



Technical Standards Program

ESTA Standards Watch

May 2016 Volume 20, Number 9

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New ESTA Standard: Don't Fall Off the Float

On Friday 6 May, ANSI's Board of Standards Review approved ESTA's E1.57, Recommendations to prevent falls on or off movable parade floats, movable stages, and similar moving platforms, as an American National Standard. It can now be downloaded for free from http://tsp.esta.org/tsp/documents/published_docs.php, thanks to the sponsorship of Prosgit Specialty Insurance (who would love to be your insurance company).

ANSI E1.57 - 2016 offers recommendations for steps to be taken to prevent falls by anyone (e.g., performers, technicians, politicians) on parade floats, movable stages, and similar moving platforms. Fall protection is needed, but should be provided in a way that preserves the artistic intent of the moving float or platform. This document provides guidance on how to accomplish these two aims.

The standard will also be available for sale from ANSI and IHS in a few days for \$40.00 list price. Those sales sites are <http://webstore.ansi.org/> and <https://global.ihs.com/> respectively.

Six ESTA Standards In Public Review

Six documents are posted on the Technical Standards Program public review page. Check 'em out at http://tsp.esta.org/tsp/documents/public_review_docs.php. Anyone who would be materially affected by the publication of these documents as American National Standards is invited to submit comments.

Due before 24 May 2016

BSR E1.42 - 201x, Entertainment Technology—Design, Installation, and Use of Orchestra Pit Lifts (a new project)

BSR E1.42 intends to cover the design, construction, operation, inspection, testing, maintenance, alteration, and repair of permanently installed orchestra pit lifts and their associated parts, rooms, spaces, enclosures and hoistways, where located in a theatre or a similar place of public entertainment. Stage lifts, such as orchestra pit or theatre forestage lifts, are not the subject of any current national standard. As a result, safety requirements and inspections of them are inconsistent. E1.42 is being written to address this lack of a standard. The scope is limited to safety and to orchestra or forestage lifts that are installed as a part of the building and that are not custom-built for a single theatrical production.

BSR E1.56 – 201x, Entertainment Technology—Rigging Support Points (a new project)

BSR E1.56 applies to stationary rigging points that are intended to be permanent and provides minimum requirements for the design, fabrication, installation, inspection, and documentation of these Rigging Points for their use to support rigging loads. Many performance venues (e.g., sports arenas, ballrooms, multi-purpose halls) lack adequately designed and installed rigging support points, thus making the safe staging of live events in these venues more difficult.

BSR E1.28 – 2011 (R201x), Guidance on planning followspot positions in places of public assembly (a reaffirmation)

E1.28 offers guidance on the planning of permanent followspot positions, including recommendations on the locations of the followspot positions within the venue, the power likely to be needed, the waste heat generated, the amount of space likely to be needed, and the fall protection and egress issues to be considered for the followspot operator's safety. The existing standard is being considered for reaffirmation.

Due before 28 June 2016

BSR E1.40-201x, Recommendations for the Planning of Theatrical Dust Effects

A wide variety of products are used to create dust effects in motion picture and television production, and also in live theatrical productions and theme parks. The use of dust aerosols raises concerns for potential hazards, including combustibility and health effects from inhalation or ingestion, which are well-known in some industrial sectors, but are poorly understood in others. This document would provide recommendations for how to plan the use and assess the safety of such effects.

This document was last approved as an American National Standard in 2011 and is being revised to warn against deflagration--deflagration being the technical term for the wave of flame that burned hundreds of people

at a water park in Taiwan last year. Other changes include a regrouping of types of dusts and changing MSDS references to SDS references.

BSR E1.41 - 201x, Recommendations for Measuring and Reporting Photometric Performance Data for Entertainment Luminaires Utilizing Solid State Light Sources

This standard is intended to be used for the presentation of photometric data for luminaires employing solid state light sources used in the entertainment and performance industries. This standard defines photometric data that may be presented on documents purporting to accurately describe the photometric performance of these luminaires when producing both white and colored light.

Originally approved as an American National Standard in 2012, E1.41 is being revised to specify that the Fidelity Index (R_f) rating, as defined in IES TM-30-15, be used for reporting the production of white light of a reported CCT. The existing ANSI E1.41 standard requires reporting the CQS score, but CQS has no hold in the lighting market. CRI is a flawed metric, not suitable for narrow-band emitters, so we are encouraging its replacement.

BSR E1.55 - 201x, Standard for Theatrical Makeup Mirror Lighting

The standard offers recommendations and requirements for makeup mirror lighting in performer dressing rooms and similar locations. It defines a range of acceptable lamp CCTs and color-rendering ratings, and also specifies illumination levels and lighting angles for illuminating the performer's face.

This standard was approved as an American National Standard last year, but is being opened for revision to add the Fidelity Index (R_f) rating per IES TM-30-15, IES Method for Evaluating Light Source Color Rendition, as an acceptable rating to meet the requirements for color rendering.

Call for Members

ESTA's TSP works to maintain a balance of interest on the working groups to help ensure that the standards developed are for the benefit of everyone: the people who make equipment, the people who sell or rent it, the people who specify it, and the people who use it. To do this, periodically the TSP issues a call for new members in particular interest categories. At this time, the following working groups are looking for voting members in the noted interest categories to help balance the interests in the working group.

- ◆ Control Protocols: Custom-market producers, general interest
- ◆ Electrical Power: Designers in particular but also any other categories except users
- ◆ Floors: Custom-market producers, dealer/rental companies
- ◆ Fog and Smoke: Custom-market producers, dealer/rental companies, and designers.
- ◆ Photometrics: Custom-market producer,s dealer/rental companies, users
- ◆ Rigging: Custom-market producers, designers
- ◆ Stage Lifts: Users, mass-market producers

The Floors Working Group's first projects dealt with performance floors such as those used for dance. However, its projects now address safety concerns with a variety of walking, standing, and working surfaces used in events by performers and technicians. Accordingly, "custom-market producers" could include manufacturers of stage platforms, scenery, and large props that support actors or technicians performing or working as part of a show or event.

Voters in the Technical Standards Program are required to attend meetings and to vote on letter ballots. Membership in ESTA or any other organization is not a requirement for participation in ESTA's Technical Standards Program, but there is a \$100 a year per person participation fee—a flat rate, regardless of voting status or the number of working groups a person joins. The fee is levied to help defray the costs of running the TSP, which has always run a deficit. More information about becoming involved in the Technical Standards Program and a link to an application form is available at http://tsp.esta.org/tsp/working_groups/index.html.

RF News

Items in *Standards Watch* normally are items on which readers might want to take action immediately or soon. That is, they are requests for comments, meeting notices, and notices of new or revised laws, rules, and standards to which readers might want to respond or that might require a change in how readers conduct business in the near or medium-term. However, there's been some RF news that's notable, but the impact on readers' business is not clear. These are things to watch, either because of what they do now or where they suggest communications technology is going.

FCC Issues Rules for Citizens Broadband Radio Service

The Federal Communications Commission has finalized rules governing Citizens Broadband Radio Service in the 3550-3700 MHz band (3.5 GHz Band). The FCC sees the Citizens Broadband Radio Service as an opportunity to add needed wireless communications capacity through spectrum sharing. It's a complicated scheme dynamically allotting spectrum between three tiers of users in the 3.5 GHz Band: Priority Access Licenses (PAL), General Authorized Access (GAA), and Fixed Satellite Service (FSS). It also is supposed to protect Department of Defense radar systems operating in the same frequency band. More information is in the 123-page Report and Order available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-55A1.pdf.

Could this help *Standards Watch* readers by making spectrum available for their communication needs? Perhaps. In any case, it is a real-life experiment in a Spectrum Access System (SAS) that would determine dynamically what frequencies are in use or not in use and assign them accordingly. This smart-radio technology has been put forth as a way to maximize the use of the RF spectrum in many bands where particular frequencies are now assigned to particular users.

NYC Worries about LTE in the 2.4 GHz Band

On May 2, Maya Wiley, Counsel to the Mayor of New York City, sent via email a letter to Dino Flore and Satoshi Nagata, chairs of 3GPP TSG committees, expressing the City's concerns about their work to put LTE cellular phone technology into the 2.4 GHz band, which might undermine the City's extensive efforts to bring broadband access to all its residents via neighborhood WiFi. The three-page letter, available at <http://estalink.us/wwwdws>, says:

The potential for Long Term Evolution - Unlicensed technology, such as LTE-U, License Assisted Access (LAA) and eLAA (collectively "LTE-Unlicensed) to interfere with Wi-Fi is a cause for grave concern. Even a modest loss of coverage area for a Wi-Fi hotspot, when multiplied and magnified over the scale of New York City, could impact millions of users daily and decrease the value of hundreds of millions of dollars of public and private investment. Likewise, any increase in latency could undermine the utility of the City's investments for innovative voice and video applications.

It further says:

As a general principle, any wireless technology deployed in a band that provides broadband access to millions must incorporate the basic protocols for fair sharing of the unlicensed bands, including listen before-talk, exponential backoff, and sensitivity to lower level Wi-Fi signals (e.g., below -72 dBm). We are heartened that LAA, the variant of LTE-Unlicensed being standardized by 3GPP, incorporates some of the coexistence mechanisms above, but remain concerned about the lack of coexistence mechanisms for lower level Wi-Fi signals.

Most *Standards Watch* readers are not the people the City of New York is trying to serve with broadband access, but they are 2.4 GHz band users. Besides WiFi, this unlicensed band is used by wireless DMX512 products, radio-controlled dimmers, and ZigBee, which often shows up in LED-based houselight systems. Further congestion of this unlicensed band will not help build the business of show business, unless Snapchatting builds audiences as it soaks up RF bandwidth. Stay tuned.

ISO Drip Irrigation Workshop

The International Organization for Standardization has announced an international workshop on drip irrigation, scheduled for 31 August through 2 September 2016, in Stockholm, Sweden. The workshop, proposed by the

Standards Institution of Israel in agreement with ISO's Technical Management Board, is intended to foster discussions for an international agreement that would serve as a means to advance the use of drip irrigation worldwide. ANSI is encouraging all interested stakeholders, including representatives from government, industry, and non-governmental organizations involved in work related to drip irrigation, to attend the workshop. The workshop overview, draft agenda, registration form, and hotel reservation form are available at <http://estalink.us/kyif2>.

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.

United States of America Notification USA/1107

Date issued: 27 April 2016

Agency responsible: Virginia Department of Housing and Community Development

National inquiry point: USA WTO TBT Enquiry Point

Products covered: Building codes

Title: Virginia Uniform Statewide Building Code

Description of content: 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.

Objective and rationale: Protection of human health or safety

Relevant documents: Vol.32, Issue 17, Virginia Register 18 April 2016 (pages 2318):

<http://register.dls.virginia.gov/vol32/iss17%5Cv32i17.pdf>

Notice of intended regulatory action: <http://register.dls.virginia.gov/details.aspx?id=5639>

Proposed date of adoption: Not given by country

Proposed date of entry into force: Not given by country

Final date for comments: 18 May 2016

Full text: [https://tsapps.nist.gov/notifyus/docs/wto_country/USA/full_text/pdf/USA1107\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/USA/full_text/pdf/USA1107(english).pdf)

United States of America Notification USA/1109

Date issued: 27 April 2016

Agency responsible: Virginia Department of Housing and Community Development

National inquiry point: USA WTO TBT Enquiry Point

Products covered: Fire prevention code

Title: Virginia Statewide Fire Prevention Code

Description of content: 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.

Objective and rationale: Protection of human health or safety

Relevant documents: Vol.32, Issue 17, Virginia Register 18 April 2016 (pages 2318):

<http://register.dls.virginia.gov/vol32/iss17%5Cv32i17.pdf>

Notice of intended regulatory action: <http://register.dls.virginia.gov/details.aspx?id=5638>

Proposed date of adoption: Not given by country

Proposed date of entry into force: Not given by country

Final date for comments: 18 May 2016

Full text: [https://tsapps.nist.gov/notifyus/docs/wto_country/USA/full_text/pdf/USA1109\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/USA/full_text/pdf/USA1109(english).pdf)

Mexico Notification MEX/306

Date issued: 21 April 2016

Agency responsible: Ministry of Economy

National inquiry point: Direccion General de Normas (DGN)

Products covered: Wood particle board and wood fibreboard manufactured using urea-formaldehyde resins as an adhesive (subheading 44.10.11)

Title: Draft Mexican Official Standard PROY-NOM-203-SCFI-2015 establishing the maximum permissible limits for formaldehyde emissions from and the formaldehyde content of wood particle board and wood fibreboard manufactured using urea-formaldehyde, and products manufactured with this type of board

Description of content: The notified draft Mexican Official Standard establishes and defines the maximum permissible limits for free formaldehyde emissions from and the free formaldehyde content of domestically-produced or imported wood particle board and wood fibreboard, during the production of which urea-formaldehyde resins were used as an adhesive, as well as products manufactured with such boards, in order to ensure that they are used, stored, manufactured, marketed, exported and imported in accordance with safety standards, and that they do not pose a risk to the health of users, marketing agents and workers in factories that manufacture such products.

Formaldehyde, which is needed to make urea-formaldehyde adhesive resins for the production of wood-based boards, is a normal-pressure, highly volatile gas, which can be found in low concentrations in the open air, as it is emitted by many materials and products, including foodstuffs. However, it may pose health risks if high concentrations are present in the air.

In light of the above, so as to prevent health risks and ensure the safety of users of wood particle board and wood fibreboard manufactured with urea-formaldehyde, and wood particle board and wood fibreboard products, mandatory regulations have been established on the maximum permissible limits for formaldehyde emissions from and the formaldehyde content of domestically-produced or imported wood particle board and wood fibreboard, as well as furniture and all products manufactured with this type of board.

Objective and rationale: To establish maximum permissible limits for formaldehyde emissions from and the formaldehyde content of wood particle board and wood fibreboard which are manufactured using urea-formaldehyde as an adhesive, in addition to furniture and parts thereof, and all other products manufactured using this type of board. The notified draft Standard also applies to domestically-produced and imported wood particle board and wood fibreboard, during the production of which urea-formaldehyde resins were used, in addition to domestically-produced and imported furniture and parts thereof, and all products manufactured using this type of board.

Relevant documents: · NMX-C-461-ONNCCE-2010 - Industria de la construcción - Tableros de partículas de madera - Denominación, clasificación y especificaciones (Mexican Standard NMX-C-461-ONNCCE-2010 - Construction industry - Wood particle board - Names, classification and specifications), published in the Official Journal on 25 October 2010;

· NMX-C-462-ONNCCE-2010 - Industria de la construcción - Tableros de partículas de madera - Propiedades físicas y mecánicas, tasa de emisión y contenido de formaldehído-Métodos de ensayo (Mexican Standard NMX-C-462-ONNCCE-2010 - Construction industry - Wood particle board - Physical and mechanical properties, formaldehyde emission rate and content - Test methods), published in the Official Journal on 7 April 2011.

· NMX-C-465-ONNCCE-2012 - Industria de la construcción - Tableros de fibras de madera - Clasificación y especificaciones (Mexican Standard NMX-C-465-ONNCCE-2012 - Construction industry - Wood fibreboard - Classification and specifications), published in the Official Journal on 17 September 2012.

Proposed date of adoption: Not given by country

Proposed date of entry into force: Not given by country

Final date for comments: 20 June 2016

Full text: [https://tsapps.nist.gov/notifyus/docs/wto_country/MEX/full_text/pdf/MEX306\(spanish\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/MEX/full_text/pdf/MEX306(spanish).pdf)

India Notification IND/55

Date issued: 27 April 2016

Agency responsible: Ministry of Commerce and Industry, Department of Industrial Policy & Promotion

National inquiry point: International Relations and Technical Information Services Department, Bureau of Indian Standards (BIS)

Products covered: Energy efficient induction motors, three phase squirrel cage

Title: Energy Efficient Induction Motors ? Three Phase Squirrel Cage (Quality Control) Order, 2016

Description of content: The Energy Efficient Induction Motors ? Three Phase Squirrel Cage (Quality Control) Order, 2016

Objective and rationale: 1. Energy conservation thereby protecting the environment

2. Lower failures and reduction in accidents 3. Consumer safety

Relevant documents: To be published in the Gazette of India (Available in English and Hindi)

Proposed date of adoption: Not given by country
Proposed date of entry into force: Not given by country
Final date for comments: 26 June 2016

Japan Notification JPN/527

Date issued: 3 May 2016

Agency responsible: Ministry of Internal Affairs and Communications

National inquiry point: Standards Information Service, International Trade Division, Economic Affairs Bureau, Ministry of Foreign Affairs (MOFA)

Products covered: Wireless system for robots such as transmitting image

Title: Partial revision of regulation related to radio equipment

Description of content: To amend the regulations for the system in item 4.

Objective and rationale: The reason for this amendment is: a) to add the channels to meet the demands for the heavily use of radio frequency, and b) to arrange various technical regulations for the new use by robots

Relevant documents: The basic law is the Radio Law (1950 Law No.131). The amendment will appear in KAMPO (Official Government Gazette) when adopted (available in Japanese).

Proposed date of adoption: 1 August 2016

Proposed date of entry into force: 1 August 2016

Final date for comments: 2 July 2016

Full text: [https://tsapps.nist.gov/notifyus/docs/wto_country/JPN/full_text/pdf/JPN527\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/JPN/full_text/pdf/JPN527(english).pdf)

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.

Due 13 June 2016

BSR/ASHRAE Addendum a to ANSI/ASHRAE Standard 202-2013, Commissioning Process for Buildings and Systems (addenda to ANSI/ASHRAE Standard 202-2013)

This addendum to Standard 202-2013 changes the term "Commissioning Authority (CxA)" to "Commissioning Provider" throughout the standard.

Single copy price: \$35.00

Order from: standards.section@ashrae.org

Send comments to: <http://www.ashrae.org/standards-research--technology/public-review-drafts>

BSR/ASTM E105-201x, Practice for Probability Sampling of Materials (revision of ANSI/ASTM E105-2010)

See http://www.astm.org/ANSI_SA

Single copy price: Free

Order from and send comments to: Corice Leonard, accreditation@astm.org

BSR/ASTM E178-201x, Practice for Dealing with Outlying Observations (revision of ANSI/ASTM E178-2008)

See http://www.astm.org/ANSI_SA

Single copy price: Free

Order from and send comments to: Corice Leonard, accreditation@astm.org

BSR/MSE 50021-201X, Superior Energy Performance (TM) - Additional Requirements for Energy Management Systems (revision of ANSI/MSE 50021-2013)

MSE 50021 specifies additional requirements (beyond ISO 50001) for organizations seeking Superior Energy Performance Certification. Contents to include Scope, Terms and Definitions, and Requirements.

Single copy price: N/A

Order from and send comments to: Moon Kim, Moon.Kim@gtri.gatech.edu

BSR/MSE 50028-201x, Superior Energy Performance (TM) - Requirements for Verification Bodies for Use in Accreditation or Other Forms of Recognition (revision of ANSI/MSE 50028-2012)

In response to changes reflected in ISO/IEC 17021-1:2015, this revision to ANSI/MSE 50028 makes substantive changes to technical areas, audit program, and other sections. The standard provides updated requirements for competence, consistency, and impartiality of the audit and certification of energy management systems and Superior Energy Performance. The standard also addresses multi-site audits for the EnMS.

Single copy price: N/A

Order from and send comments to: Moon Kim, Moon.Kim@gtri.gatech.edu

BSR/NAAMM MBG 531-201x, Metal Bar Grating Manual (revision of ANSI/NAAMM MBG 531-2009)

This standard was developed by the MBG Division of NAAMM to provide guidance in the selection and use of metal bar grating.

Single copy price: \$25.00

Order from and send comments to: Vernon W. Lewis, Jr, NAAMM Technical Consultant, 123 College Place, #1101, Norfolk, VA 23510

BSR/UL 746C-201x, Standard for Safety for Polymeric Materials - Use in Electrical Equipment Evaluations (revision of ANSI/UL 746C-2015)

The intent of this proposal for UL 746C is to resolve comments to the following proposal topic, which was originally published by UL on February 5, 2016: (1) Propose setting 1/64 inch (0.4 mm) as Minimum Thickness Limit to Represent Thinner Thickness for Vertical Flammability Test Evaluation.

Single copy price: Contact comm2000 for pricing and delivery options

Obtain an electronic copy from: comm2000, <http://www.comm-2000.com>

Send comments to: Derrick Martin, Derrick.L.Martin@ul.com

Due 20 June 2016

BSR/ASSE A1264.1-201X, Safety Requirements for Workplace Walking/Working Surfaces & Their Access; Workplace Floor, Wall & Roof Openings; Stairs & Guardrails Systems (revision of ANSI/ASSE A1264.1-2007)

This standard sets forth safety requirements in industrial and workplace situations for protecting persons in areas/places where danger exists of persons or objects falling through floor, roof or wall openings, or from platforms, runways, ramps and fixed stairs, or roof edges in normal, temporary and emergency conditions.

Single copy price: \$77.00

Order from and send comments to: Ovidiu Munteanu, OMunteanu@ASSE.org

BSR/ISA 62453-1-201x, Field Device Tool (FDT) Interface Specification - Part 1 Overview and Guidance (identical national adoption of IEC 62451-1)

Provides an interface specification for developers of FDT (Field Device Tool) components to support function control and data access within a client/server architecture. The availability of this standard interface facilitates development of servers and clients by multiple manufacturers and supports open interoperation.

Single copy price: \$200.00

Order from and send comments to: Charles Robinson, crobinson@isa.org

BSR/ISA 62453-2-201x, Field Device Tool (FDT) Interface Specification - Part 2: Concepts and Detailed Description (identical national adoption of IEC 62453-2 and revision of ANSI/ISA 62453-2 (103.00.02)-2011)

This standard explains the common principles of the field device tool (FDT) concept. These principles can be used in various industrial applications such as engineering systems, configuration programs and monitoring and diagnostic applications. This standard specifies the general objects, general object behavior and general object interactions that provide the base of FDT.

Single copy price: \$200.00 USD

Order from and send comments to: Charles Robinson, crobinson@isa.org

BSR C78.51-201x, Electric Lamps: LED (Light Emitting Diode) Lamps - Method of Designation (new standard)

This standard describes a system for the designation of integrally ballasted Solid State Lighting (SSL) lamps that have standardized characteristics. The lamps may be connected to the branch circuit or connected to another voltage suitable for lighting applications, such as 12 V AC or DC. This document is intended to allocate lamp codes for new lamps that are not direct replacements for lamps with existing ANSI Lamp Codes or Lamp Designations. OLED lamps are not included at this time.

Single copy price: \$75.00

Order from and send comments to: Michael Erbesfeld, Michael.Erbesfeld@nema.org

ANSI C82.7-1983 (R2010), Standard for mercury lamp transformers - Constant-current (series) supply type (withdrawal of ANSI C82.7-1983 (R2010))

This standard is intended to cover mercury lamp transformers (ballasts) for operation on constant-current (series) supply circuits normally supplied by constant-current transformers of the moving-coil type.

Single copy price: \$50.00

Order from and send comments to: Michael Erbesfeld, Michael.Erbesfeld@nema.org

ANSI C82.8-1988 (R2010), Standard for lamp transformers - Incandescent filament lamp transformers - Constant-current (series) supply type (withdrawal of ANSI C82.8-1988 (R2010))

This standard is intended to cover incandescent filament lamp transformers for operation on constant-current (series) supply circuits.

Single copy price: \$50.00

Order from and send comments to: Michael Erbesfeld, Michael.Erbesfeld@nema.org

BSR/UL 2743-201x, Standard for Portable Power Packs (new standard)

The First edition of UL 2743, Standard for Portable Power Packs is being proposed and covers: Portable and movable power packs provided with one or more batteries or electrochemical capacitor modules. If provided with a battery, the battery shall be either a lead acid or lithium ion battery. The power packs are provided with one or more inputs and they are provided with one or more outputs. For power packs provided with a booster function, the power packs are used for providing a temporary power source to a depleted land vehicle battery, rated 12 or 24 V, to provide emergency starting power.

Single copy price: Contact comm2000 for pricing and delivery options

Obtain an electronic copy from: comm2000, <http://www.comm-2000.com>

Send comments to: Jeff Prusko, jeffrey.prusko@ul.com

BSR/UL 496-201x, Standard for Safety for Lampholders (revision of ANSI/UL 496-2013b)

The following are proposed new and revised requirements for UL 496: (1) Addition of Paragraphs SA2.4 and SA2.5 to add requirements for Lampholder Fittings with Integral USB Connectors; (2) Addition of Paragraph 4.8.6.1, and to add requirements for Minimum Lead Wire Gauge Size for GU24 Outlet-Box Lampholders; and (3) Addition of Paragraph 4.9.9.1 to clarify the Creepage Distances and Clearances measurements.

Single copy price: Contact comm2000 for pricing and delivery options

Obtain an electronic copy from: comm2000, <http://www.comm-2000.com>

Send comments to: Derrick Martin, Derrick.L.Martin@ul.com

BSR/UL 60947-7-1-201x, Standard for Safety for Low-Voltage Switchgear And Controlgear - Part 7-1: Ancillary Equipment - Terminal Blocks for Copper Conductors (revision of ANSI/UL 60947-7-1-2011)

(1) Revision to national differences to the Standard for Low-Voltage Switchgear and Controlgear - Part 7-1: Ancillary Equipment - Terminal Blocks for Copper Conductors, UL 60947-7-1, to include Canada.

Single copy price: Contact comm2000 for pricing and delivery options

Obtain an electronic copy from: comm2000, <http://www.comm-2000.com>

Send comments to: Valara Davis, Valara.Davis@ul.com

BSR/UL 60947-7-2-201x, Standard for Safety for Low-Voltage Switchgear and Controlgear - Part 7-2: Ancillary Equipment - Protective Conductor Terminal Blocks for Copper Conductors (revision of ANSI/UL 60947-7-2 -2011)

(1) Revision to national differences to the Standard for Low-Voltage Switchgear and Controlgear - Part 7-2: Ancillary Equipment - Protective Conductor Terminal Blocks for Copper Conductors, UL 60947-7-2, to include Canada.

Single copy price: Contact comm2000 for pricing and delivery options

Obtain an electronic copy from: comm2000, <http://www.comm-2000.com>

Send comments to: Valara Davis, Valara.Davis@ul.com

BSR/UL 60947-7-3-201x, Standard for Safety for Low-Voltage Switchgear and Controlgear - Part 7-3: Ancillary Equipment - Safety Requirements for Fuse Terminal Blocks (revision of ANSI/UL 60947-7-3-2011)

(1) Revision to national differences to the Standard for Low-Voltage Switchgear and Controlgear - Part 7-3: Ancillary Equipment - Safety Requirements for Fuse Terminal Blocks, UL 60947-7-3, to include Canada. Single copy price: Contact comm2000 for pricing and delivery options

Obtain an electronic copy from: comm2000, <http://www.comm-2000.com>

Send comments to: Valara Davis, Valara.Davis@ul.com

BSR/UL 1682-201X, Plugs, Receptacles, and Cable Connectors, of the Pin and Sleeve Type (revision of ANSI/UL 1682-2013)

This standard applies to pin-and-sleeve-type plugs, receptacles, power inlets, and connectors, rated up to 800 amperes and up to 600 volts ac or dc, and which may include up to eight pilot contacts. These devices are intended to provide power from branch circuits, or are for direct connection to the branch circuit in accordance with the Canadian Electrical Code Part I; the National Electrical Code (NEC), ANSI/NFPA 70; and the Mexican Electrical Code, NOM 001 SEDE, using copper conductors, for use in either indoor or outdoor nonhazardous locations. In Canada, the terminals of a device intended to accommodate aluminum conductors also comply with CSA C22.2 No. 65.

Single copy price: Contact comm2000 for pricing and delivery options

Obtain an electronic copy from: comm2000, <http://www.comm-2000.com>

Send comments to: Patricia Sena, patricia.a.sena@ul.com

BSI Public Review Announcements

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

Due 28 June 2016

ENISO 7250-1, Basic human body measurements for technological design Part 1: Body measurement definitions and landmarks

This part of ISO 7250 provides a description of anthropometric measurements which can be used as a basis for comparison of population groups and for the creation of anthropometric databases (ISO 15535). The basic list of measurements specified in this part of ISO 7250 is intended to serve as a guide for ergonomists who are required to define population groups and apply their knowledge to the geometric design of the places where people work and live. In addition the list serves as a basis for extracting one and two dimensional measurements from three-dimensional scans (ISO 20685). This list may serve as a guide for how to take anthropometric measurements, but it also gives information to the ergonomist and designer on the anatomical and anthropometrical bases and principles of measurement which are applied in the solution of design tasks. This part of ISO 7250 is intended to be used in conjunction with national or international regulations or agreements to assure harmony in defining population groups and to allow comparison of anthropometric data among member bodies. In its various applications, it is anticipated that the basic list will be supplemented by specific additional measurements. Annex A shows the correspondence of dimensions described here with their use in ISO 14738 and ISO 15534.

Due 30 June 2016

BS 7960, Door supervisors - Code of practice

This British Standard gives recommendations for the organization, staffing, operation and management of companies providing door supervision services, whether contracted or in-house, to licensed premises or events. It also provides recommendations to other individuals, companies, organizations and designated premises supervisors who provide or employ door supervisors.

Due 3 July 2016

BS 5250+A1, Code of practice for control of condensation in buildings

This British Standard gives recommendations and guidance on avoiding problems with high moisture levels and condensation in buildings. Recommendations given are based on forms of construction commonly adopted in the UK. This British Standard gives guidance on the risks associated with excessive humidity in buildings, notably mould growth and condensation, which can endanger the health and well-being of building occupants and the integrity of the building fabric. It describes the principal sources of water vapour, its transportation and deposition and provides guidance on how to manage those risks during the design, construction and operation of buildings.

CSA Public Review Announcements

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

Due 4 June 2016

Z259.2.2, Self-retracting devices (new edition)

This standard specifies the requirements for all self-retracting devices (SRDs) used as connecting components in fall protection systems. SRDs are further classified in this standard according to method of use.

Due 15 June 2016

Z1600, Emergency and Continuity Management Program (new edition)

This standard provides the requirements to develop, implement, evaluate, maintain and continually improve an emergency and continuity management program for prevention and mitigation, preparedness, response, and recovery.

Due 18 June 2016

CAN/CSA ISO 14004, Environmental management systems — General guidelines on implementation (new edition)

This International Standard provides guidance to an organization on establishing, maintaining, and improving a robust, credible, and reliable environmental management system. [The download materials are the complete text of ISO 14004:2016 with security properties set to prohibit printing and copying.]

Due 26 June 2016

C22.1, Amendment - Canadian Electrical Code, Part I, Subject No. 4085, Flexible cords in Division 1. (amendment)

Add new Subrule J18-122(2) as shown.

J18-122 Flexible cords, Class I, Division 1

(1) Flexible cords shall be permitted to be used only for connection between a portable lamp, or other portable utilization equipment, and the fixed portion of its supply circuit and, where used, shall

(a) be of the extra-hard-usage type;

(b) contain, in addition to the conductors of the circuit, a bonding conductor; and

(c) be provided with glands approved for the class and group where the flexible cord enters a box, fitting, or enclosure of the explosion-proof type.

(2) Flexible cord shall also be permitted for that portion of the circuit where fixed wiring methods cannot provide the necessary degree of movement for fixed and mobile electrical utilization equipment and, where used, shall

(a) meet all the requirements of Subrule (1); and

(b) be protected from damage by location or by a suitable guard.

S157-S157.1, Strength design in aluminum (new edition)

This standard applies to limit state design, fabrication, erection, and inspection of aluminum alloy members and assemblies:

- a) intended to comply with building codes such as the *National Building Code of Canada* or
- b) not addressed by another CSA standard.

When this standard is referenced by other CSA standards (e.g. product standards), the requirements of this standard shall apply as so specified in the referencing CSA standard.

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 ASSE Z10-201X, Occupational Health and Safety Management Systems (revision and redesignation of ANSI AIHA Z10-2012)

This standard provides basic requirements for occupational health and safety management systems, rather than detailed specifications. This approach is designed to provide flexibility to conform to this standard in a manner appropriate to each organization and commensurate with its occupational health and safety risks.

Contact: Tim Fisher, TFisher@ASSE.org

BSR C78.50-201X, Standard for Electric Lamps - Assigned LED Lamp Codes (revision of ANSI C78.50-2014)

This standard provides physical and electrical characteristics of the group of integrally ballasted Solid State Lighting (SSL) lamps that have standardized characteristics. Lamps with clear, frosted, opaque, and lens end windows and with various reflector and/or emitting coatings are covered. Lamps covered in this standard contain LED based light sources.

Contact: Michael Erbesfeld, Michael.Erbesfeld@nema.org

BSR/ASA S2.71-201x, Guide to the Evaluation of Human Exposure to Vibration in Buildings (revision of ANSI/ASA S2.71-1983 (R2012))

Human reaction to vibrations of 1 to 80 Hz inside buildings are assessed by degrees of perception and associated vibration levels and durations. Accelerations or velocities inside buildings may be measured to assess perceptibility and possible adverse reactions from those inside. A variety of building types and situations are covered by multiplying factors applied to the basic curves. Responses are related to durations, vibration frequencies, and body orientation with respect to the vibration. The existing standard is over 30 years old and needs to be updated in regard to reference standards and to align with its international counterpart. National adoption would not be beneficial since the American National Standard contains important criteria that are not included in the ISO standard.

Contact: Susan Blaeser, asastds@acousticalsociety.org

BSR/ASSE Z88.17-201X, Respirator Protection - Terms, definitions, graphical symbols and units of measurement (new standard)

This ANSI/ASSE Standard is applicable to respiratory protection. It defines commonly used terms and specifies units of measurement to achieve a uniform national/international interpretation and to prevent ambiguous use. It indicates graphical symbols that may be required to be placed on respiratory protective devices (RPD) or parts of RPD or instruction manuals, in order to instruct the person(s) using the RPD about its operation.

Contact: Ovidiu Munteanu, OMunteanu@ASSE.org

BSR/IICRC S400-201X, Standard for Cleaning, Maintenance, and Restoration of the Commercial Built Environment (new standard)

This standard will focus on the commercial-built environment and defines tasks, frequencies, production expectations, goals, results, principles, methods, and processes to clean, maintain, and restore the built environment. We define the built environment as materials, building assemblies, structures, furniture, fixtures, and equipment located inside a building envelope.

Contact: Mili Washington, mili@iicrc.org

BSR/ISA 62443-2-4-201x, Security for Industrial Automation and Control Systems - Part 2-4: Security program requirements for IACS service providers (identical national adoption of IEC 62443-2-4)

Specifies requirements for security capabilities for industrial automation and control systems service providers that they can offer to the asset owner during integration and maintenance activities of an automation solution.

Contact: Eliana Brazda, ebrazda@isa.org

Final Actions on American National Standards

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

ANSI ASC C2 NESC-2017, National Electrical Safety Code (revision of ANSI ASC C2 NESC-2012): 26 April 2016

ANSI/NECA 130-2016, Standard for Installing and Maintaining Wiring Devices (revision of ANSI/NECA 130-2010): 20 April 2016

ANSI/NECA 200-2016, Standard for Installing and Maintaining Temporary Electric Power at Construction Sites (revision of ANSI/NECA 200-2010): 19 April 2016

ANSI/NECA 230-2016, Standard for Selecting, Installing, and Maintaining of Electric Motors and Motor Controllers (revision of ANSI/NECA 230-2010): 25 April 2016

ANSI/UL 1097-2012 (R2016), Standard for Safety for Double Insulation Systems for Use in Electrical Equipment (reaffirmation of ANSI/UL 1097-2012): 26 April 2016

ANSI/UL 1419-2011 (R2016), Standard for Safety for Professional Video and Audio Equipment (reaffirmation of ANSI/UL 1419-2011): 27 April 2016

Draft IEC & ISO Standards

This section lists proposed standards that the International Electromechanical Commission (IEC) and 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. Comments from US citizens regarding ISO documents should be sent to Karen Hughes at isot@ansi.org. The prices, when shown, are for purchases through ANSI; prices elsewhere may differ.

Due in May

ISO/DIS 14052, Environmental management - Material flow cost accounting - Guidance for practical implementation in a supply chain - 21 May 2016

Due in June

120/73/CD, IEC/TS 62933-4 Ed.1: Electrical Energy Storage (EES) Systems - Guidance On Environmental Issues, 24 June 2016

Due in July

65B/1036/CDV, IEC 61987-24-2 Industrial-Process Measurement and Control - Data Structures and Elements in Process Equipment Catalogues. Part 24-2: List of Properties (LOP) of valve/actuator accessories for electronic data exchange, 22 July 2016

65B/1037/CDV, IEC 61987-24-3 Industrial-Process Measurement and Control - Data Structures and Elements in Process Equipment Catalogues. Part 24-3: List of Properties (LOP) of flow modification accessories for electronic data exchange, 22 July 2016

65E/497/CDV, IEC 62714-3 Ed. 1.0: Engineering Data Exchange Format for Use in Industrial Automation Systems Engineering - Automation Markup Language - Part 3: Geometry and kinematics, 15 July 2016

77A/925/CDV, Amendment 1 to IEC 61000-4-11: Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests, 22 July 2016

81/509/CDV, IEC 62561-1 Ed.2: Lightning Protection System Components (LPSC) - Part 1: Requirements for connection components, 15 July 2016

ISO/DIS 10007, Quality management systems - Guidelines for configuration management – 8 July 2016, \$53.00

ISO/DIS 12122-5, Timber structures - Determination of characteristic values - Part 5: Mechanical connections – 14 July 2016, \$62.00

ISO/DIS 20311, Traditional Chinese medicine - Salvia miltiorrhiza seeds and seedlings – 10 July 2016, \$58.00

ISO/DIS 20409, Traditional Chinese medicine - Panax notoginseng root and rhizome – 13 July 2016, \$71.00

Due in August

CIS/F/680/CD, Full revision (Ed. 9) of CISPR/F IEC 15: Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment, 19 August 2016

Recently Published IEC & ISO Standards

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>.

IEC 60364-6 Ed. 2.0 b:2016, Low voltage electrical installations - Part 6: Verification, \$278.00

IEC 61156-10 Ed. 1.0 en:2016, Multicore and symmetrical pair/quad cables for digital communications - Part 10: Cables for cords with transmission characteristics up to 2 GHz - Sectional specification, \$97.00

IEC 61156-9 Ed. 1.0 en:2016, Multicore and symmetrical pair/quad cables for digital communications - Part 9: Cables for channels with transmission characteristics up to 2 GHz - Sectional specification, \$97.00

IEC 61966-2-4 Amd.1 Ed. 1.0 b:2016, Amendment 1 - Multimedia systems and equipment - Colour measurement and management - Part 2-4: Colour management - Extended-gamut YCC colour space for video applications - xvYCC, \$20.00

IEC 61966-2-4 Ed. 1.1 b:2016, Multimedia systems and equipment - Colour measurement and management - Part 2-4: Colour management - Extended-gamut YCC colour space for video applications - xvYCC, \$169.00

IEC 61987-14 Ed. 1.0 b:2016, Industrial-process measurement and control - Data structures and elements in process equipment catalogues - Part 14: Lists of properties (LOP) for temperature measuring equipment for electronic data exchange, \$182.00

IEC 62610-5 Ed. 1.0 b:2016, Mechanical structures for electrical and electronic equipment - Thermal management for cabinets in accordance with IEC 60297 and IEC 60917 series - Part 5: Cooling performance evaluation for indoor cabinets, \$121.00

IEC 62779-3 Ed. 1.0 b:2016, Semiconductor devices - Semiconductor interface for human body communication - Part 3: Functional type and its operational conditions, \$61.00

IEC 62827-1 Ed. 1.0 b:2016, Wireless power transfer - Management - Part 1: Common components, \$61.00

IEC/TR 61000-4-1 Ed. 1.0 en:2016, Electromagnetic compatibility (EMC) - Part 4-1: Testing and measurement techniques - Overview of IEC 61000-4 series, \$121.00

IEC/TR 62453-41 Ed. 2.0 en:2016, Field device tool (FDT) interface specification - Part 41: Object model integration profile - Common object model, \$411.00

IEC/TR 62453-42 Ed. 1.0 en:2016, Field device tool (FDT) interface specification - Part 42: Object model integration profile - Common Language Infrastructure, \$411.00

IEC/TR 62824 Ed. 1.0 en:2016, Guidance on material efficiency considerations in environmentally conscious design of electrical and electronic products, \$61.00

ISO 19049:2016, Timber structures - Test method - Static load tests for horizontal diaphragms including floors and roofs, \$88.00

ISO 21727:2016, Cinematography - Method of measurement of perceived loudness of short duration motion-picture audio material, \$51.00

ISO 29481-1:2016, Building information models - Information delivery manual - Part 1: Methodology and format, \$173.00

ISO/IEC 10646/Amd2:2016, Information technology - Universal Coded Character Set (UCS) - Amendment 2: Bhaiksuki, Marchen, Tangut and other characters, \$265.00

ISO/IEC 23001-8:2016, Information technology - MPEG systems technologies - Part 8: Coding-independent code points, \$200.00

ISO/IEC 26551:2016, Software and systems engineering - Tools and methods for product line requirements engineering, \$240.00

ISO/IEC 30134-2:2016, Information technology - Data centres - Key performance indicators - Part 2: Power usage effectiveness (PUE), \$149.00

ISO/IEC 30134-3:2016, Information technology - Data centres - Key performance indicators - Part 3: Renewable energy factor (REF), \$88.00

ISO/IEC TR 29110-2-2:2016, Systems and software engineering - Lifecycle profiles for Very Small Entities (VSEs) - Part 2-2: Guide for the development of domain-specific profiles, \$149.00

ISO/IEC TS 24748-1:2016, Systems and software engineering - Life cycle management - Part 1: Guidelines for life cycle management, \$240.00

TSP Meeting Schedule

The chronological TSP meeting schedule is posted at <http://www.esta.org/ESTA/meetings.php>. The July meetings at the Roosevelt Hotel in New York City are in conjunction with the [NATEAC](#) conference. Our schedule runs immediately prior to the conference. The hotel reservation deadline is 27 June and will not be extended. All meetings are at the Roosevelt Hotel unless otherwise noted.

At the Roosevelt Hotel in New York City:		
Control Protocols Working Group (CPWG)	09:00 – 13:00	Thursday 14 July 2016
CPWG Automation Study Group	14:00 – 18:00	Friday 15 July 2016
CPWG BSR E1.20, RDM TG	09:00 – 13:00	Friday 15 July 2016
CPWG BSR E1.33, RDMnet TG	14:00 – 18:00	Thursday 14 July 2016
CPWG BSR E1.37-4, Firmware TG	13:00 – 16:00	Saturday 16 July 2016
CPWG BSR E1.37-5, General PIDs TG	09:00 – noon	Saturday 16 July 2016
Fog & Smoke Working Group	14:00 – 16:00	Friday 15 July 2016
Photometrics Working Group	16:00 – 18:00	Friday 15 July 2016
Rigging Working Group (RWG)	09:00 – 13:00	Friday 15 July 2016
RWG BSR E1.4-1, Manual Counterweight TG	14:00 – 16:00	Saturday 16 July 2016
RWG BSR E1.6-1, Powered Hoist TG (This meeting is at the ESTA office: 630 Ninth Ave., Suite 609)	14:00 – 17:00	Friday 15 July 2016
RWG BSR E1.50, Video Systems TG	14:00 – 18:00	Thursday 14 July 2016
RWG BSR E1.56, Rigging Points TG	09:00 – 13:00	Thursday 14 July 2016
Stage Lifts Working Group	09:00 – 13:00	Saturday 16 July 2016
Technical Standards Council	14:00 – 18:00	Thursday, 14 July 2016

Note that there will be no coffee or other beverages offered in the July meetings. The Roosevelt Hotel charges dinner-prices for beverages at meetings, thus putting providing refreshments out of budget. There are many coffee and snack places within the hotel, next door, or across the street. Take your pick and bring your own.

ESTA Standards Watch

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As of 15 April 2013, all of the standards published by ESTA's Technical Standards Program are available to download, free of charge, at <http://www.tsp.esta.org/freestandards>, courtesy of a partnership between ESTA and [ProSight Specialty Insurance](#).

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