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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

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

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

### Comment Deadline: February 11, 2018

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

#### Revision

BSR/NSF 49-201x (i108r2), Biosafety Cabinetry: Design, Construction, Performance, and Field Certification (revision of ANSI/NSF 49-2016)

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

Click here to view these changes in full

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

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

#### **New National Adoption**

BSR/UL 62841-1-201x, Standard for Safety for Electric Motor-Operated Hand-Held Tools, Transportable Tools, and Lawn and Garden Machinery Safety - Part 1: General Requirements (identical national adoption of IEC 62841-1 and revision of ANSI/UL 62841-1-2016)

This International Standard deals with the safety of electric motor-operated or magnetically driven:

- hand-held tools (IEC 62841-2);
- transportable tools (IEC 62841-3);
- lawn and garden machinery (IEC 62841-4).

The above listed categories are referred to in this standard as "tools" or "machines". The rated voltage is not more than 250 V for single-phase a.c. or d.c. tools, and 480 V for three-phase a.c. tools. The rated input is not more than 3 700 W.

Click here to view these changes in full

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

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

#### Revision

BSR/UL 1203-201X, Standard for Safety for Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations (revision of ANSI/UL 1203-2015)

This proposal includes revisions to 102.11 and the conductor fill-in Table 102.1.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Vickie Hinton, (919) 549 -1851, Vickie.T.Hinton@ul.com

### Comment Deadline: February 26, 2018

#### **ADA (American Dental Association)**

#### Reaffirmation

BSR/ADA 100, ISO 27020-2012 (R201x), Orthodontic Brackets and Tubes (reaffirmation of ANSI/ADA 100, ISO 27020-2012)

This standard provides test methods to compare the functional dimensions of brackets and tubes for use in fixed orthodontic appliances, as well as packaging and labeling information.

Single copy price: \$53.00

Obtain an electronic copy from: standards@ada.org

Order from: standards@ada.org

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

#### **ADA (American Dental Association)**

#### Reaffirmation

BSR/ADA Specification No. 109-2006 (R201x), Procedures for Storing Dental Amalgam Waste and Requirements for Amalgam Waste Storage/Shipment Containers (reaffirmation of ANSI/ADA Specification No. 109-2006 (R2012))

This standard describes procedures for storing and preparing dental amalgam waste for delivery to recyclers. In addition, it gives requirements for the containers for storing and/or shipping amalgam waste.

Single copy price: \$23.00

Obtain an electronic copy from: standards@ada.org

Order from: standards@ada.org

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

#### **ADA (American Dental Association)**

#### Reaffirmation

BSR/ADA Standard No. 141 (ISO 14356)-2013 (R201x), Dental Duplicating Material (reaffirmation of ANSI/ADA Standard No. 141 (ISO 14356)-2013)

This standard specifies requirements and test methods for the duplicating materials used in dentistry that are primarily intended for forming flexible molds for the production of positive refractory investment copies of master models.

Single copy price: \$157.00

Obtain an electronic copy from: standards@ada.org

Order from: standards@ada.org

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

#### **ADA (American Dental Association)**

#### Reaffirmation

BSR/ADA Standard No. 30-2013 (R201x), Dental Zinc Oxide - Eugenol and Zinc Oxide - Non-Eugenol Cements (reaffirmation of ANSI/ADA Standard No. 30-2013)

This standard specifies requirements and test methods for zinc oxideeugenol and zinc oxide-non-eugenol cements that are suitable for use in the oral cavity.

Single copy price: \$84.00

Obtain an electronic copy from: standards@ada.org

Order from: standards@ada.org

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

#### **AISC (American Institute of Steel Construction)**

#### Supplement

BSR/AISC 358-S1-201x, Supplement No. 1 to AISC 358-16, Prequalified Connections for Special and Intermediate Steel Moment Frames for Seismic Applications (supplement to ANSI/AISC 358-2016)

Revisions to existing chapters and the addition of new chapters.

Single copy price: \$35.00

Obtain an electronic copy from: www. aisc.org/publicreview

Order from: Rachel Jordan, jordan@aisc.org

Send comments (with copy to psa@ansi.org) to: matthew@aisc.org, Comments may be submitted online at www.aisc.org/publicreview

#### **ALI (ASC A14) (American Ladder Institute)**

#### Revision

BSR A14.4-201x, Job Made Ladders (revision of ANSI A14.4-2009)

This safety standard prescribes minimum requirements and recommendations for the construction, design, installation, and use of job-made wooden ladders in order to minimize personal injuries. This standard does not cover portable manufactured or portable job-made ladders, permanent fixed ladders, or mobile-equipment ladders.

Single copy price: \$250.00

Obtain an electronic copy from: https://www.americanladderinstitute.

org/store/ListProducts.aspx?catid=417162 Order from: info@americanladderinstitute.org

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

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

#### Revision

BSR ICEA S-103-701-201x, Riser Cables Technical Requirements (revision of ANSI ICEA S-103-701-2004 (R2011))

This Standard covers mechanical, electrical, and flammability requirements for riser cables. Depending upon the application and system requirements, this Standard provides choices for materials and transmission characteristics. For those characteristics where no differentiation is made, the performance requirements are applicable to all cables. Selection of the applicable type shall be at the discretion of the user and shall be designated in the product specification.

Single copy price: \$122.00

Obtain an electronic copy from: Communications@nema.org

Order from: Khaled Masri, (703) 841-3278, Khaled.Masri@nema.org

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

### Notice of Withdrawn ANS by an ANSI-Accredited Standards Developer

In accordance with clause 4.2.1.3.2 Withdrawal by ANSI-Accredited Standards Developer of the ANSI Essential Requirements, the following American National Standards have been withdrawn as an ANS.

# AAMI (Association for the Advancement of Medical Instrumentation)

ANSI/AAMI/ISO 10993-16-2010 (R2014), Biological evaluation of medical devices - Part 16: Toxicokinetic study design for degradation products and leachables

Questions may be directed to: Amanda Benedict, (703) 253-8284, abenedict@aami.org

# AAMI (Association for the Advancement of Medical Instrumentation)

ANSI/AAMI/ISO 10993-4-Amd1-2006 (R2009), Biological evaluation of medical devices - Part 4: Selection of test for interactions with blood (Amendment 1)

Questions may be directed to: Amanda Benedict, (703) 253-8284, abenedict@aami.org

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

ANSI/ASTM C709-2009, Terminology Relating to Manufactured Carbon and Graphite

Questions may be directed to: Corice Leonard, (610) 832-9744, accreditation@astm.org

#### Correction

**Incorrect Project Intents** 

### ANSI/AHRI Standard 540, ANSI/AHRI Standard 610, and ANSI/AHRI Standard 620

The following AHRI standards were mistakenly identified in the January 5, 2018 Standards Action as Administratively Withdrawn ANS. Rather each of these standards were superseded by a more recent approved version as indicated below:

ANSI/AHRI Standard 540-2004, (revised and superseded by ANSI/AHRI Standard 540 (I-P and SI)-2016)

ANSI/AHRI Standard 610-2004 (revised and superseded by ANSI/AHRI Standard 610 (I-P)-2014)

ANSI/AHRI Standard 620-2004 (revised and superseded by ANSI/AHRI Standard 620 (I-P)-2014)

# Public Notice of the Development of a Provisional American National Standard (ANS) by the National Fire Protection Association

### (in accordance with Annex B of the 2017 edition of the ANSI Essential Requirements)

In accordance with Annex B, Procedures for the Development of a Provisional American National Standard (ANS) or a Provisional Amendment to an ANS, of the ANSI Essential Requirements, the National Fire Protection Association is preparing a Provisional Standard for Preparedness and Response to Active Shooter and/or Hostile Events. NFPA 3000. The Standards Council found that there are numerous recent active shooter and hostile events of increasing magnitude occurring globally, which are resulting in tragic loss of life, as well as countless injuries. The very nature of these unpredictable, deadly events and the frequency of recurrence establishes the need for prompt dissemination of standards for preparedness and response. Moreover, the Council found that the urgency in addressing these serious safety concerns warranted the initiation of expedited standards development procedures. The standard is being developed to address preparedness, planning, and response to cross-functional, multi-discipline, and cross-coordinated emergency events that are not already established by the NFPA. This includes provisions that establish criteria for the professional qualifications of those who are responsible for preparation, planning, exercising, and responding to cross-functional, cross-jurisdictional events.

The standard is being processed as a Provisional Standard to ensure the prompt dissemination of new safety criteria. The Technical Committee will meet March 19-23, 2018 at NFPA Headquarters (One Batterymarch Park, Quincy, Massachusetts) with details available at <a href="www.nfpa.org/3000">www.nfpa.org/3000</a>. Notice of the approval and issuance of the Provisional Standard by NFPA will be submitted to ANSI within 5 days of the approval and issuance of the standard by the NFPA Standards Council. Within 45 days of NFPA 3000 (PS) being submitted to ANSI, the provisional standard will be entered into the complete NFPA revision process, in accordance with the Regulations Governing the Development of NFPA Standards and as required by ANSI.

For additional information or questions relating to the development of this provisional standard, please contact NFPA Standards Administration, NFPA Headquarters, One Batterymarch Park, Quincy, Massachusetts 02169, 617-984-7246, or via email at stds\_admin@nfpa.org. Interested parties should review <a href="www.nfpa.org/3000">www.nfpa.org/3000</a> for updates on progress, including technical committee meeting notices and potential calls for public review and input.

# **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.

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

Office: P.O. Box 361784

Birmingham, AL 35236-1784

 Contact:
 Colin McCown

 Phone:
 (205) 733-4077

 Fax:
 (205) 733-4075

 E-mail:
 mccown@awpa.com

ANSI O5.6-2010, Solid Sawn Naturally Durable Hardwood Crossarms and Braces - Specifications and Dimensions (withdrawal of ANSI

O5.6-2010)

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

Office: 1300 North 17th Street

Rosslyn, VA 22209

 Contact:
 Khaled Masri

 Phone:
 (703) 841-3278

 Fax:
 (703) 841-3398

E-mail: Khaled.Masri@nema.org

BSR ICEA S-103-701-201x, Riser Cables Technical Requirements (revision of ANSI ICEA S-103-701-2004 (R2011))

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

Office: 789 N. Dixboro Road

Ann Arbor, MI 48105-9723

Contact: Allan Rose

Phone: (734) 827-3817

Fax: (734) 827-7875

E-mail: arose@nsf.org

BSR/NSF 49-201x (i108r2), Biosafety Cabinetry: Design, Construction, Performance, and Field Certification (revision of ANSI/NSF 49-2016)

# Call for Members (ANS Consensus Bodies)

### **National Council for Prescription Drug Programs (NCPDP)**

Enrollment in the 2018 Consensus Group opens Friday, January 5, 2018 and closes on Wednesday, February 5, 2018 at 8:00 p.m. Eastern Time. Information concerning the Consensus Group registration process is available by contacting:

Kittye Krempin National Council for Prescription Drug Programs 9240 East Raintree Drive Scottsdale, AZ 85260

Phone: (480) 296-4584 E-mail: kkrempin@ncpdp.org

#### Standards:

Audit Transaction Standard – supports an electronic audit transaction that facilitates requests, responses, and final outcomes transmissions for both "Desk Top" claim audits and for in-store audit notices.

Benefit Integration Standard - supports the communication of accumulator data (such as deductible and out of pocket) between Benefit Partners to administer integrated benefits for a member.

Billing Unit Standard - provides a consistent and well-defined billing unit for use in pharmacy transactions. This results in time savings and accuracy in billing and reimbursement.

Financial Information Reporting Standard – provides a process whereby financial information is moved from one PBM to another when a patient changes benefit plans.

Formulary and Benefit Standard – provides a standard means for pharmacy benefit payers (including health plans and Pharmacy Benefit Managers) to communicate formulary and benefit information to prescribers via technology vendor systems.

Manufacturer Rebate Standard – provides a standardized format for the electronic submission of rebate information from Pharmacy Management Organizations (PMOs) to Pharmaceutical Industry Contracting Organizations (PICOs).

Medicaid Subrogation Standard – provides guidelines for the process whereby a Medicaid agency can communicate to a processor for reimbursement. The state has reimbursed the pharmacy provider for covered services and now is pursuing reimbursement from other payers for these services.

Medical Rebates Data Submission Standard – provides a standardized format for health plans' rebate submissions to multiple manufacturers throughout the industry. Implementation of the medical also eliminates the need for manufacturers to create internal mapping processes to standardize unique data formats from each health plan or third party administrator.

Post Adjudication Standard – provides a format for supplying detailed drug or utilization claim information after the claim have been adjudicated.

Prescription Transfer Standard – developed to create file formats for the purpose of electronically transferring prescriptions between pharmacies.

Prior Authorization Transfer Standard – developed to define the file format and correct usage for electronically transferring existing prior authorization data between payer/processors when transitioning clients, performing system database or platform changes, or other scenarios where an existing prior authorization record is stored in one location and needs to be moved to another.

Product Identifiers Standard – developed to provide a standard for consistent formatting and utilization of product identifiers in healthcare and to provide clarification for maintenance of these specific product identifiers.

Retiree Drug Subsidy Standard – developed to assist in the automation of summarized drug cost and related data transfer from one processor/pharmacy benefit manager to another processor/pharmacy benefit manager for continuation of the CMS Retiree Drug Subsidy (RDS) cost data reporting by the receiving entity.

SCRIPT Standard – developed for transmitting prescription information electronically between prescribers, providers, and other entities.

Specialized Standard – developed for transmitting information electronically between prescribers, providers, and other entities. The standard addresses the electronic transmission of census information about a patient between a facility and a pharmacy, medication therapy management transactions between providers, payers, pharmacies, and other entities. It will include other transactions for electronic exchanges between these entities in the future.

Subrogation Standard – developed to provide guidelines for the process whereby payers and PBMs can communicate to other payers reimbursement requests for covered services paid to pharmacy providers for which the other payers are responsible.

Telecommunication Standard – developed a standardized format for electronic communication of claims and other transactions between pharmacy providers, insurance carriers, third-party administrators, and other responsible parties.

Uniform Healthcare Payer Data Standard – developed a standard format for pharmacy claim data to support the reporting requirements of claim data to states or their designees.

# **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:

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

If you are interested in joining the ASC O1, contact WMMA Associate Director Jennifer Miller at <a href="mailto:jennifer@wmma.org">jennifer@wmma.org</a>.

# **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.

#### HI (Hydraulic Institute)

#### Revision

ANSI/HI 9.8-2018, Rotodynamic Pumps for Pump Intake Design (revision of ANSI/HI 9.8-2012): 1/8/2018

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

#### Reaffirmation

- INCITS 483-2012 [R2017], Information Technology Virtualization Management Specification (reaffirmation of INCITS 483-2012): 12/29/2017
- INCITS 495-2012 [R2017], Information Technology Platform Management - Volumes 1 and 2 (reaffirmation of INCITS 495-2012): 12/29/2017
- INCITS 496-2012 [R2017], Information Technology Fibre Channel -Security Protocols - 2 (FC-SP-2) (reaffirmation of INCITS 496-2012): 12/29/2017
- INCITS 498-2012 [R2017], Information technology CIM Representations of Management Specification (reaffirmation of INCITS 498-2012): 12/29/2017
- N INCITS/ISO/IEC 13818-6:1998 [R2017], Information technology -Generic coding of moving pictures and associated audio information - Part 6: Extensions for DSM-CC (reaffirmation of INCITS/ISO/IEC 13818-6:1998 [R2012]): 12/29/2017

#### Revision

INCITS 499-2018, Information technology - Next Generation Access Control - Functional Architecture (revision of INCITS 499-2013): 1/3/2018

#### Stabilized Maintenance

- INCITS 411-2007 [S2017], Information technology iSCSI Management API, Version 1.1.6 (stabilized maintenance of INCITS 411:2007 [R2012]): 12/29/2017
- INCITS 413-2007 [S2017], Information technology RapidIO(TM) Interconnect Specification (version 1.3) (stabilized maintenance of INCITS 413:2007 [R2012]): 12/29/2017
- INCITS 426-2007 [S2017], Information technology Fibre Channel Security Protocols (FC-SP) (stabilized maintenance of INCITS 426 -2007 [R2012]): 12/29/2017
- INCITS 427-2007 [S2017], Information technology Fibre Channel Generic Services-5 (FC-GS-5) (stabilized maintenance of INCITS 427-2007 [R2012]): 12/29/2017
- INCITS 428-2007 [S2017], Information technology Storage Management - Host Bus Adapter Application Programming Interface (SM-HBA) (stabilized maintenance of INCITS 428:2007 [R2012]): 12/29/2017
- INCITS 432-2007 [S2017], Information technology Fabric Application Interface Standard (FAIS) (stabilized maintenance of INCITS 432 -2007 [R2012]): 12/29/2017
- INCITS 433-2007 [S2017], Information technology Fibre Channel Link Services (FC-LS) (stabilized maintenance of INCITS 433-2007 [R2012]): 12/29/2017
- INCITS 435-2007 [S2017], Information technology Fibre Channel BaseT (FC-BaseT) (stabilized maintenance of INCITS 435:2007 [R2012]): 12/29/2017

- INCITS 364:2003/AM1:2007 [S2017], Information technology Fibre Channel - 10 Gigabit (10GFC/AM1) - Amendment 1 (stabilized maintenance of INCITS 364:2003/AM1:2007 [R2012]): 12/29/2017
- INCITS 424:2007/AM1:2007 [S2017], Information technology Fibre Channel Framing and Signaling 2 (FC-FS-2) Amendment 1 (stabilized maintenance of INCITS 424:2007/AM1:2007 [R2012]): 12/29/2017

# NEBB (National Environmental Balancing Bureau) Revision

ANSI/NEBB S120-2016, Rev. 1-2017, Technical Retro-Commissioning of Existing Buildings Standard (revision and redesignation of ANSI/NEBB S120-2016): 1/8/2018

# **NEMA (ASC C29) (National Electrical Manufacturers Association)**

#### Revision

ANSI C29.1-2018, Test Methods for Electrical Power Insulators (revision of ANSI C29.1-1988 (R2012)): 1/8/2018

## SCTE (Society of Cable Telecommunications Engineers)

#### **New Standard**

ANSI/SCTE 242-1-2017, Next Generation Audio Coding Constraints for Cable Systems: Part 1 - Introduction and Common Constraints (new standard): 12/29/2017

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

#### Reaffirmation

 \* ANSI/UL 1803-2012 (R2017), Standard for Safety for Factory Follow-Up on Third Party Certified Portable Fire Extinguishers (reaffirmation of ANSI/UL 1803-2012): 10/24/2017

# WCMA (Window Covering Manufacturers Association)

#### Revision

\* ANSI/WCMA A100.1-2018, Standard for Safety of Window Covering Products (revision of ANSI/WCMA A100.1-2014): 1/8/2018

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

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

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

List of Approved and Proposed ANS

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

#### **ADA (American Dental Association)**

Office: 211 East Chicago Avenue

Chicago, IL 60611-2678

Contact: Paul Bralower

Fax: (312) 440-2529

E-mail: bralowerp@ada.org

BSR/ADA Standard No. 125-201x, Manual Interdental Brushes (identical national adoption of ISO 16409:2016 and revision of

ANSI/ADA 125, ISO 16409-2012)

Stakeholders: Dental manufacturers and dentists.

Project Need: ISO 16409:2016 expands the current range of brushes to specify smaller and larger sizes, a modification that is suitable for the ADA standard.

This standard specifies requirements and test methods for performance criteria for manual interdental brushes consisting of a wired tem with inserted filaments. It also specifies the manufacturer's instructions for use and labeling of the packaging. It is not applicable for powered interdental brushes, manual toothbrushes, dental floss, and for interdental cleaners that do not include filaments.

BSR/ADA Standard No. 139-201x, Dental Base Polymers (national adoption of ISO 20795-1:2013 with modifications and revision of ANSI/ADA Specification No. 139-2012)

Stakeholders: Dental manufacturers and dentists.

Project Need: To determine if 3D milling materials can be included.

This standard classifies denture base polymers and orthodontic base polymers and specifies their requirements and test methods. It further specifies requirements for packaging and labeling these products.

BSR/ADA Standard No. 144-201x, Alloy for Dental Amalgam (identical national adoption of ISO 20749:2017)

Stakeholders: Dentists, dental product manufacturers, dental laboratories, dental professionals.

Project Need: A national adoption of this standard is needed to bring the ADA standards into conformance with new international guidelines.

This standard will provide requirements and test methods for dental amalgam products supplied to the user in capsules, pre-dosed with dental amalgam alloy and dental mercury in quantities suitable for the creation of a single dental restoration.

BSR/ADA Standard No. 57-201x, Endodontic Sealing Materials (revision of ANSI/ADA Specification No. 57-2000 (R2012))

Stakeholders: Dental manufacturers and dentists

Project Need: The current standard is not appropriate for new endodontic materials based tricalcium silicates and requires revision.

This specification is for materials used in endodontics within the tooth to seal the root canal space.

BSR/ADA Standard No. 88-201x, Dental Brazing Alloys (national adoption of ISO 9333:2006 with modifications and revision of ANSI/ADA Specification No 88-2000 (R2012))

Stakeholders: Dental manufacturers and dentists.

Project Need: A newer version of the ISO standard is available for adoption to bring the ADA standard up to date.

This standard specifies requirements and test methods for brazing filler alloys suitable for use in brazing cast dental restorations.

BSR/ADA Standard No. 96-201x, Dental Water-Based Cements (national adoption of ISO 9917-2:2017 with modifications and revision of ANSI/ADA 96, ISO 9917-2012)

Stakeholders: Dental manufacturers and dentists.

Project Need: ADA Standard No. 96 is a modified adoption that combines ISO 9917-1:2007 and ISO 9917-2:2010. As a new version of ISO 9917-2 was published in 2017, ADA Standard No. 96 will be revised to replace the section containing ISO 9917-2:2010 with a modified adoption of ISO 9917-2:2017.

This standard specifies requirements and test methods for dental water-based cements in two parts: (1) Powder/liquid acid-base cements and (2) Resin-modified cements.

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

Office: Two Park Avenue

New York, NY 10016

Contact: Mayra Santiago

Fax: (212) 591-8501

E-mail: ansibox@asme.org

BSR/ASME MFC-4M-201x, Measurement of Gas Flow by Turbine Meters (revision of ANSI/ASME MFC-4M-1986 (R2016))

Stakeholders: Individuals involved in the measurement of gas flow by means for turbine meters, including users and manufacturers of such devices

Project Need: Revise to reflect the current state of the art.

This Standard applies to (1) axial full-flow turbine meters with mechanical and/or electrical outputs whose rotating member is driven by compressible fluid and (2) the measurement of gas by a turbine meter; the meter's construction, installation, operation, performance characteristics, data computation and presentation, calibration, field checking, and other related considerations of the meter.

BSR/ASME V&V 10-201x, Standard for Verification and Validation in Computational Solid Mechanics (revision of ANSI/ASME V&V 10 -2006 (R2016))

Stakeholders: Medical, laboratory, academia, manufacturing, regulatory.

Project Need: Due to technological advancements the committee would like to revise the standard to remain relevant for meeting industry needs.

The purpose of this document is to provide the computational solid and structural mechanics community with a common language, a conceptual framework, and general guidance for implementing the processes of computational model V&V. Recommended overall approach to V&V activities, and discussions of factors that should be considered in developing and executing a V&V program. Guidance provided to better assess and enhance the credibility of computational solid mechanic models.

BSR/ASME Y14.1-201x, Decimal Inch Drawing Sheet Size and Format (revision, redesignation and consolidation of ANSI/ASME Y14.1 -2012 and ANSI/ASME Y14.1M-2012)

Stakeholders: Aerospace, automotive, DoD, manufacturing, medical. Project Need: Committee would like to combine the current Y14.1 and Y14.1M into one standard. Committee also plans to cover new document formats.

This Standard defines sheet sizes and formats for engineering drawings in both decimal inch and metric units.

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

Office: P.O. Box 361784

Birmingham, AL 35236-1784

 Contact:
 Colin McCown

 Fax:
 (205) 733-4075

 E-mail:
 mccown@awpa.com

ANSI O5.6-2010, Solid Sawn Naturally Durable Hardwood Crossarms and Braces - Specifications and Dimensions (withdrawal of ANSI O5.6-2010)

Stakeholders: Electric and telecommunications utilities and manufacturers/distributors of wood crossarms and braces.

Project Need: During the technical review process for revision of this American National Standard, it was determined that the standard is no longer in use. There seems to be no interest from ASC O5 to continue maintaining this standard.

This standard consists of specifications covering solid sawn-wood crossarms and braces manufactured from naturally durable hardwoods. The specifications are intended to cover communications crossarms, power crossarms, heavy-duty crossarms, and heavy-duty braces. Crossarms are intended primarily for use as beams. Heavy-duty crossarms may also be used as struts or columns in braced H-frames. Braces used may be tension-type, compression-type, or both.

#### CSA (CSA Group)

Office: 8501 East Pleasant Valley Rd.

Cleveland, OH 44131

Contact: Cathy Rake **Fax:** (216) 520-8979

E-mail: cathy.rake@csagroup.org

BSR Z21.18-201x, Gas Appliance Pressure Regulators (same as CSA 6.3-201x) (revision and redesignation of ANSI Z21.18-2007 (R2017), ANSI Z21.18a-1010 (R2017), and ANSI Z21.18b-2012 (R2017))

Stakeholders: Consumers, manufacturers, gas suppliers, certifying agencies.

Project Need: Revise the standard for safety and clarification.

Details test and examination criteria for gas appliance pressure regulators for use with natural, manufactured, and mixed gases; liquefied petroleum gases; and LP gas-air mixtures. Such devices, either individual or in combination with other controls, are intended to control selected outlet gas pressures to individual gas appliances.

BSR Z21.80-201x, Line Pressure Regulators (same as CSA 6.22 -201x) (revision of ANSI Z21.80-2011 (R2016) and ANSI Z21.80a -2012 (R2016))

Stakeholders: Consumers, manufacturers, gas suppliers, certifying agencies.

Project Need: Revise the standard for safety and clarification.

Details test and examination criteria for gas appliance pressure regulators for use with natural, manufactured, and mixed gases; liquefied petroleum gases; and LP gas-air mixtures. Such devices, either individual or in combination with other controls, are intended to control selected outlet gas pressures to individual gas appliances.

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

Office: 100 Clemson Research Blvd.

Anderson, SC 29625

Contact: Katelyn Simpson Fax: (864) 646-2821

E-mail: KSimpson@tileusa.com

BSR A118.3-201x, Standard Specifications for Chemical Resistant, Water Cleanable Tile-Setting and -Grouting Epoxy and Water Cleanable Tile-Setting Epoxy Adhesive (revision of ANSI A118.3 -2013)

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 (i.e., stone) and other general interest users of this standard (general interest category).

Project Need: Various stakeholders identified the need to make general updates and clarifications to the standard.

This specification describes the test methods and minimum requirements for chemical-resistant, water-cleanable tile-setting and grouting epoxy and water-cleanable tile-setting epoxy adhesive.

# American National Standards Maintained Under Continuous Maintenance

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

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

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

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

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

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

# **ANSI-Accredited Standards Developers Contact Information**

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

#### ADA (Organization)

American Dental Association

211 East Chicago Avenue Chicago, IL 60611-2678 Phone: (312) 587-4129 Fax: (312) 440-2529 Web: www.ada.org

#### AISC

American Institute of Steel Construction

130 E. Randolph Street, Suite 2000 Chicago, IL 60601 Phone: (314) 601-5420

Web: www.aisc.org

#### ALI (ASC A14)

American Ladder Institute

330 N. Wabash Avenue, Suite 2000 Chicago, IL 60611 Phone: (312) 673-5923

Web: www.americanladderinstitute.

org

#### **ASME**

American Society of Mechanical Engineers

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

#### AWPA (ASC O5)

American Wood Protection
Association

P.O. Box 361784 Birmingham, AL 35236-1784 Phone: (205) 733-4077 Fax: (205) 733-4075 Web: www.awpa.com

#### CSA

CSA Group

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

Web: www.csa-america.org

#### н

Hydraulic Institute 6 Campus Drive Parsippany, NJ 07054

Phone: (862) 217-2441 Web: www.pumps.org

#### ITI (INCITS)

InterNational Committee for Information Technology Standards

1101 K Street NW Suite 610

Washington, DC 20005-3922 Phone: (202) 626-5737 Web: www.incits.org

#### **NEBB**

National Environmental Balancing

Bureau

8575 Grovemont Circle Gaithersburg, MD 20877 Phone: (301) 977-3968 Fax: (301) 977-9589 Web: www.nebb.org

#### NEMA (ASC C29)

National Electrical Manufacturers

Association

1300 North 17th Street Suite 900 Rosslyn, VA 22209 Phone: (703) 841-3231 Web: www.nema.org

#### NEMA (ASC C8)

National Electrical Manufacturers

Association

1300 North 17th Street Rosslyn, VA 22209 Phone: (703) 841-3278 Fax: (703) 841-3398 Web: www.nema.org

#### NSF

NSF International 789 N. Dixboro Road Ann Arbor, MI 48105-9723 Phone: (734) 827-3817 Fax: (734) 827-7875 Web: www.nsf.org

#### SCTE

Society of Cable Telecommunications

140 Philips Road Exton, PA 19341-1318 Phone: (484) 252-2330 Web: www.scte.org

#### TCNA (ASC A108)

**Engineers** 

Tile Council of North America 100 Clemson Research Blvd. Anderson, SC 29625 Phone: (864) 646-8453 Fax: (864) 646-2821 Web: www.tileusa.com

#### UL

Underwriters Laboratories, Inc.

333 Pfingsten Road Northbrook, IL 60062 Phone: (847) 664-3198 Fax: (847) 664-3198 Web: www.ul.com

#### WCMA

Window Covering Manufacturers Association

17 Faulkner Drive Niantic, CT 06357 Phone: (860) 944-4264 Web: www.wcmanet.org

# **ISO & IEC Draft International Standards**



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

#### **Comments**

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

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

#### **Ordering Instructions**

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

### **ISO Standards**

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

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

#### **AIR QUALITY (TC 146)**

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

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

ISO/DIS 27875, Space systems - Re-entry risk management for unmanned spacecraft and launch vehicle orbital stages - 3/17/2018, \$77.00

#### **ANAESTHETIC AND RESPIRATORY EQUIPMENT (TC 121)**

ISO 80601-2-56/DAmd1, Medical electrical equipment - Part 2-56: Particular requirements for basic safety and essential performance of clinical thermometers for body temperature measurement - Amendment 1 - 3/31/2018, \$33.00

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

# CLINICAL LABORATORY TESTING AND IN VITRO DIAGNOSTIC TEST SYSTEMS (TC 212)

ISO/DIS 20186-3, Molecular in-vitro diagnostic examinations -Specifications for pre-examination processes for venous whole blood - Cellular RNA - Part 3: Isolated circulating cell free DNA from plasma - 1/27/2018, \$82.00

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

ISO 3964/DAmd1, Dentistry - Coupling dimensions for handpiece connectors - Amendment 1: Interface dimensions - 1/25/2018, \$29.00

#### **FINE BUBBLE TECHNOLOGY (TC 281)**

ISO/DIS 21255, Fine bubble technology - Storage and transportation of ultrafine bubble dispersion in water - 1/26/2018, \$40.00

ISO/DIS 20298-1, Fine bubble technology - Sampling and sample preparation for measurement - Part 1: Ultrafine bubble dispersion in water - 1/28/2018, \$46.00

#### **GAS CYLINDERS (TC 58)**

ISO/DIS 14245, Gas cylinders - Specifications and testing of LPG cylinder valves - Self-closing - 1/25/2018, \$82.00

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

ISO/DIS 22915-4, Industrial trucks - Verification of stability - Part 4: Pallet stackers, double stackers and order-picking trucks with operator position elevating up to and including 1 200 mm lift height - 1/25/2018, \$53.00

ISO/DIS 22915-21, Industrial trucks - Verification of stability - Part 21: Order-picking trucks with operator position elevating above 1 200 mm - 1/29/2018, \$46.00

# LEARNING SERVICES FOR NON-FORMAL EDUCATION AND TRAINING (TC 232)

ISO/DIS 29992, Assessment of outcomes of learning services -Guidance - 1/27/2018, \$67.00

#### **MACHINE TOOLS (TC 39)**

ISO/DIS 2772, Test conditions for box type vertical drilling machines - Testing of the accuracy - Geometrical tests - 1/27/2018, \$46.00

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

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

ISO/DIS 19900, Petroleum and natural gas industries - General requirements for offshore structures - 1/28/2018, \$146.00

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

ISO/DIS 18315, Nuclear energy - Guide to the evaluation of measurement uncertainties of impurity in uranium solution by linear regression analysis - 1/28/2018, \$62.00

#### **OTHER**

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

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

- ISO/DIS 21420, Protective gloves General requirements and test method 1/25/2018, \$77.00
- ISO/DIS 23388, Protective gloves against mechanical risks 1/25/2018, \$88.00

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

- ISO/DIS 11299-1, Plastics piping systems for renovation of underground gas supply networks Part 1: General 1/29/2018, \$71.00
- ISO/DIS 11299-2, Plastics piping systems for renovation of underground gas supply networks Part 2: Lining with continuous pipes 1/29/2018, \$53.00
- ISO/DIS 11299-3, Plastics piping systems for renovation of underground gas supply networks Part 3: Lining with close-fit pipes 1/29/2018, \$71.00

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

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

#### SECURITY (TC 292)

ISO/DIS 22382, Security and resilience - Authenticity, integrity and trust for products and documents - Guidelines for the content, security, issuance and examination of excise tax stamps - 1/28/2018, \$107.00

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

- ISO/DIS 13617, Ships and marine technology Shipboard incinerators Requirements 4/1/2018, \$88.00
- ISO/DIS 19738, Ships and marine technology Aquatic nuisance species In-line sampling method for obtaining representative samples of water systems 4/1/2018, \$46.00

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

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

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

- ISO/DIS 5355, Alpine ski-boots Requirements and test methods 1/25/2018, \$93.00
- ISO/DIS 9523, Touring ski-boots for adults Interface with touring ski-bindings Requirements and test methods 11/8/2021, \$77.00
- ISO/DIS 9838, Alpine and touring ski-bindings Test soles for ski-binding tests 1/25/2018, \$46.00

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

ISO/DIS 21143, Technical product documentation (TPD) -Requirements of digital mock-up virtual assembly test for mechanical products - 1/29/2018, \$67.00

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

- ISO/DIS 10325, Fibre ropes High modulus polyethylene 8-strand braided ropes, 12-strand braided ropes and covered ropes 1/25/2018, \$40.00
- ISO/DIS 21326, Textiles Testing methods for efficiency against house dust mite 1/25/2018, \$102.00

## TRANSFUSION, INFUSION AND INJECTION EQUIPMENT FOR MEDICAL USE (TC 76)

ISO/DIS 13926-1, Pen systems - Part 1: Glass cylinders for peninjectors for medical use - 1/29/2018, \$40.00

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

- ISO/IEC 14443-3/DAmd2, Identification cards Contactless integrated circuit cards - Proximity cards - Part 3: Initialization and anticollision - Amendment 2: Dynamic power level management - 3/17/2018, \$33.00
- ISO/IEC 14443-4/DAmd3, Identification cards Contactless integrated circuit cards Proximity cards Part 4: Transmission protocol Amendment 3: Dynamic power level management 3/17/2018, \$33.00
- ISO/IEC DIS 23270, Information technology Programming languages C# 3/31/2018, \$281.00
- ISO/IEC DIS 24787, Information technology Identification cards Oncard biometric comparison - 1/25/2018, \$93.00
- ISO/IEC DIS 15963-2, Information technology Radio frequency identification for item management Part 2: Unique identification for RF tags registration procedures 1/27/2018, \$40.00
- ISO/IEC DIS 24773-1, Software and systems engineering -Certification of software and systems engineering professionals -Part 1: General requirements - 1/25/2018, \$62.00
- ISO/IEC/IEEE DIS 42030, Systems and Software Engineering Architecture Evaluation 1/27/2018, \$134.00

### IEC Standards

- 2/1886(F)/CDV, IEC 60034-18-41/AMD1 ED1: Amendment 1 Rotating electrical machines Part 18-41: Partial discharge free electrical insulation systems (Type I) used in electrical rotating machines fed from voltage converters Qualification and quality control tests, 2018/3/23
- 3/1354/FDIS, ISO 81346-12 ED1: Industrial systems, installations and equipment and industrial products Structuring principles and reference designations Part 12: Buildings and building services, 2018/2/16
- 9/2362/FDIS, IEC 62973-1 ED1: Railway applications Batteries for auxiliary power supply systems Part 1: General requirements, 2018/2/16
- 15/824/CD, IEC 60674-2/AMD1 ED2: Specification for plastic films for electrical purposes Part 2: Methods of test, 2018/3/30
- 15/825/CD, IEC 60674-3-2 ED2: Specification for plastic films for electrical purposes - Part 3: Specifications for individual materials -Sheet 2: Requirements for balanced biaxially oriented polyethylene terephthalate (PET) films used for electrical insulation, 2018/3/30

- 23H/396/CD, IEC 62613-1/AMD1 ED1: Plugs, socket-outlets and ship couplers for high-voltage shore connection systems (HVSC-Systems) Part 1: General requirements, 2018/3/30
- 26/640/CDV, IEC 60974-5 ED4: Arc welding equipment Part 5: Wire feeders, 2018/3/30
- 26/641/CDV, IEC 60974-7 ED4: Arc welding equipment Part 7: Torches, 2018/3/30
- 26/638/CDV, IEC 60974-2 ED4: Arc welding equipment Part 2: Liquid cooling systems, 2018/3/30
- 26/639/CDV, IEC 60974-3 ED4: Arc welding equipment Part 3: Arc striking and stabilizing devices, 2018/3/30
- 40/2574/CDV, IEC 60384-17 ED3: Fixed capacitors for use in electronic equipment Part 17: Sectional specification Fixed metallized polypropylene film dielectric a.c. and pulse capacitors, 2018/3/30
- 40/2575/CDV, IEC 60286-3 ED6: Packaging of components for automatic handling Part 3: Packaging of surface mount components on continuous tapes, 2018/3/30
- 47/2453/CD, IEC 62830-6 ED1: Semiconductor devices -Semiconductor devices for energy harvesting and generation - Part 6 - Test and evaluation methods for vertical contact mode triboelectric energy harvesting devices, 2018/3/30
- 47/2439/CDV, IEC 62951-7 ED1: Semiconductor devices Flexible and stretchable semiconductor devices Part 7: Test method for characterizing the barrier performance of thin film encapsulation for flexible organic semiconductor, 2018/3/30
- 47/2445/CDV, IEC 62830-4 ED1: Semiconductor devices -Semiconductor devices for energy harvesting and generation - Part 4: Test and evaluation methods for flexible piezoelectric energy harvesting devices, 2018/3/30
- 47F/301/CDV, IEC 62047-32 ED1: Semiconductor devices Microelectromechanical devices - Part 32: Test method for the nonliear vibration of the MEMS resonators, 2018/3/30
- 56/1757(F)/CDV, IEC 31010 ED2: Risk management Risk assessment techniques, 2018/2/16
- 61/5593/CD, IEC 60335-1/FRAG3 ED6: Household and similar electrical appliances Safety Part 1: General requirements, 2018/3/30
- 80/876/CD, IEC 61097-16 ED1: Global Maritime Distress and Safety System (GMDSS) Part 16: Ship earth stations operating in mobile-satellite systems recognized for use in the GMDSS Operational and performance requirements, methods of testing and required test results, 2018/3/30
- 82/1380/CD, IEC 61730-1/AMD1 ED2: Amendment 1 Photovoltaic (PV) module safety qualification Part 1: Requirements for construction, 2018/3/30
- 86B/4109(F)/CDV, IEC 60869-1 ED5: Fibre optic interconnecting devices and passive components Fibre optic passive power control devices Part 1: Generic specification, 2018/3/23
- 86C/1502/DC, Proposed IEC/TR 61282-5 Ed. 2, Fibre optic communication system design guides Part 5: Accommodation and compensation of chromatic dispersion, 018/3/9/
- 86C/1503/CD, IEC TR 61292-8 ED1: Optical Amplifiers Part 8: High power amplifiers, 018/3/2/
- 86C/1504/CD, IEC 61280-4-1 ED3: Fibre-optic communication subsystem test procedures Part 4-1: Installed cable plant Multimode attenuation measurement, 018/3/2/
- 95/375/CDV, IEC 60255-181 ED1: Measuring relays and protection equipment Part 181: Functional requirements for frequency protection, 2018/3/30

- 115/180/CD, IEC TR 62681 ED2: Electromagnetic performance of high voltage direct current (HVDC) overhead transmission lines, 2018/3/30
- 119/203/CD, IEC 62899-502-2 ED1: Printed Electronics Part 502-2: Mechanical and environmental combined stress test methods for flexible OLED elements, 018/3/2/
- 120/118/DTS, IEC TS 62933-3-1 ED1: Electrical Energy Storage (EES) systems Part 3-1: Planning and performance assessment of electrical energy storage systems General specifications, 2018/3/30
- CIS/H/348/CD, CISPR TR 16-4-4/AMD2 ED2: Model for estimation of radiation from photovoltaic (PV) power generating systems and installations, 2018/3/30
- JTC1-SC41/19/CDV, ISO/IEC 20924 ED1: Information technology Internet of Things (IoT) Definitions and vocabulary, 2018/3/30

# **Newly Published ISO Standards**



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

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

ISO 3822-3:2018, Acoustics - Laboratory tests on noise emission from appliances and equipment used in water supply installations - Part 3: Mounting and operating conditions for in-line valves and appliances, \$68.00

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

ISO 18794:2018, Coffee - Sensory analysis - Vocabulary, \$45.00

#### **ANAESTHETIC AND RESPIRATORY EQUIPMENT (TC 121)**

ISO 15002/Amd1:2018, Flow-metering devices for connection to terminal units of medical gas pipeline systems - Amendment 1, \$19.00

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

ISO 21533:2018, Dentistry - Reprocessable cartridge syringes for intraligamentary injections, \$68.00

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

ISO 10804:2018, Restrained joint systems for ductile iron pipelines - Design rules and type testing, \$45.00

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

ISO 12636:2018, Graphic technology - Blankets for offset printing, \$68.00

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

ISO 15653:2018, Metallic materials - Method of test for the determination of quasistatic fracture toughness of welds, \$185.00

#### **NICKEL AND NICKEL ALLOYS (TC 155)**

ISO 11437:2018, Nickel alloys - Determination of lead - Electrothermal atomic absorption spectrometric method, \$103.00

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

ISO 18639-1:2018, PPE ensembles for firefighters undertaking specific rescue activities - Part 1: General, \$103.00

ISO 18639-3:2018, PPE ensembles for firefighters undertaking specific rescue activities - Part 3: Clothing, \$103.00

ISO 18639-6:2018, PPE ensembles for firefighters undertaking specific rescue activities - Part 6: Footwear, \$103.00

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

ISO 20077-2:2018, Road Vehicles - Extended vehicle (ExVe) methodology - Part 2: Methodology for designing the extended vehicle, \$138.00

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

ISO 20595:2018, Water quality - Determination of selected highly volatile organic compounds in water - Method using gas chromatography and mass spectrometry by static headspace technique (HS-GC-MS), \$138.00

# ISO Technical Reports IMPLANTS FOR SURGERY (TC 150)

ISO/TR 14283:2018, Implants for surgery - Essential principles of safety and performance, \$138.00

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

ISO/TR 15377:2018, Measurement of fluid flow by means of pressuredifferential devices - Guidelines for the specification of orifice plates, nozzles and Venturi tubes beyond the scope of ISO 5167, \$162.00

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

ISO/TR 16401-1:2018, Electronic fee collection - Evaluation of equipment for conformity to ISO/TS 17575-2 - Part 1: Test suite structure and test purposes, \$232.00

ISO/TR 16401-2:2018, Electronic fee collection - Evaluation of equipment for conformity to ISO 17575-2 - Part 2: Abstract test suite, \$68.00

# **Proposed Foreign Government Regulations**

### **Call for Comment**

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

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

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

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 <a href="https://tsapps.nist.gov/notifyus/data/guidance/guidance.cfm">https://tsapps.nist.gov/notifyus/data/guidance/guidance.cfm</a> prior to submitting comments.

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

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

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

# **Information Concerning**

### **American National Standards**

#### **Call for Members**

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

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

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

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

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

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

### Society of Cable Telecommunications ANSI Accredited Standards Developer

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

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

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

# ANSI Accredited Standards Developers

#### **Approval of Reaccreditation**

# American Brush Manufacturers Association (ABMA)

The reaccreditation of the American Brush Manufacturers Association (ABMA), an ANSI member and Accredited Standards Developer (ASD) has been approved at the direction of ANSI's Executive Standards Council, under its recently revised operating procedures for documenting consensus on ABMA-sponsored American National Standards, effective January 9, 2018. For additional information, please contact: Mr. David Parr, Executive Director, American Brush Manufacturers Association, 736 Main Avenue, Suite 7, Durango, CO 81301-5479; phone: 970.799.7940; e-mail: dparr@abma.org.

# Technical Association of the Pulp and Paper Industry (TAPPI)

The reaccreditation of the Technical Association of the Pulp and Paper Industry (TAPPI), an ANSI member and Accredited Standards Developer (ASD), has been approved at the direction of ANSI's Executive Standards Council, under its recently revised operating procedures for documenting consensus on TAPPI-sponsored American National Standards, effective January 10, 2018. For additional information, please contact: Colleen C. Walker, Ph.D., Technical Director, TAPPI, 15 Technology Parkway South, Peachtree Corners, GA 30092; phone: 770.209.7349; e-mail: cwalker@tappi.org.

# International Organization for Standardization (ISO)

Call for U.S. TAG Administrator

# ISO/TC 34/SC 17- Management Systems for Food Safety

ANSI has been informed that American Oil Chemists Society (AOCS), the ANSI-accredited U.S. TAG Administrator for ISO/TC 34/SC 17, wishes to relinquish their role as U.S. TAG Administrator.

ISO/TC 34/SC 17 operates under the following scope:

Standardization in the field of food safety management systems, covering the food supply chain from primary production to consumption, human and animal foodstuffs as well as animal and vegetable propagation materials.

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

# ISO Proposal for a New Field of ISO Technical Activity

# Occupational Health and Safety Management Comment Deadline: January 12, 2018

BSI, the ISO member body for the UK and secretariat of ISO Project Committee 283 (ISO/PC 283), has submitted to ISO a proposal for a new field of ISO technical activity on Occupational Health and Safety Management, with the following scope statement:

Standardization in the field of occupational health and safety management to enable an organization to control its OH&S risks and improve its OH&S performance.

Please note that BSI proposed a new work item proposal on this subject in 2013 which was approved and the standard ISO 45001 (Occupational health and safety management systems -- Requirements with guidance for use) is currently being developed under ISO/PC 283. As stated in the proposal, during the development of ISO 45001 it became apparent that there are currently no other ISO or IEC committees developing generic occupational health and safety standards other than ISO/PC 283, and this proposal seeks to gain support for an ISO/TMB decision to convert the project committee into a technical committee to enable continual maintenance of ISO 45001 and the development of supporting and related standards.

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team (isot@ansi.org), with a submission of comments to Steve Cornish (scornish@ansi.org) by close of business on Friday, January 12, 2018.

### **Meeting Notices**

#### Green Building Initiative – GBI 01-201x Consensus Body

The 34th meeting of the Green Building Initiative - GBI 01-201x Consensus Body will be held via conference call and webinar:

Tuesday, January 30, 2018, from 12:00 Noon ET to 3:00 PM FT

The purpose for these teleconferences is for an overview of the third-round public comments, to begin addressing comments on the Working Draft of the 01-201X document and for questions/comments from the public.

The tentative agenda will be posted on the GBI webpage for the standard at: http://www.thegbi.org/ansi. All meetings are open to the public. Any member of the public or Subcommittee participant who would like to attend the meeting should contact the Secretariat, Maria Woodbury, preferably at least 10 days in advance of the meeting to ensure they are included in relevant communications in preparation for the meeting.

To attend, and for additional information, please contact:

Maria Woodbury Secretariat for Green Building Initiative 207-807-8666 (direct) Maria@thegbi.org

#### ASC Z16 Committee for Leading and Lagging Indicators

The American Society of Safety Engineers (ASSE) serves as the secretariat of the ANSI/ASSE Z16 Committee for Leading and Lagging Indicators.

The next meeting of the Z16 Committee will take place on April 11, 12, 13th, 2018 in Dallas, TX. Those interested in participating can contact ASSE for additional information at LBauerschmidt@asse.org.

#### ASC Z359 for Fall Arrest/Protection

The American Society of Safety Engineers (ASSE) serves as the secretariat of the ANSI Z359 Committee for Fall Arrest/Protection.

The next meeting of the Z359 Committee will take place on March 27, 28, and 29, 2018 in Schaumburg, IL. Those interested in participating can contact ASSE for additional information at OMunteanu@asse.org.

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Revision to NSF/ANSI 49-2016 Issue 108, Draft 2 (December 2017)

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[Note – the changes are illustrated below using strikeout for proposed removal of existing text and grey highlights to indicate the proposed new text. ONLY the highlighted text and strikeout text is within the scope of this ballot. Rationale Statements are in RED and only used to add clarity; these statements will NOT be in the finished publication]

# NSF/ANSI International Standard for Biosafety Cabinetry —

Biosafety Cabinetry: Design, Construction, Performance, and Field Certification

- •
- •
- F.7 Site installation assessment tests
- •
- F.7.3 Method
- •

#### F.7.3.2 Exhaust airflow alarms and interlocks (excluding building automation systems)

Whenever an alarm is present to monitor the exhaust airflow, its operation must be verified. The alarm's operation shall be verified at every certification.

All cabinet-provided exhaust alarms and interlocks must be tested at every certification.

Exhaust systems which are monitored by automated building systems are not part of this standard and are not required to be tested. All locally provided exhaust airflow alarm systems shall be tested at every certification, even if the exhaust system status is also monitored by an automated building system.

Exhaust alarms without a local exhaust alarm system may utilize an existing automated building system alarm if an indication of an alarm condition is provided by audible and visual means locally at the BSC. Automated building system airflow alarms shall be tested and verified by the certifier at every certification. The local visual and audible alarms from an automated building system shall activate within 15 seconds of exhaust volume loss exceeding 20%.

Rationale: the current phrase "excluding building automation systems" is ambiguous enough to cause some field certifiers to misinterpret the intent of the test, and not test the alarm of the BSC itself if it is connected to a BAS

BSR/UL 62841-1. Standard for Safety for Electric Motor-Operated Hand-Held Tools. Transportable Tools, and Lawn And Garden Machinery - Safety: Part 1: General Requirements

- 1. Proposed Revision To Clause 5.19 To Align With Changes In IEC Corrigendum 2 Of IEC 62841-1
- 5.19 All electrical measurements shall be made with a maximum measurement error of 5%.

Instruments for measuring voltage shall have an input resistance of at least 1 M $\Omega$  with a maximum parallel capacitance of 150 pF.



5.19DV D2 Modification: Replace Clause 5.19 with the following:

All electrical measurements shall be made with a maximum measurement error of 5%.

Instruments for measuring voltage shall have an input resistance of at least 1 M $\Omega$  with a maximum parallel capacitance of 150 pF.

2. Proposed Addition Of National Differences To Clause K.18.1 To Align Abnormal Testing Requirements With The Inherent System Protections Of Electronically Commutated Motors

K.18 Abnormal operation

K.18.1 All tools when operating under BATTERY power and their BATTERY packs shall be so designed that the risk of FIRE or electric shock as a result of abnormal operation is obviated as far as is practical.

Compliance is checked by the following tests.

The abnormal conditions a) to f) below shall be applied.

The BATTERY tool, BATTERY pack and the cords of d) and e), as appropriate, are placed on a soft wood surface covered by two layers of tissue paper; the sample is covered by one layer of untreated 100 % cotton medical gauze. For the tests b), c) and f), the tool is switched on and no additional mechanical load is applied. The test is conducted until failure or until the test sample returns to within 5 K of the ambient temperature or, if neither of these occase, until at least 3 h has elapsed. A new sample may be used for each fault listed below. No EXPLOSION shall occur during or after the test. There shall be adequate protection against electric shock as defined in K.9. No charring or burning of the gauze or tissue paper shall result. VENTING of the CELLS is permitted.

Charring is defined as a blackening of the gauze caused by combustion. Discolouration of the gauze caused by smoke is acceptable. The resistance for the short in items a), b), d), e) and f) shall not exceed 10 m∧. Charring or igniting of the tissue paper or gauze from the shorting means is not considered a failure.

Fuses, thermal control thermal links, temperature limiters, electronic devices or any component(s) or conductors s) that interrupt the discharge current may operate during the above tests. If these devices are relied upon to pass the test, the test is to be repeated two more times, using two additional samples, and shall open the circuit in the same manner, unless the test is otherwise satisfactorily completed. Alternatively, the test may be repeated with the open-circuited device bridged.

However, protective ELECTRONIC CIRCUITS whose function is relied upon to pass a test shall be regarded as providing a safety critical function and comply with 18.8 with a PL = a. If a user adjustable темрегатиге LIMITER operates, the test is conducted with the TEMPERATURE LIMITER Set to the most unfavourable setting and then repeated at this setting with two additional samples.

a) Combinations of exposed terminals of a DETACHABLE BATTERY PACK are shorted so as to produce the worst result. BATTERY pack terminals that can be contacted using either test probe B of IEC 61032 or test probe 13 of IEC 61032 are considered exposed. The means of shorting shall be selected or positioned such that charring or ignition of the tissue paper or gauze is not influenced.

- b) The terminals of each motor are shorted one at a time.
- c) The rotor of each motor is locked one at a time.
- d) Any cord provided between the SEPARABLE BATTERY PACK and the BATTERY tool shall be shorted at the point likely to produce the most adverse effects.
- e) Any cord provided between the tool and the CHARGER shall be shorted at the point likely to
- K.18.1DV.2 D2 Modification: Replace Item (b) of Clause K.18.1 with the following:
  b) The terminals of each motor are shorted one at a time, except for electronically commutated motors.

  K.18.1DV.3 D2 Modification: Replace Item (c) of Clause K.18.1 with the following:
  b) The rotor of each motor is locked one at a time of motors.

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BSR/UL 1203, Standard for Safety for Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations,

1. This proposal provides revisions to 102.11 and the Conductor Fill in Table 102.1.

#### **PROPOSAL**

102.11 The instructions provided with each fitting shall include the number, size, and type of wires that can be <u>properly</u> sealed in the fitting <u>during installation in the field, and that comply with as determined by the Leakage of Sealing Fittings Test, Section 86. For example, for instructions for a fitting intended for 25 percent maximum fill, see Table 102.1.</u>

Table 102.1

Example of instructions for the maximum number of conductors that can be properly sealed in a fitting under normal field installation conditions

Size AWG or MCM	1/2 Inch		3/4 Inch		1 Inch		1-1/4 Inch		1-1/2 Inch		2 Inch		2-1/2 Inch		3 Inch		3-1/2 Inch		4 Inch		5 Inch		6 Inch	
	Α	В	Α	В	Α	В	Α	В	Α	В	Α	В	Α	В	A	В	Α	В	Α	В	Α	В	Α	В
18	7	11	12	20	<del>20</del> <u>12</u>	33 20	35 20	<del>58</del> <u>33</u>	4 <del>9</del> 35	<del>80</del> <u>58</u>	<del>80</del> <u>49</u>	131 80	115 80	187 131	<del>176</del> 115									
16	6	9	10	16	17	27	<del>30</del> <u>17</u>	4 <del>7</del> 27	41 30	64 47	<del>68</del> <u>41</u>	106 64	98 68	<del>151</del> 106	<del>150</del> <u>98</u>									
14	3	8	6	15	10	24	<del>18</del> <u>10</u>	43 24	<del>25</del> 18	58 43	41 25	<del>96</del> <u>58</u>	<del>58</del> <u>41</u>	<del>137</del> <u>96</u>	90 58		<del>121</del> <u>90</u>		<del>155</del>	<u>121</u>				
12	3	6	5	11	8	18	<del>15</del> <u>8</u>	<del>32</del> 18	<del>21</del> 15	43 32	34 21	71 43	<del>50</del> <u>34</u>	<del>102</del> <u>71</u>	<del>76</del> <u>50</u>	158 102	<del>103</del> <u>76</u>		<del>132</del> 103					
10	1	4	4	7	7	11	13	20	17 13	<del>27</del> 20	<del>29</del> 20	4 <del>5</del> 27	41 29	<del>65</del> <u>45</u>	<del>64</del> <u>41</u>	<del>100</del> <u>65</u>	<del>86</del> <u>64</u>	<del>134</del> 100	<del>110</del> <u>86</u>	<del>172</del> 134	<del>173</del> 110			
8	1	2	2	4	4	6	7	11	9	16	<del>16</del> <u>9</u>	<del>26</del> <u>16</u>	22 16	37 26	35 22	<del>58</del> <u>37</u>	4 <del>7</del> 35	<del>78</del> <u>58</u>	60 47	100 78	<del>94</del> <u>60</u>	<del>157</del> 100	<del>137</del> <u>94</u>	
6	1	1	1	2	2	4	4	7	6	9	10	16	15	23	23 15	35 23	<del>32</del> 23	4 <del>7</del> 35	41 32	<del>61</del> <u>47</u>	<del>64</del> <u>41</u>	<del>96</del> <u>61</u>	93 64	139 96
4	1	1	1	1	1	2	3	4	5	6	8	9	12	14	18	21	<del>24</del> <u>18</u>	<del>29</del> 21	31 24	<del>37</del> 29	4 <del>9</del> 31	<del>59</del> <u>37</u>	<del>72</del> 49	<del>85</del> <u>59</u>
3		4	10	1	1	2	3	3	4	5	7	8	10	12	16	18	<del>21</del> 16	<del>24</del> <u>18</u>	<del>28</del> <u>21</u>	31 24	44 28	<del>50</del> <u>31</u>	63 44	<del>72</del> <u>50</u>
2	4	ALL Y	1	1	1	1	3	3	3	4	6	7	9	10	14	15	<del>19</del> <u>14</u>	<del>20</del> <u>15</u>	<del>24</del> <u>19</u>	<del>26</del> 20	38 24	4 <del>2</del> 26	<del>55</del> <u>38</u>	61 42
3	J		1	1	1	1	1	2	3	3	4	5	7	7	10	11	<del>14</del> <u>10</u>	<del>15</del> <u>11</u>	<del>18</del> <u>14</u>	<del>20</del> <u>15</u>	<del>29</del> 18	31 20	4 <del>2</del> 29	4 <del>5</del> 31
0					1	1	1	2	2	2	4	4	6	6	9	9	12	13	<del>16</del> <u>12</u>	<del>16</del> <u>13</u>	<del>25</del> <u>16</u>	<del>26</del> <u>16</u>	37 25	38 26
2/0					1	1	1	1	1	2	3	3	5	5	8	8	11	11	14	14	<del>22</del> 14	<del>22</del> 14	<u>22</u>	32 22

Size AWG or MCM	1/2 Inch		3/4 Inch		1 Inch		1-1/4 Inch		1-1/2 Inch		2 Inch		2-1/2 Inch		3 Inch		3-1/2 Inch		4 Inch		5 Inch		6 Inch	
	Α	В	Α	В	Α	В	Α	В	Α	В	Α	В	Α	В	Α	В	Α	В	Α	В	Α	В	Α	В
3/0					1	1	1	1	1	1	3	3	4	4	7	7	9	9	12	12	<del>19</del> <u>12</u>	<del>19</del> <u>12</u>	27 19	<del>27</del> 19
4/0							1	1	1	1	2	2	3	3	6	6	8	8	10	10	<del>16</del> <u>10</u>	16 10	23 16	23 16
250							1	1	1	1	1	2	3	3	5	5	6	6	8	8	13 11	13 11	<del>19</del> <u>15</u>	<del>19</del> <u>15</u>
300							1	1	1	1	1	1	3	3	4	4	5	5	7	SIG	<del>11</del> <u>10</u>	<del>11</del> <u>10</u>	<del>16</del> <u>15</u>	<del>16</del> <u>15</u>
350							1	1	1	1	1	1	1	2	3	3	5	5	6	6	10	10	<del>15</del> <u>14</u>	<del>15</del> <u>14</u>
400									1	1	1	1	1	2	3	3	4	4	6	6	9	9	13	13
500									1	1	1	1	1	1	3	3	4	4	5	5	8	8	11	11
600											1	1	1	1	1	2	3	3	4	4	6	6	9	9
700											1	1	1	1	1	2	3	3	3	3	6	6	8	8
750											1	1	1	1	1	1	3	3	3	3	5	5	8	8
800											1	1	1	CL.	1	1	2	2	3	3	5	5	7	7
900											1	1	1	1	1	1	1	2	3	3	4	4	7	7
1000											1	1	1	1	1	1	1	1	3	3	4	4	6	6
1250											4		1	1	1	1	1	1	1	2	3	3	5	5
1500										A.	1				1	1	1	1	1	1	3	3	4	4
1750										TO .					1	1	1	1	1	1	2	2	4	4
2000									0						1	1	1	1	1	1	1	1	3	3

<sup>a</sup> Col. A = Types RFH-2, RH, RHH, RHW, THW, TW, XHHW (AWG 14 - 6), FEPB (AWG 6 - 2)

Col. B = FEP, THHN, THWN, TFN, PF, PGF, XHHW (AWG 4 - 2000 MCM), FEPB (AWG 14 - 8)

<sup>&</sup>lt;sup>b</sup> Any combination of these wires not exceeding 25 percent of a cross section of the conduit for the fitting they fill may be used.