



# ESTA Standards Watch

Late April 2017

Volume 21, Number 8

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## Four ESTA Standards in Public Review

Four ESTA draft standards are in public review at [http://tsp.esta.org/tsp/documents/public\\_review\\_docs.php](http://tsp.esta.org/tsp/documents/public_review_docs.php). The review end dates and descriptions are below.

**BSR E1.14 – 2001 (R201x), Entertainment Technology—Recommendations for Inclusions in Fog Equipment Manuals**, applies to the instruction manuals for fog-making equipment manufactured for use in the entertainment industry. In order to use fog safely and effectively, the user must have some general knowledge of the technology, have a clear understanding of how to operate the fog making system, and be aware of the potential hazards related to the use of fog, and particularly the system that he is using. This standard is designed to establish guidelines for manufacturers to provide to the user the necessary information required for the safe and responsible use of fog equipment. Last reaffirmed in 2013, the 2001 version is again being considered for reaffirmation by the Fog & Smoke Working Group. The public review ends at the end of the day on 15 May 2017.

**BSR E1.31 – 201x, Entertainment Technology—Lightweight streaming protocol for transport of DMX512 using ACN**, provides a very simple protocol that offers functionality comparable to proprietary DMX512 over Ethernet protocols while being compatible with the E1.17 suite of protocols. The standard is being revised, limited to the addition of IPv6 compatibility and the correction of errors. Input on additional features is not being sought at this time. A future revision of the standard is planned to incorporate any changes outside of this scope. That future revision will be developed following the IPv6 update. To aid reviewers in discerning which sections of the draft standard include changes, a copy of the draft showing tracked changes is included in the public review package. The public review ends at the end of the day on 8 May 2017.

**BSR E1.51 - 201x, The Selection, Installation, and Use of Single-Conductor Portable Power Feeder Cable Systems for Use at 600 Volts Nominal or Less for the Distribution of Electrical Energy in the Television, Film, Live Performance and Event Industries in Canada**, is intended to offer guidance, in the context of applicable standards and regulations in Canada, on how to select, install, use, and maintain single-conductor portable feeder cables used to supply power for television, film, live performance, and special events in Canada. This review ends at the end of the day on 5 June 2017.

**BSR E1.58 – 201X, Electrical Safety Standard for Portable Stage and Studio Equipment Used Outdoors**, offers guidance in identifying and ameliorating hazards associated with the outdoor use of portable stage and studio lighting equipment and portable power distribution equipment that is not identified (i.e., “listed”) for outdoor use. NEC clause 520.10 allows portable equipment not identified for outdoor use to be used outdoors if the equipment is “supervised by qualified personnel” but says nothing about what practical supervision might be. This document is being written to help fill that advice vacuum. BSR E1.58 is open for public comment through 19 June 2017.

The review documentation for all these draft standards—including the draft standards, review forms, review explanations, and review instructions—is available to download from [http://tsp.esta.org/tsp/documents/public\\_review\\_docs.php](http://tsp.esta.org/tsp/documents/public_review_docs.php). Please download the review forms and fill them in off-line (not in your browser) and then email the completed forms to [standards@esta.org](mailto:standards@esta.org).

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## **FCC Promotes Wireless Broadband Deployment**

The Federal Communications Commission has opened a proceeding described as being “to identify and address unnecessary regulatory barriers to wireless infrastructure deployment.” The Notice of Proposed Rulemaking begins an examination of how state and local processes affect the speed and cost of infrastructure deployment, and asks for comment on improving state and local infrastructure reviews, such as zoning requests. The NPRM seeks comment on whether siting applications that are not acted on by state or local governments within a reasonable period of time should be “deemed granted” by Commission rules—that is, the delayed approval of cell phone tower could be taken as approval. The NPRM also examines FCC rules and procedures for complying with the National Historic Preservation Act and National Environmental Policy Act. The Commission seeks input on the costs and benefits inherent in the historic preservation and environmental review processes and asks what changes could be made to minimize costs and delays.

The announcement of the Notice of Proposed Rulemaking can be found at [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-344486A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-344486A1.pdf), with comments from the three FCC Commissioners at [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-344486A2.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-344486A2.pdf), [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-344486A3.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-344486A3.pdf), and [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-344486A4.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-344486A4.pdf). The actual Rulemaking and commenting instructions can be found at [https://apps.fcc.gov/edocs\\_public/attachmatch/FCC-17-38A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/FCC-17-38A1.pdf), with additional comments in support of it from the three Commissioners at [https://apps.fcc.gov/edocs\\_public/attachmatch/FCC-17-38A2.pdf](https://apps.fcc.gov/edocs_public/attachmatch/FCC-17-38A2.pdf), [https://apps.fcc.gov/edocs\\_public/attachmatch/FCC-17-38A3.pdf](https://apps.fcc.gov/edocs_public/attachmatch/FCC-17-38A3.pdf), and [https://apps.fcc.gov/edocs\\_public/attachmatch/FCC-17-38A4.pdf](https://apps.fcc.gov/edocs_public/attachmatch/FCC-17-38A4.pdf). In the FCC-17-38A2 document, FCC Chairman Ajit Pai complains of “one company ended up paying thousands of dollars per utility pole for purposes of meeting historic preservation requirements,” and suggests that the FCC is now “seeking ideas for updating state, local, and Tribal infrastructure review to meet the realities of the modern marketplace.”

## Public Review of a Standard for Standards

The National Information Standards Organization (NISO) announces the release of a draft version of NISO Z39.102201x, STS: Standards Tag Suite, for public comment. STS provides a common XML format that standards developers, publishers, and distributors can use to publish and exchange fulltext content and metadata of standards. It is expected that this "standard for standards" will be published in the fall as an XML document marked up in the STS standard after comments on the draft version are addressed and it is approved by NISO Voting Members and by ANSI, the American National Standards Institute.

The NISO STS proposed standard is open for public comment from until 24 May 2017. The proposed standard, in PDF form, is available from NISO at <http://www.niso.org/workrooms/sts/>. All input is welcome. To comment, please go to <http://www.niso.org/workrooms/sts/> and follow the instructions.

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## Proposed Revision to the ANSI Essential Requirements

In 2016, new language was added to clause 4.1.1 Criteria for accreditation of the ANSI Essential Requirements: Due process requirements for American National Standards ([www.ansi.org/essentialrequirements](http://www.ansi.org/essentialrequirements)), clarifying that all applicants for status as an ANSI-Accredited Standards Developer (ASD) must be "incorporated, registered or otherwise recognized as a legal entity". The proposed revision below seeks to clarify that all currently accredited ASDs, including those that applied for this status prior to approval of the 2016 revision, are required to be "incorporated, registered or otherwise recognized as a legal entity" and to maintain that status, as a condition of continued accreditation by ANSI as a developer of American National Standards (ANS). Please submit comments to [psa@ansi.org](mailto:psa@ansi.org) by 22 May 2017.

### 4.1.3 Maintenance of accreditation

In order to maintain accreditation by ANSI, an ASD shall continue to maintain procedures meeting the requirements of due process and criteria for approval and withdrawal of American National Standards contained herein and continue to maintain its status as an incorporated, registered or otherwise recognized legal entity.

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## U.S. TAG Participants Sought for ISO Committee on Non-destructive Testing

The American National Standards Institute is seeking participants in the ANSI-accredited U.S. Technical Advisory Group for the ISO Technical Committee 135 on Non-destructive Testing. The scope of the work of ISO TC 135 is standardization covering non-destructive testing as applied generally to constructional materials, components and assemblies, by means of a glossary of terms, methods of test and performance specifications for testing equipment and ancillary apparatus. Information about the committee is available at <https://www.iso.org/committee/52398.html>.

Prospective U.S. TAG participants for ISO TC 135 and those seeking more information should contact U.S. TAG administrator James Bennett at [jbennett@asnt.org](mailto:jbennett@asnt.org) or the ANSI ISO Team at [isot@ansi.org](mailto:isot@ansi.org).

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## WTO Technical Barrier to Trade Notifications

The U.S. Department of Commerce's service, Notify U.S., recently has announced WTO Technical Barrier to Trade notices that may be of interest to *Standards Watch* readers. If you have a problem with these notices, you can protest through your representative to the WTO. See "Guidance for Comment Submissions by U.S. Industry on TBT Notifications" at <http://tsapps.nist.gov/notifyus/data/guidance/guidance.cfm> or <http://ec.europa.eu/enterprise/tbt/> for advice on filing objections.

### **Brazil Notification: BRA/709**

**Date issued:** 12 April 2017

**Agency Responsible:** National Institute of Metrology, Standardization and Industrial Quality (INMETRO)

**National Inquiry Point:** TBT/WTO Enquiry Point (INMETRO)

**Notified under Article:** 2.9.2

**Products covered:** LED Lamps

**ICS Codes:** 29.140

**Title:** Inmetro Ordinance N° 86, 10 April 2017 (Portaria N° 86, de 10 de abril de 2017) - Conformity Assessment Program for LED lamps with integrated base device (3 pages, in Portuguese)

**Description of content:** Establish adjustments and clarifications regarding the Conformity Assessment Program for LED lamps with integrated base device.

**Objective and rationale:** Protection of human health or safety

**Relevant documents:** (1) Brazilian Official Journal (Diário Oficial da União) N° 70, 11 April 2017, section 1, page 67; (2) Not stated (3) Brazilian Official Journal; (4) Not stated.

**Proposed date of adoption:** Not given by country

**Proposed date of entry into force:** Not given by country

**Final date for comments:** 26 April 2017

**Full text:** [https://tsapps.nist.gov/notifyus/docs/wto\\_country/BRA/full\\_text/pdf/BRA709\(portuguese\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/BRA/full_text/pdf/BRA709(portuguese).pdf)

#### **Mexico Notification MEX/203/MEX (MEX/203, Add.1, Add.2, Add.3)**

**Date issued:** 18 April 2017

**Corrigendum type:** Addendum

**Correction type:** Correction with full text

**Corrigendum:** Resolution amending Section 2 "Scope" of Mexican Official Standard NOM-028-ENER-2010 "Energy efficiency of lamps for general use. Limits and test methods", published in the Mexican Official Journal on 6 December 2010. Any comments should be addressed to: Secretaría de Economía Subsecretaría de Competitividad y Normatividad Dirección General de Normas Tel.: (+52) 55 5729-9100, Ext. 43244 Fax: (+52) 55 5520-9715 Email: [normasomc@economia.gob.mx](mailto:normasomc@economia.gob.mx) and [sofia.pacheco@economia.gob.mx](mailto:sofia.pacheco@economia.gob.mx) Website: <http://www.economia.gob.mx/comunidad-negocios/normalizacion/catalogo-mexicano-de-normas>

**Full text:** [https://tsapps.nist.gov/notifyus/docs/wto\\_country/MEX/corrigenda/pdf/MEX203\\_add\\_4\(spanish\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/MEX/corrigenda/pdf/MEX203_add_4(spanish).pdf)

#### **United States of America Notification USA/1261/USA (USA/1261)**

**Date issued:** 19 April 2017

**Corrigendum type:** Addendum

**Correction type:** Correction with full text

**Corrigendum:** TITLE: Use of Lead Free Pipes, Fittings, Fixtures, Solder and Flux for Drinking Water; Extension of Comment Period

**Agency:** Environmental Protection Agency (EPA)

**Action:** Proposed rule; extension of comment period

**Summary:** The Environmental Protection Agency (EPA) is extending the comment period for the proposed rule, "Use of Lead Free Pipes, Fittings, Fixtures, Solder and Flux for Drinking Water." In response to a stakeholder request, EPA is extending the comment period for an additional 30 days, from 17 April 2017, to 17 May 2017.

**Dates:** Comments must be received on or before 17 May 2017.

**Full text:** [https://members.wto.org/cnattachments/2017/TBT/USA/17\\_1937\\_00\\_e.pdf](https://members.wto.org/cnattachments/2017/TBT/USA/17_1937_00_e.pdf)

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## **ANSI Public Review Announcements**

The following documents have been announced for public review by ANSI. Please send your comments before the deadline to the person indicated and to ANSI's Board of Standards Review at [psa@ansi.org](mailto:psa@ansi.org).

### **Due 10 May 2017**

**BSR/NFPA 30B-201x, Code for the Manufacture and Storage of Aerosol Products** (revision of ANSI/NFPA 30B-2014)

Obtain an electronic copy and submit comments at: [www.nfpa.org/30Bnext](http://www.nfpa.org/30Bnext).

This code shall apply to the manufacture, storage, and display of aerosol products as herein defined. This code shall not apply to the storage and display of containers whose contents are comprised entirely of LP-Gas products. This code shall not apply to post-consumer processing of aerosol containers. This code shall not apply to containers that do not meet the definition of Aerosol Container (see 3.3.2). Containers that contain a product that meets the definitions in 3.3.1 and 3.3.3, but are larger than the limits specified in 3.3.2, shall not be classified as aerosol products, and this code shall not apply to the manufacture, storage, and display of such products.

**BSR/NFPA 40-201x, Standard for the Storage and Handling of Cellulose Nitrate Film** (revision of ANSI/NFPA 40-2015)

Obtain an electronic copy and submit comments at: [www.nfpa.org/40next](http://www.nfpa.org/40next).

This standard shall apply to all facilities that are involved with the storage and handling of cellulose nitrate-based film. This standard shall not apply to the storage and handling of film having a base other than cellulose nitrate.

**BSR/NFPA 51B-201x, Standard for Fire Prevention During Welding, Cutting, and Other Hot Works** (revision of ANSI/NFPA 51B-2013)

Obtain an electronic copy and submit comments at: [www.nfpa.org/51Bnext](http://www.nfpa.org/51Bnext).

This standard shall cover provisions to prevent injury, loss of life, and loss of property from fire or explosion as a result of hot work. Installation and operation of arc cutting and welding equipment, and operation of gas cutting and welding equipment shall be in accordance with ANSI Z49.1, Safety in Welding, Cutting, and Allied Processes.

**BSR/NFPA 72-201x, National Fire Alarm and Signaling Code** (revision of ANSI/NFPA 72-2015)

Obtain an electronic copy and submit comments at: [www.nfpa.org/72next](http://www.nfpa.org/72next).

NFPA 72 covers the application, installation, location, performance, inspection, testing, and maintenance of fire alarm systems, supervising station alarm systems, public emergency alarm reporting systems, fire warning equipment and emergency communications systems (ECS), and their components. The provisions of this chapter apply throughout the Code unless otherwise noted.

**BSR/NFPA 77-201x, Recommended Practice on Static Electricity** (revision of ANSI/NFPA 77-2013)

Obtain an electronic copy and submit comments at: [www.nfpa.org/77next](http://www.nfpa.org/77next).

This recommended practice applies to the identification, assessment, and control of static electricity for purposes of preventing fires and explosions. This recommended practice does not apply directly to shock hazards from static electricity. However, application of the principles set forth in this recommended practice can reduce such shock hazards to personnel. Reserved. This recommended practice does not apply to lightning. This recommended practice does not apply to stray electrical currents or to induced currents from radio frequency (RF) energy. This recommended practice does not apply to fueling of motor vehicles, marine craft, or aircraft. This recommended practice does not apply to cleanrooms. This recommended practice does not apply to control of static electricity and its hazards as they might affect electronic components or circuits, which have their own requirements.

**BSR/NFPA 80-201x, Standard for Fire Doors and Other Openings Protectives** (revision of ANSI/NFPA 80-2015)

Obtain an electronic copy and submit comments at: [www.nfpa.org/80next](http://www.nfpa.org/80next).

This standard regulates the installation and maintenance of assemblies and devices used to protect openings in walls, floors, and ceilings against the spread of fire and smoke within, into, or out of buildings. With the exception of fabric fire safety curtain assemblies, this standard addresses assemblies that have been subjected to standardized fire tests. (See Chapter 20.) Incinerator doors, record room doors, and vault doors are not covered in this standard. Requirements for horizontally sliding, vertically sliding, and swinging doors as used in this standard do not apply to hoistway doors for elevators and dumbwaiters. This standard does not cover fire-resistance glazing materials and horizontally sliding accordion or folding assemblies fabricated for use as walls and tested as wall assemblies in accordance with ASTM E119, Standard Test Methods for Fire Tests of Building Construction and Materials or ANSI/UL 263, Standard for Fire Tests of Building Construction and Materials.

**BSR/NFPA 101A-201x, Guide on Alternative Approaches to Life Safety** (revision of ANSI/NFPA 101A-2015)

Obtain an electronic copy and submit comments at: [www.nfpa.org/101Anext](http://www.nfpa.org/101Anext).

This guide consists of a number of alternative approaches to life safety. Each chapter is a different system independent of the others and is to be used in conjunction with the 2015 edition of NFPA 101. This edition of NFPA 101A contains alternative approaches that are tied to NFPA 101. Each of these systems is recognized by the Life Safety Code, in its Annex A, as a method that can be used to assist the authority having jurisdiction in determining equivalent compliance with various chapters of the Code. The method described in this guide is an index method. Index methods are a type of qualitative risk assessment. Quantitative risk assessments can also be used to evaluate designs that are proposed as alternative approaches to life safety. For information on



developing fire risk assessments, see the SFPE Engineering Guide to Fire Risk Assessment. Guidance on reviewing fire risk assessments can be found in NFPA 551. For further information on alternative approaches to fire safety, see "Systems Approach to Fire-Safe Building Design," Section 1, Chapter 9, of the 20th edition of the NFPA Fire Protection Handbook and the SFPE Handbook of Fire Protection Engineering, 4th edition, Section 3, "Hazard Calculations," and Section 5, Chapter 10, "Fire Risk Indexing."

**BSR/NFPA 105-201x, Standard for Smoke Door Assemblies and Other Openings Protectives** (revision of ANSI/NFPA 105-2015)

Obtain an electronic copy and submit comments at: [www.nfpa.org/105next](http://www.nfpa.org/105next).

This standard shall prescribe minimum requirements for smoke door assemblies for use in providing safety to life and protection of property from smoke.

**BSR/NFPA 110-201x, Standard for Emergency and Standby Power Systems** (revision of ANSI/NFPA 110-2015)

Obtain an electronic copy and submit comments at: [www.nfpa.org/110next](http://www.nfpa.org/110next).

This standard contains requirements covering the performance of emergency and standby power systems providing an alternate source of electrical power to loads in buildings and facilities in the event that the primary power source fails. Power systems covered in this standard include power sources, transfer equipment, controls, supervisory equipment, and all related electrical and mechanical auxiliary and accessory equipment needed to supply electrical power to the load terminals of the transfer equipment. This standard covers installation, maintenance, operation, and testing requirements as they pertain to the performance of the emergency power supply system (EPSS). This standard does not cover the following: (1) Application of the EPSS; (2) Emergency lighting unit equipment; (3) Distribution wiring; (4) Utility service when such service is permitted as the EPSS; (5) Parameters for stored energy devices; (6) The equipment of systems that are not classed as Level 1 or Level 2 systems in accordance with Chapter 4 of this standard. This standard does not establish criteria for stored energy systems. The selection of any of the following is not within the scope of this standard: (1) Specific buildings or facilities, or both, requiring an EPSS; (2) Specific loads to be served by the EPSS; and (3) Assignment of type, class, or level to any specific load.

**BSR/NFPA 111-201x, Standard on Stored Electrical Energy Emergency and Standby Power Systems** (revision of ANSI/NFPA 111-2015)

Obtain an electronic copy and submit comments at: [www.nfpa.org/111next](http://www.nfpa.org/111next).

This standard shall cover performance requirements for stored electrical energy systems providing an alternate source of electrical power in buildings and facilities in the event that the normal electrical power source fails. Systems covered in this standard shall include power sources, transfer equipment, controls, supervisory equipment, and accessory equipment, including integral accessory equipment, needed to supply electrical power to the selected circuits. This standard shall cover installation, maintenance, operation, and testing requirements as they pertain to the performance of the stored-energy VA or less than 24 V or systems less than Class 0.033 (4) Unit equipment (5) Nuclear sources, solar systems, and wind stored-energy systems (6) Uninterruptible power systems (UPS) supplied by an emergency power supply system (EPSS) or a UPS supplied by a SEPSS (7) Optional standby systems. The following shall not be within the scope of this standard: (1) Specific buildings or facilities, or both, requiring an SEPSS (2) Specific loads to be served by the SEPSS emergency power supply system (SEPSS). Exclusions. This standard shall not cover the following: (1) Application of the SEPSS (2) Distribution wiring (3) Systems having total outputs less than 500 (3) Type, class, or level to be assigned to any specific load (See Section 4.1.)

**BSR/NFPA 1730-201x, Standard on Organization and Deployment of Fire Prevention Inspection and Code Enforcement Plan** (revision of ANSI/NFPA 1730 -2015)

Obtain an electronic copy and submit comments at: [www.nfpa.org/1730next](http://www.nfpa.org/1730next).

This standard contains minimum requirements relating to the organization and deployment of fire prevention inspection and code enforcement, plan review, investigation, and public education operations. The requirements address functions and objectives of fire prevention organization (FPO) service delivery, capability, and resources. It contains the minimum requirements of a community risk assessment (CRA), adequate program selection, management of resources, records management, training, communications, and health and safety. It addresses the strategic and policy issues involving the organization and deployment of a fire prevention

programs and does not address methods for carrying out specific fire prevention services, activities, and programs.

**BSR/NFPA 1852-201x, Standard on Selection, Care, and Maintenance of Open-Circuit Self-Contained Breathing Apparatus (SCBA)** (revision of ANSI/NFPA 1852-2012)

Obtain an electronic copy and submit comments at: [www.nfpa.org/1852next](http://www.nfpa.org/1852next).

This standard shall specify minimum requirements for the selection, care, and maintenance of open-circuit self-contained breathing apparatus (SCBA) and combination SCBA/supplied air respirator (SAR) that are used for respiratory protection during emergency operations in environments where the atmosphere is Immediately Dangerous to Life and Health (IDLH), or could become oxygen deficient or IDLH. This standard shall specify the requirements for SCBA models as detailed in Section 1.3 of this chapter. For fire departments, this standard shall specify the requirements for the SCBA selection, care, and maintenance component of the respiratory protection program required in Section 7.10 of NFPA 1500, Standard on Fire Department Occupational Safety and Health Program. This standard shall not specify requirements for any closed-circuit SCBA. This standard shall not specify requirements for other respiratory protection program components of the organization such as SCBA training, appropriate use of SCBA for operations, and breathing air quality as these program components are under the jurisdiction of other NFPA standards. This standard shall not specify requirements for accessories attached to the SCBA unless specifically addressed herein. Nothing herein shall restrict any jurisdiction from exceeding these minimum requirements.

**ANSI/NFPA 720-2012, Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment** (withdrawal of ANSI/NFPA 720-2012)

Obtain an electronic copy and submit comments at: [www.nfpa.org/720next](http://www.nfpa.org/720next).

This standard is primarily concerned with life safety, not with protection of property. This standard covers the selection, design, application, installation, location, performance, inspection, testing, and maintenance of carbon monoxide detection and warning equipment in buildings and structures. This standard contains requirements for the selection, installation, operation, and maintenance of equipment that detects concentrations of carbon monoxide that could pose a life safety risk to most occupants in buildings and structures.

**Due 14 May 2017**

**BSR/UL 2108-201x, Standard for Low Voltage Lighting Systems** (revision of ANSI/UL 2108-2015)

(1) Address equipment for use in environmental air spaces; (2) Revise requirements for enclosure openings; (3) Addition of electrical ratings for power units and luminaires. For more information or to send comments, contact Ritu Madan at [ritu.madan@ul.com](mailto:ritu.madan@ul.com).

**Due 21 May 2017**

**BSR/NSF 50-201x (i129r1), Equipment for Swimming Pools, Spas, Hot Tubs and Other Recreational Water Facilities** (revision of ANSI/NSF 50-2016)

This Standard covers materials, components, products, equipment and systems, related to public and residential recreational water facility operation. For more information or to send comments, contact Lauren Panoff at [lpnoff@nsf.org](mailto:lpnoff@nsf.org).

**BSR/UL 96-201x, Standard for Safety for Lightning Protection Components** (revision of ANSI/UL 96-2016)

(1) Revisions to Sections 19 and 23; (2) Markings; (3) Conductive coatings on bimetallic connectors; (4) Coatings applied to air terminals; (5) Insulation on conductors. For more information or to send comments, contact Mitchell Gold at [Mitchell.Gold@ul.com](mailto:Mitchell.Gold@ul.com).

**BSR/UL 969-201x, Standard for Safety for Marking and Labeling Systems** (revision of ANSI/UL 969-2014)

(1) Deletion of the pocket knife show in Figure 4.1. (2) Addition of hydraulic fluid immersion as an additional exposure condition. For more information or to send comments, contact Mitchell Gold at [Mitchell.Gold@ul.com](mailto:Mitchell.Gold@ul.com).

**BSR/UL 1286-201x, Standard for Office Furnishings** (revision of ANSI/UL 1286-2014)

(1) Revision and addition to the cross member (beam) requirements. For more information or to send comments, contact Ritu Madan at [ritu.madan@ul.com](mailto:ritu.madan@ul.com).

**Due 29 May 2017**

**BSR/AWS F4.1-201X, Safe Practices for the Preparation of Containers and Piping for Welding, Cutting, and Allied Processes** (revision of ANSI/AWS F4.1-2007)

This standard informs the reader of the necessary safe practices to be followed in the cleaning and preparation of containers and piping for welding or cutting. It describes various methods for cleaning, including water, steam, hot chemical and mechanical, and techniques to be used for their proper preparation, such as inerting.

Single copy price: \$28.00

Order from and send comments to Stephen Hedrick at [steveh@aws.org](mailto:steveh@aws.org).

**BSR/UL 467-2013 (R201x), Standard for Safety for Grounding and Bonding Equipment** (reaffirmation of ANSI/UL 467-2013)

Reaffirmation of the tenth edition of the Standard for Grounding and Bonding Equipment, UL 467.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from and send comments to Mitchell Gold at [Mitchell.Gold@ul.com](mailto:Mitchell.Gold@ul.com).

**Due 5 June 2017**

**BSR/EIA 364-114-2010 (R201x), Coupling and Uncoupling Force Test Procedure for Electrical Connectors, Sockets and Applicable Accessories** (reaffirmation of ANSI/EIA 364-114-2010)

This test procedure establishes a test method to determine the coupling/uncoupling forces required to couple and uncouple circular electrical connectors, sockets and applicable accessories.

Single copy price: \$72.00

Order from: Global Engineering Documents, [www.global.ihs.com](http://www.global.ihs.com)

Send comments to Ed Mikoski at [emikoski@ecianow.org](mailto:emikoski@ecianow.org).

**BSR/IACET 1-201x, Standard for Continuing Education and Training** (revision of ANSI/IACET 1-2013)

The Standard provides criteria for quality instructional design and delivery of continuing education and training programs. The Standard evaluates the following: organization, responsibility and control; learning environment and support systems; needs analysis; learning outcomes; planning and instructional personnel; content and instructional requirements; assessment of learning outcomes; awarding CEUs and maintaining learner records; and evaluation of learning events.

Single copy price: Free

Obtain an electronic copy from: [https://www.iacet.org/default/assets/File/pdfs/1-2018IACETStandardforContinuingEducationandTraining\\_DraftForRFC.pdf](https://www.iacet.org/default/assets/File/pdfs/1-2018IACETStandardforContinuingEducationandTraining_DraftForRFC.pdf).

Order from and send comments to Tracey Naughton at [tnaughton@iacet.org](mailto:tnaughton@iacet.org).

**BSR/TIA 862-B-1-201x, Structured Cabling Infrastructure Standard for Intelligent Building Systems, Addendum 1: Updated References, Accommodation of New Media Types** (addenda to ANSI/TIA 862-B-2016)

This Addendum updates references and accommodates new media types introduced by ANSI/TIA-568-C.2-1 and ANSI/TIA-568.3-D.

Single copy price: \$60.00

Order from and send comments to [standards@tiaonline.org](mailto:standards@tiaonline.org).

**BSR/TIA 4966-1-201x, Telecommunications Infrastructure Standard for Educational Facilities, Addendum 1: Updated References, Accommodation of New Media Types** (addenda to ANSI/TIA 4966-2014)

This Addendum updates references and accommodates new media types introduced by ANSI/TIA-568-C.2-1 and ANSI/TIA-568.3-D.

Single copy price: \$61.00

Order from and send comments to [standards@tiaonline.org](mailto:standards@tiaonline.org).

**BSR/TIA 570-D-201x, Residential Telecommunications Infrastructure Standard** (revision and redesignation of ANSI/TIA 570-C-2012)

This Standard applies to telecommunications premises cabling systems and the related pathways and spaces for single- and multi-dwelling residential buildings. It applies to the telecommunications cabling within or between structures and includes the cabling within a single-dwelling unit and the backbone cabling. It specifies cabling



intended to support a wide range of telecommunications applications in the residential environment including voice, data, video, security, audio, and control systems.

Single copy price: \$133.00

Order from and send comments to [standards@tiaonline.org](mailto:standards@tiaonline.org).

**BSR/UL 1730-2007 (R201x), Standard for Safety for Smoke Detector Monitors and Accessories for Individual Living Units of Multifamily Residences and Hotel/Motel Rooms** (reaffirmation of ANSI/UL 1730-2007 (R2012))

Reaffirmation of UL 1730 that covers electrically operated smoke detector monitors intended to be used in ordinary indoor locations. Single copy price: Contact comm2000 for pricing and delivery options

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

Order from and send comments to Paul Lloret at [Paul.E.Lloret@ul.com](mailto:Paul.E.Lloret@ul.com).

**Due 13 June 2017**

**BSR/ASME Y14.100-201x, Engineering Drawing Practices** (revision of ANSI/ASME Y14.100-2004 (R2013))

This Standard establishes the essential requirements and reference documents applicable to the preparation and revision of manual or computer-generated engineering drawings and associated lists, unless tailored by a specialty standard.

Single copy price: Free

Order from Mayra Santiago at [ansibox@asme.org](mailto:ansibox@asme.org).

Send comments to Fredric Constantino at [constantinof@asme.org](mailto:constantinof@asme.org).

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## Withdrawn from Consideration

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

**BSR ASIS SPC.5-201x, Community Resilience: Guidance on Capacity Building and Public-Private Partnerships** (new standard)

Inquiries may be directed to Aivelis Opicka at [standards@asisonline.org](mailto:standards@asisonline.org).

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## CSA Public Review Announcements

The CSA Group has announced draft documents for public review that might be of interest to *Standards Watch* readers. To participate in the public reviews please visit: <http://publicreview.csa.ca/>.

**Due 17 June 2017**

**E60730-2-7 Automatic electrical controls for household and similar use – Part 2-7: Particular requirements for timers and time switches** (New Edition)

Changes are being proposed to section 1 and some normative references. The new proposed scope is:

In general, this part of IEC 60730 applies to timers and time switches that may use electricity, gas, oil, solid fuel, solar thermal energy, etc. or a combination thereof, including heating, air conditioning and similar applications. This standard is also applicable to individual timers utilized as part of a control system or timers which are mechanically integral with multifunctional controls having non-electrical outputs. This standard does not apply to time-delay switches (TDS) within the scope of IEC 60669-2-3.

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## New ANS Projects

ANSI has announced the following new projects that might materially affect *Standards Watch* readers—or at least be interesting to them. Contact the developer if you (a) want to be involved in the project, or (b) object to the project and wish it to be abandoned, or (c) if you would like to point out that its scope is covered by an existing standard, thereby possibly making the project redundant or conflicting.

**BSR/ASME Y14.48-201x , Universal Direction and Load Indicators** (new standard)

Standardization of methods to unambiguously define and specify directions, directional requirements, loads, and loading requirements in product definition data sets. For more information, contact Mayra Santiago at [ansibox@asme.org](mailto:ansibox@asme.org).

**BSR/ASSE Z9.3-201x, Spray Finishing Operations: Safety Code for Design, Construction and Ventilation** (revision and redesignation of ANSI/AIHA Z9.3-2007)

This standard is intended to help manufacturers and users protect the health of personnel from injurious effects of contact with gases, vapors, mists, dusts, powders, or solvents used in, created, released, or disseminated during or by spray finishing operations. For more information, contact Ovidiu Munteanu at [OMunteanu@ASSE.org](mailto:OMunteanu@ASSE.org).

**BSR/X9.80-201x, Prime Number Generation, Primality Testing, and Primality Certificates** (revision of ANSI X9.80-2005 (R2013))

In the current state of the art in public key cryptography, all methods require, in one way or another, the use of prime numbers as parameters to the various algorithms. This document presents a set of accepted techniques for generating primes. This standard defines methods for generating large prime numbers as needed by public key cryptographic algorithms. It also provides testing methods for testing candidate primes presented by a third party. For more information, contact Ambria Frazier at [Ambria.frazier@x9.org](mailto:Ambria.frazier@x9.org).

**BSR/CTA 2069-201x, Definitions and Characteristics of Augmented and Virtual Reality Technologies** (new standard)

This document will define terms related to Augmented and Virtual Reality Technologies. Where appropriate, the document will provide both consumer messaging and industry definition for the terms. For more information, contact Veronica Lancaster at [vlancaster@cta.tech](mailto:vlancaster@cta.tech).

**BSR/CTA 2070-201x, Best Practices for Creating Content for Augmented Reality Technologies** (new standard)

This document will outline best practices for creating content for augmented reality technologies. The best practices will include but will not be limited to optimum experience length, frame/refresh rate, and user input. For more information, contact Veronica Lancaster at [vlancaster@cta.tech](mailto:vlancaster@cta.tech).

**BSR/CTA 2071-201x, Best Practices for Creating Content for Virtual Reality Technologies** (new standard)

This document will outline best practices for creating content for virtual reality technologies. The best practices will include but will not be limited to optimum experience length, frame/refresh rate, and user input. For more information, contact Veronica Lancaster at [vlancaster@cta.tech](mailto:vlancaster@cta.tech).

**BSR/ATIS 1000678.v4-201x, Lawfully Authorized Electronic Surveillance (LAES) for Voice over Internet Protocol in Wireline Telecommunications Networks** (revision and redesignation of ANSI/ATIS 1000678.v3.2015)

This Standard defines the interfaces between a Telecommunication Service Provider (TSP) and a Law Enforcement Agency (LEA) to assist the LEA in conducting lawfully authorized electronic surveillance for Voice over Internet Protocol (VoIP) in Wireline Telecommunications Networks. This document provides the mechanisms to perform lawfully authorized electronic surveillance of VoIP subject to the appropriate legal and regulatory environment. It is not the intent of this document to imply or impact any pending Communications Assistance for Law Enforcement Act (CALEA) regulatory decisions related to VoIP. For more information, contact Alexandra Blasgen at [ablasgen@atis.org](mailto:ablasgen@atis.org).

**BSR/ESD SP3.5-201x, ESD Association Standard Practice for the Protection of Electrostatic Discharge Susceptible Items – Test Methods for Air Assist Bar Ionizers, Soft X-ray (Photon) Ionizers, and Room Ionization Alternatives** (new standard)

This document provides measurement techniques, under specified conditions, to determine ion balance and charge neutralization time for ionizers for qualification and periodic verification tests in production locations. This document does not include measurements of electromagnetic interference (EMI) or uses of ionizers in connection with ordnance, flammables, explosive items, or electrically initiated explosive devices. For more information, contact Christina Earl at [cearl@esda.org](mailto:cearl@esda.org).

**BSR/ESD SP19.1-201x, ESD Association Work in Progress for the Development of an Electrostatic Discharge Control Program for High Reliability Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electrically Initiated Explosive Devices) (new standard)**

This document when used in conjunction with ANSI/ESD S20.20 requirements applies to activities that support the design, manufacture, assemble, process, install, package, label, store, service, test, inspect, transport, or otherwise handle electrical or electronic parts, assemblies, and equipment susceptible to damage by electrostatic discharge in high-reliability applications and/or devices having withstand voltages lower than those specified in ANSI/ESD S20.20. For more information, contact Christina Earl at [cearl@esda.org](mailto:cearl@esda.org).

**BSR/ASTM WK58474-201x, Specification for Performance of Mouth Guards (new standard)**

See <https://www.astm.org/DATABASE.CART/WORKITEMS/WK58474.htm> or contact Corice Leonard at [accreditation@astm.org](mailto:accreditation@astm.org) for more information.

**BSR/NFPA 70-201x, National Electrical Code® (revision of ANSI/NFPA 70-2013)**

This Code covers the installation and removal of electrical conductors, equipment, and raceways; signaling and communications conductors, equipment, and raceways; and optical fiber cables and raceways for public and private premises, buildings, structures, mobile homes, recreational vehicles, floating buildings, yards, parking lots, carnivals, and industrial substations; installations of conductors and equipment that connect to the supply of electricity; installations used by the electric utility. For more information, contact Dawn Bellis at [ccronin@nfpa.org](mailto:ccronin@nfpa.org).

**BSR/NFPA 25-201x, Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems (revision of ANSI/NFPA 25-2013)**

This document establishes the minimum requirements for the periodic inspection, testing, and maintenance of water-based fire protection systems and the actions to undertake when changes in occupancy, use, process, materials, hazard, or water supply that potentially impact the performance of the water-based system are planned or identified. For more information, contact Dawn Bellis at [ccronin@nfpa.org](mailto:ccronin@nfpa.org).

**BSR/NFPA 780-201x, Standard for the Installation of Lightning Protection Systems (revision of ANSI/NFPA 780-2013)**

This document shall cover traditional lightning protection system installation requirements for the following: (1) Ordinary structures; (2) Miscellaneous structures and special occupancies; (3) Heavy-duty stacks; (4) Structures containing flammable vapors, flammable gases, or liquids that can give off flammable vapors; (5) Structures housing explosive materials; (6) Wind turbines; (7) Watercraft; (8) Airfield lighting circuits; (9) Solar arrays. For more information, contact Dawn Bellis at [ccronin@nfpa.org](mailto:ccronin@nfpa.org).

**BSR/NFPA 1082-201x, Standard for Building Fire and Life Safety Director Professional Qualifications (new standard)**

This standard identifies the minimum job performance requirements (JPRs) for Building Fire and Life Safety Directors. For more information, contact Dawn Bellis at [ccronin@nfpa.org](mailto:ccronin@nfpa.org).

**BSR/NFPA 1710-201x, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments (revision of ANSI/NFPA 1710-2015)**

This standard contains minimum requirements relating to the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by substantially all career fire departments. The requirements address functions and objectives of fire-department emergency service delivery, response capabilities, and resources. For more information, contact Dawn Bellis at [ccronin@nfpa.org](mailto:ccronin@nfpa.org).

**BSR/NFPA 1720-201x, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Volunteer Fire Departments (revision of ANSI/NFPA 1720-2013)**

This standard contains minimum requirements relating to the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by volunteer and combination fire departments. For more information, contact Dawn Bellis at [ccronin@nfpa.org](mailto:ccronin@nfpa.org).

## Final Actions on American National Standards

The documents listed below have been approved by the ANSI Board of Standards Review or by an ANSI-Audited Designator on the date noted.

**ANSI/ASME B18.18-2017, Quality Assurance for Fasteners** (revision of ANSI/ASME B18.18-2011): 6 April 2017

**ANSI/IEEE 29119-4-2015, ISO/IEC/IEEE International Standard for Software and systems engineering - Software testing - Part 4: Test techniques** (new standard): 10 April 2017

**ANSI/TIA 4957.000-A-2017, Overview and Architecture for a Field Area Network** (revision and redesignation of ANSI/TIA 4957.000-2010): 6 April 2017

**ANSI/UL 60950-22-2017, Standard for Safety for Information Technology Equipment - Safety - Part 22: Equipment to be Installed Outdoors** (national adoption of IEC 60950-22 with modifications and revision of ANSI/UL 60950-22-2011): 31 March 2017

**ANSI/AMCA 207-2017, Fan System Efficiency and Fan System Input Power Calculation** (new standard): 17 April 2017

**ANSI/ASME BPVC Section II-2017, Part C - Specifications for Welding Rods, Electrodes, and Filler Metals** (revision of ANSI/ASME BPVC Section II-2015): 11 April 2017

**ANSI/ASME BPVC Section IX-2017, Welding, Brazing and Fusing Qualifications** (revision of ANSI/ASME BPVC Section IX-2015): 11 April 2017

**ANSI/IES RP-27.3-2017, Photobiological Safety for Lamps – Risk Group Classification and Labeling** (revision and redesignation of ANSI/IESNA RP-27.3-2007): 17 April 2017

**ANSI/INFOCOMM A102.01-2017, Audio Coverage Uniformity in Listener Areas** (revision and redesignation of ANSI/INFOCOMM 1M -2009): 11 April 2017

**ANSI/UL 1838-2017, Standard for Safety for Low Voltage Landscape Lighting Systems** (revision of ANSI/UL 1838-2015): 12 April 2017

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## Draft IEC & ISO Standards

This section lists proposed standards that the International Electromechanical Commission (IEC) or the International Organization for Standardization (ISO) are considering for approval. *Standards Watch* readers interested in reviewing and commenting on the document should order a copy from their national representative and submit their comments through them. Comments from US citizens on IEC documents should be sent to Charles T. Zegers at [czegers@ansi.org](mailto:czegers@ansi.org). Comments from US citizens regarding ISO documents should be sent to Karen Hughes at [isot@ansi.org](mailto:isot@ansi.org). Any prices, if shown, are for purchases through ANSI; prices elsewhere may differ. The sort order is first by due date then by alphanumeric designation.

**79/570/CDV, IEC 62676-5 ED1**: Video surveillance systems for use in security applications - Part 5: Data specifications and image quality performance for camera devices, 5 May 2017

**ISO/DIS 10110-18**, Optics and photonics - Preparation of drawings for optical elements and systems - Part 18: Material imperfections - Stress birefringence, bubbles and inclusions, and homogeneity and striae – 25 June 2017, \$82.00

**ISO/IEC DIS 12034-1**, Information technology - Archive eXchange Format (AXF) - Part 1: Structure and semantics – 25 June 2017, \$155.00

**ISO/IEC/IEEE DIS 42020**, Enterprise, systems and software - Architecture processes – 25 June 2017, \$175.00

**ISO/DIS 2426-4**, Plywood - Classification by surface appearance – Part 4: Palm-plywood – 28 June 2017, \$33.00

**ISO/DIS 23932-1**, Fire safety engineering - General principles - Part 1: General – 30 June 2017, \$93.00

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## Recently Published IEC & ISO Documents

Listed here are documents recently approved by the IEC and ISO. A list of standards resellers is available at <http://webstore.ansi.org/faq.aspx#resellers>.

**ISO 3745/Amd1:2017**, Acoustics - Determination of sound power levels and sound energy levels of noise sources using sound pressure - Precision methods for anechoic rooms and hemianechoic rooms - Amendment 1, \$19.00

**ISO 7870-8:2017**, Control charts - Part 8: Charting techniques for short runs and small mixed batches, \$162.00

**IEC 60364-7-708 Ed. 3.0 en:2017**, Low-voltage electrical installations - Part 7-708: Requirements for special installations or locations - Caravan parks, camping parks and similar locations, \$82.00

**IEC 62766-4-2 Ed. 1.0 en:2017**, Consumer terminal function for access to IPTV and open internet multimedia services - Part 4-2: Examples of IPTV protocol sequences, \$352.00

**ISO 4229:2017**, Assembly tools for screws and nuts – Single-head engineers wrenches for lower torque applications – Maximum outside dimensions of heads and test torques, \$45.00

**IEC 62115 Ed. 2.0 b:2017**, Electric toys - Safety, \$375.00

**IEC 61252 Ed. 1.2 b:2017**, Electroacoustics - Specifications for personal sound exposure meters, \$293.00

**IEC 61672-2 Ed. 2.1 b:2017**, Electroacoustics - Sound level meters - Part 2: Pattern evaluation tests, \$322.00  
**IEC 61260-2 Amd.1 Ed. 1.0 b:2017**, Amendment 1 - Electroacoustics - Octave-band and fractional-octave band filters - Part 2: Pattern evaluation tests, \$12.00

**IEC 61672-2 Amd.1 Ed. 2.0 b:2017**, Amendment 1 - Electroacoustics - Sound level meters - Part 2: Pattern evaluation tests, \$12.00

**IEC 62090 Ed. 2.0 en:2017**, Product package labels for electronic components using bar code and two-dimensional symbologies, \$235.00

**IEC 61188-7 Ed. 2.0 en:2017**, Printed boards and printed board assemblies - Design and use - Part 7: Electronic component zero orientation for CAD library construction, \$117.00

**IEC 60749-5 Ed. 2.0 en:2017**, Semiconductor devices – Mechanical and climatic test methods - Part 5: Steady-state temperature humidity bias life test, \$47.00

**IEC 62951-1 Ed. 1.0 en:2017**, Semiconductor devices - Flexible and stretchable semiconductor devices - Part 1: Bending test method for conductive thin films on flexible substrates, \$82.00

**IEC 62056-8-6 Ed. 1.0 b:2017**, Electricity metering data exchange - The DLMS/COSEM suite - Part 8-6: High speed PLC ISO/IEC 12139-1 profile for neighbourhood networks, \$235.00

**IEC 60570 Ed. 4.1 b:2017**, Electrical supply track systems for luminaires, \$235.00

**IEC 60570 Amd.1 Ed. 4.0 b:2017**, Amendment 1 - Electrical supply track systems for luminaires, \$12.00



**IEC 60500 Ed. 2.0 b:2017**, Underwater acoustics - Hydrophones - Properties of hydrophones in the frequency range 1 Hz to 500 kHz, \$164.00

**ISO 19610:2017**, Traditional Chinese medicine - General requirements for industrial manufacturing process of red ginseng (Panax ginseng C.A. Meyer), \$68.00

**ISO 28927-1/Amd1:2017**, Hand-held portable power tools – Test methods for evaluation of vibration emission - Part 1: Angle and vertical grinders - Amendment 1: Cupped wire brushes, \$19.00

**IEC 61252 Amd.2 Ed. 1.0 b:2017**, Amendment 2 - Electroacoustics - Specifications for personal sound exposure meters, \$12.00

**IEC 61260-2 Ed. 1.1 b:2017**, Electroacoustics - Octave-band and fractional-octave band filters - Part 2: Pattern evaluation tests, \$235.00

**IEC 60287-2-3 Ed. 1.0 b:2017**, Electric cables - Calculation of the current rating - Part 2-3: Thermal resistance - Cables installed in ventilated tunnels, \$164.00

**IEC/TR 63079 Ed. 1.0 en:2017**, Code of practice for hearing-loop systems (HLS), \$375.00

## TSP Meeting Schedule

The July meetings are scheduled to be at the Marriott Solana in Westlake, TX. The most up to date schedule can be found on the ESTA website at <http://tsp.esta.org/tsp/meetings/index.php>, where there is a “Reserve a Hotel Room” link.

Control Protocols E1.20 Task Group	13:30 – 16:00	Saturday 22 July 2017
Control Protocols E1.31 Task Group	14:00 – 18:00	Monday 24 July 2017
Control Protocols E1.33 Task Group	10:00 – 16:00	Sunday 23 July 2017
Control Protocols E1.37-4 Task Group	16:00 – 18:00	Saturday 22 July 2017
Control Protocols E1.37-5 Task Group	16:00 – 18:00	Sunday 23 July 2017
Control Protocols E1.59 Task Group	09:00 – 12:30	Saturday 22 July 2017
Control Protocols Plugfest	16:00 – 22:00	Friday 21 July 2017
	09:00 – 22:00	Saturday 22 July 2017
	09:00 – 22:00	Sunday 23 July 2017
	09:00 – 22:00	Monday 24 July 2017
	09:00 – noon	Tuesday 25 July 2017
Control Protocols Plugfest Roundtable 1	19:00 – 20:00	Sunday 23 July 2017
Control Protocols Plugfest Roundtable 2	19:00 – 20:00	Monday 24 July 2017
Control Protocols Working Group	09:00 – 13:00	Monday 24 July 2017
Electrical Power Working Group	09:00 – 13:00	Sunday 23 July 2017
Event Safety Working Group	14:00 – 18:00	Sunday 23 July 2017
Photometrics Working Group	14:00 – 18:00	Monday 24 July 2017
Rigging E1.6-3 Task Group	14:00 – 18:00	Saturday 22 July 2017
Rigging Working Group	19:00 – 23:00	Saturday 22 July 2017
Technical Standards Council	09:00 – 13:00	Tuesday 25 July 2017

# ESTA Standards Watch

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