



# Technical Standards Program

## ESTA Standards Watch

July 2018 Volume 22, Number 13

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### ESTA Plugfest sACN Round Table!

The ESTA Control Protocols Plugfest organizers announced that a live, informal round-table discussion will be made available to the public via a free WebEx video conference. A discussion of “sACN Universe Synchronization” will be broadcast live on Sunday, July 22 from 7:00 p.m. to 8:00 p.m., CDT . The Universe Synchronization feature was recently added to ESTA’s ANSI E1.31, Lightweight streaming protocol for transport of DMX512 using ACN standard. Universe Sync allows the output of multiple universes of DMX512 data coming from a sACN controller to be synchronized together . This eliminates issues such as image tearing and out of sync strobes within arrays of LED fixtures across multiple universes. The discussion will illustrate the challenges solved by Universe Sync as well as explain how it works from both a user perspective and within the

protocol itself. The recommended best practices approach in implementation for developers will also be discussed. Attendees will have the opportunity to ask questions and obtain answers from the CPWG subject matter members who wrote this standard.

Registration for this 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 also may receive 0.5 ETCP renewal credit for each session hour.

This round-table is being held in conjunction with the ESTA Control Protocols Plugfest, the event where manufacturers and developers test their lighting products for network interoperability, which is scheduled to take place from July 20 to July 23 at the Marriott Solana in Westlake, Texas. Both ESTA and non-ESTA members are welcome to attend the event.

For additional information, please contact the event organizers at [Plugfest@esta.org](mailto:Plugfest@esta.org) or visit <http://tsp.esta.org/plugfest>.

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## **ANSI Seeks Comments on New ISO Field of Activity on the Circular Economy**

As the U.S. member body to the [International Organization for Standardization](#) (ISO), the [American National Standards Institute](#) (ANSI) encourages its members and relevant stakeholders to comment on an ISO new work item proposal focused on the circular economy by close of business on Friday, 10 August 2018.

AFNOR, the national standards body for France, submitted the proposal to ISO for a new ISO Technical Committee (TC) to focus on standardization in the field of circular economy. The TC would develop requirements, frameworks, guidance, and supporting tools related to the implementation of circular economy projects. The proposal applies to any group of organizations wishing to implement circular economy projects including commercial organizations, public services, and not-for-profit organizations.

The World Economic Forum defines a circular economy as "an industrial system that is restorative or regenerative by intention and design. A circular economy replaces the end-of-life conception with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals, and aims for the elimination of waste through the superior design of the materials, products, systems, and business models."

As the ISO proposal explains, the different uses of the circular economy can be defined as:

- Sustainable procurement
- Ecodesign
- Industrial symbiosis/ecology
- Economy of functionality
- Sustainable consumption
- Life use extension
- Effective management of materials and end-of-life products

The TC will contribute to sustainable development and especially to the implementation of the [UN Sustainable Development Goals](#).

All interested U.S. parties are invited to [review the proposal](#), which includes an initial proposed work plan, information on how it may relate to existing international standardization work, and relevant stakeholders and organizations. Please submit comments to Steve Cornish, ANSI senior director of international policy ([scornish@ansi.org](mailto:scornish@ansi.org)), by 10 August 2018. Based on the input received from U.S. stakeholders, a recommended ANSI position and any comments will be developed and presented to the ANSI ISO Council (AIC) for approval before the ISO voting deadline of 18 September 2018.

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## **WTO Technical Barrier to Trade Notifications**

The U.S. Department of Commerce's service, Notify U.S., recently has announced WTO Technical Barrier to Trade notices that may be of interest to *Standards Watch* readers. If you have a problem with the TBTs, you can

protest through your representative to the WTO. See "Guidance for Comment Submissions by U.S. Industry on TBT Notifications" at <http://tsapps.nist.gov/notifyus/data/guidance/guidance.cfm> or <http://ec.europa.eu/enterprise/tbt/> for advice on filing objections.

#### **Mexico Notification MEX/417**

**Date issued:** 18 June 2018

**Agency responsible:** Ministry of Economy

**National inquiry point:** Direccion General de Normas (DGN)

**Notified under Article:** 2.9.2

**Products covered:** Electrical products - Lighting (851310, 853010, 940510, 940520 and 940540) (HS: 851310 - Lamps, 853010 - Equipment for railways or tramways, 940510 - Chandeliers and other electric ceiling or wall lighting fittings, excluding those of a kind used for lighting public open spaces or thoroughfares, 940520 - Electric table, desk, bedside or floor-standing lamps, 940540 - Other electric lamps and lighting fittings)

**Title:** Proyecto de Norma Oficial Mexicana PROY-NOM-064-SCFI-2017, Productos Eléctricos-Luminarios para uso en interiores y exteriores-Especificaciones de seguridad y Métodos de prueba (Draft Mexican Official Standard PROY-NOM-064-SCFI-2017: Electrical products - Lighting for indoor and outdoor use - Safety requirements and test methods), (cancels Mexican Official Standard), (19 pages, in Spanish)

**Description of content:** The notified draft Mexican Official Standard applies to electric lighting for indoor and outdoor use, or for signalling or emergency purposes, which is manufactured, imported or marketed in the territory of the United Mexican States.

It is defined on the basis of the use and performance of lighting, and will therefore be applied regardless of the descriptive or design characteristics of the light source (whether incandescent, gas discharge, light-emitting diode, semiconductor or solid-state element, and other artificial light sources).

The notified draft Mexican Official Standard does not apply to the following types of lighting:

- Lighting to be installed on board vessels, planes and in vehicles in general;
- Lighting for particular purposes, such as identification lamps and lights used in aviation or heliports for signalling and as visual aids, obstruction lights, lights for photography, seasonal decorative items and lights incorporated into household appliances, tools and electronics;
- Lighting for classified or hazardous, underwater and therapeutic areas.

**Objective and rationale:** The notified draft Mexican Official Standard establishes the safety specifications and test methods for lighting for indoor and outdoor use.

**Relevant documents:** . NOM-024-SCFI-2013, Información comercial para empaques, instructivos y garantías de los productos electrónicos, eléctricos y electrodomésticos (Mexican Official Standard NOM-024-SCFI-2013: Commercial information to be displayed on the packaging of and included in the instructions and guarantees for electronic, electrical and home electrical appliances), published in the Official Journal on 12 August 2013;

. NOM-058-SCFI-2017, Controladores para fuentes luminosas artificiales, con propósitos de iluminación en general-Especificaciones de seguridad y métodos de prueba (Mexican Official Standard NOM-058-SCFI-2017: "Control devices for artificial light sources used for general lighting purposes - Safety specifications and test methods"), published in the Official Journal on 15 August 2017;

. NOM-106-SCFI-2017, Características de diseño y condiciones de uso de la contraseña oficial (Mexican Official Standard NOM-106-SCFI-2017: Design characteristics and conditions for use of the official countermark), published in the Official Journal on 8 September 2017;

. NMX-Z-12/2-1987, "Muestreo para la inspección por atributos - Parte 2: Métodos de muestreo, tablas y gráficas" (Mexican Standard NMX-Z-012/2-1987: "Sampling for inspection by attributes - Part 2: Sampling procedures, tables and graphs"). Notice of entry into force published in the Mexican Official Journal on 28 October 1987;

. NMX-J-307-ANCE-2017 Luminarios de uso general para interiores y exteriores (Mexican Standard NMX-J-307-ANCE-2017: Lighting for general indoor and outdoor use). Notice of entry into force published in the Official Journal on 7 April 2017;

. NMX-J-619-ANCE-2014 Iluminación-Definiciones y terminología (Mexican Standard NMX-J-619-ANCE-2014: Lighting - Definitions and terminology). Notice of entry into force published in the Official Journal on 16 June 2015;

. NMX-J-066-ANCE-2017, Conductores-Determinación del diámetro y del área de la sección transversal de conductores eléctricos-Método de prueba (Mexican Standard NMX-J-066-ANCE-2017: Conductors -

Determination of the diameter and area of the cross section of electric conductors - Test methods). Notice of entry into force published in the Official Journal on 2 May 2017;

. NMX-J-212-ANCE-2017, Conductores-Resistencia, resistividad y conductividad eléctricas-Método de prueba (Mexican Standard NMX-J-212-ANCE-2017: Conductors - Electrical resistance, resistivity and conductivity - Test methods). Notice of entry into force published in the Official Journal on 13 September 2017;

. NMX-J-297-ANCE-2017, Conductores-Cordones flexibles de cobre para usos eléctricos y electrónicos-Especificaciones (Mexican Standard NMX-J-297-ANCE-2017: Conductors - Flexible copper cords for electrical and electronic use - Specifications). Notice of entry into force published in the Official Journal on 8 June 2017;

. NMX-J-012/1-ANCE-2014, Conductores-Conductores de cobre y aluminio con designación internacional-Especificaciones, declaratoria de vigencia publicada en el Diario Oficial de la Federación el 2 de febrero de 2010 (Mexican Standard NMX-J-012/1-ANCE-2014: Conductors - Copper and aluminium conductors with an international designation - Specifications). Notice of entry into force published in the Official Journal on 9 February 2015.

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

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

**Final date for comments:** 12 August 2018

**Full text:** [https://tsapps.nist.gov/notifyus/docs/wto\\_country/MEX/full\\_text/pdf/MEX417\(spanish\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/MEX/full_text/pdf/MEX417(spanish).pdf)

### European Union Notification EU/580

**Date issued:** 22 June 2018

**Agency responsible:** EU-TBT Enquiry Point

**National inquiry point:** EU-TBT Enquiry Point

**Products covered:** Electrical and electronic equipment

**Title:** Draft Commission Delegated Directive amending, for the purposes of adapting to scientific and technical progress, Annex III to Directive 2011/65/EU of the European Parliament and of the Council as regards an exemption for lead as activator in the fluorescent powder of discharge lamps containing phosphors (and its accompanying annex) (7 pages + Annex 2 pages, in English)

**Description of content:** This draft Commission Delegated Directive concerns an application specific and temporary exemption from the RoHS 2 (Directive 2011/65/EU) substance restrictions.

**Objective and rationale:** Adaptation of existing legislation to scientific and technical progress, granting manufacturers adequate transition time for compliance.

**Relevant documents:** Scientific background studies justifying the specific exemption are available: <https://bookshop.europa.eu/en/assistance-to-the-commission-on-technological-socio-economic-and-cost-benefit-assessment-related-to-exemptions-from-the-substance-restrictions-in-electrical-and-electronic-equipment-pbKH0416554/>

Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment: <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1438768100804&uri=CELEX:32011L0065>

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

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

**Final date for comments:** 21 August 2018

**Full text:** [https://tsapps.nist.gov/notifyus/docs/wto\\_country/EU/full\\_text/pdf/EU580\[1\]\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU580[1](english).pdf) and [https://tsapps.nist.gov/notifyus/docs/wto\\_country/EU/full\\_text/pdf/EU580\[2\]\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU580[2](english).pdf)

### Botswana Notification BWA/79

**Date issued:** 25 June 2018

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

**National inquiry point:** Botswana Bureau of Standards

**Products covered:** Low voltage switchgear and controlgear

**Title:** BOS 659-1:2017, Low-voltage switchgear - Part 1: Circuit-breakers - Specification (3 page(s), in English)

**Description of content:** This part of BOS 659 covers circuit-breakers, the main contacts of which are intended to be connected to circuits with rated voltages not exceeding 1 000 V a.c. or 1 500 V d.c.

This part of BOS 659 does not cover: a) circuit-breakers for equipment (CBE) covered by IEC 60934, or b) circuit-breakers that incorporate residual current protection, covered by Annex B of IEC 60947-2:2009, or c)

modular residual current devices (without integral current breaking device) covered by Annex M of IEC 60947-2:2009.

**Objective and rationale:** Consumer information, labelling; Prevention of deceptive practices and consumer protection; Protection of human health or safety; Protection of the environment; Quality requirements

**Relevant documents:** IEC 60947-2:2009, Low voltage switchgear and controlgear- Part 2: Circuit breakers

**Proposed date of adoption:** 22 December 2018

**Proposed date of entry into force:** 22 June 2019

**Final date for comments:** 24 August 2018

**Full text:** [https://tsapps.nist.gov/notifyus/docs/wto\\_country/BWA/full\\_text/pdf/BWA79\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/BWA/full_text/pdf/BWA79(english).pdf)

#### **Botswana Notification: BWA/82**

**Date issued:** 25 June 2018

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

**National inquiry point:** Botswana Bureau of Standards

**Products covered:** Low voltage switchgear and controlgear

**Title:** BOS IEC 60947-2:2016, Low-voltage switchgear and controlgear - Part 2: Circuit-breakers (247 pages, in English)

**Description of content:** This part of IEC 60947 applies to circuit-breakers, the main contacts of which are intended to be connected to circuits, the rated voltage of which does not exceed 1 000 V a.c. or 1 500 V d.c.; It also contains additional requirements for integrally fused circuit-breakers.

**Objective and rationale:** Consumer information, labeling; Prevention of deceptive practices and consumer protection; Protection of human health or safety; Quality requirements; Harmonization; Reducing trade barriers and facilitating trade

**Relevant documents:** IEC 60947-1:2014

**Proposed date of adoption:** 28 December 2018

**Proposed date of entry into force:** 28 June 2019

**Final date for comments:** 24 September 2018

#### **Botswana Notification: BWA/83**

**Date issued:** 25 June 2018

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

**National inquiry point:** Botswana Bureau of Standards

**Products covered:** Luminaires

**Title:** BOS IEC 60947-3:2015 (Amd2), Low-voltage switchgear and controlgear - Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units (22 page(s), in English)

**Description of content:** This part of IEC 60947 applies to switches, disconnectors, switch-disconnectors and fuse-combination units to be used in distribution circuits and motor circuits of which the rated voltage does not exceed 1 000 V a.c. or 1 500 V d.c.

**Objective and rationale:** Consumer information, labeling; Prevention of deceptive practices and consumer protection; Protection of human health or safety; Protection of the environment; Quality requirements; Harmonization; Reducing trade barriers and facilitating trade

**Relevant documents:** IEC 60947-1, IEC 60947-2:2016

**Proposed date of adoption:** 28 December 2018

**Proposed date of entry into force:** 28 June 2019

**Final date for comments:** 24 August 2018

#### **Japan Notification JPN/600**

**Date issued:** 27 June 2018

**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:** 920 MHz band Low Power Wireless system

**Title:** Partial amendment of Regulations for Enforcement of the Radio Law (3 page(s), in English)

**Description of content:** To amend the regulations for the 920 MHz band Low Power Wireless system.

**Objective and rationale:** Prevention of deceptive practices and consumer protection; The reason for this amendment is to expand the new purpose of 920 MHz band low power wireless system.



**Relevant documents:** . The basic law is the Radio Act (1950 Law No.131).  
<http://www.japaneselawtranslation.go.jp/law/detail/?ft=1&re=2&dn=1&co=01&ia=03&x=0&y=0&ky=radio+law&page=43>  
The amendment will appear in "KAMPO" (Official Government Gazette) when adopted.(available in Japanese)  
**Proposed date of adoption:** 1 November 2018  
**Proposed date of entry into force:** 1 November 2018  
**Final date for comments:** 25 August 2018  
**Full text:** [https://tsapps.nist.gov/notifyus/docs/wto\\_country/JPN/full\\_text/pdf/JPN600\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/JPN/full_text/pdf/JPN600(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 13 August 2018

#### **BSR/APCO 2.106.1-201x, Public Safety Grade Site – Hardening Requirements** (new standard)

This effort documents public safety requirements regarding various characteristics to make mission-critical-communications wireless networks sufficiently robust to meet the service availability requirements of public safety. The effort will standardize what is required to make wireless network sites “public safety grade” or to the extent to which they are hardened. This effort specifically addresses hardening for wireless communications sites with both transmission and/or reception capabilities.

Single copy price: Free

Order from: [bankers@apcointl.org](mailto:bankers@apcointl.org)

Send comments to: [https://workspace.apcointl.org/higherlogic/ws/public/document?document\\_id=1571&wg\\_id=technical](https://workspace.apcointl.org/higherlogic/ws/public/document?document_id=1571&wg_id=technical)

#### **BSR/ASSE Z359.12-201X, Connecting Components for Personal Fall Arrest Systems** (revision of ANSI/ASSE Z359.12-2009)

This standard establishes requirements for the performance, design, marking, qualification, test methods, and removal from service of connectors.

Single copy price: \$100.00

Order from and send comments to: Ovidiu Munteanu, [OMunteanu@ASSE.org](mailto:OMunteanu@ASSE.org)

#### **BSR/NSF 391.1-201x (i1r2), General Sustainability Assessment Criteria for Professional Services** (new standard)

The standard is one of the first to focus on the service industry subsectors described as “professional services.” Professional service firms are often characterized as those that have low capital intensity, high knowledge intensity, and a professionalized workforce. This standard is applicable to the professional service subsectors identified in GSA's Professional Services Schedule (“PSS”). These services include: Financial and Business Solutions; Advertising and Integrated Marketing Services; Language Services; Professional Engineering Services; Mission-Oriented Business Integrated Services; Worldwide Logistics Services; Environmental Services; and Consolidated Services. If you believe your organization meets the definition of professional services, but is not on this listing, please contact NSF Standards to see if this standard can be used by you to obtain sustainability certification.

Single copy price: Free

Obtain an electronic copy from: [https://standards.nsf.org/apps/group\\_public/download.php/43249/JC%20Memo%20and%20Ballot.pdf](https://standards.nsf.org/apps/group_public/download.php/43249/JC%20Memo%20and%20Ballot.pdf)

Send comments to: Kianda Franklin, [kfranklin@nsf.org](mailto:kfranklin@nsf.org)

### Due 20 August 2018

#### **BSR/AWS D20.1/D20.1M-201x, Specification for Fabrication of Metal Components using Additive Manufacturing** (new standard)

This specification provides the general requirements for fabrication of metal components using additive manufacturing. It provides contractual guidance for the interaction between the Engineer and the Contractor. It

includes the design, qualification, fabrication, inspection, and acceptance of additively manufactured components. A commentary for the specification is included.

Single copy price: 105.00 (Non-Members)/\$79.00 (AWS Members)

Order from and send comments to: Peter Portela, [pportela@aws.org](mailto:pportela@aws.org)

### **BSR/BICSI N1-201x, Installation Practices for Telecommunications and ICT Cabling and Related Cabling Infrastructure** (new standard)

This standard describes minimum requirements and procedures for installing the cabling and cabling infrastructure for telecommunications and ICT systems. Additionally, this standard will provide recommendations which may optimize performance or longevity of the cabling and cabling infrastructure and serve as a reference for “neat and workmanlike manner” installation practices.

Single copy price: Free

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

### **Due 4 September 2018**

### **BSR/UL 969A-201x, Standard for Safety for Marking and Labeling Systems for Cords and Hoses** (new standard)

These requirements cover flag-type tags (cord tags) affixed with an adhesive or a securement strap, i.e., cable ties or similar devices and adhesive backed wrap around cord labels affixed directly to a cord or hose. The adhesives may be pressure sensitive, heat activated, or solvent activated. These labels are intended to be applied by the manufacturers at the location they produce their end products.

Single copy price: Contact comm2000 for pricing and delivery options

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

Send comments to: Megan Monsen, [megan.monsen@ul.com](mailto:megan.monsen@ul.com)

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## **BSI Public Review Announcements**

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

### **Due 3 September 2018**

#### **BS 8580-1, Water quality. Risk assessments for Legionella control Code of practice**

This British Standard gives recommendations and guidance on Legionella risk assessment relevant to water systems. It is applicable to any undertaking involving a work activity or premises controlled in connection with a trade, business or other undertaking where exposure to water or when water is used or stored in circumstances that could cause a reasonably foreseeable risk of infection by legionellae and contracting legionellosis. The standard is applicable to risk assessments being undertaken on premises, plant and systems for the first time, and to review and reassess where a previous assessment has been undertaken and where control measures might have been implemented. While the principles of risk assessment presented in this British Standard can be applied to natural waters, including rivers, lakes, ponds, waterfalls, caves, dew ponds or natural recreational facilities, such as boating lakes, this British Standard does not give specific recommendations for these water sources. This British Standard does not give recommendations for the preparation of the scheme of control for the risk systems identified.

### **Due 10 September 2018**

#### **BS 6150 Painting of buildings. Code of practice**

This British Standard gives recommendations for good practice in preparation, initial painting and maintenance painting of buildings internally and externally (e.g. dwellings, offices, light industrial buildings, schools, hospitals, hotels and public buildings generally), in which decoration is a significant and often the major factor. This British Standard takes into account the need to protect many building materials against weathering or other forms of attack normally encountered. Detailed information is given on wood, metal and masonry and other typical substrates found in a building. The paints and coating materials referred to in this British Standard are principally those in common use, with limited reference to specialist coating materials and factory-applied coatings. Some materials have been excluded because of their obsolescence, limited or specialized usage or, in the case of newly developed products, lack of experience of their performance in service.

This British Standard does not cover:

- a) the protection of structural steel elements (see BS EN ISO 12944 and BS 5493 for iron structures), including hot spray application;
- b) decorative processes and other work usually carried out by specialists, such as asbestos encapsulation, the maintenance of lead surfaces, resin flooring, polymer renders or waterproofing of flat roofs;
- c) the particular requirements of listed or historic buildings which are protected by law;
- d) limewash and distemper coating materials;
- e) preservative treatments for structural timber;
- f) reactive coating materials for passive fire protection and systems consisting of these materials (see BS 8202-1, BS EN 16623 and BS 476);
- g) general safety hazards of access for painting (see BS 8210).

The recommendations made in this British Standard are intended to facilitate achievement of standards of finish which, when inspected as described in Clause 10, will be of a generally acceptable commercial standard for the intended types of buildings, providing that the work of other trades has been completed to a satisfactory standard. Where especially high standards of finish are necessary, more elaborate processes and systems than those described in this British Standard might be necessary.

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## CSA Public Review Announcements

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

### Due 15 July 2018

#### **C22.2 NO. 320, Controlled outlets** (new standard)

These requirements cover controlled outlets, locking and non-locking configurations for permanent branch circuit installation, rated up to and including 600 V, used in ordinary locations in accordance with the Canadian Electrical Code, CE Code Part I. These requirements also cover outlets that may be installed in wet or damp category 2 locations when fitted with self-closing weather proof covers. These requirements also cover controlled tamper resistant and weather resistant outlets.

### Due 1 August 2018

#### **W117.2, Safety in welding, cutting, and allied processes** (new edition)

This standard provides minimum requirements and recommendations to protect persons who work in an environment affected by welding, cutting, and allied processes from illness and injury and to prevent damage to property arising from the installation, operation, and maintenance of equipment used in these processes.

### Due 25 August 2018

#### **C22.2 NO. 184.2, Outdoor Lighting Controls** (new standard)

This standard applies to permanently connected multi-circuit solid-state lighting controls rated at 600 V and less, 50 or 60 Hz, single or three phase, with or without an integral switching (disconnecting) devices, designed to be used as standalone systems controlling

- (a) incandescent lamps;
- (b) fluorescent compact fluorescent, and electric discharge lamps
- (c) HID (pilot duty) and electronic ballasts
- (d) LED and OLED lights

and intended for installation in accordance with the Rules of the *Canadian Electrical Code, Part I*.

This standard applies to ac and dc rated controls for which the load rating does not exceed 20 A, 60 W and 2HP per circuit at a maximum 600 V. These SSCLS products may include phase dimmers, solid-state timers, relay modules and other load switching devices. These products may also include convenience receptacles, mechanical switches and other wiring devices on separate circuits.

### Due 1 September 2018

#### **C22.1, Amendment - Canadian Electrical Code, Part I, Subject No. 4336, New definition and Rule for Section 10, "Equipotential grounding"** (amendment)

(A) Add new term to Rule 10-004, special terminology.



Equipotential grounding – the grounding of non-current-carrying conductive parts which have been bonded together in accordance with 10-700 to maintain a substantially equal electric potential to earth and to mitigate undesirable effects of lightning and gradient voltages from other sources.

(B) Add new Rule 10-120 as shown.

10-120 Equipotential grounding of multiple buildings, structures or distribution centers fed from one system.

1) Equipotential grounding shall be directly connected to the non-current carrying conductive parts of all distributed electrical systems fed from an electrical system in accordance with sub-rule 2&3.

2) Buildings interconnected by a bonding conductor run with the feeder conductors in accordance with 10-614, shall have all non-current carrying metal parts of the building which have been bonded as per 10-700 grounded to an equipotential ground rod located at that building.

3) Remote or standalone facilities or distribution centers interconnected by a bonding conductor run with the feeder conductors in accordance with 10-614, shall have all non-current carrying metal parts which have been bonded as per 10-700 grounded to an equipotential ground electrode connected to the non-current-carrying conductive parts of the electrical equipment at the point of distribution.

4) Equipotential grounding may be exempted where:

a) a soil resistivity study or other engineering design methods can show that elimination of the equipotential grounding will not create an unsafe installation, or

b) a single branch circuit or a multi-wire branch circuit incorporating a bonding conductor, supplies one outlet only in a remote or standalone facility, structure, or building.

**Due 2 September 2018**

### **Z259.18, Counterweighted guardrail systems**

This standard specifies requirements for the design, performance, testing, marking, and instructions of manufactured free-standing guardrails that rely on mass and friction and that are intended to protect workers from a fall hazard. These guardrails are not fixed to a structure.

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## **New ANS Projects**

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

### **BSR ASSP A10.13-201x, Safety Requirements for Steel Erection** (revision and redesignation of ANSI ASSE A10.13-2011 (R2017))

This standard establishes safety requirements for erecting, handling, fitting, fastening, reinforcing, and dismantling of structural steel, plate steel, steel joist, and metal deck at a final in-place field site during construction, maintenance, and dismantling operations.

Contact: Lauren Bauerschmidt, [LBauerschmidt@assp.org](mailto:LBauerschmidt@assp.org)

### **BSR/ASTM WK63871-201x, New Specification for Playground Surface Impact Testing in a Lab at a Specified Test Height** (new standard)

The current laboratory impact test method for playground surfacing established under F1292 only allows for critical fall height testing (sections 12-15) which only gives the owner/operator maximum fall height test results just before the surface fails the limits of the test, then a test is done a foot over that height and a foot under the maximum height and the results are reported.

Contact: Laura Klineburger, [accreditation@astm.org](mailto:accreditation@astm.org)

**BSR MH10.8.8-201X, Radio Frequency Identification for Packages, Parcels, and Flat Mail** (revision of ANSI MH10.8.8-2011)

This standard provides guidance for the use of radio-frequency identification (RFID) for the handling and tracking of packages, parcels, and flat mail. The standard identifies minimum data requirements as well as semantic and syntactical recommendations. This standard further provides specific recommendations for the air interface communications of RFID devices based on the application requirements identified by the carriers. The committee decided it was necessary to review this document's efficacy, and to see to withdrawing it, potentially, in favor of ISO 17365.

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

**BSR/NECA 331-201x, Standard for Installing Building and Service Entrance Grounding and Bonding** (new standard)

This standard describes installation procedures for building and service-entrance grounding as well as building interior bonding and grounding. The information provided in this standard is intended to define what is meant by installing equipment in a "neat and workmanlike manner" as required by the National Electrical Code (ANSI/NFPA 70), Section 110.12, and in accordance with "accepted good practice" as required by National Electrical Safety Code (ANSI/IEEE C2) (NEC), Rule 012.C.

Contact: Melissa West, [melissa.west@necanet.org](mailto:melissa.west@necanet.org)

**BSR NEMA ASC C136-201x, Luminaire - Four-Pin Extension Module and Receptacle - Physical and Electrical Interchangeability and Testing** (new standard)

This standard defines the following roadway and area lighting equipment, which may be physically and electrically interchanged to operate within established values: (a) A locking-type 4-pin Luminaire Extension Module (LEX-M), (b) A locking-type mating 4-pin Luminaire Extension Receptacle (LEX-R), and (c) A Luminaire Extension Cap (LEX-C). This equipment is primarily intended for outdoor application and it may also be used indoors. This equipment provides mechanical and electrical specification for the interfaces between a LEX-M (sensor/communication module) and LEX-R (electrical part of LED luminaire) using a voltage up to 60 V dc max. The LEX-C is used to cover the receptacle in case no LEX-M is used with LEX-R. In this case, the mechanical specification for the interfaces between a LEX-R and LEX-C is provided. This equipment is a plug-and-play interface used with outdoor luminaires to add connectivity and/or sensing functions. The plug-and-play interface supports future system and services upgrades.

Outside of Scope:

- (a) Modules directly connected to the mains;
- (b) The functionality of the actual sensor/communication module;
- (c) The mounting method of the receptacle to the luminaire, including anti-rotation means;
- (d) The electrical interconnection between receptacle and the driver as per ANSI C137.4

This standard builds on the interface specified in the ZHAGA Book-18 standards, by adding specific requirements of the mechanical and electrical properties of a device. As a result, the ZHAGA and ANSI requirements for LEX-M, LEX-R, and LEX-C would be harmonized, allowing plug-and-play interchangeability.

Project Need: Technologies and standards are evolving rapidly in the dynamic smart city environment.

Luminaires are uniquely identified and seamlessly integrated into the IT network in a building or city and share information about their status and operations. Outfitted with integrated sensors, each luminaire becomes a point of intelligence that can share information from street lights to power meters to traffic signals, on activity patterns, changes in temperature or humidity and beyond. The lighting industry is currently undergoing a paradigm shift from conventional lighting to LED Connected Lighting Systems. By describing a connectivity fit system for smart outdoor luminaires, Book 18 marks ZHAGA's first contribution to the rapidly emerging world of smart lighting.

Side-by-side with ZHAGA, NEMA (ASC C136) is paving the way for large-scale penetration of connectivity into outdoor lighting installations by developing a new C136 series standard on connectivity fit systems. While ZHAGA Book 18 defines a standardized interface between an outdoor LED luminaire and a sensing/communication module that sits on the outside of the luminaire, NEMA (ASC C136) is dedicated to integrating the interface set in Book 18 with streamlined design and manufacture of versatile connector for outdoor luminaires which includes a socketed receptacle (LEX-R) that allows a compatible sensing/communication module (LEX-M) to be easily removed and replaced.

Contact: Dejan Lenasi, [dejan.lenasi@signify.com](mailto:dejan.lenasi@signify.com)

**BSR/NFSI B101.11-201x, Standard for the prevention of climate related slips, trips and falls** (new standard)

The standard will address the prevention of climate-related slips, trips, and falls (i.e., snow, ice, rain, etc.)

Contact: Russell Kendzior, [russk@nfsi.org](mailto:russk@nfsi.org)

**BSR/UL 4600-201x, Standard for Safety for the Evaluation of Autonomous Products** (new standard)

This standard covers the safety principles and processes for evaluation of autonomous products, specifically their ability to perform the intended function without human intervention based on their current state and sensing of the operating environment. The standard also covers the reliability of hardware and software necessary for machine learning, sensing of the operating environment, and other safety aspects of autonomy. These requirements do not address the specific intended function (e.g., surface cleaning), which is covered by the individual product safety standard. These requirements do not cover industrial vehicles.

Contact: Heather Sakellariou, [Heather.Sakellariou@ul.com](mailto:Heather.Sakellariou@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/ASQ ISO 19011-2018**, Guidelines for auditing management systems (identical national adoption of ISO 19011: 2018 and revision of ANSI ISO/ASQ QE19011S-2008): 26 June 2018

**ANSI/ASHRAE 135bd-2018**, BACnet - A Data Communication Protocol for Building Automation and Control Networks (addenda to ANSI/ASHRAE Standard 135-2016): 14 June 2018

**ANSI/ASHRAE 135be-2018**, BACnet - A Data Communication Protocol for Building Automation and Control Networks (addenda to ANSI/ASHRAE Standard 135-2016): 14 June 2018

**ANSI/ASHRAE 135bi-2018**, BACnet - A Data Communication Protocol for Building Automation and Control Networks (addenda to ANSI/ASHRAE Standard 135-2016): 14 June 2018

**ANSI/ASHRAE 135bk-2018**, BACnet - A Data Communication Protocol for Building Automation and Control Networks (addenda to ANSI/ASHRAE Standard 135-2016): 14 June 2018

**ANSI/ASHRAE 135bl-2018**, BACnet - A Data Communication Protocol for Building Automation and Control Networks (addenda to ANSI/ASHRAE Standard 135-2016): 14 June 2018

**ANSI/ASHRAE 135bm-2018**, BACnet - A Data Communication Protocol for Building Automation and Control Networks (addenda to ANSI/ASHRAE Standard 135-2016): 14 June 2018

**ANSI/ASHRAE 135bn-2018**, BACnet - A Data Communication Protocol for Building Automation and Control Networks (addenda to ANSI/ASHRAE Standard 135-2016): 14 June 2018

**ANSI/ASHRAE 135bp-2018**, BACnet - A Data Communication Protocol for Building Automation and Control Networks (addenda to ANSI/ASHRAE Standard 135-2016): 14 June 2018

**ANSI/ASHRAE Addendum 135bq-2018**, BACnet - A Data Communication Protocol for Building Automation and Control Networks (addenda to ANSI/ASHRAE Standard 135-2016): 14 June 2018

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## Draft IEC & ISO Documents

This section lists proposed documents that the International Electromechanical Commission (IEC) or the International Organization for Standardization (ISO) are considering for approval. *Standards Watch* readers interested in reviewing and commenting on the document should order a copy from their national representative and submit their comments through them. Comments from US citizens on IEC and ISO documents should be

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

**64/2298/FDIS, IEC 60364-8-2 ED1:** Low-voltage electrical installations - Part 8-2: Prosumer's low-voltage electrical installations, 10 August 2018

**65/701/FDIS, IEC 62881 ED1:** Cause and Effect Matrix, 10 August 2018

**34C/1391/CD, IEC 61347-2-7/AMD2/FRAG2 ED3:** Lamp controlgear -Part 2-7: Particular requirements for battery supplied electronic controlgear for emergency lighting (self-contained), 14 September 2018

**34D/1387/CD, IEC 60598-1/AMD2/FRAG23 ED8:** Luminaires - Part 1: General requirements and tests, 14 September 2018

**34D/1389/CD, IEC 60598-1/AMD2/FRAG24 ED8:** Luminaires - Part 1: General requirements and tests, 14 September 2018

**34D/1384/CD, IEC 60598-2-1 ED2:** Luminaires - Part 2: Particular requirements - Section One: Fixed general purpose luminaires, 14 September 2018

**34D/1385/CD, IEC 60598-2-22/AMD2/FRAG3 ED4:** Luminaires – Part 2-22: Particular requirements - Luminaires for emergency lighting, 14 September 2018

**34D/1386/CD, IEC 60598-1/AMD2/FRAG22 ED8:** Luminaires - Part 1: General requirements and tests, 14 September 2018

**35/1395/CDV, IEC 62281 ED4:** Safety of primary and secondary lithium cells and batteries during transport, 14 September 2018

**ISO 15614-1/DAMd1,** Specification and qualification of welding procedures for metallic materials - Welding procedure test - Part 1: Arc and gas welding of steels and arc welding of nickel and nickel alloys- Amendment 1, 16 September 2018, \$29.00

**ISO/DIS 22486,** Water pipe tobacco smoking machine – Definitions and standard conditions, 16 September 2018, \$58.00

**47E/619/NP, PNW 47E-619: Future IEC 60747-5-11:** Semiconductor devices - Part 5-11: Optoelectronic devices - Light emitting diodes -Test method of radiative and nonradiative currents of light emitting diodes, 21 September 2018

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## Recently Published IEC & ISO Documents

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

**IEC 60335-2-76 Ed. 3.0 en:2018,** Household and similar electrical appliances - Safety - Part 2-76: Particular requirements for electric fence energizers, \$317.00

**ISO 10005:2018,** Quality management - Guidelines for quality plans, \$162.00

**ISO 15612:2018,** Specification and qualification of welding procedures for metallic materials - Qualification by adoption of a standard welding procedure specification, \$45.00

**ISO 16157:2018,** Space systems - Human-life activity support systems and equipment integration in space flight – Techno-medical requirements for space vehicle human habitation environments, \$68.00

## TSP Meeting Schedule

The next set of meetings is scheduled for the DFW Marriott Solana in Westlake, Texas.

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

The Autumn meetings will be held 4-8 October 2018 at the Marriott Solana in Westlake, TX. The meeting schedule and a “Reserve a hotel room” link are available at <http://tsp.esta.org/tsp/meetings/index.php>. The preliminary schedule for the meetings in January 2019 at NAMM in Anaheim is there, too.



# ESTA Standards Watch

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