Technical Standards Program

ESTA Standards Watch

Late June 2020 Volume 24, Number 12

Table of Contents

Four draft TSP standards in public review

Four draft TSP standards are posted for public review on ESTA's TSP website. Comments are due on the first two draft standards before the end of the day 28 June. Comments on the third are due on or before 13 July, and comments on the last are due before the end of the day on 3 August 2020. Check'em out at https://tsp.esta.org/tsp/documents/public_review_docs.php! It costs you nothing but your time.

BSR E1.6-1, Powered Rigging Systems. ANSI E1.6-1 - 2019 is being opened for limited revision, with the scope of revisions applying only to section 6.6 of the standard. The revisions are necessary to correct errata in that section only. No other revisions will be considered or made at this time. Comments are due June 28.

BSR E1.39, Entertainment Technology - Selection and Use of Personal Fall Arrest Systems on Portable Structures Used in the Entertainment Industry. This standard establishes minimum requirements for the selection and use of personal fall arrest systems (PFAS) on portable structures in the entertainment industry. In addition, the standard establishes minimum requirements for products and portable structures used in the service of PFAS. The requirements for other methods used to protect workers from fall hazards such as safety nets, guard rails, and rope access techniques are not included in this standard. This standard does not preclude the use of other appropriate standards to promote fall protection safety. Comments are due June 28.

BSR E1.54, ESTA Standard for Color Communication in Entertainment Lighting. The draft standard is a revision of the existing ANSI E1.54. It specifies a standardized way of specifying color to facilitate the communications between lighting controllers and color-changing luminaires. The method is generic and is neither manufacturer-specific nor color technology-specific. The revisions are needed to make the standard more useful and to update the document's name. Comments are due July 13.

The draft E.54 standard and the notes on it are being distributed together in a ZIP file. The draft standard is intended to become an American National Standard. The notes are simply informative notes, and neither add to nor subtract from the requirements of the standard. Reviewers are asked to look at both documents. We don't want errors or confusing text in either of them.

BSR E1.69, Reporting the Low-End Dimming Performance of Entertainment Luminaires Using LED Sources. The standard shall describe a way of showing the end-user or equipment specifier the low-end dimming performance of LED luminaires, when the luminaire output level is set by a control signal varying over the low-end range from 10% to 0%. Right now there is no way for an equipment specifier to assess the low-end dimming of a luminaire without actually looking at the unit, and then there is no way to tell another person what the specifier saw without using subjective terms. Marketing terms, such as "theatrical quality dimming" or "dims smoothly to black," seem to say something, but have no objective meaning. Comments are due August 3.

Three ESTA TSP standards approved and published

On June 2, the ANSI Board of Standards Review approved **ANSI E1.4-3–2020, Entertainment Technology-Manually Operated Hoist Rigging Systems**, and **ANSI ES1.19–2020, Safety Requirements for Special Event Structures**. ANSI E1.4-3 is a revision and partitioning of ANSI E1.4-2014. This portion covers hand-cranked winches use for rigging in the entertainment industry. ANSI ES1.19 is a revision of the 2018 edition.

On June 18, the ANSI Board of Standards Review approved **ANSI E1.4–2020, Entertainment Technology—Recommended Guidelines for Entertainment Rigging System Inspections.** This standard is a revision of the 2017 version.

All three standards now are available for free download at http://tsp.esta.org/freestandards. If you would prefer to pay for them, you can buy them from ANSI and IHS at their on-line stores.

Event Safety Alliance Reopening Guide is now in Chinese and French—and English

Chinese and French editions of *The Event Safety Alliance Reopening Guide* can be download for free on the ESA website. Translations into Polish, Korean, and Japanese are coming soon! Download the *Reopening Guide* at https://www.eventsafetyalliance.org/esa-reopening-guide

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 TBT, 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.

United States of America Notification USA/1628

Date issued: 16 June 2020
Agency responsible: Environmental Protection Agency (EPA)
National inquiry point: USA WTO TBT Enquiry Point
Products covered: Chemical substances
Title: Significant New Use Rules on Certain Chemical Substances (20-6.B) (8 pages in English)
Description of content: Proposed rule - EPA is proposing significant new use rules (SNURs) under the Toxic Substances Control Act (TSCA) for chemical substances which are the subject of premanufacture notices (PMNs). This action would require persons to notify EPA at least 90 days before commencing manufacture

(defined by statute to include import) or processing of any of these chemical substances for an activity that is designated as a significant new use by this proposed rule. This action would further require that persons not commence manufacture or processing for the significant new use until they have submitted a Significant New Use Notice, and EPA has conducted a review of the notice, made an appropriate determination on the notice under TSCA, and has taken any risk management actions as are required as a result of that determination.
Objective and rationale: Protection of human health or safety; Protection of the environment
Relevant documents: 85 Federal Register (FR) 36175, 15 June 2020; Title 40 Code of Federal Regulations (CFR) Part 721: https://www.govinfo.gov/content/pkg/FR-2020-06-15/pdf/2020-12614.pdf
This notice of proposed rulemaking is identified by docket number EPA-HQ-OPPT-2020-0251. The docket folder is available on Regulations.gov at https://www.regulations.gov/docket?D=EPA-HQ-OPPT-2020-0251, and provides access to primary and supporting documents. Documents are also accessible from Regulations.gov by searching the docket number. WTO Members and their stakeholders are asked to submit comments to the USA TBT Enquiry Point. Comments received by the USA TBT Enquiry Point from WTO Members and their stakeholders will be shared with the regulator and will also be submitted to the Docket on Regulations.gov if received within the comment period.
Proposed date of adoption: Not given by country
Proposed date of entry into force: Not given by country
Final date for comments: 15 July 2020
Full text: https://www.govinfo.gov/content/pkg/FR-2020-06-15/pdf/2020-12614.pdf
[TSM note: Most of proposed new uses are unlikely to affect *Standards Watch* readers, but some might, such as the use of CAS 158800–93–2, formaldehyde reaction products with 1,3-benzenedimethanamine and p-tert-butylphenol, in epoxies. Lithium chloride, used to produce red pyrotechnics, is listed with a new use in the manufacture of devices for gamma and neutron radiation detection. It's a chemical we use, but this new use is not likely to affect *Standards Watch* readers.]

China Notification CHN/1426
Date issued: 17 June 2020
Agency responsible: Ministry of Industry and Information Technology
National inquiry point: General Administration of Quality Supervision and Inspection and Quarantine of the People's Republic of China (AQSIQ)
Products covered: Civil unmanned aircraft system (civil UAS); Other aircraft (for example, helicopters, airplanes); spacecraft (including satellites) and suborbital and spacecraft launch vehicles (HS 8802)
Title: Administrative Measures for Production and Manufacture of Civil UAS (5 pages in Chinese)
Description of content: This measure stipulates the safety requirements for production and manufacture of civil UAS.
Objective and rationale: Prevention of deceptive practices and consumer protection; Protection of human health or safety; Quality requirements
Proposed date of adoption: 31 December 2020
Proposed date of entry into force: Not given by country
Final date for comments: 16 August 2020
Full text: https://tsapps.nist.gov/notifyus/docs/wto_country/CHN/full_text/pdf/CHN1426(simplified_chinese).pdf

New Zealand Notification NZL/101
Date issued: 15 June 2020
Agency responsible: Ministry of Business Innovation and Employment (MBIE)
National inquiry point: Standards New Zealand
Products covered: The changes in the Bill apply to products identified as either a "building product" or "building method". "Building product" means a product that could reasonably be expected to be used as a component of a building. "Building method" means a method for using 1 or more products or things as part of building work
Title: Building (Building Products and Methods, Modular Components, and Other Matters) Amendment Bill (84 pages), in English)
Description of content: For building product information requirements, the Bill will require a minimum set of information for building products to support better and more efficient decision-making, and clarify responsibilities so that suppliers (including manufacturers, importers, distributors and retailers), designers and builders can be held accountable for any breaches of their responsibilities in relation to building products

and methods and their use. Building product information requirements will be placed onto New Zealand suppliers, regardless of the product's origin. These product information requirements relate to the following. Further information can be found at www.building.govt.nz.
• Product description
• Details of a supplier
• Performance, scope and limitations of use
• Design and installation requirements
• Maintenance requirements
• Declaration if a product is subject to a warning of ban
For a strengthened product certification scheme (CodeMark), the Bill will clarify the expectations of Product Certification Bodies (PCBs) and certificate holders by introducing scheme rules and registration requirements for PCBs and product certificates. These requirements apply to domestic and international scheme parties, and the scheme will continue to be consistent with the International Accreditation Forum (IAF) framework. Manufacturers of a certificated product or those seeking certification can expect PCBs to have more consistent standards for product certificates, due to clearer expectations in scheme rules
Under the new provisions, a PCB must be registered before it may issue product certificates. New provisions will also require the product certificates to be registered. Registration of product certificates can be suspended or revoked if certificate holders or the responsible PCB fail to comply with scheme rules, and it will be an offence to misrepresent a product certificate or status as a registered PCB. The regulations and rules are expected to have updated requirements on:
• the form and content of product certificates
• policies, procedures and systems for performing the functions of a registered PCB
• fit and proper person requirements for key personnel
• maintaining and making available written records
For more information on the changes proposed to the building certification scheme requirements see: www.building.govt.nz.
Objective and rationale: To address gaps and weak incentives in the regulation of building products and methods, lift the quality of building work and provide fairer outcomes if things go wrong. To strengthen the current framework for product certification.
Relevant documents: The Building (Building Products and Methods, Modular Components, and Other Matters) Amendment Bill is available at www.legislation.govt.nz.
Associated fact sheets and A3s are available at www.building.govt.nz.
Proposed date of adoption: Not given by country
Proposed date of entry into force: Not given by country
Final date for comments: 31 August 2020
Full text: https://tsapps.nist.gov/notifyus/docs/wto_country/NZL/full_text/pdf/NZL101(english).pdf

ANSI public review announcements

The following documents have been announced for public review by ANSI. Please send your comments before the deadline to the person indicated and to ANSI's Board of Standards Review at psa@ansi.org.

Due 27 July 2020

BSR/AWS D16.5M/D16.5-202x, Training Guide for Robotic Arc Welding Personnel (new standard)
This training guide provides technical information necessary to train personnel in the safe and effective use of industrial welding robots and welding robot systems. This guide includes a summary of the requisite education resources required for training and the emphasis will be placed on training individuals need in accordance with the principles of the AWS D16.4M/D16.4 Certified Robot Arc Welder (CRAW) program. The training guide is designed for use by all robot arc welding personnel and it is not intended to be used exclusively in support of the CRAW program.
Single copy price: $48.00
Order from: Jennifer Rosario, jrosario@aws.org
Send comments to: adavis@aws.org

BSR/UL 2416-202x, Standard for Safety for Audio/Video, Information and Communication Technology Equipment cabinet, Enclosure and Rack Systems (revision of ANSI/UL 2416-2019)
This proposal for UL 2416 covers: (1) Modified definition of Enclosure; (2) Updated references for spacings; (3) Refinement of effectively grounded marking requirement; (4) Revision of Functional Earthing (Grounding) marking; (5) Clarification on reference to UL 62368-1 for Indoor Locations; (6) Additional UL 62368-1 alternative for Outdoor Enclosures; (7) Clarification on condensation and drain holes; (8) Editorial revision of ITE (Computer) Room application requirement; (9) Refinement of Openings in Vertical Surfaces Requirements to promote consistent application; (10) Clarification on treatment of pryout holes; (11) Clarification on allowed application of Bottom Opening requirements to promote consistent application; (12) Clarification on Overcurrent Protection; (13) Clarification on application of Temperature Test; (14) Clarification on Installation Markings; (15) Clarification on Installation Instructions; and (16) Miscellaneous updates to UL 2416 to address areas needing further refinement.
Single copy price: Free
Access and offer comments at: https://csds.ul.com/Home/ProposalsDefault.aspx

Due 3 August 2020

BSR/ASSP A10.33-202x, 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, (847) 768-3411, tfisher@assp.org

BSR/NECA/IESNA 500-202X, Standard for Installing and Maintaining Indoor Commercial Lighting Systems (new standard)
This standard describes installation and maintenance procedures for permanently installed incandescent, halogen, fluorescent, LED, and high-intensity discharge (HID) lighting systems operating at 1000 volts or less installed indoors and commonly used in commercial and retail buildings, including, but not necessarily limited to, the following: (1) Recessed lighting systems, such as troffers, downlights, wallwashers, valance lights, and accent lights; (2) Surface-mounted lighting systems, such as surface troffers, wraparounds, surface downlights, monopoints, and decorative fixtures; (3) Suspended lighting systems, such as pendant luminaires, direct, indirect, and uplight systems, and decorative luminaires; (4) Wall-mounted lighting systems, such as sconces or wallpacks; and (5) Track lighting systems. In addition to luminaires, this Standard includes construction materials related to luminaires, including, but not necessarily limited to, lamps, conductors, wiring methods, various special screws and clips, and structural suspension components.
Single copy price: $25.00 (NECA members)/$55.00 (non-members)
Order from and send comments to: Lina Jariri, (240) 800-5003, lina.jariri@necanet.org

BSR C137.7-202X, Standard for Lighting Systems - Networked Parking Lot Lighting Systems (new standard)
This standard sets forth a minimum set of functionalities required in networked open parking-lot lighting systems. This standard does not apply to covered parking garages. This standard does not apply to system parameters covered by standards developed by other accredited bodies. Such parameters include lighting levels, spectral quality, pole spacing and height, and component efficiency. This standard does not place limitations on lighting or networking technologies. It does not seek to provide component level interchangeability or interoperability. However, compliance to this standard is likely to ensure the basic functional needs of a user are met for a system within the scope.
Single copy price: $100.00
Order from and send comments to: Michael Erbesfeld, Michael.Erbesfeld@nema.org

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CSA public review announcements

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

Due 29 July 2020

Z462, Workplace electrical safety (new edition)
This standard specifies requirements for workplace electrical safety necessary for the practical safeguarding of workers during activities such as the installation, removal, inspection, operation, maintenance, and demolition of electric conductors and electric equipment, as well as work in proximity of energized electrical equipment.

Due 31 July 2020

Z1008, Management of impairment in the workplace (new standard)
This Standard specifies requirements for management of impairment in the workplace while providing specific requirements and guidance for impairment due to substance use, following occupational health and safety management system principles, as they apply to
- Development of a management of impairment in the workplace policy;
- Management commitment and leadership;
- Key roles and responsibilities;
- Communication, education and training;
- Initial review and needs assessment;
- Return to work;
- Accommodation;
- Compliance to the policy and program; and
- Continual improvement.

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/ARCSA/ASPE 78-202x, Stormwater Harvesting System Design for Direct End-Use Applications (revision of ANSI/ARCSA/ASPE 78-2015)
The purpose of this standard is to assist engineers, designers, plumbers, builders/developers, landscape and irrigation professionals, state and local government, and end users in implementing a stormwater harvesting system while protecting public health and safety. This standard is intended to apply to new stormwater harvesting installations, as well as alterations, additions, maintenance, and repairs to existing installations. It applies to the collection of stormwater from the transportation grid (vehicular parking, driving, or other similar surfaces), elevated parking structures, surface public right-of-ways, and storm drain systems.
Contact: Gretchen Pienta, gpienta@aspe.org

BSR/AWS A2.4-202x, Standard Symbols for Welding, Brazing, and Nondestructive Examination (revision of ANSI/AWS A2.4-2020)
AWS A2.4 are intended to be used to facilitate communication among the design, fabrication, and inspection personnel through drawings. This standard establishes a method for specifying certain welding, brazing, and nondestructive examination information by means of symbols, including the examination method, frequency, and extent. Detailed information and examples are provided for the construction and interpretation of these symbols.
Contact: Stephen Borrero, sborrero@aws.org

BSR/AWS A3.0M/A3.0-202x, Standard Welding Terms and Definitions Including Terms for Adhesive Bonding, Brazing, Soldering, Thermal Cutting, and Thermal Spraying (revision of ANSI/AWS A3.0M/A3.0-2019)
This standard is a glossary of the technical terms used in the welding industry. Its purpose is to establish standard terms to aid in the communication of information related to welding and allied processes. Since it is intended to be a comprehensive compilation of welding terminology, nonstandard terms used in the welding industry are also included. All terms are either standard or nonstandard.
Contact: Stephen Borrero, sborrero@aws.org

BSR/CTA 2068.1-202x, Definitions and Characteristics of Consumer Technologies for Monitoring Physical and Psychosocial Stress - Heart Rate and Related Measures (new standard)
This standard defines and creates performance criteria for consumer stress monitoring technologies that use heart rate and related measures in the measurement and application of stress metrics.
Contact: Veronica Lancaster, vlancaster@cta.tech

BSR/CTA 2068.2-202x, Definitions and Characteristics of Consumer Technologies for Monitoring Physical and Psychosocial Stress - Respiration (new standard)
This standard defines and creates performance criteria for consumer stress monitoring technologies that use respiration in the measurement and application of stress metrics.
Contact: Veronica Lancaster, vlancaster@cta.tech

BSR/CTA 2068.3-202x, Definitions and Characteristics of Consumer Technologies for Monitoring Physical and Psychosocial Stress - Skin Conductance (new standard)
This standard defines and creates performance criteria for consumer stress monitoring technologies that use skin conductance in the measurement and application of stress metrics.
Contact: Veronica Lancaster, vlancaster@cta.tech

BSR/NFPA 915-202x, Standard for Remote Inspections (new standard)
This standard will establish protocols and practices for the use of remote inspections of existing buildings, buildings under construction, and building systems for code compliance.
Contact: Dawn Michele Bellis, dbellis@nfpa.org

BSR/NFPA 2800-202x, Standard for Emergency Action Planning (new standard)
This standard will establish minimum requirements for emergency action plans addressing all-hazard emergencies within occupied structures having an occupant load of greater than 500 but not for qualifications, roles, responsibilities, or emergency action plans within industrial occupancies.
Contact: Dawn Michele Bellis, dbellis@nfpa.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 ASA S3.41-2015 (R2020), Audible Emergency Evacuation (E2) and Evacuation Signals with Relocation Instructions (ESRI) (reaffirmation of ANSI ASA S3.41-2015): 5 June 2020

ANSI E1.4-3-2020, Entertainment Technology - Manually Operated Hoist Rigging Systems (revision and partition of ANSI E1.4-2014): 2 June 2020

ANSI ES1.19-2020, Safety Requirements for Special Event Structures (revision of ANSI ES1.19-2018): 2 June 2020

ANSI/UL 2900-1-2020, Standard for Safety for Software Cybersecurity for Network-Connectable Products, Part 1: General Requirements (revision of ANSI/UL 2900-1-2017): 5 June 2020

ANSI/UL 2900-2-1-2020, Standard for Safety for Software Cybersecurity for Network-Connectable Products, Part 2-1: Particular Requirements for Network Connectable Components of Healthcare and Wellness Systems (revision of ANSI/UL 2900-2-1-2017): 8 June 2020

Draft IEC & ISO documents

This section lists proposed documents that the IEC or ISO, or both, are 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.

34A/2193/FDIS, IEC 62868-2-2 ED1: Organic Light Emitting Diode (OLED) light sources for general lighting - Safety - Part 2-2: Particular requirements - Integrated OLED modules, 24 July 2020

34A/2192/FDIS, IEC 62868-2-1 ED1: Organic light emitting diode (OLED) light sources for general lighting - Safety - Part 2-1: Particular requirements - Semi-integrated OLED modules, 24 July 2020

65C/1028/CD, IEC 61158-2 ED7: Industrial communication networks - Fieldbus specifications - Part 2: Physical layer specification and service definition, 31 July 2020

65C/1029/CD, IEC 61158-3-X ED3: Industrial communication networks - Fieldbus specifications - Part 3-X: Data-link layer service definition - Type X elements, 31 July 2020

65C/1030/CD, IEC 61158-4-X ED5: Industrial communication networks - Fieldbus specifications - Part 4-X: Data-link layer protocol specification - Type X elements, 31 July 2020

65C/1031/CD, IEC 61158-5-X ED5: Industrial communication networks - Fieldbus specifications - Part 5-X: Application layer service definition - Type X elements, 31 July 2020

65C/1032/CD, IEC 61158-6-X ED5: Industrial communication networks - Fieldbus specifications - Part 6-X: Application layer protocol specification - Type X elements, 31 July 2020

65C/1035/CD, IEC 61784-1-X ED1: Industrial communication networks - Profiles - Part 1-X: Fieldbus profiles, 31 July 2020

65C/1036/CD, IEC 61784-2-X ED1: Industrial communication networks - Profiles - Part 2-X: Additional fieldbus profiles for real-time networks based on ISO/IEC/IEEE 8802-3, 31 July 2020

JTC1-SC41/165/CD, ISO/IEC TR 30167 ED1: Internet of Things (IoT) - Underwater Communication Technologies for IoT, 31 July 2020

JTC1-SC41/168/CD, ISO/IEC 30162 ED1: Internet of Things (IoT) - Compatibility requirements and model for devices within industrial IoT systems, 7 August 2020

34D/1553/CD, IEC 60598-1/FRAG5 ED10: Fragment 5 - Luminaires - Part 1: General requirements and tests, 4 September 2020

ISO/DIS 45003, Occupational health and safety management - Psychological health and safety at work: Managing psychosocial risks – Guidelines, 4 September 2020, $82.00

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 63181-2 Ed. 1.0 b:2020, LCD multi-screen display terminals – Part 2: Measuring methods, $82.00

ISO/IEC 21122-4:2020, Information technology - JPEG XS low-latency lightweight image coding system - Part 4: Conformance testing, $103.00

ISO/IEC 23003-4:2020, Information technology - MPEG audio technologies - Part 4: Dynamic range control, $232.00

ISO/IEC 23643:2020, Software and systems engineering – Capabilities of software safety and security verification tools, $162.00

ISO/IEC 29184:2020, Information technology - Online privacy notices and consent, $138.00

ISO/IEC TR 23187:2020, Information technology - Cloud computing - Interacting with cloud service partners (CSNs), $162.00

TSP meeting schedule

All times are EDT, and all meetings will be via WebEx, not face-to-face.

Controls BSR E1.37-5 Task Group	14:00 – 16:00 EDT	Saturday 18 July 2020
Controls BSR E1.68 Task Group	10:00 – 14:00 EDT	Tuesday 14 July 2020
	10:00 – 14:00 EDT	Friday 17 July 2020
Controls Next Gen Overall Task Group	13:00 – 14:00 EDT	Wednesday 15 July 2020
Control Protocols Working Group	10:00 – 13:00 EDT	Thursday 16 July 2020
Electrical Power Working Group	14:00 – 17:00 EDT	Friday 17 July 2020
Event Safety Working Group	10:00 – 13:00 EDT	Friday 17 July 2020
Floors Working Group	14:00 – 16:00 EDT	Wednesday 15 July 2020
Fog & Smoke Working Group	17:00 – 20:00 EDT	Wednesday 15 July 2020
Photometrics Working Group	14:00 – 16:00 EDT	Thursday 16 July 2020
Rigging Working Group	17:00 – 20:00 EDT	Thursday 16 July 2020
Stage Machinery Working Group	10:00 – 13:00 EDT	Wednesday 15 July 2020
Stage Machinery E1.6-4 Task Group	14:00 – 16:00 EDT	Tuesday 14 July 2020
Stage Machinery E1.64 Task Group	11:00 – 13:00 EDT	Tuesday 14 July 2020
Technical Standards Council	11:00 – 14:00 EDT	Monday 20 July 2020

The meetings the second week of October also will be via WebEx, not face-to-face. The meeting schedule is posted at https://www.esta.org/ESTA/meetings.php. Note that it is subject to change. Everything is subject to change.

ESTA Standards Watch

is distributed as a benefit to ESTA members and as a communication medium for participants in ESTA's Technical Standards Program.

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

About the Stage
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Altman Lighting
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Chauvet
City Theatrical
Clark-Reder Engineering
Columbus McKinnon Corporation
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Bruce Darden
Doug Fleenor Design
Earl Girls Inc. EGI Pro
Electronic Theatre Controls
Entertainment Project Services
Geiger Engineers, PC
Tony Giovannetti
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Golden Sea Professional Equipment Limited
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Westview Productions
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Investors in Innovation, supporters of ESTA's Technical Standards Program

VISIONARY LEADERS ($50,000 & up)

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

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Cisco
Columbus McKinnon Entertainment Technology
Robe
Disney Parks Live Entertainment

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

Altman Lighting, Inc.
German Light Products
JR Clancy
McLaren Engineering Group
Rose Brand
Stage Rigging
Theatre Projects
Theatre Safety Programs
TMB

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

About the Stage
B-Hive Industries, Inc.
Scott Blair
Boston Illumination Group
Candela Controls, Inc.
Clark Reder Engineering
Tracey Cosgrove & Mark McKinney
Doug Fleenor Design
EGI Event Production Services
Entertainment Project Services
Neil Huff
Interactive Technologies
Jules Lauve
Brian Lawlor
Michael Lay
Limelight Productions, Inc.
Link
John T. McGraw
Mike Garl Consulting
Mike Wood Consulting
Reed Rigging
Reliable Design Services
Alan Rowe
Sapsis Rigging Inc.
Dana Taylor
Steve Terry
Vertigo
Steve A. Walker & Associates
WNP Services

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

Actors' Equity Association
Barbizon Lighting Company
Golden Sea Professional Lighting Provider
IATSE Local 728
IATSE Local 891
Lex
NAMM
Rosco Laboratories
Texas Scenic Company

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

American Society of Theatre Consultants
BMI Supply
City Theatrical Inc.
H&H Specialties, Inc.
InterAmerica Stage, Inc.
Lycian Stage Lighting
Morpheus Lights
Niscon Inc.

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

Bruce Darden
Guangzhou Color Imagination LED Lighting
Kenney Drapery Associates, Inc.
Indianapolis Stage Sales & Rentals, Inc.
L1 Inc.
Lighting Infusion LLC
Scott Madaski
Mediam Sp. zo.o.
Nanyi Audio & Lighting Enterprise Co., Ltd.
Qdot Lighting Ltd.
Show Light Oy

SUPPORTER ($50 - $2,999; >100 employees/members)

Harlequin Floors

SUPPORTER ($50 - $1,499; 20–100 employees/members)

ACT Lighting Inc./AC Power Distribution
ARM Automation, Inc.
Ian Foulds, IATSE Local 873
General Lighting Electronic Co. Ltd.
Guangzhou YaFeng Optoelectronic Equipment Co.
Guangzhou Yilaiming Photoelectric Technology Co., Ltd.
HAYA Light Equipment Ltd. Co.
High Output
InCord
Intella Systems Co., Ltd.
iWeiss
LA ProPoint, Inc.
Moss LED Inc.
Movecat GmbH
Nanshi Lighting
Oasis Stage Werks
Shenzhen Ifountain Technology
Skjonberg Controls Inc.
Stage Equipment & Lighting
Stagemaker
Stageworks
Syracuse Scenery and Stage Lighting Co., Inc.
Taurus Light Co. Ltd.
Ultratec Special Effects
Vincent Lighting Systems
Zhuhai Shengchang Electronics Co.

SUPPORTER ($50 - $199; <20 employees/members)

Capture Visualisation AB
Clik Systems
DMX Pro Sales
Foshan Leiyuan Photoelectric Co. Ltd.
Jack Gallagher
Tony Giovannetti
Pat Grenfell
Beverly and Tom Inglesby
Eddie Kramer
Jason Kyle
LuxBalance Lighting
Tyrone Mellon, Jr.
Orange Pi DMX
Lizz Pittsley
Michael Skinner
Studio T+L
Terrier Marketing
Stephen Vanciel
Arjan van Vught

Extraordinary legacy gift: Ken Vannice