



Technical Standards Program

ESTA Standards Watch

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Four ESTA Standards Available for Review

Four documents are available for public review on the ESTA website at http://tsp.esta.org/tsp/documents/public_review_docs.php. People materially affected by the standards are invited to review them and to comment on them. The documents are:

BSR E1.6-1, Powered Hoist Systems

ANSI E1.6-1, Entertainment Technology – Powered Hoist Systems, last approved in 2012, is being revised. This document establishes requirements for the design, manufacture, installation, inspection, and maintenance of powered hoist systems for lifting and suspension of loads for performance, presentation, and theatrical production. This standard does not apply to the structure to which the hoist is attached, to the attachment of loads to the load carrying device, to systems for flying people, to welded link chain hoists, or to manually powered hoists. The review runs through October 22; comment before October 23 starts.

BSR E1.33, Entertainment Technology -- (RDMnet) -- Message Transport and Device Management of ANSI E1.20 (RDM) over IP Networks

This standard defines a method for carrying E1.20 (RDM) messages over IP networks. It also defines a scalable architecture for RDM message transmission that allows multi-controller environments with tens of thousands of RDM Responders. Additionally, a minimal protocol is defined for carrying non-RDM data over the same architecture. The review runs through November 5; comment before November 6 starts.

BSR E1.37-7, Additional Message Sets for ANSI E1.20 (RDM) -- Gateway & Splitter Messages

This document provides additional Get/Set Parameter Messages for use with the ANSI E1.20 Remote Device Management protocol. This document contains messages relating to configuring managed splitters, proxy devices, and RDMnet Devices. The review runs through November 5; comment before November 6 starts.

BSR E1.53, Overhead mounting of luminaires, lighting accessories, and other portable devices: specification and practice

The standard covers specifications for the primary and secondary mounting devices for portable stage and studio luminaires and accessories and their use. It also covers these mounting devices for special effects equipment often mounted along with lighting equipment on trusses and rigging system battens. The standard is being revised to clarify marking requirements and environmental considerations. Comments are due no later than 19 November; comment before 20 November 2018 starts.

Revised EU EcoDesign Draft Available for Comment

The EU has released revised versions of their proposed EcoDesign and EcoLabelling Lighting regulations. These versions are intended to be the final versions. For entertainment lighting, the regulations are almost unchanged from the drafts published in July. Key issues remain:

- The requirement for luminaires to use less than 0.5 W of power in standby mode (when not emitting light) is not achievable for networked luminaires that have to stay live to respond to cues.
- High-power white LED sources cannot meet the minimum efficacy requirements for technical reasons.
- The definition of green for color-tuneable lighting excludes lime.
- Exemptions had been requested for a number of specific lamp bases and white light sources used in entertainment lighting, but not all the requested exemptions have been granted.

The regulations are now in public review, during which citizens of EU member states can comment on them through their appropriate government body. The regulations also have been announced as possible Technical Barrier to Trade, and may be commented on by citizens of non-EU countries through their government's representatives to the World Trade Organization.

Full texts are available on the WTO website at:

https://members.wto.org/crnattachments/2018/TBT/EEC/18_5215_00_e.pdf

https://members.wto.org/crnattachments/2018/TBT/EEC/18_5215_01_e.pdf

https://members.wto.org/crnattachments/2018/TBT/EEC/18_5216_00_e.pdf

https://members.wto.org/crnattachments/2018/TBT/EEC/18_5216_01_e.pdf

They also are on the U.S. Commerce Department's NIST "Notify US" website at:

[https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU606\[1\]\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU606[1](english).pdf)

[https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU606\[2\]\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU606[2](english).pdf)

[https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU607\[1\]\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU607[1](english).pdf)

[https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU607\[2\]\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU607[2](english).pdf)

The U.S. Commerce Department's National Institute of Standards and Technology "Notify US" website gives a comment due-date of 8 December 2018. See "Guidance for Comment Submissions by U.S. Industry on TBT Notifications" at <http://tsapps.nist.gov/notifyus/data/guidance/guidance.cfm> for guidance on submitting comments.

Roadmap for Unmanned Aircraft Systems Released for Comment

The American National Standards Institute has released for public review and comment a working draft of the *Standardization Roadmap for Unmanned Aircraft Systems* (Version 1.0) being developed by the Institute's [Unmanned Aircraft Systems Standardization Collaborative](#). Comments on the draft roadmap are to be submitted to uassc@ansi.org by close of business on 29 October 2018.

The draft roadmap is available at <http://estalink.us/rjq5>. The comment form is available at <http://estalink.us/secjp>. Instructions for filling out the comment form are available at <http://estalink.us/0o5zm>.

CM Boot Camp at Rock Litz

Columbus McKinnon is offering a five-day course, a combination of their Road Hoist Technician Certification and Entertainment Rigging Seminar. The first half of this ETCP-recognized training will cover the design and operation of hoists, maintenance, inspection, and troubleshooting procedures. The course also covers electrical theory and troubleshooting of Lodestar and Prostar hoists. The second part of this course is an exploration of rigging terminology, equipment, and concepts for the entertainment industry, including trusses and truss engineering. Tuition: \$450 per person. [For more information, download the course flyer.](#)

NIST, ANSI, and Partners Release Internet of Things–Enabled Smart City Framework

The U.S. Commerce Department's National Institute of Standards and Technology and partners, including the American National Standards Institute, have announced the release of the IoT-Enabled Smart City Framework, or [IES-City Framework](#), for use by smart city stakeholders worldwide.

The framework is the product of an open, international public working group, including ANSI, which studies existing architectural efforts with the goal of producing a framework document that can be used to bring greater coherence to standardization activities taking place internationally in various standards developing organizations and consortia. The [Framework](#) provides tools based on research findings and can lower barriers to an expanded smart city marketplace.

Other partners include the European Telecommunications Standards Institute (ETSI), the FIWARE Foundation, the Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA), Korea's Ministry of Science and ICT (MSIT), the Telecommunications Industry Association (TIA), and the U.S. Green Building Council (USGBC), along with Green Business Certification Inc. (GBCI).

WTO Technical Barrier to Trade Notifications

The U.S. Department of Commerce's service, Notify U.S., recently has announced a WTO Technical Barrier to Trade notice that may be of interest to *Standards Watch* readers. If you have a problem with a TBTs, you can protest through your representative to the World Trade Organization. (So far the USA is still a member of 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/growth/tools-databases/tbt/en/tbt-and-you/being-heard/> for advice on filing objections.

Argentina Notification ARG/344

Date issued: 20 September 2018

Agency responsible: Secretariat of Trade

National inquiry point: Dirección Nacional de Comercio Interior (DNCI)

Products covered: Construction materials and building

Title: Marco regulatorio que establece los principios y requisitos esenciales de calidad y seguridad aplicables a los productos para la construcción. Certificación (Regulatory framework establishing the basic quality and safety principles and requirements applicable to construction products. Certification) (4 pages, in Spanish)

Description of content: The notified measure constitutes the regulatory framework establishing the basic quality and safety principles and requirements for construction products marketed in the territory of the Argentine Republic. Construction products are understood to mean any product or group of products manufactured and placed on the market in order to be permanently or temporarily incorporated into construction works or parts thereof. Additional specific regulations shall be issued, which, owing to their particular characteristics, are considered relevant, based on guidelines established. Domestic manufacturers and importers of the products covered by the notified measure will be responsible for ensuring compliance with the technical requirements and conformity assessment procedures to be established by the specific regulations.

Objective and rationale: Consumer information, labelling; Protection of human health or safety; Quality requirements.

Relevant documents: Ley 22.802: <http://servicios.infoleg.gob.ar/infolegInternet/anexos/15000-19999/19946/texact.htm>

Proposed date of adoption: Not given by country

Proposed date of entry into force: Not given by country

Final date for comments: Not given by country

Full text: [https://tsapps.nist.gov/notifyus/docs/wto_country/ARG/full_text/pdf/ARG344\(spanish\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/ARG/full_text/pdf/ARG344(spanish).pdf)

European Union Notification EU/605

Date issued: 5 October 2018

Agency responsible: EU-TBT Enquiry Point

National inquiry point: EU-TBT Enquiry Point

Products covered: External Power Supplies (EPS)

Title: Draft Commission Regulation laying down ecodesign requirements for external power supplies pursuant to Directive 2009/125/EC of the European Parliament and of the Council and repealing Commission Regulation (EC) No 278/2009 (6 pages + Annexes 7 pages, in English)

Description of content: This draft Commission Regulation sets requirements regarding the energy performance (maximum no-load consumption and minimum average active efficiency) and information requirements for external power supplies. In accordance with Ecodesign Directive 2009/125/EC, products not meeting these requirements will not be allowed to be placed on the EU market. The draft Regulation is based on the findings of a technical, environmental and economic study which has been carried out in consultation with stakeholders. The measures proposed were the object of an impact assessment. The draft Regulation repeals Commission Regulation (EC) No 278/2009 with regard to ecodesign requirements for no-load condition electric power consumption and average active efficiency of external power supplies.

Objective and rationale: The aim of this measure is to continue to improve the energy efficiency of EPSs in a cost effective way and to ensure that more environmentally friendly products are placed on the EU internal market. The measure will contribute to the EU objectives of improving energy efficiency and the security of energy supply, and reducing greenhouse gas emissions.

Relevant documents: Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products, Official Journal L 285, 31 October 2009, p.010. <https://eur-lex.europa.eu/legal-content/en/ALL/?uri=celex%3A32009L0125>. Commission Regulation (EC) No 278/2009 of 6 April 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for no-load condition electric power consumption and average active efficiency of external power supplies, Official Journal L 93, 7 April 2009, p.3. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32009R0278>

Proposed date of adoption: 1 February 2019

Proposed date of entry into force: 1 April 2020

Final date for comments: 4 December 2018

Full text: [https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU605\[1\]\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU605[1](english).pdf) and [https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU605\[2\]\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU605[2](english).pdf)

European Union Notification EU/606

Date issued: 8 October 2018

Agency responsible: EU-TBT Enquiry Point
National inquiry point: EU-TBT Enquiry Point
Products covered: Lighting products

Title: Draft Commission Regulation laying down ecodesign requirements for light sources and separate control gears pursuant to Directive 2009/125/EC of the European Parliament and of the Council and repealing Commission Regulations (EC) No 244/2009, (EC) No 245/2009 and (EU) No 1194/2012 (10 pages + Annexes 25 pages, in English).

Description of content: This draft Commission Regulation sets minimum energy performance, functional and information requirements for lighting products, as there exists a cost-effective potential to limit their energy consumption and improve their quality. In accordance with Ecodesign Directive 2009/125/EC, products not meeting these requirements will not be allowed to be placed on the EU market. The draft Regulation is based on the findings of two technical, environmental and economic studies, which have been carried out with stakeholders. The draft Regulation repeals: (i) Regulation (EC) No 244/2009 with regard to ecodesign requirements for non-directional household lamps; (ii) Regulation (EC) No 245/2009 with regard to ecodesign requirements for fluorescent lamps without integrated ballast, for high intensity discharge lamps, and for ballasts and luminaires able to operate such lamps; and (iii) Regulation (EU) No 1194/2012 with regard to ecodesign requirements for directional lamps, light emitting diode lamps and related equipment.

Objective and rationale: The aim is to continue to remove the worst performing lighting products from the market, thereby pushing the market towards more environmentally friendly products. It will increase energy efficiency and contribute to the fight against climate change.

Relevant documents: Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products, Official Journal L 285, 31 October 2009, P. 010. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:285:0010:0035:en:PDF>

Regulation (EC) No 244/2009 with regard to ecodesign requirements for non-directional household lamps <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1523267684326&uri=CELEX:32009R0244>

Regulation (EC) No 245/2009 with regard to ecodesign requirements for fluorescent lamps without integrated ballast, for high intensity discharge lamps, and for ballasts and luminaires able to operate such lamps <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1523267929129&uri=CELEX:32009R0245>

Regulation (EU) No 1194/2012 with regard to ecodesign requirements for directional lamps, light emitting diode lamps and related equipment <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1523268097398&uri=CELEX:32012R1194>

Proposed date of adoption: Not given by country

Proposed date of entry into force: 1 September 2021

Final date for comments: 7 December 2018

Full text: [https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU606\[1\]\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU606[1](english).pdf) and [https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU606\[2\]\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU606[2](english).pdf)

European Union Notification EU/607

Date issued: 8 October 2018

Agency responsible: EU-TBT Enquiry Point

National inquiry point: EU-TBT Enquiry Point

Products covered: Light sources

Title: Draft Commission Delegated Regulation supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council with regard to the energy labelling of light sources and repealing Commission Delegated Regulation (EU) No 874/2012 (14 pages + Annexes 29 pages, in English).

Description of content: The draft Commission Delegated Regulation establishes requirements for the energy labelling and the provision of product information light sources. In particular, it removes the A+ to A++ classes from the existing energy label; it changes the measurement metrics for the energy label; it discontinues the energy label specifically dedicated to luminaires; and requires suppliers to upload the label data, the product information sheet and the technical documentation into a product registration database before products can be placed on the EU market. The draft Commission Delegated Regulation is based on the findings of two technical, environmental and economic studies, which have been carried out with stakeholders. The draft Regulation repeals Regulation (EU) No 874/2012 with regard to energy labelling of electrical lamps and luminaires.

Objective and rationale: The aim is to allow end-users to make an informed choice when buying light sources, thereby pulling the market towards more environmentally friendly products. It will increase energy efficiency and contribute to the fight against climate change in the EU.

Relevant documents: Regulation (EU) 2017/1369 of the European Parliament and of the Council of 4 July 2017 setting a framework for energy labelling and repealing Directive 2010/30/EU

<https://eur-lex.europa.eu/eli/reg/2017/1369/oj>

Regulation (EU) No 1060/2010 with regard to energy labelling of electrical lamps and luminaires <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1523268170086&uri=CELEX:32012R0874>

Proposed date of adoption: Not given by country

Proposed date of entry into force: 1 September 2021

Final date for comments: 7 December 2018

Full text: [https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU607\[1\]\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU607[1](english).pdf) and [https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU607\[2\]\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU607[2](english).pdf)

European Union Notification EU/609

Date issued: 9 October 2018

Agency responsible: EU-TBT Enquiry Point

National inquiry point: EU-TBT Enquiry Point

Products covered: Electronic displays

Title: Draft Commission Regulation laying down ecodesign requirements for electronic displays pursuant to Directive 2009/125/EC of the European Parliament and of the Council, amending Commission Regulation (EC) No 1275/2008 and repealing Commission Regulation (EC) 642/2009 (and its accompanying annexes) (12 pages + Annexes 23 pages, in English)

Description of content: This draft Commission Regulation applies to electronic displays (in particular televisions, monitors and signage displays) to be placed on the EU market.

The draft regulation lays down minimum energy performance requirements, in particular on maximum power demand in on-, standby-, network standby- and off-mode. No maximum power demand requirements in on-mode are laid down for signage displays. The draft regulation also lays down requirements on resource efficiency-related aspects, including design to enhance extraction of key components, marking of plastic parts and a logo for the presence of mercury or cadmium. In accordance with the Ecodesign Directive 2009/125/EC, electronic displays not meeting these requirements will not be allowed to be placed on the EU market. The draft Regulation is based on the findings of technical, environmental and economic studies and takes into account the opinions of the different stakeholders.

Objective and rationale: The aim of the draft Regulation is to increase the energy efficiency and recyclability of electronic displays in the EU, thus contributing to the mitigation of climate change and development of the circular economy. Existing EU measures addressing energy efficiency of televisions need to be adapted as a result of the technological changes over the past 8 years. Furthermore, there has been a functional convergence between different products, all capable of displaying video content: as only "televisions and television monitors" are covered by the existing requirements, a regulatory loophole exists for other types of displays, this also causes legal uncertainty for economic operators.

The proposed regulation therefore covers electronic displays more in general and updates the technical requirements in the light of experience gained and technological progress. It also includes elements aimed at facilitating the safe and cost-effective recycling of such displays.

Relevant documents: Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products, Official Journal L 285, 31 October 2009, P. 010. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:285:0010:0035:en:PDF>

Commission Regulation (EC) No 642/2009 of 22 July 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for televisions <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02009R0642-20130912>

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32009R0642>

Proposed date of adoption: 1 February 2019

Proposed date of entry into force: 1 April 2021

Final date for comments: 8 December 2018

Full text: [https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU609\[1\]\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU609[1](english).pdf) and [https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU609\[2\]\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU609[2](english).pdf)

European Union Notification EU/610

Date issued: 9 October 2018

Agency responsible: EU-TBT Enquiry Point

National inquiry point: EU-TBT Enquiry Point

Products covered: Electronic displays

Title: Draft Commission Delegated Regulation (EU) supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council as regards energy labelling of electronic displays and repealing Commission Delegated Regulation (EU) No 1062/2010 (and its accompanying annexes) (24 pages + Annexes 24 pages, in English)

Description of content: This draft Commission Delegated Regulation applies to electronic displays (in particular televisions, monitors and signage displays) to be placed on the EU market and repeals Regulation (EU) No 1062/2010 with regard to energy labelling of televisions.

It requires suppliers, before products can be placed on the EU market, to upload the label data, the product information sheet and the technical documentation into a product registration database. The draft Commission Delegated Regulation is based on the findings of a review study and of a long discussion process with stakeholders. A study on the understanding the label by users was conducted in 2017 as well.

Objective and rationale: The aim of the draft Regulation is to provide customers with transparent and objective information on the energy efficiency of electronic displays, and on additional information to compare displays for an informed purchase choice. This will contribute to a market pull towards more environmentally friendly products, with increased energy efficiency, thus contributing to the clean energy transition and mitigation of climate change. Moreover, Regulation (EU) 2017/1369 requires for televisions, which currently have an energy label showing classes from A+++ to D, the introduction of a new, rescaled label showing classes from A to G. Moreover, the draft proposal extends the scope to other displays capable of reproducing video content, such as monitors and signage displays, to address the functional convergence between different display types. The scope extension aims to eliminate a regulatory loophole, resulting in legal uncertainty for economic operators.

Relevant documents: Regulation (EU) 2017/1369 of the European Parliament and of the Council of 4 July 2017 setting a framework for energy labelling and repealing Directive 2010/30/EU, OJ L 198, 28.7.2017, p. 1-23 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2017.198.01.0001.01.ENG&toc=OJ:L:2017:198:TOC

Commission Delegated Regulation (EU) No 1062/2010 of 28 September 2010 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of televisions <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02010R1062-20170307> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32010R1062>

Proposed date of adoption: 1 February 2019

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Final date for comments: 8 December 2018

Full text: [https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU610\[1\]\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU610[1](english).pdf) and [https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU610\[2\]\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/EU/full_text/pdf/EU610[2](english).pdf)

Mozambique Notification MOZ/14

Date issued: 12 October 2018

Agency responsible: National Institute of Standardization and Quality (INNOQ)

National inquiry point: National Institute of Standardization and Quality (INNOQ)

Products covered: Incandescent lamps (ICS:29.140.20)

Title: Technical Regulation of banishment of incandescent lamps of general use (9 pages in Portuguese)

Description of content: To make electric utilities and consumers aware of the benefits of using more efficient light bulbs; Provide funding mechanisms and incentives for the use of higher efficiency bulbs. Establish mechanisms that oblige concessionaires and customers to use of more efficient light bulbs.

Objective and rationale: Contribution towards socioeconomic development.

Relevant documents: NM IEC 60081:2002

Proposed date of adoption: Not given by country

Proposed date of entry into force: Not given by country

Final date for comments: 11 December 2018

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 28 October 2018

ESP TR 101-2018, Technical Report - Basic Boating Knowledge - Human-Propelled (technical report)

Technical Report - Basic Boating Knowledge - Human-Propelled was developed by the National Boating Education Standards Panel to advance use and common understanding of American National Standards for Basic Boating Knowledge. This Technical Report supports the American National Standard (ANS) titled ANSI/NASBLA 101-2017: Basic Boating Knowledge - Human-Propelled, which was formulated through voluntary consensus of representatives of federal and state government, industry, non-profit organizations, and public sectors. The purpose of this Technical Report is to provide information that helps design and implement successful education and training programs for recreational human-propelled boats.

Single copy price: Free download

Order from and send comments to: Pamela Dillon, pam@nasbla.org

Due 12 November 2018

BSR/AWS C3.2M/C3.2-201X, Standard Method for Evaluating the Strength of Brazed Joints (new standard)

This standard describes the test methods used to obtain brazed strength data of the short-time testing of single-lap joints in shear, butt-tension, stress-rupture, creep-strength, four-point-bending, and ceramic-tensile button specimens. Specimen preparation methods, brazing procedures, testing techniques, and methods for data analysis are detailed. Sample forms for recording data are presented. A graphical method of data presentation relates shear stress to overlap distance.

Single copy price: \$36.00

Order from and send comments to: Kevin Bulger, kbulger@aws.org

BSR/AWS C4.7/C4.7M-201x, Recommended Practices for Oxyfuel Gas Welding of Steel (new standard)

These recommended practices for oxyacetylene welding include the latest procedures to be used in conjunction with oxyacetylene equipment and the latest safety recommendations. Complete lists of equipment are available from individual manufacturers.

Single copy price: \$25.00

Order from: Jennifer Rosario, jrosario@aws.org

Send comments to: adavis@aws.org

BSR/ICC/ASHRAE-700-201x, National Green Building Standard (revision of ANSI/ICC/ASHRAE-700-2015)

The provisions of this Standard shall apply to the design, construction, alteration, enlargement, and renovation of (1) all residential buildings, (2) residential portions of mixed-use buildings, or (3) mixed-use buildings where the residential portion is greater than 50 percent of the gross floor area. This standard shall also apply to subdivisions, building sites, building lots, and accessory structures. For the purpose of this standard, all Group R occupancies as defined by the International Building Code and all buildings within the scope of the International Residential Code shall be considered residential. Assisted living facilities, residential board and care facilities, and group homes classified as an I-1 occupancy as defined by the International Building Code shall also be considered residential.

Single copy price: Free download

Obtain an electronic copy from: www.homeinnovation.com/ngbs

Send comments to: www.homeinnovation.com/ngbs

BSR/UL 1004-8-2009 (R201x), Standard for Safety for Inverter Duty Motors (reaffirmation of ANSI/UL 1004-8-2009 (R2014))

UL is proposing to reaffirm the ANSI approval of UL 1004-8, Inverter Duty Motors. No revisions are being proposed. UL 1004-8 covers squirrel cage polyphase induction motors intended for use with variable voltage and variable frequency controls, commonly referred to as inverters.

Single copy price: Free!

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

Send comments to: Jonette Herman, Jonette.A.Herman@ul.com

Due 15 November 2018

BSR/NFPA 1616-201x, Standard on Mass Evacuation, Sheltering, and Re-entry Programs (revision of ANSI/NFPA 1616-2017)

This standard shall establish a common set of criteria for the process of organizing, planning, implementing, and evaluating a program for mass evacuation, sheltering, and re-entry. The requirements in this standard are based on the existence of a program integrated disaster/emergency management and business continuity. An integrated program is defined in NFPA 1600. The integrated program is scalable to meet the needs of evacuation sheltering and re-entry.

Obtain an electronic copy from and offer comments at: <http://www.nfpa.org/1616next>

BSR/NFPA 1620-201x, Standard for Pre-Incident Planning (revision of ANSI/NFPA 1620-2015)

This document provides criteria for developing pre-incident plans for use by personnel responding to emergencies. Not every portion of this standard is applicable to the development of all pre-incident plans. This document is not intended for pre-incident planning related to construction, alteration, and demolition. (See NFPA 241.) Annex A, Explanatory Material; Annex B, Case Histories; Annex C, Special or Unique Characteristics of Occupancy Classifications; and Annex D, Sample Pre-Incident Plan Field Collection Card and Facility Data Record forms provide information to the users of this document.

Obtain an electronic copy from and offer comments at: <http://www.nfpa.org/1620next>

Due 19 November 2018

BSR/ASSE A10.46-201x, Hearing Loss Prevention for Construction and Demolition Workers (revision and redesignation of ANSI/ASSE A10.46-2013)

This standard applies to all construction and demolition workers with potential noise exposures (continuous, intermittent and impulse) of 85 dBA and above. It is intended to help employers prevent occupational hearing loss among construction and demolition workers.

Single copy price: \$140.00

Order from and send comments to: Tim Fisher, TFisher@ASSE.Org

BSR/ASSP Z10.1-201X, Occupational Health and Safety Management Systems (revision and redesignation of ANSI/ASSE Z10-2012 (R2017))

This standard defines minimum requirements for an occupational health and safety management system (OHSMS).

Single copy price: \$100.00

Order from and send comments to: Tim Fisher, TFisher@ASSE.Org

BSR/AWS D14.4/D14.4M-201X, Specification for the Design of Welded Joints in Machinery and Equipment (revision of ANSI/AWS D14.4/D14.4M-2012)

This specification establishes common acceptance criteria for classifying and applying carbon and low-alloy steel welded joints used in the manufacture of machines and equipment. It also covers weld joint design, workmanship, quality control requirements and procedures, weld joint inspection (visual, radiographic, ultrasonic, magnetic particle, liquid penetrant), repair of weld defects, and heat treatment.

Single copy price: \$40.50

Order from: Kevin Bulger, kbulger@aws.org

Send comments to: adavis@aws.org

BSR C78.54-201X, Standard for Electric Lamps - Specification Sheet for Tubular Fluorescent Replacement and Retrofit LED Lamps (new standard)

The purpose is to standardize the Tubular LED (TLED) Lamp specification sheet, or data reporting format, as the means of communication of critical lamp characteristics such as:

- intended use ballasts (if applicable);
- reference circuit (if applicable); and
- identify input voltage requirements (for use with mains voltage).

Other characteristics may include physical dimensions and/or temperature ratings for operation. This standard will cover all types of fluorescent replacement and retrofit TLED systems. The minimum defined contents and format of the specification sheet will be provided. Manufacturers can include additional information.

Single copy price: \$100.00

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

Due 26 November 2018

BSR/ASHRAE Addendum 135bs-201x, BACnet - A Data Communication Protocol for Building Automation and Control Networks (addenda to ANSI/ASHRAE Standard 135-2016)

The current standard does not address the need of elevator applications regarding BIBBs and device profiles. The addendum adds new elevator application specific BIBBs and device profiles.

Single copy price: \$35.00

Obtain an electronic copy and offer comments at: <http://www.ashrae.org/standards-research--technology/public-review-drafts>

BSR/ASSP Z359.7-201x, Qualification and Verification Testing of Fall Protection Products (revision and redesignation of ANSI/ASSE Z359.7-2011)

This standard specifies requirements for qualification and verification testing of ANSI/ASSP Z359, Fall Protection Code, products. It includes requirements for third-party testing, witness testing and manufacturer testing of fall protection products to the requirements of the ANSI/ASSP Z359 standards.

Single copy price: \$99.00

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

Due 11 December 2018

BSR/BOMA Z65.3-201x, Gross Areas of a Building: Standard Methods of Measurement (revision of ANSI/BOMA Z65.3-2009)

The purpose of the Gross Areas Standard is to provide a comprehensive and consistent methodology for measuring all building types while presenting the data in various ways that are useful to the stakeholders of any given property. This BOMA Gross Areas Standard includes four new Gross Area methods, known as Gross Area 1 (Leasing Method), Gross Area 2 (Valuation Method), Gross Area 3 (Volumetric Method) and Gross Area 4 (Construction Method). This new categorized and systematic approach provides users with an unlimited number of possible ways to dissect and analyze the areas of a building. This 2018 Gross Areas Standard includes many new features, enhancements, and clarifications. Key among them are compatibility with the International Property Measurement Standards (IPMS), greater variety of potential use cases and use by other industries, improved text and illustrations throughout, helpful hints, and an easier step-by-step layout among other things. It also addresses many questions that users have asked about previous versions of the standard.

Single copy price: Free of charge

Order from and send comments to: tjohnston@boma.org

BSR/IEEE 802.11ak-201x, Standard for Information technology -Telecommunications and information exchange between systems Local and metropolitan area networks-Specific requirements - Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications - Amendment 4: Enhancements for Transit Links within Bridged Networks (addenda to ANSI/IEEE 802.11-2003)

This amendment specifies protocols, procedures, and managed objects to enhance the ability of IEEE P802.11 media to provide internal connections as transit links within IEEE Std 802.1Q bridged networks.

Single copy price: \$94.00 (pdf); \$118.00 (print)

Order from: <https://www.techstreet.com/ieee>

Send comments to: k.evangelista@ieee.org

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 9 November 2018

C22.2 NO. 0.8 Safety functions incorporating electronic technology (new edition)

This standard applies to products and component devices where the electronics technology handles the operational logic including the safety features. This standard applies to the following configurations:

a) safety control function(s) implemented in hardware only; and

b) safety control function(s) implemented in some combinations of hardware and software.
The scope of this standard includes the sensors and actuators that are associated with the safety control.

Due 12 November 2018

C22.1, Amendment - Canadian Electrical Code, Part I, Subject No. 4371, Receptacle connections in industrial structures having more than one supply (amendment)

(A) Add new Rule 2-317

2-317 Commercial or industrial structures with provisions for connection to more than one power supply (see Appendix B)

Where a commercial or industrial structure contains transfer equipment for connection of an alternate power supply, at least one receptacle of CSA configuration 5-15R or 5-20R shall be supplied from a circuit capable of being supplied from the alternate power supply through the transfer equipment.

(B) Add new Appendix B Note for Rule 2-317

Rule 2-317

Relocatable commercial or industrial structures may include provision for an alternate power supply through an inlet or other connection means. The intent of this Rule is to ensure that at least one receptacle is available for portable chargers, tools, lighting, and similar uses when the structure is supplied from the alternate power supply.

DIN Public Review Announcement

The Deutsches Institut für Normung has announced a draft document possibly of interest to *Standards Watch* readers that is available for comment until 21 November 2018. After you register with DIN at <http://www.entwuerfe.din.de/>, you may purchase and comment on DIN draft standards.

DIN 15782, Medien- und Tontechnik - Strukturierte Medienkabelanlagen (Media and sound technology - Structured media cabling systems)

This document applies to structured cabling in event, production, and media technology. This document must be used in conjunction with DIN EN 50173-1. In addition to what is specified in DIN EN 50173-1, the document specifies transmission links and interfaces for peripherals used in mobile production and event technology, and in fixed production and event facilities.

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/ESD S20.20-201x, ESD Association Standard for the Development of an Electrostatic Discharge Control Program for Protection of Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electrically Initiated Explosive Devices) (revision of ANSI/ESD S20.20-2014)

This document applies to activities that manufacture, process, assemble, install, package, label, service, test, inspect, transport, or otherwise handle electrical or electronic parts, assemblies, and equipment susceptible to damage by electrostatic discharges greater than or equal to 100 volts HBM, 200 volts or 125 volts CDM, and 35 volts on isolated conductors. Activities that handle items that are susceptible to lower withstand voltages may require additional control elements or adjusted limits. Processes designed to handle items that have an ESD sensitivity to lower withstand voltages can still claim compliance to this standard. This document does not apply to electrically initiated explosive devices or flammable liquids or powders.

Contact: Christina Earl, cearl@esda.org

BSR/ESD S541-201x, ESD Association Standard for the Protection of Electrostatic Discharge Susceptible Items - Packaging Materials (revision of ANSI/ESD S541-2018)

This standard defines the packaging properties needed to protect electrostatic discharge susceptible (ESDS) electronic items through all phases of production, transport, and storage. Packaging requirements are defined to

support the ESD control program requirements stated in ANSI/ESD S20.20. Test methods are referenced for the evaluation of ESD protective packaging and packaging materials. Required limits are provided. This document applies to packaging used to store, transport, and protect ESDS electronic items during all phases of production and distribution. This document does not address protection from EMI/RFI/EMP or protection of volatile materials.

Contact: Christina Earl, (315) 339-6937, cearl@esda.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 provides for optimal system performance of the bonding and grounding system, allowing the system to meet its objective in preventing damage to people or assets.

Contact: Jeff Silveira, jsilveira@bicsi.org

BSR/OIX 1-201x, IXP Technical Standard (new standard)

The IXP standard (“OIX-1” or “IXP Standard”) defines the technical requirements for an Internet Exchange Point to be certified. An IXP is a physical network infrastructure operated by a single entity in order to facilitate the exchange of Internet traffic between Autonomous Systems (ASs). The intention is to connect more than two ASs, and there must be a clear and open policy for others to join. The standard sets forth requirements, notably, for the minimal service offering, infrastructure, and operations. These categories include, in particular, requirements for a public exchange VLAN (IX), permitting any-to-any interconnection; IEEE 802.3 Ethernet connectivity physical interface; traffic forwarding via specified Ethertypes; customer interface; infrastructure requirements for the IXP switching platform, the IP address space and any route server provided by the IXP; and operational requirements such as contact information for technical support, monitoring of the exchange platform and publication of statistics regarding traffic, participants on the peering platform and relevant AS numbers.

Contact: Richard Wolfram, rwolfram@rwolframlex.com

BSR/OIX 2-201x, Data Center Technical Standard (new standard)

The Open-IX Data Center Technical Standard (“OIX-2” or “DC Standard”) establishes criteria for Data Centers to support an IXP. (An IXP, or Internet Exchange Point, is a physical network infrastructure operated by a single entity to facilitate the exchange of Internet traffic between Autonomous Systems.) The DC Standard consists of both physical and operational requirements. Among the physical requirements, the DC Standard sets forth, notably, the minimum level of resiliency and redundancy with respect to utility feeds, transformers, UPS, electrical distribution infrastructure, back-up generators and cooling capacity, all of which must be no less than N+1, where N is the number of network-infrastructure elements required to support active customers (i.e., PDUs, UPSs, generators, chillers, etc.); a minimum standard for network access into the data center and the establishment of a MeetMe- Room with an established process and pricing for cross-connects to other data center customers and IXPs; criteria for fire protection, water sources, building security and building management; and parameters for locations of the data centers with respect to likely weather or geologic events as well as likely rail or plane transportation incidents. On the operational side, the DC Standard sets forth requirements for general rules governing facility use; local, state and federal licensing; power and cooling system commissioning; maintenance; operating procedures, including emergency response; hours of operation; change management; workflow management; disaster plans; customer communications; general compliance procedures; environmental compliance; and energy conservation. For some of the requirements there is an exception standard that the data center may meet, particularly with respect to existing facilities, but failure to meet the standard requirement or the exception for each category requires non-certification.

Contact: Richard Wolfram, rwolfram@rwolframlex.com

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 A14.3-2008 (R2018), Standard for Ladders - Fixed – Safety Requirements (reaffirmation of ANSI A14.3-2008): 5 October 2018

ANSI/AWI 0620-2018, Finish Carpentry/Installation (new standard): 21 September 2018

ANSI/E1.1-2018, Entertainment Technology Construction and Use of Wire Rope Ladders (revision of ANSI E1.1-2012): 27 September 2018

ANSI E1.60-2018, Guidelines for the Use of Raked Stages in Live Performance Environments (new standard): 20 September 2018

ANSI/IES TM-33-2018, Standard Format for the Electronic Transfer of Luminaire Optical Data (new standard): 20 September 2018

ANSI/IES RP-8-2018, Recommended Practice for Design and Maintenance of Roadway and Parking Facility Lighting (revision, redesignation and consolidation of ANSI/IES RP-8-2014, ANSI/IES RP-8-2018, Add 1, ANSI/IES RP-22-2018, and ANSI/IES DG-28 -2015): 20 September 2018

ANSI NEMA WC76-2018, Standard for Controlled Impedance Shielded Twisted Pairs in Internal Electrical Cable (new standard): 20 September 2018

ANSI/UL 110-2018, Standard for Sustainability for Mobile Phones (revision of ANSI/UL 110-2017): 28 September 2018

ANSI/UL 110-2018a, Standard for Sustainability for Mobile Phones (revision of ANSI/UL 110-2017): 28 September 2018

ANSI/UL 3030-2018, Standard for Safety for Unmanned Aircraft Systems (new standard): 18 September 2018

ANSI/UL 3030-2018a, Standard for Safety for Unmanned Aircraft Systems (new standard): 18 September 2018

ANSI/UL 1008-2018, Standard for Safety for Transfer Switch Equipment (revision of ANSI/UL 1008-2015): 14 September 2018

ANSI/UL 1008-2018a, Standard for Safety for Transfer Switch Equipment (revision of ANSI/UL 1008-2015): 14 September 2018

ANSI/UL 1998-2018, Standard for Safety for Software in Programmable Components (revision of ANSI/UL 1998-2013): 21 September 2018

ANSI/UL 1998-2018a, Standard for Safety for Software in Programmable Components (revision of ANSI/UL 1998-2013): 21 September 2018

ANSI/UL 60034-1-2018, Standard for Safety for Rotating Electrical Machines - Part 1: Rating and Performance (identical national adoption of IEC 60034-1 and revision of ANSI/UL 60034-1-2016): 11 September 2018

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 a 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 and Karen Hughes at isot@ansi.org respectively. Any prices, if shown, are for purchases through ANSI. The sort order is by due date then alphanumeric.

ISO/DIS 21260, Safety of machinery - Mechanical safety data for physical contacts between moving machinery or moving parts of machinery and persons, 28 October 2018, \$107.00

JTC1-SC41/66/CD, ISO/IEC 21823-3 ED1: Internet of Things (IoT) - Interoperability for IoT Systems - Part 3: Semantic interoperability, 3 November 2018

65E/620/CDV, IEC 62769-101-1 ED2: Field Device Integration (FDI) - Part 101-1: Profiles - Foundation Fieldbus H1, 2 December 2018

65E/623/CDV, IEC 62769-103-4 ED2: Field Device Integration (FDI) - Part 103-4: Profiles - PROFINET, 2 December 2018

65E/621/CDV, IEC 62769-101-2 ED2: Field Device Integration (FDI) - Part 101-2: Profiles - Foundation Fieldbus HSE, 2 December 2018

79/613/NP, PNW 79-613: Video surveillance systems for use in security applications - Part 2-4: Video transmission protocols - Technical requirements for interconnection protocol for transregional video surveillance systems (proposed IEC 62676-2-4), 2 December 2018

ISO/DIS 21384-3, Unmanned aircraft systems - Part 3: Operational procedures, 15 December 2018, \$77.00

ISO/DIS 10863, Non-destructive testing of welds - Ultrasonic testing - Use of time-of-flight diffraction technique (TOFD), 15 December 2018, \$107.00

ISO/DIS 10252, Bases for design of structures - Accidental actions due to human activities, 16 December 2018, \$165.00

ISO/IEC DIS 19516, Information technology - Object management group - Interface definition language (IDL) 4.2, 23 December 2018, \$175.00

ISO/DIS 37123, Sustainable cities and communities - Indicators for resilient cities, 23 December 2018, \$155.00

Recently Published IEC & ISO Documents

Listed here are documents recently approved by the IEC and ISO.

IEC 62368-1 Ed. 3.0 b:2018, Audio/video, information and communication technology equipment - Part 1: Safety requirements, \$410.00

S+ IEC 62368-1 Ed. 3.0 en:2018 (Redline version), Audio/video, information and communication technology equipment - Part 1: Safety requirements, \$534.00

ISO 16300-1:2018, Automation systems and integration - Interoperability of capability units for manufacturing application solutions - Part 1: Interoperability criteria of capability units per application requirements, \$68.00

ISO 22326:2018, Security and resilience - Emergency management - Guidelines for monitoring facilities with identified hazards, \$68.00

ISO/TS 22331:2018, Security and resilience - Business continuity management systems - Guidelines for business continuity strategy, \$138.00

ISO 22381:2018, Security and resilience - Authenticity, integrity and trust for products and documents - Guidelines for establishing interoperability among object identification systems to deter counterfeiting and illicit trade, \$138.00

ISO 23932-1:2018, Fire safety engineering - General principles - Part 1: General, \$138.00

ISO 22395:2018, Security and resilience - Community resilience - Guidelines for supporting vulnerable persons in an emergency, \$68.00

ISO 8139:2018, Pneumatic fluid power - Cylinders, 1 000 kPa (10 bar) series - Mounting dimensions of rod-end spherical eyes, \$45.00

ISO 8140:2018, Pneumatic fluid power - Cylinders, 1 000 kPa (10 bar) series - Mounting dimensions of rod-end clevises, \$45.00

ISO/TS 8100-21:2018, Lifts for the transport of persons and goods - Part 21: Global safety parameters (GSPs) meeting the global essential safety requirements (GESRs), \$162.00

ESTA Standards Watch

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TSP Meeting Schedule

The following set of meetings will be held in January 2019 at the 4-8 October 2018 at the Sheraton Park Hotel in conjunction with the NAMM conference and trade show in Anaheim, CA. The most up to date version of the meeting schedule sorted by day rather than meeting group is available at <http://tsp.esta.org/tsp/meetings/index.php>.

Control Protocols Compliance Study Group	19:00 – 23:00	Saturday, 26 January 2019
	13:00 – 17:00	Sunday, 27 January 2019
Control Protocols E1.20 / E1.37-5 TG	14:00 –18:00	Wednesday, 23 January 2019
Control Protocols E1.20 Task Group	19:00 – 23:00	Wednesday, 23 January 2019
Control Protocols E1.33 TG	14:00 –18:00	Thursday, 24 January 2019
	14:00 –18:00	Friday, 25 January 2019
Control Protocols E1.37-4 Firmware Uploads TG	09:00 – 13:00	Thursday, 24 January 2019
Control Protocols NAEP TG	19:00 – 23:00	Friday, 25 January 2019
Control Protocols Working Group	08:00 – 11:00	Friday, 25 January 2019
CP/Rig E1.59 Automation Feedback TG	20:00 – 23:00	Thursday, 24 January 2019
Electrical Power Electrical Inspection TG	10:00 - 13:00	Wednesday, 23 January 2019
Event Safety Fire Safety TG	09:00 – 13:00	Saturday, 26 January 2019
Event Safety Rigging Task Group	14:00 –18:00	Wednesday, 23 January 2019
Event Safety Structures Task Group	09:00 – 13:00	Thursday, 24 January 2019
Event Safety Venue & Site Design Task Group	14:00 –18:00	Friday, 25 January 2019
Event Safety Working Group	14:00 –18:00	Saturday, 26 January 2019
Floors Working Group	09:00 – 13:00	Saturday, 26 January 2019
Fog & Smoke Working Group	11:30 – 14:30	Friday, 25 January 2019
Followspot Position Working Group	20:00 – 23:00	Thursday, 24 January 2019
Photometrics Working Group	14:00 –18:00	Thursday, 24 January 2019
Rigging E1.6-1 Power Hoists TG	09:00 – 13:00	Friday, 25 January 2019
Rigging E1.6-2 Chain Hoist DIM TG	14:00 –18:00	Saturday, 26 January 2019
Rigging Working Group	19:00 – 23:00	Friday, 25 January 2019
Stage Machinery E1.64 TG	09:00 – 13:00	Saturday, 26 January 2019
Stage Machinery Working Group	15:00 –18:00	Friday, 25 January 2019
Technical Standards Council	09:00 – noon	Sunday, 27 January 2019

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