstand test sequence**

(Clauses 7.5.1 and 8.1.2)

Connector construction	Required test
1. A connector having insulation in the form of a tubular sleeve and intended to accommodate only one conductor in each opening and intended for use with:	
a) 10 AWG (5.26 mm <sup>2</sup> ) or smaller conductor	A, C
b) 8 - 4/0 AWG (8.4 - 107 mm <sup>2</sup> )	A
2. Connectors having insulation in other than a tubular form <del>and or</del> for <u>a</u> conductor size not covered in item 1	A, B

Notes:
A - Test A as described in 9.5.2.
B - Test B as described in 9.5.3.
C - Test C as described in 9.5.4.

## 7. Conductor Insulation Types

9.1.5.2 With reference to 9.1.5.1, a connector may be tested with uninsulated conductors or conductors with any type of insulation when the connector assembly does not rely on the conductor insulation, i.e. insulation piercing connector. When using uninsulated conductors, Table 16 shall not be applied.

**Table 16 - Conductor insulation<sup>a</sup>**  
(Clauses 9.1.5.1 and 9.1.5.2)

		AWG or kcmil (mm <sup>2</sup> )	Type of insulation <sup>b</sup>	
Aluminum	Solid and stranded	12 (3.31) and larger	THHN or T90	
			THW or TW75	
			RW90 (1000V) or USE	
			RW90 (600V) or XHHW	
			PE or XLPE thermoset insulation	
Copper	Solid and stranded	30 - 24 (0.05 - 0.20)	Thermoplastic at least 0.254 (0.010 in) thick	
			22 - 16 (0.32 - 1.31)	Thermoplastic at least 0.762 mm (0.030 in) thick
			14 (2.08) and larger	T90 or THHN
				THW or TW75
				RW90 (1000V) or USE
Copper-clad aluminum	Solid and stranded	12 (3.31) and larger	RW90 (600V) or XHHW	
			T90 or THHN	
			THW	
			RW90 (1000V) or USE	
			RW90 (600V) or XHHW	

<sup>a</sup> Table 16 is not applicable when testing with uninsulated wire.

<sup>b</sup> Type of insulation is not specified when testing with a connector assembly that does not rely on the conductor insulation.

## BSR/UL 746C, Standard for Safety for Polymeric Materials – Use in Electrical Equipment Evaluations

### 1. Inclusion of a Weathering Test Program for Non-Enclosure/Elastomeric/Film Materials

**Table 25.1**

**Minimum property retention limitations after ultraviolet light and water immersion conditioning**

Property	Ultra-violet light <sup>a</sup>	Water immersion <sup>b</sup>
Flammability Classification	Unchanged	Unchanged
Tensile or Flexural Strength <sup>c</sup>	70 Percent	50 Percent
Tensile, Izod or Charpy Impact <sup>c</sup>	70 Percent	50 Percent
Tensile Strength and Elongation <sup>d</sup>	70 percent	50 percent
<sup>a</sup> 1000 hours xenon-arc exposure. See 57.1.1 - 57.2.11.		
<sup>b</sup> 7 days at 70°C. See 58.1.		
<sup>c</sup> For functional support, the test methods are tensile strength and flexural strength. For Impact Resistance the test methods are Tensile, Izod, or Charpy impact. See Table 57.1.		
<sup>d</sup> <u>Alternate testing per 25.3 and 26.1.3</u> For for deformation resistance, the test method is tensile strength and elongation.		

25.3 When the material is not suitable for impact testing options (mentioned in Table 25.1) due to thickness less than 0.25 mm (0.01 inch) or it is a vulcanized rubber or thermoplastic elastomer (used as non-enclosure or part of the enclosure), alternatively, testing has to be performed for deformation resistance.

*Exception No. 1: Where it is not practical to conduct the Tensile, Izod, or Charpy impact test using the standard specimens, the procedure of 57.2.7 - 57.2.11 and the impact equipment of Figures 57.1 and 57.2 may be used on representative sections of the equipment's enclosure.*

*Exception No. 2: If the impact value for a material that has been tested in accordance with the requirements in this section has exhibited less than 70 percent retention but at least 25 percent retention of the impact property, it is considered acceptable provided that all of the following results are obtained:*

- a) *An unconditioned plaque specimen in the thinnest part thickness complies with the resistance to impact requirement levels shown in Table 25.2, and*
- b) *The standard specimens exposed to the 1000 hour xenon-arc UV conditioning have retained at least 80 percent of the 500 hour xenon-arc UV conditioning impact level. As an alternative, this UV conditioning may be conducted for a longer period of time in 500 hour increments providing the final*

*exposure impact level is not less than 80 percent of the previous increment's impact level.*

26.1.3 When the material is not suitable for impact testing options (mentioned in Table 25.1) due to thickness less than 0.25 mm (0.01 inch) or it is a vulcanized rubber or thermoplastic elastomer (used as non-enclosure or part of the enclosure), alternatively, testing has to be performed for deformation resistance.

58.2 The following properties shall be included in the evaluation (See Table 57.1):

- a) For Functional Support, either
  - 1) Tensile Strength, or
  - 2) Flexural Strength
- b) For Impact Resistance, either
  - 1) Tensile Impact, or
  - 2) Izod Impact, or
  - 3) Charpy Impact.
- c) For Deformation Resistance (Alternative to Impact Resistance Test).
  - 1) Tensile Strength and Elongation.
- d) Flammability, as described in the Standard for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances, UL 94. See 57.2.4.1

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## BSR/UL 2703, Standard for Safety for Mounting Systems, Mounting Devices, Clamping/Retention Devices, and Ground Lugs for Use with Flat-Plate Photovoltaic Modules and Panels

### 1. Bonding and Grounding Revisions.

1.1 These requirements cover rack mounting systems, mounting grounding/bonding devices, and clamping/retention devices for specific (manufacturer/model designation) flat-plate photovoltaic modules and panels that comply with the Standard for Flat-Plate Photovoltaic Modules and Panels, UL 1703, or the Standard for Photovoltaic (PV) Module Safety Qualification - Part 1: Requirements For Construction, UL 61730-1, and the Standard for Photovoltaic (PV) Module Safety Qualification - Part 2: Requirements For Testing, UL 61730-2, intended for installation on or integral with buildings, or to be freestanding (i.e., not attached to buildings), in accordance with the National Electrical Code, ANSI/NFPA 70, and Model Building Codes. Systems, components and/or devices evaluated under this standard may be used to ground and/or mount a PV module complying with UL 1703 or UL 61730-1 and UL 61730-2 when the specific module or frame has been evaluated for bonding/grounding or the module has been evaluated for mounting with the evaluated system, component or device.

~~2.39.2 SINGLE FAULT CONDITION - Condition of equipment with a fault under normal operation condition of a single safeguard (but not a reinforced safeguard) or single component of a device. Condition in which one means for protection against a hazard is defective or one fault is present which could cause a hazard. If a single fault condition results in other subsequent failures, the set of failures is considered as one single fault condition.~~

9.1 Mounting system and clamping/retention device(s) shall have a means for bonding all accessible potentially conductive parts to ground. The grounding means shall comply with the applicable requirements in Grounding and Grounding Devices, Section 8. The grounding means shall be bonded to each conductive part of the rack mounting systems and clamping devices. The grounding means shall be described in detail in the installation manual. See Installation, Assembly and Maintenance/Inspection Instructions, Section 26.

*Exception: Accessible conductive components that are not a part of the fault current ground path such as flashings, roof attachments, L-feet, tile hooks, skirts, ballast trays and wind deflectors, and metal roofing panels are not required to be electrically bonded when the following are all true:*

- a) *The installation instructions clearly identify the system's fault current ground path components and their methods of assembly.*
- b) *The accessible conductive component is not likely to be energized other than through direct or indirect contact with other accessible conductive components that are likely to be energized under normal operations or single fault conditions.*

*In addition, a suitable wire positioning device that complies with the Standard for Positioning Devices, UL 1565, or the Standard for Cable Management Systems - Cable Ties for Electrical Installations, UL 62275, is not required to be electrically bonded.*

Table 9.1

## Size of equipment-grounding and grounding-electrode conductors

Column 1	Column 2				Column 3			
	Minimum size of equipment-grounding or bonding conductor				Minimum size of grounding electrode conductor			
	AWG or kcmil (mm <sup>2</sup> )				AWG or kcmil (mm <sup>2</sup> )			
Maximum circuit current rating, amperes	Copper		Aluminum or copper-clad aluminum		Copper		Aluminum or copper-clad aluminum	
15	14	(2.1)	12	(3.3)	8	(8.4)	6	(13.3)
20	12	(3.3)	10	(5.3)	8	(8.4)	6	(13.3)
30	10	(5.3)	8	(8.4)	8	(8.4)	6	(13.3)
40	10	(5.3)	8	(8.4)	8	(8.4)	6	(13.3)
60	10	(5.3)	8	(8.4)	8	(8.4)	6	(13.3)
90	8	(8.4)	6	(13.3)	8	(8.4)	6	(13.3)
100	8	(8.4)	6	(13.3)	6	(13.3)	6	(13.3)
150	6	(13.3)	4	(21.2)	6	(13.3)	4	(21.2)
200	6	(13.3)	4	(21.2)	4	(21.2)	2	(33.6)
300	4	(21.2)	2	(33.6)	2	(33.6)	1/0	(53.5)
400	3	(26.7)	1	(42.4)	1/0	(53.5)	3/0	(85.0)
500	2	(33.6)	1/0	(53.5)	2/0	(67.4)	4/0	(107.2)
600	1	(42.4)	2/0	(67.4)	2/0	(67.4)	4/0	(107.2)
800	1/0	(53.5)	3/0	(85.0)	3/0	(85.0)	250	(127)
1000	2/0	(67.4)	4/0	(107.2)	3/0	(85.0)	250	(127)
1200	3/0	(85.0)	250	(127)	3/0	(85.0)	250	(127)
1600	4/0	(107.2)	350	(127)	3/0	(85.0)	250	(127)
2000	250	(127)	400	(203)	3/0	(85.0)	250	(127)
2500	350	(177)	600	(304)	3/0	(85.0)	250	(127)
3000	400	(203)	600	(304)	3/0	(85.0)	250	(127)
4000	500	(253)	800	(405)	3/0	(85.0)	250	(127)
5000	700	(355)	1200	(608)	3/0	(85.0)	250	(127)
6000	800	(405)	1200	(608)	3/0	(85.0)	250	(127)

## APPENDIX A

### Standards for Components

Standards under which components of the products covered by this standard are evaluated include the following:

Title of Standard - UL Standard Designation

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Cable Management Systems - Cable Ties for Electrical Installations - UL 62275

Grounding and Bonding Equipment - UL 467

Marking and Labeling Systems - UL 969

Outlet Boxes, Flush-Device Boxes and Covers, Nonmetallic - UL 514C

Outlet Boxes, Metallic - UL 514A

Plastic Materials for Parts in Devices and Appliances, Tests for - UL 94

Photovoltaic (PV) Module Safety Qualification - Part 1: Requirements For Construction - UL 61730-1

Photovoltaic (PV) Module Safety Qualification - Part 2: Requirements For Testing - UL 61730-2

Polymeric Materials - Fabricated Parts - UL 746D

Polymeric Materials - Long Term Property Evaluations - UL 746B

Polymeric Materials - Short Term Property Evaluations - UL 746A

Polymeric Materials - Use in Electrical Equipment Evaluations - UL 746C

Positioning Devices - UL 1565

Roof Coverings, Standard Test Methods for Fire Tests of - UL 790

Sharpness of Edges on Equipment, Tests for - UL 1439

Terminals, Electrical Quick-Connect - UL 310

Wire Connectors - UL 486A-486B

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