



Technical Standards Program

ESTA Standards Watch

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New ESTA project and another public review

The working group meetings held the third week of July resulted in several projects moving forward. ESTA's technical standards managers are working through the minutes and notes from the meetings to develop detailed action items lists, but two items have already been acted on: filing a Project Initiation Notification System form with ANSI to announce the revision of ANSI E1.23 and filed BSR8 form to announce the public review of BSR E1.62. BSR E1.62 is posted now on the ESTA website for public review.

The Fog & Smoke Working Group voted to open **ANSI E1.23 – 2010 (R2015), Entertainment Technology - Design and Execution of Theatrical Fog Effects**, for revision and to rename it “Entertainment Technology— Design, Execution, and Maintenance of Atmospheric Effects.” The addition of “Maintenance” to the title signifies the changes planned. The existing standard helps an effects designer plan a safe effect and carry it out, but problems emerge when the environment for the effect changes (e.g., the show changes theatres, the HVAC flips from cooling to heating) and so the effect might not be what was originally planned. Problems also can emerge in the motion picture industry when an effect is within safe exposure limits for an eight-hour workday and a 40-

hour workweek, but the shoots go on, take after take, so people are exposed for many more hours a day than eight and for many more hours than 40 in workweek.

The PINS announcement will appear in the 9 August edition of ANSI's *Standards Action*. Anyone with a material interest in this project can become involved by either joining the Fog & Smoke Working Group or commenting on the draft BSR E1.23 standard when it is offered for public review at some time in the future. Adding information about planning how to maintain an effect is a major revision, so that public review is unlikely to be before 2020. Information about joining working groups is available at https://tsp.esta.org/tsp/working_groups/index.html.

BSR E1.62, Minimum specifications for mass-produced portable platforms, ramps, stairs, and choral risers for live performance events, is being offered for a fourth public review. The proposed standard covers mass-produced portable platforms, stair units and ramps used with those platforms, and choral risers, designed to be used for the presentation of music concerts, dramatic plays, fashion shows, and other entertainment and special events. The units covered by this standard are of a size and weight that allows them to be moved and erected by one or two people. Larger, heavier units are outside the scope of this standard. The scope also covers the railings provided as fall protection accessories, and the legging systems.

The major substantive change in this fourth review version is rolling back a response to a second public review comment. In that public review a comment suggested we should add specific coefficients of friction values to better define "slip resistance." We did. In the third public review it was pointed out that the numbers are meaningless unless specific test procedures are given for how to measure those coefficients. Investigation into slip-test methods showed that specific shoe sole materials would have to be specified. Since there is no such thing as a "standard shoe" and controlling what shoes audience and performers might wear is likely to be beyond what any platform provider can control, we have gone back to the language used in the *International Building Code* and *International Fire Code* that simply say floors should be slip resistant. An informative note in an annex gives some guidance on how to measure the coefficient of friction of a floor. The revised draft standard is posted at https://tsp.esta.org/tsp/documents/public_review_docs.php. The public review runs through September 23; by the start of September 24 the review is finished.

Behind the Scenes holiday cards on sale

The 2019 BTS Holiday Cards are now on sale at <https://behindthescenescharity.org/cms/product-category/cards/>. Card sales help fund the work of the Behind the Scenes charity, which provides financial support to entertainment technology industry professionals if they, or their immediate dependent family, are seriously ill or injured. Don't leave your colleagues in the dark!

WTO Technical Barrier to Trade notifications

Notify US, the U.S. Department of Commerce's service to announce Technical Barrier to Trade filings, has announced TBTs that may be of interest to Standards Watch readers. If you have a problem with any TBTs, you can protest through your representative to the World Trade Organization. See the guidance documents at <http://tsapps.nist.gov/notifyus/data/guidance/guidance.cfm> or <http://ec.europa.eu/growth/tools-databases/tbt/en/tbt-and-you/being-heard/> for advice on filing objections.

Montenegro Notification MNE/12

Date issued: 22 July 2019

Agency responsible: Ministry of Economy

National inquiry point: Enquiry Point for technical regulations and conformity assessment procedures

Products covered: Machinery

Title: Rulebook on safety of machinery. In Montenegrin language.

Description of content: This Rulebook prescribes: essential requirements related to designing and constructing of machinery for the purpose of protection of life, health and safety of people, domestic animals and protection of property, as well as other requirements and conditions to be met in order to place them on the market and/or putting them into service; content of the declaration of conformity for machinery and declaration of incorporation of partly completed machinery; content of technical documentation; conformity

assessment procedure; conformity marking and affixing of conformity marking; confidentiality of information and safeguard clause.

Objective and rationale: Increasing safety and costumer protection as well as ensuring the machinery could be place on the market only if they satisfy the requirements of this technical regulation; Protection of human health or safety

Relevant documents:

- Directive 2009/127/EC of the European Parliament and of the Council of 21 October 2009 amending Directive 2006/42/EC with regard to machinery for pesticide application
- Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast) (Text with EEA relevance)
- European Parliament and Council Directive 95/16/EC of 29 June 1995 on the approximation of the laws of the Member States relating to lifts

Proposed date of adoption: Not given by country

Proposed date of entry into force: 1 July 2015 [four years ago, but now you know!]

Final date for comments: Not given by country

Full text: [https://tsapps.nist.gov/notifyus/docs/wto_country/MNE/full_text/pdf/MNE12\(montenegrin\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/MNE/full_text/pdf/MNE12(montenegrin).pdf)

Chile Notification CHL/487

Date issued: 15 July 2019

Agency responsible: Electricity and Fuel Board (SEC)

National inquiry point: Ministry of Foreign Affairs, General Directorate of International Economic Affairs (DIRECON)

Products covered: Electronic audio/video, information technology and communication technology equipment, External power supplies for computers and tablet chargers (switch mode units)

Title: Protocolo de Análisis y/o Ensayos de Seguridad (PE N°8/9:2019) de: Equipos electrónicos de audio/video, tecnología de la Información y tecnología de la comunicación. Fuentes de energía externa para computadores y cargadores de tablets (Fuentes conmutadas) (Safety analysis and/or test protocol (PE No. 8/9:2019) for electronic audio/video, information technology and communication technology equipment. External power supplies for computers and tablet chargers (switch mode units)) (11 pages, in Spanish)

Description of content: The notified protocol establishes the certification procedure for external power supplies for computers (laptop and desktop) and tablet chargers using switch mode units.

Objective and rationale: Safety; Setting of minimum safety standards; Protection of human health or safety

Relevant documents:

- IEC 60950-1:2005-12 + Corrigendum 1 2006-08, Information technology equipment - Safety - Part 1: General requirements.
- Ley N° 18.410:1985 del Ministerio de Economía, Fomento y Reconstrucción.
- D.S. N° 298, de 2005, del Ministerio de Economía, Fomento y Reconstrucción.

Proposed date of adoption: Not given by country

Proposed date of entry into force: Not given by country

Final date for comments: 13 September 2019

Full text: [https://tsapps.nist.gov/notifyus/docs/wto_country/CHL/full_text/pdf/CHL487\(spanish\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/CHL/full_text/pdf/CHL487(spanish).pdf)

Israel Notification ISR/1066

Date issued: 23 July 2019

Agency responsible: Israel WTO-TBT Enquiry Point, Ministry of Industry, Trade and Labor (MOITAL)

National inquiry point: Israel WTO-TBT Enquiry Point, Ministry of Industry, Trade and Labor (MOITAL)

Products covered: Surge protective devices HS 8536

Title: SI 61643 part 11- Surge protective devices connected to low-voltage power systems: Performance requirements and test methods (102 pages in English; 7 pages in Hebrew)

Description of content: The requirements of the existing standard, SI 61643 part 11, dealing with surge protective devices , shall be declared mandatory. This declaration is inline with the mandatory standardization objective to protect human safety.

This standard adopts the International Standard IEC 61643-11 Edition 1.0: 2011-03. The standard's Hebrew section includes the following national deviations:

- Changes the normative references (paragraph 2);
- Adds a remark to paragraph 7.1 requiring that the surge protective devices installation shall comply also with Israel Electricity Law 1954 and its amendments.

Objective and rationale: Protection of human health or safety

Relevant documents:

- Israel Standard SI 61643 part 11 (April 2013);
- International Standard IEC IEC 61643-11 Edition 1.0: 2011-03.

Proposed date of adoption: Not given by country

Proposed date of entry into force: Not given by country

Final date for comments: 21 September 2019

Full text: [https://tsapps.nist.gov/notifyus/docs/wto_country/ISR/full_text/pdf/ISR1066\(hebrew\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/ISR/full_text/pdf/ISR1066(hebrew).pdf)

Republic of Korea Notification KOR/848

Date issued: 23 July 2019

Agency responsible: Bureau of Product Safety Policy

National inquiry point: Korean Agency for Technology and Standards (KATS), Ministry of Commerce, Industry and Energy (MOCIE) (KATS/MOCIE)

Products covered: Primary batteries (This safety criteria applies to primary batteries of manganese and alkaline manganese, except for military use)

Title: A draft revision of safety criteria for primary batteries (8 pages in Korean)

Description of content: Button type primary batteries have been included in safety criteria of primary batteries.

Objective and rationale: Consumer safety (Article 2 and Article 15 of the Electrical Appliances and Consumer Products Safety Control Act)

Relevant documents: KATS Public Notice No. 2019-0212 (18 July 2019)

Proposed date of adoption: Not given by country

Proposed date of entry into force: Not given by country

Final date for comments: 21 September 2019

Full text: [https://tsapps.nist.gov/notifyus/docs/wto_country/KOR/full_text/pdf/KOR848\(korean\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/KOR/full_text/pdf/KOR848(korean).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 26 August 2019

BSR/AARST RRNC-201x, Rough-in of Radon Control Components in New Construction of 1 & 2 Family Dwellings and Townhouses (new standard)

This standard provides minimum specifications for the rough-in of radon control components in newly constructed 1- and 2-family dwellings and townhouses. This standard addresses needs where activities for verifying the effectiveness of radon control are outside the purview of a jurisdiction, code authority, or contract arrangements and for situations where time constraints or logistics prevent evaluations of radon concentrations in conjunction with completing a newly constructed home.

Single copy price: \$TBD for hard copy

Order from and send comments to: Gary Hodgden, StandardsAssist@gmail.com

BSR/AARST CCAH-201x, Reducing Radon in New Construction of One- & Two-Family Dwellings and Townhouses (revision of ANSI/AARST CCAH-2013)

This standard provides prescriptive requirements for building design, installation of components, radon testing after construction, and fan activation (if needed) to facilitate reduced occupant exposure to radon hazards in 1- and 2-family dwellings and townhouses. Updates to this revised standard include additional specifications for larger homes along with a variety of improvements for specific situations.

Single copy price: \$TBD for hard copy

Order from and send comments to: Gary Hodgden, StandardsAssist@gmail.com

BSR/ASA S1.42-201x, Design Response of Weighting Networks for Acoustical Measurement (revision of ANSI/ASA S1.42-2001 (R2016))

Provides design information for the A-, B-, C-, D-, E-, G-, and U-weighting networks used for acoustical measurements. The analog poles and zeros for each weighting network are given, along with the equations for

computing the magnitude and phase responses as functions of frequency. Coefficients and equations for computing the impulse and step responses of the A-, B-, C-, D-, and Eweighting networks as functions of time are provided in an informative annex. Information regarding digital implementation is also provided in an informative annex. Matlab scripts for the design of analog and digital implementations of the weighting networks described in this standard are also supplied.

Single copy price: \$150.00

Order from and send comments to: Caryn Mennigke, asastds@acousticalsociety.org

BSR/AWS D1.1/D1.1M-201x, Structural Welding Code - Steel (revision of ANSI/AWS D1.1/D1.1M-2015)

This code covers the welding requirements for any type of welded structure made from the commonly used carbon and low-alloy constructional steels. Clauses 1 through 11 constitute a body of rules for the regulation of welding in steel construction. There are normative and informative annexes in this code. A Commentary of the code is included with the document.

Single copy price: \$320.00

Order from and send comments to: Jennifer Molin, jmolin@aws.org

BSR B11.0-201x, Safety of Machinery (revision of ANSI B11.0-2015)

This Type-A standard applies to new, existing, modified, or rebuilt power driven industrial/commercial machines, not portable by hand while working. This standard specifies basic terminology, principles, and a methodology for achieving safety in the design and the use of machinery. It specifies principles of risk assessment and risk reduction to help designers, integrators, and users of machinery in achieving this objective.

Single copy price: \$165.00

Order from and send comments to: dfelinski@b11standards.org

BSR C82.77-3-201X, Standard for Lighting Equipment - Electromagnetic Compatibility (EMC) Testing and Measurement Techniques - Radiated, Radio-Frequency Electromagnetic Field Immunity Test (national adoption with modifications of IEC 61000-4-3, ed3.2 (2010 -04))

This standard is a Nationally Acknowledged International Standard (NAIS) of IEC 61000-4-3 with regional deviations.

Single copy price: \$50.00

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

BSR C82.77-8-201X, Standard for Lighting Equipment - Fast Transients (national adoption with modifications of IEC 61000-4-4:2012)

This standard is a Nationally Acknowledged International Standard (NAIS) of IEC 61000-4-4 with regional deviations.

Single copy price: \$50.00

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

BSR C82.77-10-201X, Lighting Equipment - Harmonic Emission Limits - Related Power Quality Requirements (revision of ANSI C82.77-10-2014)

This standard specifies harmonic limits, their methods of measurement, and power factor (PF) for lighting equipment. This standard covers all types of lighting equipment that is used for general illumination (typically found in residential, commercial, and industrial applications) and which is connected to commonly distributed 60-Hz alternating current (AC) power-line systems.

Single copy price: \$77.00

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

Due 2 September 2019

SR/IES LM-78-201x, Approved Method: Total Luminous Flux Measurement of Lamps using an Integrating Sphere Photometer (new standard)

This document is one of a continuing series of IES Approved Methods prepared to define a baseline for acceptable photometric procedures leading to improved agreement among laboratories. This Approved Method document explains a particular technique for total flux measurement of all types of lamps and luminaires using integrating spheres. The main improvement in this document, compared to IES LM-78-2007, is the addition of spectral measurements. While most statements are written for lamps, they apply to lamps and luminaires.

Single copy price: \$25.00

Order from and send comments to: Patricia McGillicuddy, pmcgillicuddy@ies.org

BSR/IES TM-201x-BIM, Lighting Practice: Building Information Management (new standard)

This Technical Memorandum recommends a standardization of parameters used in luminaire BIM content. The suggestions outlined in this document are intended to remedy synchronization issues between parameters, as well as ensure that lighting professionals are receiving the basic bits of information necessary to fulfilling their project's needs, during the many different stages of development. This document was developed by a group of professionals, known as the Illuminating Engineering Society Committee, dedicated to the continued development and improvement of building information management.

Single copy price: \$25.00

Order from and send comments to: Patricia McGillicuddy, pmcgillicuddy@ies.org

Due 9 September 2019

BSR/ASSP A10.33-201X, Safety & Health Program Requirements for Multi-Employer Projects (revision and redesignation of ANSI/ASSE A10.33-2011 (R2016))

This standard sets forth the minimum elements and activities of a program that defines the duties and responsibilities of construction employers working on a construction project where multiple employers are engaged in the common undertaking to complete a construction project.

Single copy price: \$100.00

Order from and send comments to: Tim Fisher, tfisher@assp.org

BSR/ASSP Z459.1-201x, Safety Requirements for Rope Access Systems (new standard)

This standard sets forth accepted practices for rope access work. It is applicable for use in any environment where ropes are suspended from or connected to a structure or natural feature and used as the primary means of access, egress, or support and as the primary means of secondary protection against a fall. This standard is not intended to apply to recreational use of ropes or to methods used by professional emergency response personnel, although persons engaged in such activities may benefit from the advice, principles, and practices in this standard. This is the same project as the originally proposed Z359.8 standard, but the committee decided to change the numbering.

Single copy price: \$99.00

Order from and send comments to: OMunteanu@ASSP.org

BSR/BICSI N3-201x, Planning and Installation Methods for the Bonding and Grounding of Telecommunication and ICT Systems and Infrastructure (new standard)

This standard specifies aspects of planning and installation of bonding and grounding systems for telecommunications and ICT systems and infrastructure within a customer premises. Proper planning and installation provide for effective and optimal system performance of the bonding and grounding system, allowing the system to meet its objective in preventing damage to people or assets.

Single copy price: Free

Order from and send comments to: jsilveira@bicsi.org

BSR/CTA 2085-201x, Definitions and Characteristics for VR Video and VR Images (new standard)

This document defines the definitions and characteristics for VR Video, and VR Images, which are still or moving imagery captured and formatted explicitly as separate left- and right-eye images; usually intended for display in a VR headset. More specifically, this document will explore the technical processes and hardware and software techniques behind the creation and delivery of VR Video/VR Images.

Single copy price: Free

Order from and send comments to: Veronica Lancaster, vlancaster@cta.tech

BSR/IES TM-30-18 Addendum 1-201x, IES Method for Evaluating Light Sources Color Rendition (addenda to ANSI/IES TM-30-2018)

Addendum 1 includes Annex D, Templates; Annex E, Recommendations for Specifying Light Source Color Rendition; and Annex F, Evidence Supporting Recommended Criteria for Specifying Light Source Color Rendition.

Single copy price: \$25.00

Order from and send comments to: Patricia McGillicuddy, pmcgillicuddy@ies.org

BSR/IES RP-1-201x, Recommended Practice: Lighting Office Spaces (revision of ANSI/IES RP-1-2013)

For many people, the office is the environment where they spend the majority of their waking adult lives. The expectation is that the time spent in the office will be useful and productive, and that the physical environment will be healthy. The design of the office greatly influences how well the space meets the needs of the workers and their organization. Lighting is a critical element of the design that may enhance or degrade the work experience and affect the well-being of the workers. Beyond supporting worker performance, lighting may also affect the bottom line of the organization by making the best use possible of materials and electricity.

Single copy price: \$25.00

Order from and send comments to: Patricia McGillicuddy, pmcgillicuddy@ies.org

BSR ICEA S-110-717-201x, Standard for Optical Fiber Drop Cable (revision of ANSI/ICEA S-110-717-2013)

This standard covers optical-fiber communications cables intended for use in outdoor and/or indoor/outdoor optical fiber drop applications. Materials, construction, and performance requirements are included in this Standard, together with applicable test procedures.

Single copy price: \$191.00

Order from: Communications@nema.org

Send comments to: khaled.masri@nema.org

BSR/NEMA WC 66/ICEA S-166-732-201x, Standard for Category 6 and 6A, 100 Ohm Individually, Unshielded Twisted Pairs, Indoor Cables (with or without an Overall Shield) for Use in LAN Communication Wire Systems (revision of ANSI/NEMA WC 66/ICEA S-116 -732-2013)

This standard covers mechanical, electrical, and flammability requirements for thermoplastic insulated and jacketed, copperconductor, individually unshielded twisted pairs, with or without overall shield intended for use as horizontal cables, backbone cables, or in the manufacture of patch cords. Depending upon the application and system requirements, this standard provides choices for materials and flammability ratings.

Single copy price: \$91.00

Order from: Communications@nema.org

Send comments to: gerard.winstanley@nema.org

BSR/UL 1419-201x, Standard for Professional Video and Audio Equipment (revision of ANSI/UL 1419-2011 (R2016))

These requirements cover video and audio equipment operated and maintained by trained personnel under the conditions of controlled access. These requirements cover such equipment as video tape recorders, audio/video editing equipment, audio/video receiving and processing equipment, signal transmission equipment, television cameras, video digitizers, video monitors, metering equipment and similar equipment. This standard also covers auxiliary equipment and accessories which by themselves may not perform the desired function of the equipment outlined in this scope but are used in addition to or as a supplement to the basic equipment (remote controls, convertors, stands, etc.). These requirements cover equipment rated 600 volts or less for use in accordance with the National Electrical Code, ANSI/NFPA 70.

Single copy price: Free

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

Send comments per the instructions at: <https://csds.ul.com/Home/ProposalsDefault.aspx>

BSR/UL 2416-201x, Standard for Audio/Video, Information and Communication Technology Equipment Cabinet, Enclosure and Rack Systems (revision of ANSI/UL 2416-2015)

This standard covers requirements for audio/video, information, and communication technology equipment cabinet, enclosure, and rack systems. For the purpose of this standard, cabinet, enclosure, and rack systems are all referred to as "enclosure systems." Enclosure systems are not complete equipment but include components and sub-assemblies that are intended to power, protect, heat, cool, or otherwise support information technology (IT), telecommunications, audio/video (A/V), and similar equipment that will be installed at a later time. They usually include mounting hardware, shelves, or space for the installation of the additional equipment. These enclosure systems are intended to be used by manufacturers in the construction of complete A/V, IT, and

communications equipment, or by service providers and other qualified installers for the installation of network infrastructure equipment or communications and multi-media systems equipment.

Single copy price: Free

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

Send comments per the instructions at: <https://csds.ul.com/Home/ProposalsDefault.aspx>

Due 17 September 2019

BSR/CSA C22.2 No. 19085-1-201x, Woodworking machines - Safety - Part 1: Common requirements

(identical national adoption of ISO 19085-1)

This standard gives the safety requirements and measures to reduce risks related to woodworking machines arising during operation, adjustment, maintenance, transport, assembly, dismantling, disabling, and scrapping - common to machines used in the woodworking industry. It is applicable to woodworking, stationary, and displaceable machines when they are used as intended and under conditions foreseen by the manufacturer. It is intended to be used in conjunction with other parts of ISO 19085 series of standards, applicable to specific machine types. It is not applicable to machines intended for use in potential explosive atmospheres or machines manufactured prior to the date of its publication.

Single copy price: Free

Order from and send comments to: David Zimmerman, david.zimmerman@csagroup.org

BSR/CSA C22.2 No. 184.2-201x, Solid-state controls for lighting systems (SSCLS) (new standard)

This standard applies to permanently connected, single or multi-branch circuit, multi-circuit outputs, solid-state lighting controls rated at 600 V and less, 50 or 60 Hz, single- or three-phase, with or without overcurrent protection on the load side, with or without integral load switching devices, designed to be used as a complete solid state lighting control system for the purpose of controlling a single or multiple type of lighting loads, such as: (a) incandescent lamps; (b) magnetic ballast; (c) fluorescent, compact fluorescent, and electric discharge lamps; (d) HID (pilot duty) and electronic ballasts; (e) LED and OLED lights and drivers; and (f) 0-10 VDC analog dimming, and intended for installation in accordance with the Rules of CSA C22.1, Canadian Electrical Code, Part I and the National Electrical Code, NEC. This standard also applies to SSCLS products mounted in a portable manner (i.e., mounted on wheels). (NOTE: "Mounted on wheels" can include wheeled mounted equipment that can be moved by one person, up to large truck- or trailer-mounted assemblies. Similarly, "mounted on skids" can include equipment that is small enough and light enough to be moved by one person, up to large or heavy units that can only be skidded with larger towing vehicles or lifted and moved with hoists or cranes.) This standard applies to ac-rated controls for which the load rating does not exceed 40 A per circuit at a maximum 600 V. These SSCLS products may include receptacles of configuration 5-15R, 5-20R, and L5-20R, used as lighting load connection points, with access limited to qualified personnel only. These SSCLS products may include convenience receptacles, mechanical switches, dimming circuits, and other wiring devices on separate circuits. These SSCLS products may include NC or NO contacts for the purpose of controlling other general use loads rated inductive, resistive and 2HP or less. These SSCLS products may include a Class 2 power supply for the purpose of feeding power to analog or digital inputs, such as sensors.

Single copy price: Free

Order from and send comments to: David Zimmerman, david.zimmerman@csagroup.org

CSA public review announcements

The CSA Group has announced drafts 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 9 August 2019

C22.2 NO. 0, General requirements - Canadian Electrical Code, Part II (new edition)

This standard specifies requirements pertaining to the following:

- a) definitions;
- b) construction;
- c) equipment complying with Standards;
- d) safety and protection;
- e) materials and quality of work;

- f) marking; and
- g) tests (of a general nature).

Such requirements are applicable to all individual Standards of the *Canadian Electrical Code, Part II*.

Due 1 September 2019

C22.1, Amendment - Canadian Electrical Code, Part I, Subject No. 4482, Requirements for transfer equipment, Rule 14-612 (amendment)

Adds an Appendix B Note on Rule 14-612:

Rule 14-612

It is intended by this Rule that when transfer switches are used as transfer equipment for standby power systems, these transfer switches should conform to CSA C22.2 No. 178.1 or C22.2 No. 178.3, and when transfer schemes are used, such transfer schemes should conform to specific provisions of CSA C22.2 No. 31 for transfer schemes.

Due 4 September 2019

Z460, Control of hazardous energy — Lockout and other methods (new edition)

This standard specifies requirements for controlling hazardous energy associated with potentially harmful machines, equipment, and processes (including mobile machinery and equipment — see Annex M). Where a CSA Standard or other recognized standard exists for a specific type of machinery, equipment, or process, it should be used with this standard to provide the most effective protection.

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/C137.6-201x, Data Tagging Vocabulary (Semantic Model Elements) for Interoperability of Lighting Systems (new standard)

This standard defines Semantic Model Elements for Lighting Systems via tagging schemas for the exchange of data and metadata used in control and analytics. The elements will include at least the following essential points of interoperability: Individual Occupancy Sensor State; Room or Area Occupancy State; Individual Sensor Illuminance Level; Room or Area Illuminance Level; Zone level; Load Control Level; Preset Select; Set Demand Response Mode; and Read Energy Consumption. These lighting-specific elements will be recommended to be used in other models, including but not limited to Project Haystack, ASHRAE 223P (currently under development), and TALQ 2.0 to provide consistent object definitions at a conceptual level, independent of any specific implementations or protocols used to transport the data. When necessary to ensure execution, a higher degree of specificity (or detail) of the abstractions may be included, as well as examples of specific inclusion in existing modeling schemas. Applications include, but are not limited to, commercial, residential, industrial, roadway, and outdoor lighting applications. These semantic tags can work with various lighting protocols such as Zigbee, Digital Addressable Lighting Interface (DALI), and BACnet.

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

BSR/C137.7-201x, Standard for Lighting Systems - Networked Parking Lot Lighting Systems (new standard)

This standard sets forth the minimum compatibility requirements of elements in networked open parking lot lighting systems. Elements include, but are not limited to, light sources, luminaires, cameras, occupancy sensors, and non-lighting elements. The standard specifies interfaces between elements within the uncovered (open) parking lot area. This standard only addresses the requirements associated with field-serviceable and -replaceable items as it pertains to interoperability across suppliers. This standard does not apply to covered parking garages. The functions of the networked parking-lot lighting systems covered in this standard may include but are not limited to communication with the smart-grid, remote-control user interface, light-level adjustment, vehicle traffic and pedestrian monitoring. Although networked parking-lot lighting systems may be designed to learn and optimize various functions to provide adequate lighting, energy collection, storage and usage, this standard does not specify the algorithms for these functions. The standard also does not apply to

system considerations covered by other standards developed by accredited bodies. Such considerations include lighting levels, spectral quality, pole spacing and height, and component efficiency.

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

BSR C137.0-201x, Standard for Lighting Systems - Terms and Definitions (revision of ANSI C137.0-2017)

The definitions listed in this document apply or are directly related to lighting systems and are used in multiple lighting system standards. This standard is intended for use by lighting systems standards developers. The terms found in this document are recommended for use in all ANSI C137 lighting system standards. Where this document does not include a term, other references are listed.

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

BSR/APA 117-201x, Standard Specification for Structural Glued Laminated Timber of Softwood Species (revision of ANSI/APA 117 -2015)

This standard provides basic design information, layup combination details, and laminating lumber grading rules for structural glued laminated timber (glulam).

Contact: Borjen Yeh, borjen.yeh@apawood.org

BSR/GBI 02-201x, Green Globes Assessment Protocol for Existing Buildings (new standard)

The standard will include criteria and practices for resource-efficient, healthy, resilient, and environmentally preferable renovations, operations, maintenance, and improvement of existing commercial buildings. Up to six areas of green building design will be included: environmental/project management, site, energy, water, materials, and indoor environment.

Contact: Emily Marx, marx@thegbi.org

BSR/IES LM-28-201x, Approved Method: Guide for the Selection, Care and Use of Electrical Instruments in the Photometric Laboratory (new standard)

The units of electrical measurement used in this test method are the volt, the ampere, and the watt. The term “instrument” will be used throughout the guide instead of the term “meter,” which was incorrectly applied in previous publications of this document. The instruments required for the photometric laboratory can be divided into two groups: (1) instruments for the measurement of electrical quantities in the testing of lamps and auxiliaries and (2) special instruments and devices for such measurements as detector output, temperature, source color, total luminous flux, and luminaire and photometer angular position. Indicating and recording instruments may be used in either type of application.

Contact: Patricia McGillicuddy, pmcgillicuddy@ies.org

BSR/IES RP-xx-H-201x, Recommended Practice: Lighting Horticultural Facilities (new standard)

Through the millennia, each plant species has evolved to live in an optimal biological niche, with particular temperature, humidity, water, soil, nutrients, and sunlight. Plants rely on sunlight (and sometimes artificial light) for their energy, and light plays a key role in mediating plant growth and development. Recent developments in lighting technology, such as light emitting diodes (LEDs), have given us more control than ever over the quality and quantity of light used: we are able to effectively measure and select colors, intensities, exposure times, etc. When designing supplementary or primary lighting for horticultural purposes, we must keep in mind how plants will react to these different conditions.

Contact: Patricia McGillicuddy, pmcgillicuddy@ies.org

BSR/IES LM-80-2015 (R201x), Approved Method: Measuring Luminous Flux and Color Maintenance of LED Packages, Arrays and Modules (reaffirmation of ANSI/IES LM-80-2015)

LEDs typically exhibit very long operational life characteristics and, depending on drive current and use conditions, can be in use for 50,000 hours or longer. The light output from LEDs slowly decreases over time. This characteristic of declining output without catastrophic failure creates a risk that an LED-based lighting product near end-of-life may be operating, but performing outside the product’s specification, or outside required codes, standard practices, or regulations. LEDs may also undergo gradual shifts in the emitted spectra over time that may result in unacceptable appearance, color rendering, or degraded efficacy.

Contact: Patricia McGillicuddy, pmcgillicuddy@ies.org

BSR/IES RP-28-201x, Recommended Practice: Lighting and the Visual Environment for Older Adults and the Visually Impaired (revision and redesignation of ANSI/IES RP-28-2016)

Older adults represent the fastest growing segment of the population with over 49 million Americans over 65. With over 10,000 Baby Boomers turning 65 everyday, BSR/IES RP-28-xx has been expanded to include areas beyond housing and senior care facilities, such as offices, hospitality, healthcare, commercial spaces, and places of assembly. The over-40 population represents approximately 89 million people and, of those, 63 percent have vision problems. However, there is a prevalence of low vision in the general senior population, which increases dramatically after the age of 70.

Contact: Patricia McGillicuddy, pmcgillicuddy@ies.org

BSR/TIA 1005-A-2012 (R201x), Telecommunications Infrastructure Standard for Industrial Premises (reaffirmation of ANSI/TIA 1005-A-2012)

This standard specifies telecommunications cabling to support industrial premises applications (e.g., voice, data, text, video, industrial and building controls, security, fire alarm, imaging) while allowing for exposure to the wide range of environmental conditions expected in industrial premises (e.g., temperature, humidity, electrical noise, shock, vibration, corrosive gases, dust, liquids).

Contact: Teesha Jenkins, standards@tiaonline.org

Final actions on American National Standards

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

ANSI/ASHRAE Addendum 62.1ah-2019, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016): 27 June 2019

ANSI/ASHRAE Addendum 62.1ai-2019, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016): 27 June 2019

ANSI/ASHRAE Addendum 62.1am-2019, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016): 27 June 2019

ANSI/ASHRAE Addendum 62.1ap-2019, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016): 27 June 2019

ANSI/ASHRAE Addendum 62.1ar-2019, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016): 27 June 2019

ANSI/ASHRAE/IES 90.1al-2019, Energy Standard for Buildings Except LowRise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1 -2016): 1 July 2019

ANSI/ASHRAE/IES 90.1ba-2019, Energy Standard for Buildings Except LowRise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1 -2016): 1 July 2019

ANSI/ASHRAE/IES 90.1bd-2019, Energy Standard for Buildings Except LowRise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1 -2016): 1 July 2019

ANSI/ASHRAE/IES 90.1bi-2019, Energy Standard for Buildings Except LowRise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1 -2016): 1 July 2019

ANSI/ASHRAE/IES Addendum 90.1bh-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 1 July 2019

ANSI/ASHRAE/IES Addendum 90.1bi-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 1 July 2019

ANSI/ASHRAE/IES Addendum 90.1bk-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 1 July 2019

ANSI/ASHRAE/IES Addendum 90.1bq-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 1 July 2019

ANSI/ASHRAE/IES Addendum 90.1bt-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 27 June 2019

ANSI/ASHRAE/IES Addendum 90.1ca-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 27 June 2019

ANSI/ASHRAE/IES Addendum 90.1cc-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 27 June 2019

ANSI/ASHRAE/IES Addendum 90.1ce-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 27 June 2019

ANSI/ASHRAE/IES Addendum 90.1cg-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 27 June 2019

ANSI/ASHRAE/IES Addendum 90.1ci-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 27 June 2019

ANSI/ASHRAE/IES Addendum 90.1cj-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 27 June 2019

ANSI/ASHRAE/IES Addendum 90.1Y-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 1 July 2019

ANSI/ASHRAE/IES Addendum bz to Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 27 June 2019

ANSI/ASHRAE/USGBC/IES/ICC Addendum 189.1c-2019, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES/ICC Standard 189.1 - 2017): 27 June 2019

ANSI/ASHRAE/USGBC/IES/ICC Addendum 189.1d-2019, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES/ICC Standard 189.1 - 2017): 27 June 2019

ANSI/ASHRAE/USGBC/IES/ICC Addendum 189.1e-2019, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES/ICC Standard 189.1 - 2017): 27 June 2019

ANSI/ASHRAE/USGBC/IES/ICC Addendum 189.1g-2019, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES/ICC Standard 189.1 - 2017): 27 June 2019

ANSI/ASHRAE/USGBC/IES/ICC Addendum 189.1h-2019, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES/ICC Standard 189.1 - 2017): 27 June 2019

ANSI/ASHRAE/USGBC/IES/ICC Addendum 189.1i-2019, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES/ICC Standard 189.1 - 2017): 27 June 2019

ANSI/ASRHAE/USGBC/IES/ICC Addendum v to ANSI/ASRHAE/USGBC/IES/ICC Standard 189.1-2019, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASRHAE/USGBC/IES/ICC Standard 189.1-2017): 1 July 2019

ANSI/C137.1-2019, Zero- to Ten-Volt (0-10V) Analog Control Interface for Solid-State and Fluorescent Lighting (new standard): 9 July 2019

ANSI C137.4-2019, Standard for Digital Interface with Auxiliary Power for Devices (new standard): 9 July 2019

ANSI/NFPA 78-2019, Guide on Electrical Inspections (new standard): 30 June 2019

ANSI/NFPA 1078-2019, Standard for Electrical Inspector Professional Qualifications (new standard): 30 June 2019

Draft IEC & ISO documents

This section lists proposed documents that the International Electromechanical Commission (IEC) is considering for approval and that may be of interest to *Standards Watch readers*. Anyone interested in reviewing and commenting on a 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 on ISO documents should be sent to Karen Hughes at isot@ansi.org. Any prices, if shown, are for purchases through ANSI. The sort order is by due date then alphanumeric.

ISO/DIS 31800, Faecal sludge treatment units - Energy independent, prefabricated, community-scale, resource recovery units – Safety and performance requirements, 3 August 2019, \$125.00

65C/973/DPAS, IEC PAS 63256 ED1: Industrial communication networks - Broadband Fieldbus Specification - AUTBUS, 30 August 2019

CIS//620/CD, CISPR 35 ED2: Amendment 1: Electromagnetic compatibility of multimedia equipment - Immunity requirements, 6 September 2019

JTC1-SC41/110/DTR, ISO/IEC TR 30164 ED1: Internet of things (IoT) - Edge Computing, 13 September 2019

2/1960/CDV, IEC 60034-5 ED5: Rotating electrical machines - Part 5: Degrees of protection provided by the integral design of rotating electrical machines (IP code) - Classification, 27 September 2019

34A/2143/CD, IEC 63220/FRAG3 ED1: LED Light sources – Safety requirements, 27 September 2019

65C/974/NP, PNW 65C-974: Industrial communication networks - Fieldbus specifications and Profiles - Type 28 elements and CPF 22 (AUTBUS), 27 September 2019

ISO/ASTM DIS 52950, Additive manufacturing - General principles - Overview of data processing, 29 September 2019, \$46.0

ISO/DIS 19085-1, Woodworking machines - Safety - Part 1: Common requirements, 4 October 2019, \$119.00

ISO/DIS 19085-17, Woodworking machines - Safety - Part 17: Edge banding machines fed by chains, 4 October 2019, \$119.00

Recently published IEC & ISO documents

Listed here are documents recently approved by the IEC or ISO that may be of use or interest to *Standards Watch* readers. Prices shown are from the [ANSI Webstore](#).

IEC GUIDE 104 Ed. 5.0 en:2019, The preparation of safety publications and the use of basic safety publications and group safety publications, \$117.00

IEC 61482-1-1 Ed. 2.0 b:2019, Live working - Protective clothing against the thermal hazards of an electric arc - Part 1-1: Test methods - Method 1: Determination of the arc rating (ELIM, ATPV and/or EBT) of clothing materials and of protective clothing using an open arc, \$352.00

IEC 61400-24 Ed. 2.0 en:2019, Wind energy generation systems – Part 24: Lightning protection, \$375.00

ISO/IEC 25020:2019, Systems and software engineering – Systems and software Quality Requirements and Evaluation (SQuaRE) - Quality measurement framework, \$162.00

ISO 26872:2019, Space systems - Disposal of satellites operating at geosynchronous altitude, \$185.00

TSP meeting schedule

The following meetings will be at the Marriott Solana in Westlake, TX. The meeting schedule is posted at <https://esta.org/ESTA/meetings.php>. Use the “Reserve a Hotel Room” link on that page to reserve a hotel room.

Control Protocols Working Group	09:00 - 13:00	Saturday 26 October 2019
Electrical Power Working Group	19:00 – 23:00	Friday 25 October 2019
Event Safety Fire Safety TG	09:00 - 13:00	Saturday 26 October 2019
Event Safety Rigging Task Group	09:00 - 13:00	Friday 25 October 2019
Event Safety Working Group	14:00 - 18:00	Saturday 26 October 2019
Floors Working Group	09:00 - 13:00	Friday 25 October 2019
Fog & Smoke Working Group	14:00 – 18:00	Thursday 24 October 2019
Followspot Position Working Group	14:00 - 18:00	Friday 25 October 2019
Photometrics Working Group	14:00 - 18:00	Sunday 27 October 2019
Rigging E1.39	09:00 - 13:00	Saturday 26 October 2019
Rigging E1.67 TG	14:00 - 18:00	Friday 25 October 2019
Rigging Working Group	19:00 - 23:00	Saturday 26 October 2019
Stage Machinery Working Group	19:00 – 23:00	Thursday 24 October 2019
Technical Standards Council	09:00 - 13:00	Sunday 27 October 2019

TSP donors who have made long-term, multi-year pledges

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