



# ESTA Standards Watch

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## UL issues 10th edition of UL 924 Emergency Lighting and Power Equipment

This revision covers:

- Expanded requirements for emergency lighting controls
- Expanded options for derangement signals

The revision was authored by an STP924 task group that Steve Terry (EPWG member) chaired, and whose members included Ken Vannice and Mitch Hefter (also EPWG members), as well as representatives of a number of mainstream architectural controls companies. Fundamentally, these changes were driven by the entertainment industry.

The revisions expand the reach of the standard to cover more complex emergency control equipment (Ethernet switches for PoE lighting systems are one example). It does this by creating two abstractions:

1. the Emergency Lighting Control Device (ELCD) and
2. Emergency Lighting Control Functionality (ELCF) to cover functionality embedded in unrelated equipment, such as the Ethernet switch.

In addition to the new requirements, a new Informative Annex B Evaluation of Emergency Lighting Control Functionality provides guidance to manufacturers and test labs on this new approach.

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## #SaveStageLighting lobbying successful; Relent

The #SaveStageLighting campaign has been successful in getting the EU Directorate General Energy staff to understand the problem created by the Ecodesign Working Plan 2016-2019, which would have made obsolete virtually all stage luminaires shortly after 2020. On May 17, a group of professionals, including representatives from ALD, IALD, OETHG, PEARLE, PLASA, SLF, VLPT, equipment manufacturers, and designers in the live entertainment industry, met in Brussels on with representatives of the EU's Directorate General Energy and Energy & Culture departments on the issue of Stage Lighting with the European Commission. It is agreed that an exemption for stage/studio/concert lighting equipment is needed. As a result, #SaveStageLighting organizers have agreed to work on drafting a specific, technically-based, exemption for lighting in the stage and entertainment industries in the new proposed Eco Regulations planned for 2020—meaning that the emails, letters, and calls from the affected public to make the EU DG aware of the problem can stop. (At least, for now.)

A fairly tight definition of what would be covered by the exemption is needed. What the DG won't do is issue a blanket exemption for anything labeled a "Stage and Studio Luminaire" or a "Stage and Studio Lamp." A clear technical definition is needed of which luminaires and lamps should be exempt.

There are two criteria that are being considered right now. One is to use the existing definition in IEC 60598-2-17, Luminaires - Part 2-17: Particular requirements - Luminaires for stage lighting, television and film studios (outdoor and indoor), which is used for CE certification of stage and studio luminaires. If a luminaire meets the definition, and is tested per this standard, it is reasonable to state that it is a stage and studio luminaire. This covers all theatrical luminaires for sale today, including LED luminaires, but wouldn't cover the incandescent lamps needed to keep incandescent-lamp luminaires operating. To cover them, the second criterion would be to exempt lamps that use specific bases, such as the G9.5, G16, and G22, which are almost 100% for theatrical use. However, some bases, such as G6.35 and R7S, are used in other industries, and might not make the list. In particular, R7S linear lamps are commonly used in general lighting, so it will be difficult to exempt them. It might be hard to keep Kliegl profile spots from the 1970s supplied with lamps, but so it goes.

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## ESTA Plugfest 20-23 July 2018

The ESTA Control Protocols Plugfest, the event where manufacturers and developers test their lighting products for network interoperability is scheduled to take place from July 20 to July 23 at the Marriott Solana in Westlake, Texas. ESTA and non-ESTA members are welcome to attend the 16th version of this event. The scheduled hours are 09:00 to 23:00, Friday the 20<sup>th</sup> through Monday the 23<sup>rd</sup>. Members of the E1.11 (DMX512), E1.20 (RDM), E1.31 (sACN), and E1.33 (RDMnet) task groups who authored the standards will be available to answer questions and help explain our protocols.



More event information is available at <http://tsp.esta.org/tsp/news/plugfest.html>. A link for hotel reservations can be found on the TSP meeting page at <http://tsp.esta.org/tsp/meetings/index.php>. Further information is available from the event organizers at [Plugfest@esta.org](mailto:Plugfest@esta.org).

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## Proposals for NFPA 705 due by 6 January 2021

NFPA has issued a notice that NFPA 705, Recommended Practice for a Field Flame Test for Textiles and Films, is open for public input. Proposals can be submitted on the NFPA website at <http://www.nfpa.org/705>. Under the Next Edition tab, select the link "Submit a Public Input" to begin the process.

NFPA 705 is an interesting standard in that it states in clauses 1.1.2 and 1.2.2 that there is no known correlation between it and any known test method or full-scale fire behavior, and that it should not be relied on if more definitive test data is available. However, it exists, so if someone really wants to take a wooden match to something to see how it burns, this standard will tell him how to do it and what to look for.

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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 the TBTs, 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.

### United States of America Notification USA/1111/USA (USA/1111 , Add.1 , Add.2 , )

**Date issued:** 14 May 2018

**Corrigendum type:** Addendum

**Correction type:** Correction with full text

**Corrigendum:** Title: Virginia Amusement Device Regulations

**Agency:** Department of Housing and Community Development, State of Virginia

**Action:** Final Rule

**Summary:** Updates the regulation to incorporate by reference the 2015 editions of the nationally recognized American Society for Testing and Materials (ASTM) standards. Effective 4 September 2018  
Vol. 34, Issue 18, Virginia Register 30 April 2018 (pages 1614-1617):

<http://register.dls.virginia.gov/vol34/iss18/v34i18.pdf>

<http://register.dls.virginia.gov/details.aspx?id=6873>;

[https://members.wto.org/crnattachments/2018/TBT/USA/18\\_2430\\_00\\_e.pdf](https://members.wto.org/crnattachments/2018/TBT/USA/18_2430_00_e.pdf)

**Full text:** [https://tsapps.nist.gov/notifyus/docs/wto\\_country/USA/corrigenda/pdf/USA1111\\_add\\_3\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/USA/corrigenda/pdf/USA1111_add_3(english).pdf)

### United States of America Notification USA/1109/USA (USA/1109 , Add.1 , Add.2 , )

**Date issued:** 14 May 2018

**Corrigendum type:** Addendum

**Correction type:** Correction with full text

**Corrigendum:** Title: Virginia Statewide Fire Prevention Code

**Agency:** Department of Housing and Community Development, State of Virginia

**Action:** Final Rule

**Summary:** Updates the regulation to incorporate by reference the 2015 editions of the nationally recognized model building codes and standards produced by the International Code Council. Effective 16 October 2018  
Vol. 34, Issue 18, Virginia Register 30 April 2018 (pages 1617-1744):

<http://register.dls.virginia.gov/vol34/iss18/v34i18.pdf>

<http://register.dls.virginia.gov/details.aspx?id=6874>

[https://members.wto.org/crnattachments/2018/TBT/USA/18\\_2427\\_00\\_e.pdf](https://members.wto.org/crnattachments/2018/TBT/USA/18_2427_00_e.pdf)

**Full text:** [https://tsapps.nist.gov/notifyus/docs/wto\\_country/USA/corrigenda/pdf/USA1109\\_add\\_3\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/USA/corrigenda/pdf/USA1109_add_3(english).pdf)

### Mexico Notification: MEX/406

**Date issued:** 8 May 2018

**Agency Responsible:** Ministry of Tourism

**National Inquiry Point:** Direccion General de Normas (DGN)

**Products covered:** Equipment for adventure/nature tourism operators

**Title:** Proyecto de Modificación de la Norma Oficial Mexicana NOM-011-TUR-2001, Requisitos de seguridad, información y operación que deben cumplir los prestadores de servicios turísticos de turismo de aventura

para quedar como Proyecto de Norma Oficial Mexicana PROY-NOM-011-TUR-2018, Requisitos mínimos de seguridad, información, operación, instalaciones y equipamiento que deben cumplir las operadoras de servicios turísticos de turismo de aventura/naturaleza (Draft amendment to Mexican Official Standard NOM-011-TUR-2001, Safety, information and operation requirements to be met by providers of adventure tourism services, which is now entitled draft Mexican Official Standard PROY-NOM-011-TUR-2018, Safety, information and operation requirements to be met by providers of adventure/nature tourism services) (22 pages, in Spanish)

**Description of content:** The notified draft Mexican Official Standard is binding throughout the national territory for natural and legal persons providing adventure/nature tourism services to tourists or users, or contracting such services. It is not applicable to diving activities, airborne activities and high-wire acrobatic trails that are not in natural environments.

**Objective and rationale:** Establish the specifications relating to safety, information, operation, installations and equipment, and the protection of and respect for natural resources and cultural heritage required for the activities carried out by adventure/nature tourism operators.

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

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

**Final date for comments:** 3 July 2018

**Full text:** [https://tsapps.nist.gov/notifyus/docs/wto\\_country/MEX/full\\_text/pdf/MEX406\(spanish\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/MEX/full_text/pdf/MEX406(spanish).pdf)

#### **Korea, Republic of Notification KOR/763**

**Date issued:** 14 May 2018

**Agency Responsible:** Korean Agency for Technology and Standards (KATS)

**National Inquiry Point:** Korean Agency for Technology and Standards (KATS), Ministry of Commerce, Industry and Energy (MOCIE) (KATS/MOCIE)

**Products covered:** Luminaires

**Title:** Enactment and Amendment of Safety Standards for 3 Electrical Appliances (Luminaires) Items (43 pages in Korean)

**Description of content:** - KC 60598-2-20 will be amended in order to strengthen the safety management for chain-like luminaires which may cause electric shocks. - Relevant safety standards for LED luminaires will be enacted to add their systems to the safety management.

**Objective and rationale:** Other; Safety

**Relevant documents:** KATS NOTIFICATION No 2018-130 (2018.05.04.)

**Proposed date of adoption:** 1 September 2018

**Proposed date of entry into force:** 1 March 2019

**Final date for comments:** 13 July 2018

**Full text:** [https://tsapps.nist.gov/notifyus/docs/wto\\_country/KOR/full\\_text/pdf/KOR763\(korean\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/KOR/full_text/pdf/KOR763(korean).pdf)

#### **Japan Notification JPN/597**

**Date issued:** 17 May 2018

**Agency Responsible:** Ministry of Health, Labour and Welfare (MHLW)

**National Inquiry Point:** Standards Information Service, International Trade Division, Economic Affairs Bureau, Ministry of Foreign Affairs (MOFA)

**Products covered:** Personal Fall-arrest systems (HS 630720)

**Title:** Amendment of Construction Code of Safety Belts (1 pages in English)

**Description of content:** Amend the name of "safety belts" and technical requirements prescribed by "Construction Code of safety belts" entirely.

**Objective and rationale:** The amendment aims to harmonize the name and technical requirements prescribed by the Construction Code of safety belts to the ISO standards in principle.

**Relevant documents:** Construction code for fall-arrest systems. The amendment is to be published in "KAMPO" (Official Government Gazette) when adopted.

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

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

**Final date for comments:** 16 July 2018

**Full text:** [https://tsapps.nist.gov/notifyus/docs/wto\\_country/JPN/full\\_text/pdf/JPN597\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/JPN/full_text/pdf/JPN597(english).pdf)

#### **United Arab Emirates Notification ARE/411**

**Date issued:** 23 May 2018

**Agency responsible:** Emirates Authority for Standardization and Metrology (ESMA)

**National Inquiry Point:** Emirates Authority for Standardization and Metrology (ESMA)

**Products covered:** Electronic nicotine products (cigarettes alternatives)

**Title:** Draft of UAE Technical Regulation "Electronic nicotine products (cigarettes alternatives)" (12 pages in Arabic)

**Description of content:** This UAE technical regulation is concerned with the requirements of electronic nicotine products which are used as alternatives or traditional cigarettes including: 1. products that doesn't contain tobacco Such as electronic cigarettes and refill containers (electronic liquid), products that contain processed tobacco, which are heated by using an electronic device (without burning), and the requirements for import, manufacture, packaging ,handling, weights and explanatory labeling.

**Objective and rationale:** Consumer information, labeling; Prevention of deceptive practices and consumer protection; Protection of human health or safety

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

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

**Final date for comments:** 22 July 2018

**Full text:** [https://tsapps.nist.gov/notifyus/docs/wto\\_country/ARE/full\\_text/pdf/ARE411\(arabic\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/ARE/full_text/pdf/ARE411(arabic).pdf)

#### **Pakistan Notification PAK/66/PAK (PAK/66 )**

**Date issued:** 24 May 2018

**Corrigendum type:** Correction

**Correction type:** Correction to notification

**Corrigendum:** The notification contained in document G/TBT/N/PAK/66 was distributed erroneously and therefore should be considered null and void.

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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 25 June 2018**

**BSR/AGMA 6001-F-201x, Design and Selection of Components for Enclosed Gear Drives** (revision and redesignation of ANSI/AGMA 6001-E -2008 (R2014))

This standard provides an acceptable practice for the design and selection of components for enclosed gear drives. Fundamental equations provide for the proper sizing of shafts, keys, and fasteners based on stated allowable stresses. Other components are discussed in a manner to provide an awareness of their function or specific requirements. This standard applies to the following types of commercial and industrial enclosed gear drives, individually or in combination: spur, helical, herringbone, double helical, or bevel gearing in single or multiple stages. Bevel gear drives may include shaft angles other than 90 degrees.

Single copy price: \$130.00 (non-members); \$65.00 (AGMA members)

Order from and send comments to: Amir Aboutaleb, [tech@agma.org](mailto:tech@agma.org)

**BSR/AGMA 6101-F-201x, Design and Selection of Components for Enclosed Gear Drive** (Metric Edition) (revision and redesignation of ANSI/AGMA 6101-E-2008 (R2014))

This standard provides an acceptable practice for the design and selection of components for enclosed gear drives. Fundamental equations provide for the proper sizing of shafts, keys, and fasteners based on stated allowable stresses. Other components are discussed in a manner to provide an awareness of their function or specific requirements. This standard applies to the following types of commercial and industrial enclosed gear drives, individually or in combination: spur, helical, herringbone, double helical, or bevel gearing in single or multiple stages. Bevel gear drives may include shaft angles other than 90 degrees.

Single copy price: \$120.00 (non-members); \$60.00 (AGMA members)

Order from and send comments to: Amir Aboutaleb, [tech@agma.org](mailto:tech@agma.org)

**BSR/ISEA 121-201x, Dropped Object Prevention Solutions** (new standard)

This standard establishes minimum design, performance, testing, and labeling requirements for solutions that reduce dropped objects incidents in industrial and occupational settings. These solutions include anchor



attachments, tool attachments, tool tethers, and containers. Dropped objects include hand tools, instrumentation, small parts, structural components, and other items that have to be transferred and used at heights. The standard does not address passive preventative solutions such as netting, barricades, and toe boards, nor does it address protective solutions dropped objects that minimize damage from falling objects including head protection, foot protection, and eye protection.

Single copy price: \$20.00

Obtain an electronic copy from: [cfargo@safetyequipment.org](mailto:cfargo@safetyequipment.org)

Send comments to: [cfargo@safetyequipment.org](mailto:cfargo@safetyequipment.org)

**BSR/UL 2238-201X, Standards for Safety for Cable Assemblies and Fittings for Industrial Control and Signal Distribution** (revision of ANSI/UL 2238-2013)

(1) New Supplement SA - Optional Short Circuit Rated Cable Assemblies and Fittings for Industrial Control and Signal Distribution; (2) Number of test samples.

Single copy price: Free

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

Send comments to: Joshua Johnson, [Joshua.Johnson@ul.com](mailto:Joshua.Johnson@ul.com)

**Due 2 July 2018**

**BSR ASA S1.13-201x, Measurement of Sound Pressure Levels in Air** (revision of ANSI ASA S1.13-2005 (R2010))

Specifies requirements and describes procedures for measurement of sound pressure levels in air at a single point in space. These requirements and procedures apply primarily to measurements performed indoors but may be utilized in outdoor measurements under specified conditions. This is a fundamental standard applicable to a wide range of measurements and to sounds that may differ widely in temporal and spectral characteristics; more specific American National Standards complement its requirements. A classification is given of the types of sound generally encountered, and the preferred descriptor for each type is identified. This standard is intended to be used by practitioners in the field, as well as by members of the general public who have little or no special technical training in areas relating to acoustics.

Single copy price: \$130.00

Order from and send comments to: Neil Stremmel, [asastds@acousticalsociety.org](mailto:asastds@acousticalsociety.org)

**BSR/ASSE/ISO 31000-201x, Risk Management Guidelines** (identical national adoption of ISO 31000-2018 and revision of ANSI/ASSE Z690.2 -2011)

This document is for use by people who create and protect value in organizations by managing risks, making decisions, setting and achieving objectives, and improving performance. Managing risk is based on the principles, framework, and process outlined in this document. These components might already exist in full or in part within the organization; however, they might need to be adapted or improved so that managing risk is efficient, effective, and consistent.

Single copy price: \$103.00

Order from and send comments to: ASSE; [LBauerschmidt@asse.org](mailto:LBauerschmidt@asse.org)

**BSR MH28.2-201X, Design, Testing and Utilization of Industrial Boltless Metal Shelving** (revision of ANSI MH28.2-2012)

This standard applies to industrial-steel boltless shelving; boltless shelving placed on mobile carriages; multi-level boltless shelving systems such as pick modules, catwalks, and deck-overs or dance floors; and for boltless shelving used in conjunction with an automated storage and retrieval system (AS/RS).

Single copy price: \$50.00

Order from and send comments to: Patrick Davison, [pdavison@mhi.org](mailto:pdavison@mhi.org)

**BSR/TIA 1005-A-2-201x, Telecommunications Infrastructure Standard for Industrial Premises - Addendum 2: Performance Requirements for Four-Pair Industrial Cables and Cabling Supporting 1000BASE-T for MICE2 and MICE3 Environments** (addenda to ANSI/TIA 1005-A-2012)

Create an addendum to ANSI/TIA-1005-A defining enhanced performance requirements for four-pair industrial cables and cabling supporting 1000BASE-T in MICE2 and MICE3 environments. This addendum will use Connectivity already specified in ANSI/TIA-1005-A.

Single copy price: \$64.00

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

**BSR/UL 61010-1-201X, Standard for Safety for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirements** (national adoption of IEC 61010-1 with modifications and revision of ANSI/UL 61010-1-2016)

This proposal includes the following updates: (1) the UL adoption of IEC 61010-1 Ed 3.1 issued 2017-01 Amendment 1; and (2) Revisions to Annex DVE for Permanently Installed Equipment.

Single copy price: Free!

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

Send comments to: Vickie Hinton, [Vickie.T.Hinton@ul.com](mailto:Vickie.T.Hinton@ul.com)

**BSR/UL 508A-201x, Standard for Safety for Industrial Control Panels** (new standard)

These requirements cover industrial control panels intended for general industrial use, operating from a voltage of 600 volts or less. This equipment is intended for installation in ordinary locations, in accordance with the National Electrical Code, ANSI/NFPA 70, where the ambient temperature does not exceed 40°C (104°F) maximum. Industrial control panels are widely used throughout the United States. UL 508A is already recognized as the standard covering these products in the United States. Therefore, UL 508A should be recognized as an ANSI-approved US National Standard.

Single copy price: Contact comm2000 for pricing and delivery options

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

Send comments to: Casey Granata, [Casey.Granata@UL.Com](mailto:Casey.Granata@UL.Com)

**BSR/UL 3030-201x, Standard for Safety for Unmanned Aircraft Systems** (new standard)

This proposed first edition of the Standard for Unmanned Aircraft Systems covers the electrical system of unmanned aircraft systems (UASs) used in flight for commercial applications or flight incidental to business applications in accordance with U.S. Federal Regulation 14 CFR 107. The UASs are operated by remote pilots and are less than 55 lbs (25 kg). The UAS is to have an internal lithium ion battery charged from an external source, have an operating voltage no greater than 100 V dc, and be for outdoor use. Also covered: electrical shock, fire and explosion hazards associated with the inherent features of the UASs, and the battery and charger system combinations to recharge them.

Single copy price: Contact comm2000 for pricing and delivery options

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

Send comments to: Barbara Davis, [Barbara.J.Davis@ul.com](mailto:Barbara.J.Davis@ul.com)

**Due 10 July 2018**

**BSR/EMAP EMS 5-201x, Emergency Management Standard** (revision and redesignation of ANSI/EMAP EMS2016-2016)

The standard establishes the baseline performance criteria for an Emergency Management Program. The standards will include all phases of emergency management to include prevention, preparedness, mitigation, response, and recovery activities. The standard will outline 16 programmatic areas that provide necessary components of a comprehensive emergency management and homeland security program. The 16 programmatic areas which include such things as Program Administration, Evaluation, Coordination, Advisory Committee and Laws & Authorities; Hazard Identification, Risk Assessment & Consequence Analysis; Hazard Mitigation; Prevention; Operational Planning & Procedures; Incident Management; Resource Management, Mutual Aid & Logistics; Communications & Warning; Facilities; Training; Exercises, Evaluations & Corrective Actions; and Emergency Public Information & Education. This standard will not be considered an ISO Standard. This standard replaces the EMAP 4-2016 Emergency Management Standard.

Single copy price: Free

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

Send comments to: Christine Jacobs, [cjacobs@csg.org](mailto:cjacobs@csg.org)

**Due 17 July 2018**

**BSR/IEEE 802.1CB-201x, Standard for Local and Metropolitan Area Networks - Frame Replication and Elimination for Reliability** (new standard)

This standard specifies procedures, managed objects and protocols for bridges and end systems that provide identification and replication of packets for redundant transmission, identification of duplicate packets, and

elimination of duplicate packets. It is not concerned with the creation of the multiple paths over which the duplicates are transmitted.

Single copy price: \$145.00 (pdf); \$181.00 (print)

Order from: online: <http://standards.ieee.org/store>

Send comments to: [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**BSR/IEEE 802.15.3d-201x, Standard for High Data Rate Wireless MultiMedia Networks - Amendment 2: 100 Gb/s Wireless Switched Point-to-Point Physical Layer** (new standard)

This amendment defines a wireless switched point-to-point physical layer to IEEE Std. 802.15.3 operating at a nominal PHY data rate of 100 Gb/s with fallbacks to lower data rates as needed. Operation is considered in bands from 252 GHz to 325 GHz at ranges as short as a few centimeters and up to several 100 m. Additionally, modifications to the Medium Access Control (MAC) layer, needed to support this new physical layer, are defined.

Single copy price: \$75.00 (pdf); \$95.00 (print)

Order from: online: <http://standards.ieee.org/store>

Send comments to: [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**BSR/IEEE 62704-1-201x, International Standard for Determining the Peak Spatial Average Specific Absorption Rate (SAR) in the Human Body from Wireless Communications Devices, 30 MHz - 6 GHz - Part 1: General Requirements for Using the Finite Difference Time Domain (FDTD) Method for SAR Calculations** (new standard)

This part of IEC/IEEE 62704 defines the methodology for the application of the finite-difference time domain (FDTD) technique when used for determining the peak spatial-average specific absorption rate (SAR) in the human body exposed to wireless communication devices with known uncertainty. It defines methods to validate the numerical model of the device under test (DUT) and to assess its uncertainty when used in SAR simulations. Moreover, it defines procedures to determine the peak spatial-average SAR in a cubical volume and to validate the correct implementation of the FDTD simulation software. The applicable frequency range is 30 MHz to 6 GHz.

Single copy price: \$94.00 (pdf); \$117.00 (print)

Order from: online: <http://standards.ieee.org/store>

Send comments to: [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**BSR/IEEE 62704-3-201x, Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Body from Wireless Communications Devices, 30 MHz - 6 GHz - Part 3: Specific Requirements for Using the Finite Difference Time Domain (FDTD) Method for SAR Calculations of Mobile Phones** (new standard)

This part of IEC/IEEE 62704-3 defines the concepts, techniques, benchmark phone models, validation procedures, uncertainties and limitations of the finite difference time domain (FDTD) technique when used for determining the peak spatial-average specific absorption rate (SAR) in standardized head and body phantoms exposed to the electromagnetic fields generated by wireless communication devices, in particular pre-compliance assessment of mobile phones, in the frequency range from 30 MHz to 6 GHz.

Single copy price: \$94.00 (pdf); \$117.00 (print)

Order from: online: <http://standards.ieee.org/store>

Send comments to: [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**Notices of Withdrawal 17 June 2018**

In accordance with clause 4.7.1 Periodic Maintenance of American National Standards of the *ANSI Essential Requirements*, ANSI has announced that the following American National Standards have not been reaffirmed or revised within the five-year period following approval as an ANS. Thus, they shall be withdrawn at the close of a 30-day public review, on 17 June 2018. This is a selection of the over 140 IEEE standards listed as being withdrawn for inaction in the May 18 edition of *Standards Action*.

**ANSI/IEEE 142-2007, Recommended Practice for Grounding of Industrial and Commercial Power Systems**

Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**ANSI/IEEE 260.3-1993 (R2006), Mathematical Signs and Symbols for Use in Physical Sciences and Technology**

Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)



**ANSI/IEEE 277-2007**, Recommended Practice for Cement Plant Power Distribution  
Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**ANSI/IEEE 493-2007**, Recommended Practice for the Design of Reliable Industrial and Commercial Power Systems  
Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**ANSI/IEEE 551-2006**, Recommended Methods for Calculating AC Short-Circuit Currents in Industrial and Commercial Power Systems  
Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**ANSI/IEEE 802.1AE-2006**, Standard for Local and Metropolitan Area Networks: Media Access Control (MAC) Security  
Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**ANSI/IEEE 802.1ag-2007**, Standard for Local and Metropolitan Area Networks - Virtual Bridged Local Area Networks - Amendment 5: Connectivity Fault Management  
Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**ANSI/IEEE 802.1ak-2007**, Standard for Local and Metropolitan Area Networks - Virtual Bridged Local Area Networks - Amendment 07: Multiple Registration Protocol  
Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**ANSI/IEEE 802.11-2007**, Standard for Information Technology - Telecommunications and Information Exchange Between Systems - Local and Metropolitan Area Networks - Specific Requirements - Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications  
Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**ANSI/IEEE 802.15.4a-2007**, Standard for Information Technology - Telecommunications and Information Exchange Between Systems - Local and Metropolitan Area Networks - Specific Requirements - Part 15.4: Wireless Medium Access Control (MAC) and Physical Layer (PHY) Specifications for Low-Rate Wireless Personal Area Networks (LR-WPANS): Amendment to Add Alternate PHY  
Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**ANSI/IEEE 802.17b-2007**, Standard for Information Technology - Telecommunications and Information Exchange Between Systems - Local and Metropolitan Area Networks - Specific Requirements - Part 17: Resilient Packet Ring (RPR) Access Method and Physical Layer Specifications - Amendment 1 - Spatially Aware Sublayer  
Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**ANSI/IEEE 937-2007**, Recommended Practice for Installation and Maintenance of Lead-Acid Batteries for Photovoltaic (PV) Systems  
Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**ANSI/IEEE 1013-2007**, Recommended Practice for Sizing Lead-Acid Batteries for Stand-Alone Photovoltaic (PV) Systems  
Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**ANSI/IEEE 1015-2006**, Recommended Practice for Applying Low-Voltage Circuit Breakers Used in Industrial and Commercial Power Systems  
Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**ANSI/IEEE 1074-2006**, Standard for Developing a Software Project Life Cycle Process  
Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**ANSI/IEEE 1184-2006**, Guide for Batteries for Uninterruptible Power Supply Systems  
Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**ANSI/IEEE 1451.0-2007**, Standard for a Smart Transducer Interface for Sensors and Actuators - Common Functions, Communication Protocols, and Transducer Electronic Data Sheet (TEDS) Formats  
Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**ANSI/IEEE 1451.5-2007**, Standard for a Smart Transducer Interface for Sensors and Actuators - Wireless Communication Protocols and Transducer Electronic Data Sheet (TEDS) Formats  
Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**ANSI/IEEE C37.101-2006**, Guide for Generator Ground Protection  
Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**ANSI/IEEE C37.101-2006/Cor 1-2007**, Guide for Generator Ground Protection - Corrigendum 1: Annex A.2 Phasor Analysis (Informative)  
Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**ANSI/IEEE C57.12.70-2000 (R2006)**, Standard Terminal Markings and Connections for Distribution and Power Transformers  
Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**ANSI/IEEE C95.1-2006**, Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz  
Questions may be directed to Karen Evangelista, [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

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## **BSI Public Review Announcement**

BSI Standards has announced draft documents for public review that might be of interest to *Standards Watch* readers. BSI documents may be commented on at <https://standardsdevelopment.bsigroup.com/>.

**Due 27 June 2018**

**BS EN 527-2:2016/A1 Office furniture - Work tables. - Part 2: Safety, strength and durability requirements**  
Modifications to Clause 5, Strength and durability.

**Due 17 July 2018**

**BS 8546+A1 Travel adaptors compatible with UK plug and socket system. Specification**

This British Standard specifies requirements for the construction, rating, marking, dimensions and testing of travel adaptors intended for the temporary connection of electrical equipment. It applies to travel adaptors having at least one plug or socket-outlet portion compatible with BS 1363 plugs and socket-outlets, which are suitable for the connection of a non-BS 1363 plug, or to a non-BS 1363 socket-outlet. Travel adaptors incorporating USB circuits for charging devices are also covered by this standard.

This British Standard applies to travel adaptors intended for use in household, commercial and light industrial premises where:

- the nominal supply voltage does not exceed 250 V a.c. single-phase, 50 Hz to 60 Hz; or
- the rated current of the travel adaptor does not exceed 13 A and is not less than 5 A.

Travel adaptors within the scope of this British Standard do not convert voltage. This British Standard excludes adaptors conforming to BS 1363-3 and conversion plugs conforming to BS 1363-5.

**Due 24 July 2018**

**BS 8560+A1 Code of practice for the design of buildings incorporating safe work at height**

This British Standard gives recommendations for incorporating safe work at height into the design of buildings during the design process. It gives recommendations for designers on working safely at height and how to take this into account throughout the design process with specific focus on the early strategic and conceptual stages.

It also takes into account the requirements of those who are involved in construction, inspection, cleaning and maintenance. This British Standard does not give designers prescriptive solutions for work at height, but does provide useful guidance to help them manage the process. It is for the design team to develop specific solutions for each individual project.

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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 18 June 2018

#### **CSA/ANSI Z21.63-20xx • CSA 11.3-20xx Portable Type Gas Camp Heaters** (new edition)

This Standard applies to unvented portable type gas camp heaters of the catalytic and infrared type only up to and including a maximum input of 12,000 Btu/hr (3,517 W) using propane, butane, and liquefied petroleum gas mixtures thereof, and intended for outdoor use.

#### **CSA/ANSI Z21.72-20xx • CSA 11.2-20xx Portable type gas camp stoves** (new edition)

This Standard applies to portable type gas camp stoves (herein after referred to as “appliance” or “stove”) having input ratings of 15,000 Btu/hr (4.4 kW) or less per burner for use:

- a) with propane gas, butane gas, and any combination thereof; and
- b) outdoors only.

### Due 14 July 2018

#### **C22.2 NO. 338 Type Class 2 power supplies (USB) and combination devices (receptacle/USB)** (new standard)

This standard applies to wiring devices rated 60 A or less and intended for use in accordance with the Canadian Electrical Code, Part I: Class 2 Power Supply Outlets (USB) installed on faceplates of an outlet box, on a yoke similar to an outlet box mounted receptacle, or mounted on a wall as a self-contained device. The requirements also apply to combination devices (receptacle/USB, general use switch/USB).

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## DIN Public Review Announcement

The Deutsches Institut für Normung has announced a draft document possibly of interest to *Standards Watch* readers. After you register with DIN at <http://www.entwuerfe.din.de/>, you may purchase and comment on DIN draft standards. This document will be available for public review from 2018-06-01 to 2018-08-01, and will cost 91.30 €. You can pre-order it now from Beuth Verlag. The document is in German.

#### **DIN SPEC 15587, Empfehlungen zur Digitalisierung von kinematografischem Film** (Guidelines for digitizing cinematic films)

This document specifies the requirements for the workflow of cinematic film and magnetic media digitization. Requirements for the preliminary work on digitization, the digitization itself, and the reworking of the digital product are presented. The degree of preservation is given based on the what is known at the time of the work:

- the selection of the best quality raw materials has taken place,
- these materials have been optimally prepared for digitization,
- properties of the starting material are considered in the digitized product,
- formats suitable for the digitized format, appropriate coding were selected, and
- ethical principles were followed in the digital restoration.

The recommendation should also provide orientation for digitization projects that focus less on digital preservation, but more on publication or presentation, for example, digitization for television.

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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, (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 E1.6-2-201x, Entertainment Technology - Design, Inspection, and Maintenance of Electric Chain Hoists for the Entertainment Industry** (revision of ANSI E1.6-2-2018)

E1.6-2 is part of the E1.6 powered entertainment rigging suite of standards. It covers the design, inspection, and maintenance of serially manufactured electric link-chain hoists having capacity of 2 tons or less and used in the entertainment industry. E1.6-2 does not cover attachment to the load or to the overhead structure or the controls used for multiple hoist operation.

Contact: Karl Ruling, [standards@esta.org](mailto:standards@esta.org)

**BSR/E1.64-201x, Stage Machinery Motion Control** (new standard)

To provide a common standard of design, operation, maintenance, and practices for the control of all stage machinery. The goal is to include a complete look at how stage machinery is controlled in the Entertainment Industry. The document will explore the requirements of the Operator Interface (pushbuttons, software, touch surface) and move through the wiring (data or discrete I/O) along the path to the controller (analog, digital, relay coils), through the controller output and along a second path of wiring (machine power, data, analog signals, discrete I/O) to the machine. The document will provide advice and guidance on usage of drives, contactors, emergency stop systems, cable termination, cable selection, data transmission, and operator interfaces. It may also explore or reference common communications platforms that will ultimately lead to the potential cross-platform communications between motion control operator interfaces from a variety of manufacturers as well as between motion control and other stage control disciplines such as lighting, video, and sound consoles.

Contact: Karl Ruling, [standards@esta.org](mailto:standards@esta.org)

**BSR MH28.3-201x, Design, Testing and Utilization of Industrial Steel Work Platforms** (revision of ANSI MH28.3-2009)

Addresses means of egress, guarding, materials, structural design, fabrication, and loading for an industrial steel work platform. This standard is intended to be applied to the design, manufacturing, installation, and maintenance of such structures.

Contact: Patrick Davison, [pdavison@mhi.org](mailto:pdavison@mhi.org)

**BSR X9.58-201X, Electronic Benefits Transfer (EBT) - Food Stamps** (revision of ANSI X9.58-2010)

The standard provides all parties involved in Electronic Benefits Transfer (EBT) transactions for Food Stamps with technical specifications for exchanging financial transaction messages between an acquirer and an EBT card issuer processor. It specifies message structure, format and content, data elements and values for data elements used in the Food Stamp program. The method by which settlement takes place is not within the scope of this standard.

Contact: Ambria Frazier, [Ambria.frazier@x9.org](mailto:Ambria.frazier@x9.org)

**BSR/AISC 342-201x, Seismic Provisions for Evaluation and Retrofit of Structural Steel Buildings** (new standard)

Seismic Provisions for Evaluation and Retrofit of Structural Steel Buildings will govern the seismic evaluation and retrofit of structural steel components of the seismic force-resisting system of existing buildings. The requirements of these Provisions will apply to existing structural steel components of a building system, retrofitted steel components of a building system, and new structural steel components added to an existing building system.

Contact: Cynthia Duncan, [duncan@aisc.org](mailto:duncan@aisc.org)

**BSR/ASSE Series 12000-201x, Professional Qualifications Standard for the Health and Safety of Construction and Maintenance Personnel** (revision of ANSI/ASSE Series 12000-2014)

This standard addresses the need for general knowledge of pathogens, biohazards, infectious disease and Other Potentially Infectious Material (OPIM) for construction and maintenance personnel, or for any individual who has the potential for exposure. The purpose is to provide training, continuing education, and certification for workers who do construction or maintenance in a health care facility.

Contact: Marianne Waickman, [marianne.waickman@asse-plumbing.org](mailto:marianne.waickman@asse-plumbing.org)

**BSR/ES1.41-201x, Safe use of unmanned aerial system (UASs) during live events in indoor venues** (new standard)

The standard aims at improving safety related to the use of UASs (unmanned aerial systems) and UAVs (unmanned aerial vehicles - often called drones) at live events. The standard will cover the use of remote-controlled and autonomous, tethered and untethered UAVs (e.g., helicopters, lighter-than-air vehicles, fixed-wing vehicles). It will cover flight operations above stage and audiences. It will provide technical requirements, risk assessment methods, operational procedures, and will cover other aspects related to the use of UASs and UAVs at live events (such as maintenance, training, radio-frequency considerations, and automated system checks). Project Need: Drone shows and the use of drones at live events are an emergent use case and have gained significant popularity over the last years. Like other machinery, drones can cause injury or damage when used without care. Currently, there are no standards or best practices for their use in indoor venues, giving productions, venues, and operators no guidance on how to make their events safe. This has resulted in multiple high-profile accidents, and several stakeholders establishing no-drone policies (e.g., the NBA). The suggested standard would give all parties involved in the operation of drones at live events a systematic way to evaluate the safety of their projects, and guidance on how to achieve an acceptable risk level.

Contact: Karl Ruling, [standards@esta.org](mailto:standards@esta.org)

**BSR/MH32.1-201X, Stairs, Ladders and Open-Edge Guards for Use with Material Handling Structures** (new standard)

This standard applies to fixed stairways and ladders along with guarding for elevated platforms used in material handling applications. The guidance is based on equipment anticipated to be used in an industrial or warehouse where access is limited to trained employees who are trained, equipped with appropriate personal protective equipment, physically capable, and familiar with the configuration of the equipment. The stairways and ladders would be attached to equipment such as industrial pallet racking pick modules and decked-over platforms, industrial shelving pick modules and decked-over platforms, and free-standing work platforms. This equipment is described in the ANSI MH 16.X and ANSI MH28.X series of standards. This standard is intended to serve as a reference document for other material handling equipment standards or specifications.

Contact: Patrick Davison, [pdavison@mhi.org](mailto:pdavison@mhi.org)

**BSR/NETA ECS-201X, Standard for Electrical Commissioning Specifications for Electrical Power Equipment and Systems** (revision of ANSI/NETA ECS-2015)

These specifications describe the systematic process of documenting, and placing into service newly installed, or retrofitted electrical power equipment and systems. This document shall be used in conjunction with the most recent edition of the ANSI/NETA ATS Standard for Acceptance Testing Specifications for Electrical Power Equipment and Systems. The individual electrical components shall be subjected to factory and field tests, as required, to validate the individual components. It is not the intent of these specifications to provide comprehensive details on the commissioning of mechanical equipment, mechanical instrumentation systems, and related components. This standard is not intended to be submitted for consideration as an ISO, IEC, or ISO/IEC JTC-1 standard.

Contact: Richard Piet, [rpier@netaworld.org](mailto:rpier@netaworld.org)

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## 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/ASSP/ISO 45001-2018**, Occupational health and safety management systems - Requirements with guidance for use (identical national adoption of ISO 45001-2018): 8 May 2018

**ANSI/ASTM E3159-2018**, Guide to General Reliability (new standard): 24 April 2018

**ANSI ICEA S-103-701-2018**, Riser Cables - Technical Requirements (revision of ANSI ICEA S-103-701-2004 (R2011)): 15 May 2018

**ANSI/IEEE 802.3bu-2016**, Standard for Ethernet - Amendment 8: Physical Layer and Management Parameters for Power over Data Lines (PoDL) of Single-Balanced Twisted-Pair Ethernet (new standard): 4 May 2018



**ANSI/RVIA EGS-1-2018**, Engine Generator Sets for Recreational Vehicle Requirements (revision of ANSI/RVIA EGS-1-2013): 2 May 2018

**ANSI/UL 8139-2018**, Standard for Safety for Electrical Systems of Electronic Cigarettes and Vaping Devices (new standard): 27 April 2018

**ANSI/UL 924-2018**, Standard for Safety for Emergency Lighting and Power Equipment (revision of ANSI/UL 924-2017a): 1 May 2018

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## Draft IEC & ISO Documents

This section lists proposed documents 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 and ISO documents should be sent to Charles T. Zegers at [czegers@ansi.org](mailto:czegers@ansi.org) and Karen Hughes at [isot@ansi.org](mailto:isot@ansi.org) respectively. Any prices, if shown, are for purchases through ANSI. The sort order is by due date then alphanumeric.

**2/1906/FDIS, IEC 60034-14 ED4**: Rotating electrical machines - Part 14: Mechanical vibration of certain machines with shaft heights 56 mm and higher - Measurement, evaluation and limits of vibration severity, 5 June 2018

**34/523/FDIS, IEC 62386-102/AMD1 ED2: Amendment 1** - Digital addressable lighting interface - Part 102: General requirements - Control gear, 22 June 2018

**34/524/FDIS, IEC 62386-103/AMD1 ED1: Amendment 1** - Digital addressable lighting interface - Part 103: General requirements - Control devices, 22 June 2018

**121A/224/FDIS, IEC 60947-4-1 Ed. 4**: Low-voltage switchgear and controlgear - Part 4-1: Contactors and motor-starters - Electromechanical contactors and motor-starters, 22 June 2018

**110/981/CD, IEC 62906-5-5 ED1**: Laser display devices - Part 5-5: Optical measuring methods of raster-scanning retina direct projection devices, 19 June 2018

**JTC1-SC41/41/FDIS, ISO/IEC 30141 ED1**: Information technology - Internet of Things Reference Architecture (IoT RA), 6 July 2018

**1/2358/CD, IEC 60050-195 ED2**: International Electrotechnical Vocabulary - Part 195: Earthing and protection against electric shock, 17 July 2018

**3/1357/CDV, IEC 61293 ED2**: Marking of electrical equipment with ratings related to electrical supply - Safety requirements, 17 July 2018

**JTC1-SC25/2804/CD, ISO/IEC TR 29106/AMD2 ED1**: Information technology - Generic cabling - Introduction to the MICE environmental classification, 17 July 2018

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## Recently Published IEC & ISO Documents

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

**ISO 5496/Amd1:2018**, Sensory analysis - Methodology - Initiation and training of assessors in the detection and recognition of odours - Amendment 1, \$19.00

**ISO 21001:2018**, Educational organizations - Management systems for educational organizations - Requirements with guidance for use, \$209.00

**ISO 7240-5:2018**, Fire detection and fire alarm systems - Part 5: Point type heat detectors, \$162.00

**IEC 62442-3 Ed. 2.0 b:2018**, Energy performance of lamp controlgear - Part 3: Controlgear for tungsten-halogen lamps and LED light sources - Method of measurement to determine the efficiency of controlgear, \$82.00

**S+ IEC 62442-1 Ed. 2.0 en:2018** (Redline version), Energy performance of lamp controlgear - Part 1: Controlgear for fluorescent lamps - Method of measurement to determine the total input power of controlgear circuits and the efficiency of controlgear, \$213.00

**ISO/IEC 23006-1:2018**, Information technology - Multimedia service platform technologies - Part 1: Architecture, \$138.00

**ISO 81346-12:2018**, Industrial systems, installations and equipment and industrial products - Structuring principles and reference designations - Part 12: Construction works and building services, \$185.00

**ISO/IEC 13818-1/Amd1:2018**, Information technology - Generic coding of moving pictures and associated audio information - Part 1: Systems - Amendment 1: Ultra-low latency and 4k and higher resolution support for transport of JPEG 2000 video, \$19.00

**ISO/IEC 22275:2018**, Information technology - Programming languages, their environments, and system software interfaces - ECMAScript® Specification Suite, \$45.00

**ISO/IEC/IEEE 8802-11:2018**, Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific requirements - Part 11: Wireless LAN medium access control (MAC) and physical layer (PHY) specifications, \$232.00

**ISO/IEC TS 27034-5-1:2018**, Information technology - Application security - Part 5-1: Protocols and application security controls data structure, XML schemas, \$209.00

**IEC 61000-2-2 Ed. 2.2 b:2018**, Electromagnetic compatibility (EMC) Environment - Compatibility levels for low-frequency conducted disturbances and signalling in public low-voltage power supply systems, \$410.00

**IEC 61000-2-2 Amd.2 Ed. 2.0 b:2018**, Amendment 2 - Electromagnetic compatibility (EMC) - Environment - Compatibility levels for low frequency conducted disturbances and signalling in public low voltage power supply systems, \$23.00

## TSP Meeting Schedule

The next set of meetings is scheduled for the DFW Marriott Solana in Westlake, Texas. A “Reserve a Hotel Room” link is at <http://tsp.esta.org/tsp/meetings/index.php>.

Control Protocols Compliance Study Group	14:00 – 18:00	Sunday 22 July 2018
Control Protocols E1.20 / E1.37-5	19:00 – 23:00	Thursday 19 July 2018
	14:00 – 18:00	Friday 20 July 2018
Control Protocols E1.33 / E1.37-7	14:00 – 18:00	Saturday 21 July 2018
	10:00 – 18:00	Monday 23 July 2018
	10:00 – 17:00	Tuesday 24 July 2018
Control Protocols E1.37-4 Firmware Uploads	09:00 – 13:00	Sunday 22 July 2018
Control Protocols E1.59	09:00 – 13:00	Friday 20 July 2018
Control Protocols NAEP	19:00 – 23:00	Friday 20 July 2018
Control Protocols Plugfest	09:00 – 23:00	Friday 20 July 2018
	09:00 – 23:00	Saturday 21 July 2018
	09:00 – 23:00	Sunday 22 July 2018
	09:00 – 23:00	Monday 23 July 2018
Control Protocols Plugfest Roundtable	19:00 – 21:00	Sunday 22 July 2018
Control Protocols Working Group	09:00 – 13:00	Saturday 21 July 2018
Electrical Power Working Group	09:00 – 11:00	Friday 20 July 2018
Event Safety Communications TG	14:00 – 18:00	Thursday 19 July 2018
	09:00 – 13:00	Friday 20 July 2018
Event Safety Fire Safety TG	14:00 – 18:00	Friday 20 July 2018
Event Safety Working Group	14:00 – 18:00	Saturday 21 July 2018
Floors Working Group	19:00 – 22:00	Thursday 19 July 2018
Fog & Smoke Working Group	15:00 – 18:00	Thursday 19 July 2018
Rigging E1.6-3 TG	19:00 – 23:00	Thursday 19 July 2018
Rigging Working Group	14:00 – 18:00	Friday 20 July 2018
Stage Machinery Controls TG	15:00 – 18:00	Thursday 19 July 2018
Stage Machinery Working Group	19:00 – 23:00	Saturday 21 July 2018
Technical Standards Council	09:00 – 13:00	Sunday 22 July 2018

The Autumn meetings will be held 4-8 October 2018 at the Marriott Solana in Westlake, TX. The meeting schedule and a “Reserve a hotel room” link are available at <http://tsp.esta.org/tsp/meetings/index.php>.

## ESTA Standards Watch

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Alan Rowe

David Saltiel

Sapsis Rigging Inc.

Stageworks

Dana Taylor

Steve Terry

Theatre Projects

Theatre Safety Programs

Tobins Lake Sales Theatrical Supply

Vertigo

Steve A. Walker & Associates

Westview Productions

WNP Services

### INVESTOR (\$3,000–\$9,999; >100 employees/members)

Barbizon Lighting Company

Golden Sea Professional Equipment Limited

IATSE Local 728

IATSE Local 891

Lex

NAMM

Rosco Laboratories

Texas Scenic Company

### INVESTOR (\$1,500–\$4,999; 20–100 employees/members)

American Society of Theatre Consultants

Area Four Industries

BMI Supply

City Theatrical Inc.

InterAmerica Stage, Inc.

Lycian Stage Lighting

Morpheus Lights

Niscon Inc.

Syracuse Scenery and Stage Lighting

Tomcat

XSF Xtreme Structures and Fabrication

### INVESTOR (\$200–\$499; <20 employees/members)

Benjamin Cohen

Bruce Darden

Indianapolis Stage Sales & Rentals, Inc.

Jason Kyle

Eric Loader

Moss LED

Robert Scales

Stephen Vanciel

Suga Koubou Co., Ltd.



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**SUPPORTER** (<\$3,000; >100 employees/members)

Ian Foulds, IATSE Local 873  
Harlequin Floors

PSAV  
Thern Stage Equipment

**SUPPORTER** (<\$1,500; 20–100 employees/members)

Aerial Arts  
Blizzard Lighting, LLC  
Creative Stage Lighting  
Geiger Engineers  
H&H Specialties  
High Output  
InCord  
iWeiss  
Oasis Stage Werks

Serapid  
Stage Equipment & Lighting  
Stagemaker  
Thermotex Industries, Inc.  
Total Structures  
Ultratec Special Effects  
Vincent Lighting Systems  
Zhuhai Shengchang Electronics Co.

**SUPPORTER** (<\$200; <20 employees/members)

AC Power Distribution, Inc.  
Michael Cowger  
Peter Donovan  
Entertainment Project Services, LLC  
Tony Giovannetti  
Pat Grenfell  
Mitch Hefter  
Bill Hektner  
Alan Hendrickson  
Hoist Sales and Services  
John Huntington  
Beverly and Tom Inglesby  
Intensity Advisors  
JSAV  
Eddie Kramer  
J.P. Kyle

Michael Lay  
John Musarra  
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Lizz Pittsley  
Phil Reilly  
Charles Scott  
Michael Skinner  
Skjonberg Controls Inc.  
Stage Labor of the Ozarks  
Studio T+L, LLC  
John Szewczuk  
Teclumen  
Theta Consulting  
Tracy Underhill  
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