



# ESTA Standards Watch

Late December 2016 Volume 20, Number 24

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## Five TSP Standards in Public Review

Three new draft standards and two existing standards being considered for reaffirmation are in public review on the ESTA website at <http://estalink.us/pr>. Comment due-dates are as noted.

**BSR E1.26 - 2006 (R201x), Entertainment Technology—Recommended Testing Methods and Values for Shock Absorption of Floors Used in Live Performance Venues** (a reaffirmation). This document sets out the energy absorption requirements for floors in venues used for live performances, and the methods for testing them. The standard was originally published in 2006 and was last reaffirmed in 2012. Comments are due before the end of the day on 3 January 2017.

**BSR E1.24 - 2012 (R201x), Entertainment Technology—Dimensional Requirements for Stage Pin Connectors** (a reaffirmation). E1.24 is a configuration standard for mating male and female pin connectors. The

electrical reliability and flammability requirements for pin connectors are outside the scope of this standard and would be covered by other standards, but those other standards use this one to assure compatibility between connectors from different manufacturers. Comments are due before EOD 3 January 2017.

**BSR E1.50 - 201x, Entertainment Technology—Requirements for the Structural Support of Temporary LED, Video & Display Systems** (a new standard). The scope of this standard covers temporary installations of large format modular display systems, LED, video and other self-illuminating display structures not otherwise addressed by existing standards. The scope of this standard includes planning and site preparedness, assembly and erection, suspension and safety of components, special access requirements, use and dismantling of these systems. Comments are due before EOD 10 January 2017.

**BSR E1.56 – 201x, Entertainment Technology—Rigging Support Points** (a new standard). This standard applies to stationary rigging points that are intended to be permanent. It provides minimum requirements for the design, fabrication, installation, inspection, and documentation of these rigging points for their use to support rigging loads. Comments are due before EOD 3 January 2017.

**BSR E1.37-7 - 201x, Additional Message Sets for ANSI E1.20 (RDM) - Gateway & Splitter Configuration Messages** (as new standard)

BSR E1.37-7 provides additional Get/Set Parameter Messages for use with the ANSI E1.20 Remote Device Management protocol and BSR E1.33 RDMnet protocol. This document contains messages relating to configuring RDMnet gateways, managed splitters, and proxy devices. BSR E1.37-7 references material from another CPWG draft standard in progress, BSR E1.33, RDMnet. The references to BSR E1.33 have been excerpted and included in the review explanation file, to be used in context with the draft standard in review. Due before EOD 14 February 2017.

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## New Project: Raked Stages

ESTA has filed a new project with ANSI: **BSR E1.60 – 201x, Guidelines for the use of rakes in live performance environments**. This project is to develop a standard to provide guidance for the use of raked stages in live performance environments. The standard intends to define a rake, and to offer guidance for production elements to mitigate the risks for the protection of actors and technicians. This is a project of the Floors Working Group.

If you would like to help with this project, you may do so by joining the Floors Working Group or by commenting on the draft standard in a future public review. (There will be at least one public review, and possibly many.) Information about what is required to join a working group is available at [http://tsp.esta.org/tsp/working\\_groups/index.html](http://tsp.esta.org/tsp/working_groups/index.html). The Floors Working Group is particularly interested in people joining who would be in the custom-market producers and dealer/rental companies interest categories. Few theatres are now built with raked stages, so they are most often built for specific shows and can be considered part of the scenery custom-manufactured for that show. Therefore, people representing scenic shops would be members of the custom-market producer interest category.

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## ESTA Plugfest Round-Tables Available Via WebEx!

The ESTA Control Protocols Plugfest organizers announced today that two live, informal round-table discussions will be made available to the general public via a free WebEx video conference. Those include:

- A discussion of “RDM Queued/Status Messages” will be broadcast on Saturday, January 21 from 7:30 p.m. to 8:30 p.m., CST.
- A discussion of “IGMP, PIM, Multicast Infrastructure” for configuring large and/or managed network hardware to operate with E1.31 (sACN) will be broadcast on Sunday, January 22 from 7:30 p.m. to 8:30 p.m., CST.

Subject matter experts from ESTA's Control Protocols Working Group will share their knowledge on these topics, and attendees will have the opportunity to ask questions and obtain answers from the CPWG members that

authored the standards. This is an extraordinary opportunity to take advantage of the knowledge and experience of the CPWG, one of the Technical Standards Program's largest working groups.

Registration for either round-table may be made by sending an email to [plugfest@esta.org](mailto:plugfest@esta.org). Registration is limited. Instructions for logging into WebEx will be emailed to all pre-registered attendees a few days before the live broadcast. Qualified attendees may also receive 0.5 ETCP renewal credit for each session hour.

More information about the ESTA Plugfest is available at [www.estalink.us/plugfest](http://www.estalink.us/plugfest). To contact the event's organizers please email [plugfest@esta.org](mailto:plugfest@esta.org). To test your personal computer and internet link ahead of the broadcast please go to: <https://www.webex.com/test-meeting.html>.

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## FCC Warns about IRS Scams

We've been warned before, but the Federal Communications Commission and the Inspector General for Tax Administration issued another warning on December 19 about crooks impersonating Internal Revenue Service agents. It's a scam that has bilked Americans out of more than \$50 million dollars; the warning is still relevant.

The scam starts with an automated or live call from someone claiming to be an IRS employee. The victim's phone caller ID might show a Washington, D.C. number or "IRS." The caller will claim that the victim owes the IRS taxes, which must be paid immediately or else the victim will be arrested or sued. The caller might also threaten the victim with deportation, or loss of a business or driver's license. The caller usually demands payment in the form of iTunes gift cards, prepaid debit or credit cards, wire transfers, Western Union, or MoneyGram.

Any call purportedly from the IRS demanding payment using gift cards, prepaid cards, or wire transfers is fraudulent. The IRS generally first contacts people by mail—not by phone—about unpaid taxes and never asks for payment via iTunes gift cards, Reloadit, et cetera. People should immediately hang up and file a complaint at [https://www.treasury.gov/tigta/contact\\_report\\_scam.shtml](https://www.treasury.gov/tigta/contact_report_scam.shtml).

More information is available at [https://apps.fcc.gov/edocs\\_public/attachmatch/DA-16-1392A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DA-16-1392A1.pdf).

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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.

### Botswana Notification BWA/47

**Date issued:** 16 December 2016

**Agency Responsible:** Ministry of Investment, Trade & Industry

**National Inquiry Point:** Botswana Bureau of Standards

**Products covered:** Wiring cable

**Title:** BOS 589-2:2014, Electric cables with extruded solid dielectric insulation for fixed installations (300/500 V to 1 900/3 300 V) - Part 2: Wiring cable - Specification (15 pages, in English)

**Description of content:** This part of BOS 589 covers the requirements for construction, materials, dimensions and electric properties of unarmoured single-core and multicore extruded dielectric insulated cables with rated operating voltages (U<sub>0</sub> /U) and 600/1 000 V, up to and including a conductor cross-sectional area of 16 mm<sup>2</sup> for use in fixed installations.

This part of BOS 589 also covers the following specific types of cables: a) insulated wire (600/1000 V); b) multicore flat and circular sheathed cables (300/500 V); c) single-core unsheathed panel/cubicle cables (300/500 V; and d) multicore round cables with aluminium/PVC laminate and an earth continuity conductor (300/500 V).

**Objective and rationale:** Quality requirements; Prevention of deceptive practices and consumer protection

**Relevant documents:**

- BOS 550-1, Materials of insulated electric cables and flexible cords - Part 1: Conductors.
- BOS 550-2, Materials of insulated electric cables and flexible cords - Part 2: Polyvinyl chloride (PVC).
- BOS 589-1, Electric cables with extruded solid dielectric insulation for fixed installations (300/500 V to 1 900/3 300 V) - Part 1: Packaging and marking - Requirements.
- SANS 5526, Dielectric resistance of electric cables.
- SANS 6284-3, Test methods for cross-linked polyethylene (XLPE) insulated electric cables - Part 3: Tests on finished cable.
- SANS 10142-1, The wiring of premises - Part 1: Low-voltage installations.
- IEC 60811-1-1, Common test methods for insulating and sheathing materials of electric cables and optical cables - Part 1-1: Methods for general application - Measurement of thickness and overall dimensions - Tests for determining the mechanical properties.
- IEC 62230, Electric cables - Spark-test method

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

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

**Final date for comments:** 15 February 2017

**Botswana Notification BWA/52**

**Date issued:** 19 December 2016

**Agency Responsible:** Ministry of Investment, Trade & Industry

**National Inquiry Point:** Botswana Bureau of Standards

**Products covered:** Wiring cable

**Title:** BOS 589-2:2014, Electric cables with extruded solid dielectric insulation for fixed installations (300/500 V to 1 900/3 300 V) - Part 2: Wiring cable - Specification (15 pages, in English).

**Description of content:** This part of FDS 589 covers the requirements for construction, materials, dimensions and electric properties of unarmoured single-core and multicore extruded solid dielectric insulated cables with rated operating voltages ( $U_0/U$ ) of 300/500 V and 600/1 000 V, up to and including a conductor cross-sectional area of 16 mm<sup>2</sup> for use in fixed installations.

This part of FDS 589 also covers the following specific types of cables: a. insulated wire (600/1 000 V);

b. multicore flat and circular sheathed cables (300/500 V);

c. single-core unsheathed panel/cubicle cables (300/500 V); and

d. multicore round cables with aluminium/PVC laminate and an earth continuity conductor (300/500 V).

**Objective and rationale:** Quality requirements; Prevention of deceptive practices and consumer protection

**Relevant documents:** BOS 550-1, Materials of insulated electric cables and flexible cords - Part 1: Conductors. BOS 550-2, Materials of insulated electric cables and flexible cords - Part 2: Polyvinyl chloride (PVC). BOS 589-1, Electric cables with extruded solid dielectric insulation for fixed installations (300/500 V to 1 900/3 300 V) - Part 1: Packaging and marking - Requirements. SANS 5526, Dielectric resistance of electric cables. SANS 6284-3, Test methods for cross-linked polyethylene (XLPE) insulated electric cables - Part 3: Tests on finished cable. SANS 10142-1, The wiring of premises - Part 1: Low-voltage installations. IEC 60811-1-1, Common test methods for insulating and sheathing materials of electric cables and optical cables - Part 1-1: Methods for general application - Measurement of thickness and overall dimensions - Tests for determining the mechanical properties. IEC 62230, Electric cables - Spark-test method

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

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

**Final date for comments:** 18 February 2017

**Malaysia Notification MYS/71**

**Date issued:** 19 December 2016

**Agency Responsible:** Malaysian Communications & Multimedia Commission (MCMC)

**National Inquiry Point:** Standards Management Department (SIRIM Berhad)

**Products covered:** Mandated equipment include terminals, network elements, network security elements, systems, networked surveillance systems (IP Based), network peripherals, service provider systems, future network systems, operating systems (OS), middleware and application/services

**Title:** Specifications for Internet Protocol version 6 (IPv6) Compliant Equipment (38 pages, in English).

**Description of content:** This Technical Code defines the technical requirements for equipment to be IPv6 compliant and will be used for the compliance approval (type approval) process. The specifications cover

hardware and software with respect to the functions of the Host/Node, Network Element (NE) and Network Security Element (NSE).

Mandated equipment include terminals, network elements, network security elements, systems, networked surveillance systems (IP Based), network peripherals, service provider systems, future network systems, operating systems (OS), middleware and application/services as per detailed out in Annex A of the document.

**Objective and rationale:** To ensure that all mandated equipment are certified according to the applicable Malaysian Standards, Technical Codes or through Technical Declaration in accordance to the Communications and Multimedia Act 1998, its subsidiary legislations, statutory requirements and established rules and procedures.

**Relevant documents:** 1. Communications and Multimedia Act 1998 2. Communications and Multimedia (Technical Standards) Regulations 2000

**Proposed date of adoption:** 4 October 2016 [Months ago!]

**Proposed date of entry into force:** 1 May 2017

**Final date for comments:** 18 February 2017

**Full text:** [https://tsapps.nist.gov/notifyus/docs/wto\\_country/MYS/full\\_text/pdf/MYS71\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/MYS/full_text/pdf/MYS71(english).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 30 January 2017**

### **BSR/BICSI 007-201X, Information Communication Technology - Design and Implementation Practices for Intelligent Buildings and Premises** (new standard)

This standard will cover the design and implementation of the information communication technology systems required to support an intelligent building/premise integrated design. Systems that are expected to be covered, include, but are not limited to: building automation/management, utility utilization, lighting, signage and wayfinding, sound and acoustical services, location, and asset tracking.

Single copy price: Free

Order from and send comments to: Jeff Silveira, [jsilveira@bicsi.org](mailto:jsilveira@bicsi.org)

### **BSR/CPLSO-15-201x, Proximity Warning Devices** (new standard)

This standard is applicable to high-voltage warning devices for cranes including, but not limited to, use by the broadcasting, mining, farming and construction industry including proximity warning devices. This standard specifies the characteristic mechanical and electrical performance levels required for these devices.

Single copy price: Free

Order from: CPLSO; <http://www.cplso.org>

Send comments to: [pratt.hugh@cplso.org](mailto:pratt.hugh@cplso.org)

### **BSR/FM 4881-201x, Evaluating Exterior Wall Systems** (new standard)

This test standard sets performance requirements for Exterior Wall Systems by evaluating the ability of these products to limit fire propagation over and/or through the assembly when exposed to an ignition source simulating a building fire. The standard also sets the performance requirements for exterior wall panels when exposed to various natural hazards such as the cyclic nature of high wind events, the impact of simulated hail and where required, the impact of windborne debris during hurricanes, tropical cyclones, and typhoons.

Single copy price: Free

Order from and send comments to: Josephine Mahnken, [josephine.mahnken@fmapprovals.com](mailto:josephine.mahnken@fmapprovals.com)

### **BSR/LEO S-002-201x, Life Cycle Impact Assessment Framework and Guidance for Establishing Public Declarations and Claims, For: Environmental Declarations for Products and Systems, Environmentally Preferable Product Claims, Carbon Footprint Profiles** (new standard)

Leonardo Academy, Inc. is extending the comment period on this draft standard to January 30, 2017. This draft standard addresses Type III LifeCycle Impact Profile Declarations for Products and Services. It specifies the life-cycle impact assessment (LCIA) methods, scope, metrics and format for declarations. This standard is intended

to provide a uniform and standardized format for properly reporting the environmental life-cycle impacts of any system studied.

Single copy price: Free (Electronic); \$50.00 (Paper)

Obtain an electronic copy from: [michaelarny@leonardoacademy.org](mailto:michaelarny@leonardoacademy.org)

Send comments to: Request and fill out the electronic comment forms and send completed comment forms to: Michael Army, President, Leonardo Academy, [michaelarny@leonardoacademy.org](mailto:michaelarny@leonardoacademy.org)

#### **Due 6 February 2017**

#### **BSR/ASIS ORM.1-201x, Security and Resilience in Organizations and Their Supply Chains - Requirements with Guidance** (revision, redesignation and consolidation of ANSI/ASIS/BSI BCM.01-2010, ANSI/ASIS SPC.1-2009)

This standard specifies requirements for an integrated management system for organizations and their supply chains. The organizational resilience management system (ORMS) enables an organization to identify, assess, and manage risks related to the achievement of its strategic, operational, tactical, and reputational objectives in the organization and its supply chains.

Single copy price: \$100.00

Order from and send comments to: Aivelis Opicka, [standards@asisonline.org](mailto:standards@asisonline.org)

#### **BSR/ICC 902/SRCC 400-201x, Solar Swimming Pool and Spa Heating Systems Performance Standard** (new standard)

This standard will establish minimum requirements for the performance, design and installation of solar thermal heating systems for heating water used within pools, spas, hot tubs, exercise spas, water parks, and spray grounds. This standard will also establish methods for rating the performance of these systems based on projections and test data for specific climates, locations, times of year, and pool or spa type. This standard will apply to both residential and commercial systems, both direct and indirect heating systems and both new and existing installations.

Single copy price: Free

Obtain an electronic copy from: <http://www.iccsafe.org/codes-techsupport/codes/code-development-process/standards-development/is-phsc/>

Send comments to: Edward Wirtschoreck, [ewirtschoreck@iccsafe.org](mailto:ewirtschoreck@iccsafe.org)

#### **BSR/IES RP-27.3-201x, Photobiological Safety for Lamps - Risk Group Classification and Labeling** (revision and redesignation of ANSI/IESNA RP-27.3-2007)

The purpose of this standard (BSR/IES RP-27.3-201x) is to provide the criteria for proper classification and informational requirements of lamps so that sources may be properly applied in the design of lamp systems.

Single copy price: \$25.00

Order from and send comments to: Patricia McGillicuddy, [pmcgillicuddy@ies.org](mailto:pmcgillicuddy@ies.org)

#### **BSR/ISA 61511-3 (84.00.01)-201x, Functional safety - Safety instrumented systems for the process industry sector - Part 3: Guidance for the determination of the required safety integrity levels** (identical national adoption of IEC 61511-3 Ed. 2.0)

Provides guidelines for determining the required safety integrity levels for safety instrumented systems in the process industry sector.

Single copy price: \$200.00

Order from and send comments to: [crobinson@isa.org](mailto:crobinson@isa.org)

#### **BSR/SAIA A92.22-201x, Safe Use of Mobile Elevating Work Platforms (MEWPs)** (new standard)

This standard is intended to be used in conjunction with the following American National Standards: ANSI/SAIA A92.22 - Safe Use of Mobile Elevating Work Platforms (MEWPs), and ANSI/SAIA A92.24 – Training Requirements for Operators of Mobile Elevating Work Platforms (MEWPs). This standard specifies requirements for application, inspection, training, maintenance, repair, and safe operation of MEWPs. It applies to all types and sizes of MEWPs as specified in ANSI/SAIA A92.20 that are intended to position personnel, along with their necessary tools and materials, at work locations.

Single copy price: Free!

Order from and send comments to: DeAnna Martin, [deanna@saiaonline.org](mailto:deanna@saiaonline.org)

## **BSR/SAIA A92.24-201x, Training Requirements for the Use, Operation, Inspection, Testing and Maintenance of Mobile Elevating Work Platforms (MEWPs) (new standard)**

This standard is intended to be used in conjunction with the following American National Standards: ANSI/SAIA A92.20 - Design, Calculations, Safety Requirements and Test Methods for Mobile Elevating Work Platforms (MEWPs), and ANSI/SAIA A92.22 - Safe Use of Mobile Elevating Work Platforms (MEWPs). This standard provides methods and guidelines to prepare MEWP training materials, defines administrative criteria, and delivers elements required for proper training and familiarization. It applies to all types and sizes of MEWPs defined in ANSI/SAIA A92.20.

Single copy price: Free!

Order from and send comments to: DeAnna Martin, [deanna@saiaonline.org](mailto:deanna@saiaonline.org)

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## **BSI Public Review Announcements**

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

### **Due 5 February 2017**

#### **BS 85600, Post-event flood assessments – Guidance on investigating flooding incidents**

This British Standard gives guidance and recommendations for investigating flood events and carrying out a post-event flood assessment to ensure that consistent, good quality data can be collected repeatedly for a variety of potential uses. Specifically, it gives guidance and recommendations for:

- investigating flooding incidents according to the type and severity of flooding;
- thresholds for different levels of investigations based on the communities, businesses, and infrastructures affected;
- the most useful information to collect;
- the organizations to contact to supply or corroborate the information; and
- the preparation of a report containing information collected and recommendations for risk management.

(This is mentioned in *Standards Watch* because of the recent, wide-spread flooding in the UK and the rising sea levels that threaten coastal communities everywhere.)

### **Due 1 March 2017**

#### **BS 5839-1:2017, Fire detection and fire alarm systems for buildings - Part 1: Code of practice for design, installation, commissioning and maintenance of systems in non-domestic premises**

This part of BS 5839 provides recommendations for the planning, design, installation, commissioning and maintenance of fire detection and fire alarm systems in and around buildings, other than domestic premises. It does not recommend whether or not a fire detection and fire alarm system should be installed in any given premises. The term fire detection and fire alarm systems, in the context of this part of BS 5839, includes systems that range from those comprising only one or two manual call points and sounders to complex networked systems that incorporate a large number of automatic fire detectors, manual call points and sounders, connected to numerous inter-communicating control and indicating panels.

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## **DIN Public Review Announcements**

The Deutsches Institut für Normung has announced a draft document that will be posted for public review in early January that may be 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. Es ist nur auf Deutsch.

**Comment period: 13 January – 13 March 2017**

#### **DIN 56920-3, Theatertechnik - Begriffe für bühnentechnische Einrichtungen (Entertainment technology - Terms for stage equipment)**

This draft standard specifies terms for stage equipment in event production venues, as well as the necessary equipment for their operation. This document has been prepared by the NA 149-00-05 AA "Machines" Working Committee of the DIN Standards Committee for Event Technology, Image and Film (NVBF). Representatives of

the German Statutory Accident Insurance (DGUV) were involved in the work as an employee of NA 149-00-05 AA. Price: € 73.90.

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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 Y14.24-201x, Types and Applications of Engineering Drawings** (revision of ANSI/ASME Y14.24-2012)

This standard defines the types of engineering drawings most frequently used to establish engineering requirements. It describes typical applications and minimum content requirements.

Contact: Mayra Santiago, [ansibox@asme.org](mailto:ansibox@asme.org)

### **BSR/ASQ/TS 9002:2016, Quality management systems - Guidelines for the application of ISO 9001:2015** (identical national adoption of ISO/TS 9002:2016)

Provides guidance on the intent of the requirements in ISO 9001:2015, with examples of possible steps an organization can take to meet the requirements. It does not add to, subtract from, or in any way modify those requirements. It does not prescribe mandatory approaches to implementation, or provide any preferred method of interpretation.

Julie Sharp, (414) 272-8575, [standards@asq.org](mailto:standards@asq.org)

### **BSR/AWS A1.1-201x, Metric Practice Guide for the Welding Industry** (revision of ANSI/AWS A1.1-2016)

This metric practice guide is based on the International System of Units (SI) as defined in the U.S. Federal Register notice of July 28, 1998, "Metric System of Measurement: Interpretation of the International System of Units for the United States." This guide contains specifications of the SI base units, derived units, prefixes, and rules for their use in AWS documents and by the welding industry. It also contains factors and rules for converting from U.S. customary units to SI units and recommendations to industry for managing the transition.

Contact: Stephen Hedrick, [stevh@aws.org](mailto:stevh@aws.org)

### **BSR/AWS B4.0-201x, Standard Method for the Mechanical Testing of Welds** (revision of ANSI/AWS B4.0-2016)

This specification establishes standard methods for mechanical testing of welds. The significance of each test, test apparatus, preparation of the test specimens, and the test procedure are described. Example test results sheets are provided.

Contact: Stephen Hedrick, [stevh@aws.org](mailto:stevh@aws.org)

### **BSR/AWS G1.10M-201x, Guide for the Evaluation of Thermoplastic Welds** (revision of ANSI/AWS G1.10M:2016)

This standard lists and describes flaws and defects in hot gas, hot gas extrusion, heated tool butt fusion, socket fusion, electrofusion, and flow fusion welded joints in thermoplastics. Its intent is to make possible a generally valid evaluation giving consideration to graded quality requirements. Tables illustrating cracks, voids, solid inclusions, lack of fusion, flaws and defects of shape, and other flaws and defects in thermoplastic welds are included. Flaw and defect features with descriptions and illustrations are compiled into tables to aid in the evaluation of welds.

Contact: Stephen Hedrick, [stevh@aws.org](mailto:stevh@aws.org)

### **BSR/CGA P-18-201x, Standard for Bulk Inert Gas Systems** (revision of ANSI/CGA P-18-2013)

The purpose of this standard is to provide information on installation of bulk inert gas systems for argon, nitrogen, and helium service.

Contact: Kristy Mastromichalis, [kmastromichalis@cganet.com](mailto:kmastromichalis@cganet.com)

## **BSR/UL 2849-201X, Standard for Safety for Electric Bicycles, Electrically Power Assisted Cycles (EPAC Bicycles), Electric Scooters, and Electric Motorcycles (new standard)**

This outline covers the electrical systems of eBikes, electric scooters, and electric motorcycles. EBikes are defined as both Pedalec (pedal assist) and non-Pedalec types. Electric scooters and electric motorcycles are intended for over the road use. This outline covers the on board electrical system, vehicle systems (which includes the combination of chargers and batteries) of eBikes, electric scooters, and electric motorcycles. Contact: Patricia Sena, [patricia.a.sena@ul.com](mailto:patricia.a.sena@ul.com)

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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/ASTM E2586-2016**, Practice for Calculating and Using Basic Statistics (revision of ANSI/ASTM E2586-2014): 22 November 2016

**ANSI/ASTM F1409-2016**, Test Method for Straight Line Movement of Vacuum Cleaners While Cleaning Carpets (revision of ANSI/ASTM F1409-2000 (R2010)): 22 November 2016

**ANSI/IES RP-29-2016**, Lighting for Healthcare Facilities (revision and redesignation of ANSI/IESNA RP-29-2006 (R2016)): 1 December 2016

**ANSI/BICSI 001-2017**, Information and Communication Technology Systems - Design and Implementation Best Practices for Educational Institutions and Facilities (revision of ANSI/BICSI001-2009): 1 December 2016

**ANSI/NEBB S120-2016**, Technical Retro-Commissioning of Existing Buildings Standard (new standard): 1 December 2016

**ANSI/UL 67-2016a**, Standard for Safety for Panelboards (Proposal dated 09-30-16) (revision of ANSI/UL 67-2016): 14 December 2016

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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.

**23E/990/CDV, IEC 60755 Ed.1**: General safety requirements for residual current operated protective devices - Group safety publication, 17 February 2017

**64/2145/CDV, IEC 60364-7-711**: Low voltage electrical installation -Part 7-711: Requirements for special installations or locations-Exhibitions, shows and stands, 17 February 2017

**65E/516/CDV, IEC 62714-1 Ed. 2.0**: Engineering data exchange format for use in industrial automation systems engineering - Automation Markup Language - Part 1: Architecture and general requirements, 17 February 2017

**ISO/IEC DIS 24748-1**, Systems and software engineering - Life cycle management - Part 1: Guidelines for life cycle management – 9 March 2017, \$134.00

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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/IEC TR 19075-5:2016**, Information technology – Database languages - SQL Technical Reports - Part 5: Row Pattern Recognition in SQL, \$240.00

**ISO 3864-2:2016**, Graphical symbols - Safety colours and safety signs - Part 2: Design principles for product safety labels, \$149.00

**ISO/IEC 9075-1:2016**, Information technology - Database languages - SQL - Part 1: Framework (SQL/Framework), \$240.00

**ISO/IEC 9075-2:2016**, Information technology - Database languages - SQL - Part 2: Foundation (SQL/Foundation), \$265.00

**ISO/IEC 9075-3:2016**, Information technology - Database languages - SQL - Part 3: Call-Level Interface (SQL/CLI), \$265.00

**ISO/IEC 9075-4:2016**, Information technology - Database languages - SQL - Part 4: Persistent stored modules (SQL/PSM), \$265.00

**ISO/IEC 9075-9:2016**, Information technology - Database languages - SQL - Part 9: Management of External Data (SQL/MED), \$265.00

**ISO/IEC 9075-10:2016**, Information technology - Database languages - SQL - Part 10: Object language bindings (SQL/OLB), \$265.00

**ISO/IEC 9075-11:2016**, Information technology - Database languages - SQL - Part 11: Information and definition schemas (SQL/Schemata), \$265.00

**ISO/IEC 9075-13:2016**, Information technology - Database languages - SQL - Part 13: SQL Routines and types using the Java TM programming language (SQL/JRT), \$265.00

**ISO/IEC 9075-14:2016**, Information technology - Database languages - SQL - Part 14: XML-Related Specifications (SQL/XML), \$265.00

**ISO/IEC 14496-10/Amd3:2016**, Information technology - Coding of audio-visual objects - Part 10: Advanced Video Coding - Amendment 3: Additional supplemental enhancement information, \$22.00

**ISO/IEC 14496-16/Amd3:2016**, Information technology - Coding of audio-visual objects - Part 16: Animation Framework eXtension (AFX) - Amendment 3: Printing material and 3D graphics coding for browsers, \$22.00

**ISO/IEC 19637:2016**, Information technology - Sensor network testing framework, \$200.00

**ISO/IEC 20802-1:2016**, Information technology - Open data protocol (OData) v4.0 - Part 1: Core, \$265.00

**ISO/IEC 20802-2:2016**, Information technology - Open data protocol (OData) v4.0 - Part 2: OData JSON Format, \$200.00

**ISO/IEC 21000-20:2016**, Information technology - Multimedia framework (MPEG-21) - Part 20: Contract Expression Language, \$265.00

**ISO/IEC 23003-1/Amd3:2016**, Information technology - MPEG audio technologies - Part 1: MPEG Surround - Amendment 3: MPEG Surround extension for 3D Audio, \$22.00

**ISO/IEC 23006-2:2016**, Information technology - Multimedia service platform technologies - Part 2: MPEG extensible middleware (MXM) API, \$200.00

**ISO/IEC 23006-3:2016**, Information technology - Multimedia service platform technologies - Part 3: Conformance and reference software, \$173.00

**ISO/IEC 26557:2016**, Software and systems engineering – Methods and tools for variability mechanisms in software and systems product line, \$200.00

**IEC/TS 60034-30-2 Ed. 1.0 en:2016**, Rotating electrical machines Part 30-2: Efficiency classes of variable speed AC motors (IE-code), \$157.00

**ISO/TR 8100-24:2016**, Safety requirements for lifts (elevators) – Part 24: Convergence of lift requirements, \$265.00

## TSP Meeting Schedule

The January 2017 LDI meetings will take place 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>. The page also has a “Reserve a Hotel Room” link. The deadline for booking with that link and special room rate is 4 January.

	16:00 – 23:00	Friday 20 January 2017
Control Protocols Plugfest	09:00 – 23:00	Saturday 21 January 2017
	09:00 – 23:00	Sunday 22 January 2017
	09:00 – noon	Monday 23 January 2017
Control Protocols BSR E1.20 Task Group	13:00 – 16:00	Saturday 21 January 2017
Control Protocols BSR E1.33 Task Group	10:00 – 18:00	Sunday 22 January 2017
	10:00 – 18:00	Monday 23 January 2017
Control Protocols BSR E1.37-4 Task Group	16:00 – 18:00	Saturday 21 January 2017
Control Protocols BSR E1.59 Task Group	19:00 – 23:00	Friday 20 January 2017
Control Protocols RDM Train the Trainer	14:00 – 18:00	Friday 20 January 2017
Control Protocols Working Group (CPWG)	09:00 – 13:00	Saturday 21 January 2017
Electrical Power Working Group (EPWG)	09:00 – 13:00	Friday 20 January 2017
Event Safety Working Group (ESWG)	14:00 – 18:00	Saturday 21 January 2017
Event Safety Fire Task Group	09:00 – noon	Saturday 21 January 2017
Rigging BSR E1.6-1 Task Group	09:00 – noon	Friday 20 January 2017
Rigging BSR E1.6-2 Task Group	09:00 – 13:00	Saturday 21 January 2017
Rigging BSR E1.50 Video Displays Task Group	19:00 – 23:00	Thursday 19 January 2017
Rigging Working Group (RWG)	14:00 – 18:00	Friday 20 January 2017
Technical Standards Council (TSC)	09:00 – 13:00	Sunday 22 January 2017

## Funding the TSP

The ESTA Technical Standards Program (TSP) was established in 1994 by ESTA in response to the increasing number of members who were encountering situations where the lack of standards, or the imposition of standards developed outside the entertainment industry, were making it difficult to conduct business safely, efficiently, and profitably. However, the impact of the TSP extends far beyond ESTA's membership to every facet of the entertainment, event, and installation industries and to everyone who works in them.

The TSP has published over 50 American National Standards to date, which range from the worldwide industry standard DMX512 (ANSI E1.11) and RDM (ANSI E1.20) protocols to key rigging standards for outdoor structures, powered hoist systems, and trusses and towers. In 2013, ProSight Specialty Insurance began sponsoring the free distribution of the standards and recommended practices created under the TSP. Since then, over 51,000 documents have been downloaded by over 8,000 people, from OSHA inspectors to technicians from theme parks, performing arts centers, touring productions, and film shoots, to educators and their students. However, developing and publishing standards—even ones that are distributed for free—costs money.

The budget for the TSP is very straightforward with the primary expenses coming in four main areas: the costs associated with holding the quarterly meetings that are deemed essential to moving the standards forward at a steady pace, ANSI dues, insurance (we carry five million dollars in both Directors & Officers Liability and Errors & Omissions coverage to protect the volunteers who work in the program), and staff costs.

What would our industry look like without the TSP? Imagine an industry with no vehicle to create safety and interoperability standards which are free from anti-trust concerns in a regulatory-compliant environment. Without the TSP, the industry would revert to a standards-free environment, or worse, an environment where standards for our industry would be set by people from outside our industry. This would be particularly disastrous in areas such as rigging, where accidents would prompt individual cities and states to try and write their own standards. That would result in a compliance and touring nightmare.

Without the TSP, even current ANSI/ESTA standards would cease to exist. That would be a situation that, as an industry, we simply cannot allow to happen. Everyone in the industry benefits from the TSP; everyone needs to step forward and fund this critical program to keep it alive.

Please consider joining the Investors in Innovation. Information about becoming an Investor is available at <http://tsp.esta.org/invest>. The Investors in Innovation listed on the TSP website ([http://tsp.esta.org/tsp/inv\\_in\\_innovation/investors.html](http://tsp.esta.org/tsp/inv_in_innovation/investors.html)) include the generous companies and individuals listed on the following pages.

## Investors in Innovation

### **VISIONARY** (\$10,000 & up; >100 employees/members)

Chauvet Professional  
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ETC  
LDI

Martin Professional  
ProSight Specialty Insurance  
United States Institute for Theatre Technology  
VER

### **VISIONARY** (\$5,000 & up; 20–100 employees/members)

Altman Lighting, Inc.  
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Stage Rigging  
Tyler Truss Systems, Inc.

### **VISIONARY** (\$500 & up; <20 employees/members)

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Sapsis Rigging Inc.  
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Theatre Projects  
Theatre Safety Programs  
Steve A. Walker & Associates  
Ralph Weber  
Mike Wood Consulting

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

Barbizon Electric  
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Lex

Rosco Laboratories  
Texas Scenic Company

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

American Society of Theatre Consultants  
City Theatrical Inc.  
InterAmerica Stage, Inc.

Lycian Stage Lighting  
XSF Xtreme Structures and Fabrication

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

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Jason Kyle  
LuciTag

Lumenradio AB  
Nudelta Digital  
Project SSSHH Incorporated  
Stageworks  
Stephen Vanciel

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

Ian Foulds, IATSE Local 873  
IATSE Local 80

PSAV

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

Blizzard Lighting, LLC  
Creative Stage Lighting  
H&H Specialties  
InCord  
Oasis Stage Werks

Stage Equipment & Lighting  
TOMCAT  
Total Structures  
Vincent Lighting Systems

(Table continues)

## Investors in Innovation (continued)

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Boston Illumination Group  
Candela Controls  
Chauvet  
City Theatrical  
Clark Reder Engineering  
Columbus McKinnon  
Tracey Cosgrove and Mark McKinney  
Earl Girls Inc. EGI Pro  
Electronic Theatre Controls  
Entertainment Project Services  
Tony Giovannetti  
GLP German Light Products  
Golden Sea  
H & H Specialties  
High End Systems  
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Jules Lauve  
Brian Lawlor  
Lex Products  
Lycian Stage Lighting  
John T. McGraw  
McLaren Engineering Group  
Niscon  
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Sapsis Rigging  
Stage Rigging  
Dana Taylor  
Steve Terry  
Texas Scenic Company  
Theatre Safety Programs  
Tyler Truss Systems, Inc.  
Steve Walker & Associates  
Mike Wood Consulting  
VER  
Vincent Lighting Systems  
XSF Xtreme Structures and Fabrication

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## ESTA Standards Watch

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