

ESTA Standards Watch

Late February 2024

Volume 28, Number 4

Table of Contents			
NATEAC registration opens 1 March 2024 for ESTA Members	1		
Seven ESTĂ standards in public review			
ANSI seeks comment on creative digital design ISO proposal	3		
EPA labeling for low embodied-carbon construction materials	3		
FCC approves seven AFC applications and revises rules on wireless microphones	4		
Behind the Scenes Charity offers Spring 2024 virtual training	4		
Mental Health First Aid	4		
Bystander Intervention in the Entertainment Workplace	4		
WTO Technical Barriers to Trade notifications	5		
Egypt Notification G/TBT/N/EGY/429			
China Notification G/TBT/N/CHN/1810	5		
ANSI public review announcements	5		
Due 10 March 2024	6		
Due 17 March 2024	6		
Due 24 March 2024	6		
Due 25 March 2024	6		
Due 9 April 2024	7		
Due 1 April 2024	7		
Due 8 April 2024			
Due 23 April 2024			
BSI public review announcements	13		
Due 16 April 2024			
CSA public review announcements			
Due 25 March 2024	13		
New ANS projects			
Final actions on American National Standards	16		
Call for Members	17		
Public review of application for accreditation			
Draft IEC & ISO documents	18		
Recently published ISO & IEC documents	21		
Editors			
TSP meetings			
Investors in Innovation, supporters of ESTA's Technical Standards Program			

NATEAC registration opens 1 March 2024 for ESTA Members

ESTA members will be invited to register for NATEAC starting tomorrow, Friday, March 1, at the Early Bird rate of \$775. The Early Bird rate will only be available only from March 1 through March 17. If you're not an ESTA member yet, registration will open to you on March 18 at the regular registration rate of \$850.

The 2024 NATEAC conference features two full days of high-level sessions on the topic of Access, as well as the fan-favorite kickoff harbor cruise Saturday night, the Behind the Scenes Charity Dinner at a brand-new location on Sunday night, an after-party on Monday night—post education sessions—and the NATEAC Tuesday Tours, where attendees can tour some of the most state-of-the-art performance spaces in the city.

If you or your company are not an ESTA member, yet, email membership@esta.org and ask about joining today!

Seven ESTA standards in public review

Eight ESTA standards are in public review at http://estalink.us/pr. Comments are due BEFORE 8 April 2024.

BSR ES1.2-202x, Event Safety - Planning and Management (new standard)

This standard gives overall guidance on the general aspects of planning and management for special events.

BSR E1.64-202x, Stage Machinery Motion Control (new standard)

This document provides a common standard of design, operation, maintenance and practices for the control of all stage machinery. It offers a complete look at how stage machinery is controlled in the Entertainment Industry. It addresses control schema requirements, from the Operator Interface (pushbuttons, software, touch surface) through the wiring (data or discrete I/O) along the path to the controller (analog, digital, relay coils), through the controller output and along a second path of wiring (machine power, data, analog signals, discrete I/O), to the machine. The document provides advice and guidance on usage of drives, contactors, emergency stop systems, cable termination, cable selection, data transmission and operator interfaces.

BSR E1.30-11-2019 (R202x), EPI 33. ACN Root Layer Protocol Operation on TCP (reaffirmation of ANSI E1.30-11-2019)

ANSI E1.30-11-2019 (EPI 33) specifies the operation and formats for the ACN Root Layer Protocol [Arch] operating on [TCP].

BSR E1.20-202x, Entertainment Technology - RDM-Remote Device Management over USITT DMX512 Networks (revision of ANSI E1.20-2010)

This standard describes a method of bi-directional communications over a USITT DMX512/1990 or ANSI E1.11 - 2004 data link between an entertainment lighting controller and one or more remotely controlled lighting devices. The protocol was written to work with the ANSI E1.11-2004 control standard, but will work equally well with the current 2009 version of E1.11. It allows discovery of devices on a DMX512/E1.11 network and the remote setting of DMX starting addresses, as well as status and fault reporting back to the control console.

BSR E1.43-202x, **Entertainment Technology - Performer Flying Systems** (revision of ANSI E1.43-2016) This standard establishes a minimum level of performance parameters for the design, manufacture, use, and maintenance of performer flying systems used in the production of entertainment events. The purpose of this guidance is to achieve the adequate strength, reliability, and safety of these systems to ensure safety of the performer, other production personnel, and audiences under all circumstances associated with performer flying.

BSR E1.51-202x, The Selection, Installation, and Use of Single-Conductor Portable Power Feeder Cable Systems for Use at 600 Volts Nominal or Less for the Distribution of Electrical Energy in the Television, Film, Live Performance and Event Industries in Canada (revision of ANSI E1.51-2018)

This standard gives guidance on how to safely use single-conductor portable power feeder cable, a power distribution technique about which the Canadian Electrical Code is largely silent.

BSR E1.60-202x, Guidelines for the Use of Raked Stages in Live Performance Environments (revision of ANSI E1.60-2018)

This standard provides guidance for the use of raked stages in live performance environments to mitigate the risks for the protection of actors and technicians.

ANSI seeks comment on creative digital design ISO proposal

As the U.S. member body to the International Organization for Standardization (ISO), the American National Standards Institute (ANSI) is seeking comments on a <u>proposed technical committee</u> (TC) on creative digital design. Submit feedback by **23 February 2024**.

Creative digital design offers vivid and detailed visual effects in the online virtual world and is adapted in e-games, digital fashion, and fine art, among other applications. According to a proposal submitted by the Standardization Administration of China (SAC), China's member body to ISO, "collaboratively coordinated creative digital design processes can improve originality, diversity, and efficiency, which enhances immersive experience, and reduces duplication in labor cost and investment," thereby promoting sustainability.

The proposed ISO TC would operate under the following scope:

"Standardization of protocols including rules and guidance in the field of management, organization, operation, and capacity building activities, related to virtual digital design of the creative elements to be used, for example, within e-games, digital fine art, digital fashion design, and potentially compatible to be used in other applications."

Furthermore, as the proposal asserts, the TC aims to be technology-neutral, fostering collaborative impacts in transforming creative processes from a silo approach to collaborative approaches among professional creative designers and studios through coordinated managerial, organizational, operational, and capacity-building activities. It will not focus on any specific information technology, particularly those related to environmental data representation, graphics processing, or blockchain technologies, and would not necessarily involve AI.

All comments on this proposal should be sent to Steven Cornish, ANSI senior director for international policy (scornish@ansi.org). Feedback received by the deadline will be used to develop the ANSI representative input to the ISO Technical Management Board. The full proposal filed by SAC is available here.

EPA labeling for low embodied-carbon construction materials

The U.S. Environmental Protection Agency (EPA) is <u>seeking public input</u> on the draft approach for implementing the <u>Label Program for Low Embodied Carbon Construction Materials</u>, part of President Biden's Investing in America agenda. Provide feedback at a February 27 webinar; submit comments online by March 15.

The new \$100 million program aims to cut climate pollution linked to the manufacturing of construction products and materials by helping to define what constitutes "clean" construction materials. According to the EPA announcement, the draft approach "proposes to standardize and improve the data that manufacturers use in developing Environmental Product Declarations (EPDs), which disclose products' key environmental impacts. It also proposes a process by which EPA would use data from EPDs and other sources to set thresholds for the amount of embodied carbon a product can have, relative to similar products, to qualify for the low embodied carbon label. The final phase of the draft approach is for the program to certify materials and products and to create a central registry of certified products."

The program is in support of the Biden-Harris Administration's <u>Federal Buy Clean Initiative</u>, which leverages the federal government's power as the world's largest purchaser to spur demand for low-emissions manufacturing.

Comments are due by **15 March 2024**, see the <u>Federal Register notice</u> for instructions. You may also offer feedback during a webinar on **27 February 2024** from 12:00 – 1:00 p.m. ET. <u>Register for the webinar</u>.

New EPA Webpage on Product Category Rule

The EPA also has published a <u>new webpage</u> that provides information on the product category rule (PCR) standards in which the U.S. government is participating. This participation is in support of the cleaner construction materials labeling program.

FCC approves seven AFC applications and revises rules on wireless microphones

Automatic Frequency Coordination applications

The FCC's Office of Engineering and Technology recently approved applications from Qualcomm, Federated Wireless, Sony, Comsearch, the Wi-Fi Alliance, the Wireless Broadband Alliance, and Broadcom for automated frequency coordination (AFC) systems to operate in the 6 GHz band under the FCC's rules for unlicensed operations. With this action, the FCC is approving these companies to operate spectrum management services in the band to allow standard power Wi-Fi to begin operating in 6 GHz band. These systems can now move forward in managing access to this spectrum by Wi-Fi devices.

In addition to the seven approved applications, the FCC is seeking comment on C3 Spectra's proposed AFC system. Comments are due 15 March 2024. See the full text of these measures at <u>DA-24-166A1.docx</u> <u>DA-24-166A1.txt</u> and contact Nicholas Oros - (202) 418-0636 with any questions.

Wireless microphone ruling

The FCC has revised the technical rules for Part 74 low-power auxiliary station (LPAS) devices to permit a recently developed type of wireless microphone system termed herein as a Wireless Multichannel Audio System (WMAS), to operate in the broadcast television (TV) bands and other Part 74 LPAS frequency bands on a licensed basis. This emerging technology will enable more wireless microphones to operate in the spectrum available for wireless microphone operations. Their goal in this proceeding is to increase wireless microphone spectral efficiency and enable more intensive use in the spectrum available for such operations. The FCC does not intend to alter the existing spectrum rights—or expectations regarding spectrum access and availability—vis-à-vis all the various authorized users, whether broadcast licensees, white space device users, the wireless microphone users themselves, or others, that share frequency bands with wireless microphones. See the full text of the revised rules at FCC-24-22A1.docx, FCC-24-22A1.pdf, FCC-24-22A1.txt, FCC-24-22A2.docx, FCC-24-22A2.pdf, and FCC-24-22A2.txt.

Behind the Scenes Charity offers Spring 2024 virtual training

Visit <u>btshelp.org/mentalhealth</u> to see all the available tools and resources in the BTS Mental Health and Suicide Prevention Initiative.

Mental Health First Aid

Become a certified Mental Health First Aider! Expand your skill sets by learning how to identify, understand and respond to signs of distress in your colleagues and help make our workplaces healthier and safer spaces.

Mental Health First Aid virtual classes are posted for March 10 and 12 and April 7 and 29 at btshelp.org/mhfa. The course is delivered in two parts. The first is a 2 hour self-paced online course that must be completed prior to an interactive 6 hour virtual, live instructor-led session.

The registration fee is \$125. IATSE Members and those working under IATSE agreements may be eligible for Training Trust Fund reimbursement upon proof of successful completion of the course. A limited number of partial and full scholarships are available to individuals not eligible for reimbursement.

Private group classes of 10 -25 are available - contact mhfa@btshelp.org for information.

Bystander Intervention in the Entertainment Workplace

Learn five easily accessible tools to safely intervene when co-workers are bullied or intimated!

The webinar is free but advance registration at <u>btshelp.org/bystander</u> is required in order to receive the zoom login. Upcoming 2024 dates are April 21 at 4pm ET, and July 22 at 7pm ET.

Behind the Scenes is partnering with Right To Be, a social justice organization that specializes in education around bullying and harassment, to present these free interactive webinars. These webinars are sponsored by the IATSE International and are open to all entertainment industry workers.

WTO Technical Barriers to Trade notifications

The World Trade Organization has announced Technical Barrier to Trade filings that may be of interest to *Standards Watch* readers. If you have a problem with a TBT, you can protest through your representative to the World Trade Organization.

Egypt Notification G/TBT/N/EGY/429

Notification Date: 16 February 2024

Notifying Member: EGYPT

Agency responsible: Egyptian Organization for Standardization and Quality, http://www.eos.org.eg

Products covered: Luminaires (ICS code(s): 29.140.40)

Title: Ministerial Decree No. 502 /2023 (4 pages, in Arabic) mandating the Egyptian Standard ES 8697 for

"Luminaries - Particular requirements - Ground recessed luminaries" .; (57 page(s), in English)

Description of content: The Ministerial Decree No. 502 /2023 gives producers and importers a six-month transitional period to abide by the Egyptian standard ES 8697 which specifies requirements for ground recessed luminaries incorporating electric light sources for operation from supply voltages up to 1 000 V, for indoor or outdoor use, e.g. in gardens, yards, carriageways, parking lots, cycle ways, footways, pedestrian areas, swimming pools areas outside zones for SELV, nurseries and similar applications. Worth mentioning is that this standard adopts the technical content of IEC 60598-2-13:2006+AMD1:2011+AMD2:2016 CSV

Objective and rationale: Safety requirements, Quality requirements

Relevant documents: Ministerial Decree No. 502 /2023 and IEC 60598-2-13:2006+AMD1:2011+AMD2:2016

Proposed date of adoption: 18 December 2023 Proposed date of entry into force: 5 January 2024 Final date for comments: 60 days from notification

Texts available from: http://www.eos.org.eg

China Notification G/TBT/N/CHN/1810

Notification Date: 12 February 2024

Notifying Member: China

Agency responsible: State Administration for Market Regulation (Standardization Administration of the

P.R.C.)

Products covered: fire emergency luminaire, centralizing power supply for fire emergency luminaries, switch board for fire emergency lighting, central control panel for fire emergency luminaire (HS code(s): 940541); (ICS code(s): 13.220.20)

Title: National Standard of the P.R.C., Fire emergency lighting and evacuate indicating system; (82 page(s), in

Chinese)

Description of content: The document specifies the terms and definitions, classification, requirements, testing, inspection rules, signs, and user manuals of fire emergency lighting and evacuate indicating system. The document applies to the design, manufacturing, and inspection of fire emergency lighting and evacuate indicating system used in industrial and civil buildings.

Objective and rationale: Protection of human health or safety

Proposed date of adoption: To be determined

Proposed date of entry into force: 12 months after approval

Final date for comments: 60 days from notification

Texts available from: Contact tbt@customs.gov.cn or view original notification document at

https://members.wto.org/crnattachments/2024/TBT/CHN/24 01359 00 x.pdf

ANSI public review announcements

The following documents have been announced for public review by ANSI and may be of material interest to *Standards Watch* readers. If you have comments on them, please send your comments before the deadline to the person indicated and to ANSI's Board of Standards Review at psa@ansi.org.

Due 10 March 2024

BSR/UL 50E-202x, Standard for Enclosures for Electrical Equipment, Environmental Considerations (revision of ANSI/UL 50E-2020)

Second recirculation of the following topics: (1) Sealing Compound at Joints or Seams.

View the changes and instructions for submitting comments (copy psa@ansi.org) at the CSDS Work Area: https://csds.ul.com/ProposalAvailable. Contact mitchell.gold@ul.org, https://ulse.org/.

BSR/UL 705-202x, Standard for Safety for Power Ventilators (revision of ANSI/UL 705-2022)

This proposal for UL 705 covers: (1) Update Test Method SA13-Lint Test; (2) Add UL 2043 Requirements as an Alternative to UL 723.

View the changes and instructions for submitting comments (copy <u>psa@ansi.org</u>) at https://csds.ul.com/Home/ProposalsDefault.aspx. Contact <u>ashley.seward@ul.org</u>, https://ulse.org/.

BSR/UL 2238-202x, Cable Assemblies and Fittings for Industrial Control and Signal Distribution (revision of ANSI/UL 2238-2024)

(1) Field-Installed Cord Grips; (2) Updates in correspondence to the Style Manual.

View the changes and instructions for submitting comments (copy <u>psa@ansi.org</u>) at the CSDS Work Area: https://csds.ul.com/ProposalAvailable. Contact celine.eid@ul.org, https://ulse.org/.

Due 17 March 2024

BSR/UL 1008M-202x, Standard for Transfer Switch Equipment, Meter-Mounted (new standard)

Revisions to the proposed First Edition of the Standard for Transfer Switch Equipment, Meter-Mounted, UL1008M. View the changes and instructions for submitting comments (copy <u>psa@ansi.org</u>) at the CSDS Work: https://csds.ul.com/Home/ProposalsDefault.aspx. Contact Lisette.delgado@ul.org, https://ulse.org/.

Due 24 March 2024

BSR/UL 1574-202x, Standard for Safety for Track Lighting Systems (revision of ANSI/UL 1574-2023)

Proposed revision to edition 3 of UL 1574, which includes the following change in requirements: Installation Instructions published on publicly available website.

View the changes and instructions for submitting comments (copy <u>psa@ansi.org</u>) at the CSDS Work Area: <u>https://csds.ul.com/ProposalAvailable</u>. Contact <u>annemarie.jacobs@ul.org</u>, <u>https://ulse.org/</u>.

BSR/UL 2431-202x, Standard for Safety for Durability of Fire Resistive Coatings and Materials (revision of ANSI/UL 2431-2019)

This standard is intended to provide a means to measure the ability of fire-resistive materials to retain their fire-resistive properties after being subjected to various conditioning environments. The fire resistive performance is determined by measuring temperatures of steel tubes, wide flange sections and plates protected by the materials. 1.2 Various types of conditioning environments are described. The conditioning environments include air erosion, a combination of wet, freeze and dry cycling, humidity, impact resistance, industrial atmosphere, salt spray, temperature stability, ultraviolet light, and vibration. 1.3 Two fire exposures are defined, a normal temperature rise fire and a rapid temperature rise fire. The normal temperature rise fire is intended to represent a fully developed interior building fire. The rapid temperature rise fire is intended to represent a hydrocarbon pool fire. 1.4 The conditioning environments and fire exposure tests are not intended to be representative of all exposure and fire conditions. With respect to fire exposure, conditions vary with changes in the amount, nature, and distribution of fire loading: ventilation; compartment size and configuration; and heat conducting and dissipating characteristics of the compartment in which the fire resistive material is installed.

View the changes and instructions for submitting comments (copy <u>psa@ansi.org</u>) at the CSDS Work Area: <u>https://csds.ul.com/ProposalAvailable</u>. Contact <u>anna.roessing-zewe@ul.org</u>, <u>https://ulse.org/</u>.

Due 25 March 2024

BSR/AWS A5.13/A5.13M-202x, Specification for Surfacing Electrodes for Shielded Metal Arc Welding (revision of ANSI/AWS A5.13/A5.13M-2021)

This specification prescribes the requirements for classification of surfacing electrodes for shielded metal arc welding. Classification is based upon the chemical composition of the deposited weld metal except for tungsten carbide electrodes, where classification is based on the mesh range, quantity, and composition of the tungsten carbide granules. A guide is appended to the specification as a source of information concerning the classification

system employed and intended use of the classified electrodes. This specification makes use of both U.S.

Customary Units and the International System of Units (SI). Since these are not equivalent, each system must be used independently of the other.

Single copy price: \$42.00 non-member; \$32.00 member

Obtain an electronic copy from and send comments (copy psa@ansi.org) to: kbulger@aws.org.

BSR/SCTE 19-2018 (R202x), Methods for Isochronous Data Service Transport (reaffirmation of ANSI/SCTE 19-2018)

This document defines a transmission format for the carriage of isochronous data services compatible with digital multiplex bitstreams constructed in accordance with ISO/IEC 13818-1 (MPEG-2 Systems). Bit rates for the data services extend from 19.2 kbps to 9.0 Mbps.

Single copy price: \$50.00

Obtain an electronic copy from and send comments (copy psa@ansi.org) to: standards@scte.org

BSR/UL 2586A-202x, Hose Nozzle Valves for Gasoline and Gasoline/Ethanol Blends with Nominal Ethanol Concentrations up to 85 Percent (E0 - E85 (revision of ANSI/UL 2586A-2022)

The following is being proposed: (1) New joint standard, UL/ULC 2586A, Hose Nozzle Valves for Gasoline and Gasoline/Ethanol Blends with Nominal Ethanol Concentrations up to 85 Percent (E0 – E85).

Single copy price: Free

Obtain an electronic copy from: https://www.shopulstandards.com/

View instructions for submitting comments (copy <u>psa@ansi.org</u>) at the CSDS Work Area https://csds.ul.com/ProposalsAvailable.

BSR/UL 2586B-202x, Hose Nozzle Valves for Diesel Fuel, Biodiesel Fuel, Diesel/Biodiesel Blends with Nominal Biodiesel Concentrations up to 20 Percent (B20), Kerosene, and Fuel Oil (revision of ANSI/UL 2586B-2022)

The following is being proposed: (1) New joint standard, UL/ULC 2586B, Hose Nozzle Valves for Diesel Fuel, Biodiesel Fuel, Diesel/Biodiesel Blends with Nominal Biodiesel Concentrations up to 20 Percent (B20), Kerosene, and Fuel Oil.

Single copy price: Free

Obtain an electronic copy from: https://www.shopulstandards.com/

View instructions for submitting comments(copy psa@ansi.org) at the CSDS Work Area:

https://csds.ul.com/ProposalsAvailable.

Due 9 April 2024

BSR/UL 3600-202x, Measuring and Reporting Circular Economy Aspects of Products, Sites and Organizations (revision of ANSI/UL 3600-2023)

This second edition of this standard includes critical metrics and clear definitions. This standard covers the methods and metrics for measuring aspects of the Circular Economy. Aspects include, but are not limited to, materials flows and the impacts of those flows. The standard is split into two major parts: measuring the material flows (measurement methods) and measuring the impacts of those flows (analytics).

Single copy price: Free

Order from: https://csds.ul.com/ProposalAvailable

Send comments (copy psa@ansi.org) to: Leslie Malaki < Leslie.Malaki@ul.org>

Due 1 April 2024

BSR/ASSP Z359.1-202x, The Fall Protection Code (revision of ANSI/ASSP Z359.1-2020)

The Fall Protection Code is a set of standards that covers program management; system design; training; qualification and testing; equipment, component and system specifications for the processes used to protect workers at height in a managed fall protection program. This standard identifies those requirements and establishes their role in the Fall Protection Code and their interdependence.

Single copy price: \$150.00

Obtain an electronic copy from and send comments (copy psa@ansi.org) to: LBauerschmidt@assp.org

BSR/ASSP Z359.15-202x, Safety Requirements for Single Anchor Lifelines and Fall Arresters for Personal Fall Arrest Systems (revision and redesignation of ANSI ASSE Z359.15-2014)

This standard establishes requirements for the design criteria, qualification testing (performance requirements), marking and instructions, user inspections, maintenance and storage and removal from service of single anchor lifelines and fall arresters for users within the capacity range of 110 to 310 pounds (50 to 140 kg).

Single copy price: \$150.00

Obtain an electronic copy from and send comments (copy psa@ansi.org) to: LBauerschmidt@assp.org

BSR/AWS D14.6/D14.6M-202x, Specification for Welding of Rotating Elements of Equipment (new standard)

This standard establishes material and workmanship standards for manufacturers, fabricators, repair organizations, purchasers, and owner/operators of rotating equipment which are fabricated or repaired by welding. Included are sections defining process qualifications, operator qualifications, quality control, inspection requirements, and repair requirements.

Single copy price: \$48.00 for non-members; \$36.00 for members

Obtain an electronic copy from and send comments (copy psa@ansi.org) to: kbulger@aws.org

BSR C18.3M, Part 1-202x, Portable Lithium Primary Cells and Batteries-General and Specifications (revision of ANSI C18.3M, Part 1-2019)

This Standard applies to portable lithium primary cells and batteries. This edition includes the following electrochemical systems: (a) Lithium/carbon monofluoride; (b) Lithium/manganese dioxide; and (c) Lithium/iron disulfide.

Single copy price: \$41.00

Obtain an electronic copy from: communication@nema.org

Send comments (copy psa@ansi.org) to: Khaled Masri < Khaled.Masri@nema.org >

BSR/NENA STA-046.3-202x, NENA Virtual PSAP Management Standard (new standard)

Utilizing lessons learned during the COVID pandemic and other significant events (natural or man-made), the proposed standard will document standardized recommendations for PSAPs to address future needs where traditional brick and mortar operations are not feasible to maintain service delivery to the public. The proposed standard will discuss the operational and technical considerations for working in virtual/remote environments, including but not limited to staffing, workforce management and emergency call handling considerations. Single copy price: Free

Obtain an electronic copy and submit comments (copy psa@ansi.org) at

https://dev.nena.org/higherlogic/ws/public/document?document_id=31821&wg_id=1ef43112-072a-4b8b-9035-26485f25b22a

BSR/UL 153-202x, Standard for Safety for Portable Electric Luminaires (revision of ANSI/UL 153-2023)

This proposal for UL 153 covers updates to the following topics of the UL 153 proposal dated 11-3-23: (1) Clarification on Power Supply for Portable Luminaires with USB/POE Connections; (2) Removal of maximum number of convenience receptacle used in portable luminaires; (4) Clarification of Power Supply Cord Size, Maximum Receptacle Load, and Marking for Portable Work Lights and Portable Hand Lights. Single copy price: Free

Obtain an electronic copy from: https://csds.ul.com/ProposalAvailable

View instructions for submitting comments (copy psa@ansi.org) at the CSDS Work Area: https://csds.ul.com/ProposalAvailable.

Due 8 April 2024

BSR/ASA S1.1-2013 (R202x), Acoustical Terminology (reaffirmation of ANSI/ASA S1.1-2013 (R2020))

This standard provides definitions for a wide variety of terms, abbreviations, and letter symbols used in acoustics and electroacoustics. Terms of general use in all branches of acoustics are defined, as well as many terms of special use for architectural acoustics, acoustical instruments, mechanical vibration and shock, physiological and psychological acoustics, underwater sound, sonics and ultrasonics, and music.

Single copy price: \$169.00

Obtain an electronic copy from: standards@acousticalsociety.org

Send comments (copy psa@ansi.org) to: Nancy Blair-DeLeon < standards@acousticalsociety.org>

BSR/ASA S1.16-2000 (R202x), Method for Measuring the Performance of Noise Discriminating and Noise Canceling Microphones (reaffirmation of ANSI/ASA S1.16-2000 (R2020))

This standard describes procedures for measuring the performance of noise-discriminating and noise-canceling microphones. The signal-to-noise ratio is measured at 1/3 octave band intervals with the desired test source in a diffuse noise field. The noise-canceling performance of the microphone is defined as the noise canceling index (NCI), a weighted summation of the signal-to-noise ratios. The NCI of the microphone under test can be compared to the required baseline NCI of a laboratory standard pressure microphone.

Single copy price: \$99.00

Obtain an electronic copy from and send comments (copy psa@ansi.org) to: standards@acousticalsociety.org

BSR/ASA S12.10-2010/Part 1 (R202x), Standard Acoustics - Measurement of Airborne Noise Emitted by Information Technology and Telecommunications Equipment - Part 1: Determination of Sound Power Level and Emission Sound Pressure Level (reaffirmation of ANSI/ASA S12.10-2010/Part 1 (R2020))

This Standard specifies methods for the measurement of airborne noise emitted by information technology and telecommunications equipment. Hitherto, a wide variety of methods has been applied by individual manufacturers and users to satisfy particular equipment or application needs. These diverse practices have, in many cases, made comparison of noise emission difficult. This Standard simplifies such comparisons and is the basis for the declaration of the noise emission levels of information technology and telecommunications equipment. This Standard is technically identical to parts of ECMA-74.

Single copy price: \$165.00

Obtain an electronic copy from: standards@acousticalsociety.org

Send comments (copy psa@ansi.org) to: Nancy Blair-DeLeon < standards@acousticalsociety.org >

BSR/ASA S12.10-2011/Part 2 (R202x), Standard Acoustics - Measurement of Airborne Noise Emitted by Information Technology and Telecommunications Equipment - Part 2: Declaration of Noise Emission Levels (reaffirmation of ANSI/ASA S12.10-2011/Part 2 (R2020))

This Standard specifies procedure and requirements of the verification of noise emission levels of information technology and telecommunications equipment. Hitherto, a wide variety of methods has been applied by individual manufacturers and users to satisfy particular equipment or application needs. These diverse practices have, in many cases, made comparison of noise emission difficult. This Standard unifies the procedure and requirements that make the declared noise emission levels consistent for information technology and telecommunications equipment. This Standard is technically identical to parts of ECMA-109 (2010). Single copy price: \$165.00

Obtain an electronic copy from: standards@acousticalsociety.org

Send comments (copy psa@ansi.org) to: Nancy Blair-DeLeon <standards@acousticalsociety.org>

BSR/ASSP Z15.1-202X, Safe Practices for Motor Vehicle Operations (revision and redesignation of ANSI/ASSE Z15.1-2017)

This standard sets forth practices for the safe management and operation of motor vehicles owned or operated by organizations. These practices are designed for use by those having the responsibility for the administration and operation of motor vehicles for organizational business.

Single copy price: \$125.00

Obtain an electronic copy from and send comments (copy psa@ansi.org) to: rblanchette@assp.org

BSR ES1.2-202x, Event Safety - Planning and Management (new standard)

This standard gives overall guidance on the general aspects of planning and management for special events. Single copy price: Free

Obtain an electronic copy from: https://tsp.esta.org/tsp/documents/public review docs.php

Send comments (copy psa@ansi.org) to: Karl Ruling <standards@esta.org>

BSR E1.64-202x, Stage Machinery Motion Control (new standard)

This document provides a common standard of design, operation, maintenance and practices for the control of all stage machinery. It offers a complete look at how stage machinery is controlled in the Entertainment Industry. It addresses control schema requirements, from the Operator Interface (pushbuttons, software, touch surface) through the wiring (data or discrete I/O) along the path to the controller (analog, digital, relay coils), through the controller output and along a second path of wiring (machine power, data, analog signals, discrete I/O), to the machine. The document provides advice and guidance on usage of drives, contactors, emergency stop systems, cable termination, cable selection, data transmission and operator interfaces.

Single copy price: Free

Obtain an electronic copy from: https://tsp.esta.org/tsp/documents/public review docs.php

Send comments (copy psa@ansi.org) to: Karl Ruling <standards@esta.org>

BSR E1.30-11-2019 (R202x), EPI 33. ACN Root Layer Protocol Operation on TCP (reaffirmation of ANSI E1.30-11-2019)

ANSI E1.30-11-2019 (EPI 33) specifies the operation and formats for the ACN Root Layer Protocol [Arch] operating on [TCP].

Single copy price: Free

Obtain an electronic copy from: https://tsp.esta.org/tsp/documents/public review docs.php

Send comments (copy psa@ansi.org) to: Karl Ruling <standards@esta.org>

BSR E1.20-202x, Entertainment Technology - RDM-Remote Device Management over USITT DMX512 **Networks** (revision of ANSI E1.20-2010)

This standard describes a method of bi-directional communications over a USITT DMX512/1990 or ANSI E1.11 -2004 data link between an entertainment lighting controller and one or more remotely controlled lighting devices. The protocol was written to work with the ANSI E1.11-2004 control standard, but will work equally well with the current 2009 version of E1.11. It allows discovery of devices on a DMX512/E1.11 network and the remote setting of DMX starting addresses, as well as status and fault reporting back to the control console. Single copy price: Free

Obtain an electronic copy from: https://tsp.esta.org/tsp/documents/public review docs.php Send comments (copy psa@ansi.org) to: Karl Ruling <standards@esta.org>

BSR E1.43-202x, Entertainment Technology - Performer Flying Systems (revision of ANSI E1.43-2016) This standard establishes a minimum level of performance parameters for the design, manufacture, use, and maintenance of performer flying systems used in the production of entertainment events. The purpose of this quidance is to achieve the adequate strength, reliability, and safety of these systems to ensure safety of the performer, other production personnel, and audiences under all circumstances associated with performer flying. Single copy price: Free

Obtain an electronic copy from: https://tsp.esta.org/tsp/documents/public review docs.php Send comments (copy psa@ansi.org) to: Karl Ruling <standards@esta.org>

BSR E1.51-202x. The Selection, Installation, and Use of Single-Conductor Portable Power Feeder Cable Systems for Use at 600 Volts Nominal or Less for the Distribution of Electrical Energy in the Television, Film, Live Performance and Event Industries in Canada (revision of ANSI E1.51-2018)

This standard gives guidance on how to safely use single-conductor portable power feeder cable, a power distribution technique about which the Canadian Electrical Code is largely silent.

Single copy price: Free

Obtain an electronic copy from: https://tsp.esta.org/tsp/documents/public review docs.php Send comments (copy psa@ansi.org) to: Karl Ruling <standards@esta.org>

BSR E1.60-202x, Guidelines for the Use of Raked Stages in Live Performance Environments (revision of ANSI E1.60-2018)

This standard provides guidance for the use of raked stages in live performance environments to mitigate the risks for the protection of actors and technicians.

Single copy price: Free

Obtain an electronic copy from: https://tsp.esta.org/tsp/documents/public review docs.php

Send comments (copy psa@ansi.org) to: Karl Ruling <standards@esta.org>

BSR/IES LM-98-24-202x, Approved Method: Measuring In-Situ Temperature of Solid-State Lighting **Components in Lamps and Luminaires** (new standard)

The document defines a method of measurement of the in-situ temperature of SSL components installed in integrated and non-integrated SSL lamps and luminaires. The method describes the procedures to be followed and the precautions to be observed in obtaining and reproducing in-situ temperature of SSL component measurements under standard operating conditions.

Single copy price: \$25.00

Obtain an electronic copy from and send comments (copy psa@ansi.org) to: Patricia McGillicuddy pmcgillicuddy@ies.org.

BSR/IES TM-40-202x, Technical Memorandum: IES Method for Determining Correlated Color Temperature (CCT) and Distance from the Planckian Locus of Light Sources (new standard)

(a) This TM will formalize a recommended method for calculating CCTxx and Dxx so that with the same input, different users can have an identical output; (b) It will provide data to calculate values in the CIE 1960 UCS (i.e., CCT and Duv); (c) It will describe how the methods can be applied to other CMFs/UCSs, including a proposed naming convention; (d) It will document limitations of the quantities and provide guidance on appropriate use. Single copy price: \$25.00

Obtain an electronic copy from and send comments (copy psa@ansi.org) to: Patricia McGillicuddy pmcgillicuddy@ies.org.

BSR/IES TM-32-24-202x, Technical Memorandum: Lighting Parameters for Building Information Modeling (revision of ANSI/IES TM-32-2019)

This Technical Memorandum (TM) provides a recommended standardization of parameters attached to objects, object libraries, or parametric features that represent luminaires for use in many different types of BIM software. This BSR/IES TM-32-24 revision provides specific parameter definitions, and an associated shared parameters file, that are recommended to be used for use when developing lighting content for building information models. For each parameter, the following information is recommended:

- Parameter Grouping; Parameter Name; Description; Tool Tip definition (for use specifically in Autodesk Revit*); Data Type; and GUID (for use specifically in Autodesk Revit*).

Single copy price: \$25.00

Obtain an electronic copy from and send comments (copy psa@ansi.org) to: Patricia McGillicuddy pmcgillicuddy@ies.org.

BSR/NFPA 40-202x, Standard for the Storage and Handling of Cellulose Nitrate Film (revision of ANSI/NFPA 40-2022)

Although the storage and handling of cellulose nitrate film have a good safety record, fire tests conducted prior to 1967 indicated the desirability of a modification of existing standards. The requirements of this standard, therefore, apply strictly to long-term storage of cellulose nitrate film. This standard shall apply to all facilities that are involved with the storage and handling of cellulose nitrate—based film. Cellulose nitrate—based film includes, but is not limited to, original negative, duplicate negative, interpositive (fine grain), color separation master (YCM), successive exposure master (SEN), optical soundtrack negative or master, mattes, title bands, and release prints. This standard shall not apply to the storage and handling of film having a base other than cellulose nitrate. Obtain an electronic copy from and send comments (copy psa@ansi.org) to: www.nfpa.org/40Next

BSR/NFPA 72®-202x, National Fire Alarm and Signaling Code® (revision of ANSI/NFPA 72®-2022) NFPA 72 covers the application, installation, location, performance, inspection, testing, and maintenance of fire alarm systems, supervising station alarm systems, public emergency alarm reporting systems, fire and carbon monoxide detection and warning equipment, and emergency communications systems (ECS), and their components. The provisions of this chapter apply throughout the Code unless otherwise noted. For the purposes of carbon monoxide detection, this standard is primarily concerned with life safety, not property protection. Obtain an electronic copy from and send comments (copy psa@ansi.org) to: www.nfpa.org/40Next

BSR/NFPA 101A-202x, Guide on Alternative Approaches to Life Safety (revision of ANSI/NFPA 101A-2022) This guide consists of a number of alternative approaches to life safety. Each chapter is a different system independent of the others and is to be used in conjunction with the 2024 edition of NFPA 101. Obtain an electronic copy from and send comments (copy psa@ansi.org) to: www.nfpa.org/40Next

BSR/NFPA 110-202x, Standard for Emergency and Standby Power Systems (revision of ANSI/NFPA 110-2022)

This standard contains requirements covering the performance of emergency and standby power systems providing an alternate source of electrical power to loads in buildings and facilities in the event that the primary power source fails. Power systems covered in this standard include power sources, transfer equipment, controls,

supervisory equipment, and all related electrical and mechanical auxiliary and accessory equipment needed to supply electrical power to the load terminals of the transfer equipment.

Obtain an electronic copy from and send comments (copy psa@ansi.org) to: www.nfpa.org/40Next

BSR/NFPA 111-202x, Standard on Stored Electrical Energy Emergency and Standby Power Systems (revision of ANSI/NFPA 111-2022)

This standard shall cover performance requirements for stored electrical energy systems providing an alternate source of electrical power in buildings and facilities in the event that the normal electrical power source fails. For emergency power systems supplied by emergency generators, see NFPA 110, Standard for Emergency and Standby Power Systems. Systems covered in this standard shall include power sources, transfer equipment, controls, supervisory equipment, and accessory equipment, including integral accessory equipment, needed to supply electrical power to the selected circuits. This standard shall cover installation, maintenance, operation, and testing requirements as they pertain to the performance of the stored emergency power supply system (SEPSS). Exclusions: 1. This standard shall not cover the following: (1) Application of the SEPSS; (2) Distribution wiring; (3) Systems having total outputs less than 500 VA or less than 24 V, or systems less than Class 0.033; (4) Unit equipment; (5) Nuclear sources, solar systems, and wind stored-energy systems; (6) Uninterruptible power systems (UPS) supplied by an emergency power supply system (EPSS).

Obtain an electronic copy from and send comments (copy psa@ansi.org) to: www.nfpa.org/40Next

BSR/NFPA 2113-202x, Standard on Selection, Care, Use, and Maintenance of Flame-Resistant Garments for Protection of Industrial Personnel Against Short-Duration Thermal Exposures from Fire (revision of ANSI/NFPA 2113-2020)

This standard shall specify the minimum selection, care, use, and maintenance requirements for flame-resistant garments for use by industrial personnel in areas at risk from short-duration thermal exposures from industrial fires that are compliant with NFPA 2112. This standard shall not apply to protective clothing for wildland fire fighting, technical rescue, structural fire fighting, proximity fire fighting, or any other fire-fighting operations, or hazardous materials emergencies. This standard shall not apply to protection from electrical flashes, radiological agents, biological agents, or hazardous materials.

Obtain an electronic copy from and send comments (copy psa@ansi.org) to: www.nfpa.org/40Next

BSR/UL 8750-202x, Light Emitting Diode (LED) Equipment for Use in Lighting Products (revision of ANSI/UL 8750-2022)

(1) Addition of alternative means of identifying the grounded conductor; (2) Clarifications and additional options - Risk of electric shock and risk of fire; (3) Clarification of requirements for environmental considerations; (4) Harmonization of field-wiring compartment volume with UL 1598 and requirements for polymeric enclosures intended for conduit connection; (5) Clarification of Requirements for Conductors Smaller than 18 AWG; (6) Clarification of Power Supply Cords Requirements; (7) Clarification of Requirements for Special Use LED Arrays, Supplement SJ; (8) Clarifications and corrections to Table SK4.1; (9) Addition of Supplement SL – Requirements for LED Driver Input Power Factor.

Single copy price: Free

Obtain an electronic copy from: https://csds.ul.com/Home/ProposalsDefault.aspx
View instructions for submitting comments (copy psa@ansi.org) at the CSDS Work Area: https://csds.ul.com/Home/ProposalsDefault.aspx.

BSR/UL 1569-2018 (R202x), Standard for Safety for Metal-Clad Cables (reaffirmation of ANSI/UL 1569-2018) Reaffirm current American National Standard.

Single copy price: Free

Obtain an electronic copy from and send comments (copy psa@ansi.org) to: www.nfpa.org/40Next

Due 23 April 2024

BSR/INCITS 322-202x, **Information Technology - Card Durability Test Methods** (revision of INCITS 322-2015 [R2020])

Describes test methods for the evaluation of identification (ID) card durability. An ID card is defined as a card identifying its holder and issuer which may carry data required as input for the intended use of the card. This revision will review and update the test methods

Single copy price: Free

Obtain an electronic copy from: https://standards.incits.org/apps/group public/document.php?
document id=160409&wg abbrev=eb

Send comments (copy psa@ansi.org) to: Barbara Bennett < comments@standards.incits.org>

BSI public review announcements

The following draft British Standards document has been announced for public review by BSI and may be of material interest to Standards Watch readers. The list includes National British Standards in development and National Adoptions of existing standards. Submit comments online, before the comment deadline, using BSI's Standards Development Portal. Registration is free of charge at https://standardsdevelopment.bsigroup.com/.

Due 16 April 2024

BS 5839-1 Fire detection and fire alarm systems for buildings. Part 1: Design, installation, commissioning and maintenance of systems in non-domestic premises - Code of practice

This part of BS 5839 gives recommendations for the design, installation, commissioning and maintenance of fire detection and fire alarm systems in and around buildings, other than domestic premises. It does not recommend whether or not a fire detection and fire alarm system should be installed in any given premises.

CSA public review announcements

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

Due 25 March 2024

C22.2 NO. 250.570 Track lighting (New Edition)

Scope has changed and clause renumbering throughout the document.

New ANS projects

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

BSR/ADCI 01-202X, Commercial Diver Training - Minimum Standard (new standard)

The previous Standard for commercial diver training was administratively withdrawn by ANSI due to inaction by its previous ANSI-Accredited Standards Developer. The commercial diving industry needs a new, updated, and improved standard to ensure safety and proper training to meet the needs of students and end users.

The proposed New Standard shall identify a core curriculum which will prepare entry level marine technicians and commercial divers to assist in general operations in oceanographic and commercial maritime enterprises requiring technical skill. The goal of the project is to establish curriculum to train marine technicians and commercial divers capable of safely carrying out technical operations underwater. Contact Geoff Thielst thielst@sbcc.edu>.

BSR/UL 2278-202x, Standard for Safety for Megawatt Charging Configured Electric Vehicle Couplers (new standard)

ULSE is seeking ANSI approval on a new joint standard for the US and Canada, UL 2278. There are currently no consensus standards published in the US and Canada for Megawatt Charging Configured Electric Vehicle Couplers. This proposed joint standard for the US and Canada, UL 2278, is needed to cover the new configuration of coupler which operates at a higher voltage and current than any previously certified coupler and presents new and increased potential hazards that must be addressed by requirements that are significantly modified compared to what exists today.

This first issue of the Standard for Safety for Megawatt Charging Configured Electric Vehicle Couplers, UL 2278, is intended to be a joint standard for the US and Canada. These requirements cover vehicle connectors and vehicle inlets designated as, and configured as, megawatt charging couplers. These devices are rated up to 1500 Vdc, 3000A under conditions of continuous use. Vehicle connectors may be actively cooled, such as with liquid cooling, when operating. These devices are intended for use with conductive DC charging equipment for electric vehicles and intended to facilitate conductive connection from the charging equipment to the vehicle. These devices are for use in either indoor or outdoor, non-classified locations in accordance with National Electrical Code (NEC), NFPA 70. This standard does not cover devices used for conductive connection to an electric vehicle and consisting of configurations other than megawatt charging systems configurations. Those devices are covered by the Standard for Plugs, Receptacles and Couplers for Electric Vehicles, UL 2251. Contact Megan Monsen <megan.monsen@ul.org>.

BSR/AWS B2.1-23-029-202x, Standard Welding Procedure Specification (SWPS) for Gas Tungsten Arc Welding of Aluminum (M- 23/P-23), 1/8 inch [3 mm] through 1-1/2 inch [38 mm] Thick, R4043 or R4943, in the As-Welded Condition, Primarily Plate and Structural Applications (new standard)

This standard contains the essential welding variables for aluminum in the thickness range of 1/8 inch [3 mm] through 1-1/2 inch [38 mm], using manual gas tungsten arc welding. It cites the base metals and operating conditions necessary to make the weldment, the filler metal specifications, and the allowable joint designs for fillet and groove welds. This SWPS was developed primarily for plate and structural applications. Contact Jennifer Rosario rosario@aws.org.

BSR/AWS B2.1-23-236-202x, Standard Welding Procedure Specification (SWPS) for Gas Metal Arc Welding (Spray Metal Transfer Mode) of Aluminum (M-23/P-23), 1/8 inch [3 mm] through 1-1 /2 inch [38 mm] Thick, ER4043 or ER4943, in the As-Welded Condition, Primarily Pipe Applications (new standard)

This standard contains the essential welding variables for aluminum in the thickness range of 1/8 inch [3 mm] through 1-1/2 inch [38 mm], using semiautomatic gas metal arc welding, (spray metal transfer mode) It cites the base metals and operating conditions necessary to make the weldment, the filler metal specifications, and the allowable joint designs for fillet and groove welds. This SWPS was developed primarily for pipe applications. Contact Jennifer Rosario <ipre>irosario@aws.org.

BSR/AWS B2.1-23-237-202x, Standard Welding Procedure Specification (SWPS) for Gas Tungsten Arc Welding of Aluminum (M-23/P-23), 1/8 inch [3 mm] through1-1 /2 inch [38 mm] Thick, R4043 or R4943, in the As-Welded Condition, Primarily Pipe Applications (new standard)

This standard contains the essential welding variables for aluminum in the thickness range of 1/8 inch [3 mm] through 1-1/2 inch [38 mm], using manual gas tungsten arc welding. It cites the base metals and operating conditions necessary to make the weldment, the filler metal specifications, and the allowable joint designs for fillet and groove welds. This SWPS was developed primarily for pipe applications. Contact Jennifer Rosario <irosario@aws.org>.

BSR/CSA C801-202x, Testing protocol for evaluating effectiveness of detection and suppression systems for battery failure events (new standard)

This Standard outlines a testing protocol for evaluating the effectiveness of detection and suppression systems for battery failure events. It is intended to be used by code officials, financial institutions, insurers, fire responders, developers, independent engineers, manufacturers, and other relevant stakeholders in the battery industry. This Standard is intended to be a stand-alone document that does not interact with other safety or qualification standards such as the IEC, UL, NFPA, or other related safety and performance standards. This testing protocol provides a procedure to verify a claim made by a manufacturer of a detector, sensor, or fire-suppression product to be used with battery failure and fire events. Electrical safety, component selection, and other general safety requirements of the device itself shall follow the appropriate end product technology standard. The individual test legs in the protocol of this Standard have been designed to reproduce battery failure events using a repeatable method that can verify performance of detection, sensing, and suppression systems claimed to be effective in these conditions. The standard will evaluate both if the system is effective for its claimed performance and the extent of its effectiveness. Contact Debbie Chesnik contact@csagroup.org.

BSR/APCO 3.106.3-202x, Core Competencies and Minimum Training Standards for Public Safety Communications Quality Assurance Evaluators (revision and redesignation of ANSI/APCO 3.106.2-2017) This standard identifies the core competencies and minimum training requirements for Quality Assurance Evaluators (QAE). The QAE administers the Quality Assurance/Quality Improvement (QA/QI) process by providing compliance oversight, reviewing, and documenting an evaluation of the level of compliance with agency directives and standards in an ongoing effort to ensure the highest levels of service to the public and emergency responders. Contact Mindy Adams <apcontant contact contact Mindy Adams <apcontant contact con

BSR/APCO 3.108.3-202X, Core Competencies and Minimum Training Standards for Public Safety Communications Instructor (revision and redesignation of ANSI/APCO 3.108.2-2018)

This standard identifies the core competencies and minimum training requirements for Public Safety Communications Center Instructor, herein referred to as Instructor. This position is typically tasked with the delivery of training within the communications center. Contact Mindy Adams <apcointl.org>.

BSR/ASTM WK89101-202x, New Practice for Hazardous Area Electrical Equipment on International Ships (new standard)

This practice is intended to increase awareness and approaches for the application of hazardous areas and electrical installation as associated with the use of IEC 60092-502:1999 as referenced by footnote within International Maritime Organization (IMO) regulations as a standard recognized by IMO (that is, recognized standard). Contact Lauren Daly <accreditation@astm.org>.

BSR/CTA 2129-202x, Standard Methodology for Consumer Broadcast Hearing Devices (new standard) This standard will identify the use cases, elements, and implementation of a standard methodology for consumer broadcast hearing devices to include broadcast distance. Contact Catrina Akers <cakers@cta.tech>.

BSR/E1.2-202x, Entertainment Technology - Design, Manufacture and Use of Aluminum Trusses and Towers (revision of ANSI E1.2-2021)

This standard describes the design, manufacture, and use of aluminum trusses, towers, and associated aluminum structural components, such as head blocks, sleeve blocks, tower bases, and corner blocks, used in the entertainment industry. Contact Richard Nix <standards@esta.org>.

BSR/E1.6-3-202x, Selection and Use of Serially Manufactured Chain Hoists in the Entertainment Industry (revision of ANSI/E1.6-3-2019)

This standard establishes minimum safety requirements for the selection and use of serially manufactured electric link-chain hoists in the entertainment industry. This standard is intended to reduce injury and provide for the protection of life, limb and property. This standard does not address the design or maintenance of these hoists. Contact Richard Nix <standards@esta.org>.

BSR/E1.31-202x, Entertainment Technology - Lightweight streaming protocol for transport of DMX512 using ACN (revision of ANSI E1.31-2018)

This standard describes a mechanism to transfer DMX512A packets over a TCP/IP network using a subset of the ACN protocol suite. It covers data format, data protocol, data addressing, and network management, including support for both IPv4 and IPv6. It also outlines a synchronization method to help ensure that multiple sinks can process this data concurrently when supervised by the same controller. Contact Richard Nix <standards@esta.org>.

BSR/E1.82-202x, Unidirectional Machine Controls (new standard)

The proposed standard is intended to guide manufacturers and users through the risk assessment and operational concerns associated with the use of unidirectional communications protocols, for the purpose of controlling stage machinery. Such equipment includes effects hoists, kabuki systems, scenery motivators, curtain machines, microphone hoists, and any other actuators controlled by DMX, Art-Net, or other unidirectional communications protocols. Mechanical, structural, electrical, and control aspects of these machines would be addressed. Equipment already covered by other standards are excluded from this standard. Contact Richard Nix <standards@esta.org>.

BSR/I.C.E. 1100-202x, Standard for Assessment-Based Certificate Programs (revision and redesignation of ANSI/ICE 1100-2019)

This standard pertains to assessment-based certificate programs. An assessment-based certificate program is a nondegree granting program that: (a) provides instruction and training to aid participants in acquiring specific knowledge, skills, and/or competencies associated with intended learning outcomes; (b) evaluates participants' accomplishment of the intended learning outcomes; and (c) awards a certificate only to those participants who meet the performance, proficiency, or passing standard for the assessment(s) (hence the term, "assessment-based certificate program"). Contact Liz Dombrowski <standards@credentialingexcellence.org>.

BSR/NASBLA 1200-202x, K-12 Personal Flotation Device Education Standard (new standard)

This Standard defines general, entry-level knowledge developed for a Kindergarten through 12th grade (K-12) audience about the importance of Personal Flotation Device (PFD) use in, on, or around water. It has been prepared to provide guidance on the application of PFDs for persons engaged in water-related activities. PFDs selected and maintained according to this Standard should give a reasonable assurance of safety from drowning to a person who is immersed in water. This consensus-based standard is designed to support educators and raise the overall level of knowledge, skills, and competencies of the K-12 audience. This standard is not intended to be submitted for consideration as an ISO. IEC, or ISO/IEC JTC-1 standard. Contact Kaci Christopher Kaci.christopher@nasbla.org.

BSR/PMI 2X-007-202X, The Standard for Artificial Intelligence in Project, Program, and Portfolio Management (new standard)

The standard for AI in project, program, and portfolio management establishes a framework to govern the development, deployment, and oversight of AI initiatives within an organization. This standard serves to ensure responsible and effective use of AI while promoting transparency, fairness, and accountability throughout the project, program, and portfolio lifecycle, ultimately contributing to organizational success and societal benefit. Contact Lorna Scheel lorna.scheel@pmi.org.

Final actions on American National Standards

The documents listed below may be of interest to Standards Watch readers and have been approved by the ANSI Board of Standards Review or by an ANSI-Audited Designator on the date noted. "Final actions" means "done for now." No standard is ever finished.

ANSI/ASA S2.62-2009 (R2024), Shock Test Requirements for Equipment in a Rugged Shock Environment (reaffirmation of ANSI/ASA S2.62-2009 (R2019)) Final Action Date: 5 February 2024

ANSI/ASTM F3249-2024, Specification for Treestands, Climbing Sticks, and Tripod or Tower Stands (revision of ANSI/ASTM F3249-2020) Final Action Date: 1 February 2024

ANSI C136.59-2024, Co-Location Multi-Use Lighting Poles (new standard) Final Action Date: 29 January 2024

ANSI C136.42-2024, Roadway and Area Lighting Equipment - Solid State Lighting Retrofit Kits (revision of ANSI C136.42-2018) Final Action Date: 29 January 2024

ANSI C136.12-2014 (S2024), Roadway and Area Lighting - Mercury Lamps - Guide for Selection (stabilized maintenance of ANSI C136.12-2014 (R2019)) Final Action Date: 29 January 2024

ANSI C37.54-2024, Standard for Alternating Current High-Voltage Circuit Breakers Applied in Metal-Enclosed Switchgear - Conformance Test Procedures (revision of ANSI C37.54-2023) Final Action Date: 30 January 2024

ANSI/OPEI B175.4-2018 (R2024), Standard for Outdoor Power Equipment - Portable Handheld, Internal Combustion Engine-Powered Cut-Off Machines - Safety and Environmental Requirements (reaffirmation and redesignation of ANSI/OPEI B175.4-2018) Final Action Date: 29 January 2024

ANSI/SERI R2v3 (3.1)-2024, The Sustainable Electronics Reuse & Recycling Standard (addenda to ANSI/SERI R2-V3 -2020) Final Action Date: 31 January 2024

ANSI/UL 5B-2014 (R2024), Standard for Strut-Type Channel Raceways and Fittings (reaffirmation of ANSI/UL 5B-2014) Final Action Date: 30 January 2024

ANSI/UL 60947-5-5-2019 (R2024), Standard for Low-Voltage Switchgear and Controlgear - Part 5-5: Control circuit devices and switching elements - Electrical emergency stop device with mechanical latching function (reaffirmation of ANSI/UL 60947-5-5-2019) Final Action Date: 31 January 2024

ANSI/UL 486E-2024, Standard for Equipment Wiring Terminals for Use with Aluminum and/or Copper Conductors (revision of ANSI/UL 486E-2019) Final Action Date: 31 January 2024

ANSI/UL 1598-2024, Standard for Safety for Luminaires (revision of ANSI/UL 1598-2021) Final Action Date: 31 January 2024

ANSI ICEA S-103-701-2018 (R2024), Riser Cables Technical Requirements (reaffirmation of ANSI ICEA S-103-701-2018) Final Action Date: 9 February 2024

ANSI C18.3M, Part 2-2024, Portable Lithium Primary Cells and Batteries - Safety Standard (revision of ANSI C18.3M, Part 2-2021) Final Action Date: 15 February 2024

ANSI/UL 1564-2024, UL Standard for Safety for Industrial Battery Chargers (revision of ANSI/UL 1564-2020) Final Action Date: 13 February 2024

Call for Members

Directly and materially interested parties who wish to participate as a member of an ANS consensus body for the standards listed are requested to contact the sponsoring developer directly in a timely manner.

AWS - American Welding Society - D14 Committee on Machinery and Equipment

The American Welding Society (AWS) D14 Committee on Machinery and Equipment is actively seeking participation from the interest categories of user, general interest, and educator. To apply or obtain additional information please contact Kevin Bulger at kbulger@aws.org by 1 July 2024. For more information, see www.aws.org.

ECIA - Electronic Components Industry Association

ECIA, through its EIA Standards Committee (ESC), provides a unique forum for the discussion of technical issues and development of industry standards that drive the manufacture, application and use of electronic component products and systems on a global basis. Anyone with a material interest in the subject matter may participate on an ECIA standards committee. Membership in all interest categories is always welcome; however, ECIA is particularly seeking General Interest members for the following committees:

- ACH Automated Component Handling Committee Scope: Develop and maintain engineering standards
 and publications for tape, reels, magazines, trays, etc. for handling components in production. Also,
 provide technical input to US national positions on related international standards issues and proposals.
- P-1 Resistive Devices Committee Scope: All types of resistive components regardless of technology. Includes composition, film, wirewound, thermistors, varistors, networks, chip resistors and integrated passive devices
- P-2.1 Ceramic Dielectric Capacitors Committee Scope: All types of Ceramic Dielectric Capacitors.
- P-2.2 Paper, Film, Mica & Wet-Electrolytic Capacitors Committee Scope: Paper, film, mica and wet electrolytic capacitors for all AC and DC applications, except inductive heating and utility power-factor correction.
- P-2.5 Solid Electrolytic Capacitors Committee Scope: All types of Tantalum Capacitors.

- P-3 Inductive Components Committee Scope: Covers all types of inductive components regardless of technology used in electronic circuits. It includes inductors, rf. (chokes, filters, interference filters, inductors and transformers), chip inductors, and variable inductors.
- Soldering Technology Committee Scope: The STC encompasses soldering practices (soldering ironmass reflow techniques) and associated soldering materials (solders, pastes and adhesives, and flux/cleaning agents).

For more information or to sign up for the meetings, please contact Ed Mikoski Jr, Vice-President of Standards and Technology or Laura Donohoe, Manager of Standards and Technology.

Public review of application for accreditation

SFIA - Steel Framing Industry Association

The Steel Framing Industry Association (SFIA) has submitted an application for accreditation as an ANSI Accredited Standards Developer (ASD) and proposed operating procedures for documenting consensus on SFIA-sponsored American National Standards. The scope of Steel Framing Industry Association (SFIA) activities encompass the development, reaffirmation, revision, and withdrawal of American National Standards for the design and construction of Cold-Formed Steel Framing and accessories.

As the proposed procedures are available electronically, the public review period is 30 days. To view or download a copy of SFIA's proposed operating procedures, or to submit public comments by 11 March 11, 2024, contact Larry Williams, lwilliams@steelframing.org (please copy jthompso@ansi.org)

Draft IEC & ISO documents

This section lists documents reported in ANSI's *Standards Action* that the IEC or the ISO or both are considering for approval and that may be of interest to *Standards Watch readers*. Anyone interested in reviewing and commenting should order a copy from their national representative and submit their comments through them. Comments from US citizens on ISO documents must be sent to ANSI's ISO Team (isot@ansi.org), and must be submitted electronically in the approved ISO template as a Word document. US comments on IEC documents should be sent to Tony Zertuche, General Secretary, USNC/IEC, at ANSI's New York offices (tzertuche@ansi.org). ISO and IEC Drafts can be made available by contacting ANSI's Customer Service department, sales@ansi.org.

ISO/DIS 18878, Mobile elevating work platforms – Operator (driver) training – 22 April 2024, \$67.00

ISO/DIS 9239-1, Reaction to fire tests for floorings - Part 1: Determination of the burning behaviour using a radiant heat source – 20 April 2024, \$93.00

ISO/DIS 20423, Carbon footprint for seafood - Product category rules (CFP-PCR) for macroalgae – 22 April 2024, \$88.00

ISO/DIS 8124-4, Safety of toys - Part 4: Activity toys for domestic use - 18 April 2024, \$146.00

ISO/DIS 13118, Textile - Biaxial tensile properties of woven fabric - Determination of elasticity properties using a cruciform test piece – 20 April 2024, \$58.00

ISO/IEC DIS 21471, Information technology – Automatic identification and data capture techniques - Extended rectangular data matrix (DMRE) bar code symbology specification – 25 April 2024, \$77.00

94/975/CDV, **IEC 63522-35 ED1**: Electrical relays - Tests and Measurements - Part 35: Resistance to cleaning solvents, 26 April 2024

94/974/CDV, IEC 63522-5 ED1: Electrical relays - Tests and Measurements - Part 5: Insulation resistance, 26 April 2024

72/1412/NP, PNW 72-1412 ED1: Automatic electrical controls - Part 2-23: Particular requirements for electrical sensors and sensor elements, 01 March 2024

56/2043/DTR, IEC TR 63162 ED1: Electric components - Reliability - Failure rates at reference conditions, 29 March 2024

3/1651/FDIS, IEC 81355-1 ED1: Industrial systems, installations and equipment and industrial products - Classification and designation of information - Part 1: Basic rules and classification of information, 15 March 2024

97/267(F)/FDIS, IEC 61820-1-2 ED1: Electrical installations for aeronautical ground lighting at aerodromes - Part 1-2: Fundamental principles - Particular requirements for series circuits, 01 March 2024

101/705/FDIS, IEC 61340-5-1 ED3: Electrostatics - Part 5-1: Protection of electronic devices from electrostatic phenomena - General requirements, 15 March 2024

104/1041(F)/FDIS, IEC 60721-3-9 ED2: Classification of environmental conditions - Part 3-9: Classification of groups of environmental parameters and their severities – Microclimates inside products, 01 March 2024

86B/4868/FDIS, IEC 60875-1 ED7: Fibre optic interconnecting devices and passive components – Non-wavelength-selective fibre optic branching devices - Part 1: Generic specification, 15 March 2024

121/160/DTR, IEC TR 63482 ED1: Maintenance of low voltage switchgear and controlgear and their assemblies., 29 March 2024

SyCAAL/334/DTS, IEC SRD 63426 ED1: Reference standards portfolio (RSP) on interoperability and connectivity for active assisted living (AAL) in the connected home environment (CHE), 29 March 2024

JTC1-SC41/393/CDV, ISO/IEC 30181 ED1: Internet of Things (IoT) - Functional architecture for resource ID interoperability, 26 April 2024

40/3119/FDIS, IEC 60384-21 ED4: Fixed capacitors for use in electronic equipment - Part 21: Sectional specification – Fixed surface mount multilayer capacitors of ceramic dielectric, Class 1, 22 March 2024

40/3120/FDIS, IEC 60384-22 ED4: Fixed capacitors for use in electronic equipment - Part 22: Sectional specification – Fixed surface mount multilayer capacitors of ceramic dielectric, Class 2, 22 March 2024

64/2651/CDV, **IEC 60364-1 ED6**: Low-voltage electrical installations - Part 1: Fundamental principles, assessment of general characteristics, definitions, 5 April 2024

57/2639/CDV, **IEC 62351-7 ED2**: Power systems management and associated information exchange - Data and communications security - Part 7: Network and System Management (NSM) data object models, 03 May 2024

116/724/CDV, **IEC 62841-2-14/AMD1 ED1**: Amendment 1 - Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 2-14: Particular requirements for hand-held planers, 3 May 2024

116/725/CDV, **IEC 62841-2-17/AMD1 ED1**: Amendment 1 - Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 2-17: Particular requirements for hand-held routers, 03 May 2024

116/727/CDV, IEC 62841-2-4/AMD1 ED1: Amendment 1 - Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 2-4: Particular requirements for hand-held sanders and polishers other than disc type, 03 May 2024

116/728/CDV, IEC 62841-2-5/AMD1 ED1: Amendment 1 - Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 2-5: Particular requirements for hand-held circular saws, 03 May 2024

116/729/CDV, IEC 62841-2-8/AMD1 ED1: Amendment 1 - Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 2-8: Particular requirements for hand-held shears and nibblers, 03 May 2024

116/730/CDV, IEC 62841-2-9/AMD1 ED1: Amendment 1 - Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 2-9: Particular requirements for hand-held tappers and threaders, 03 May 2024

66/818/CD, **IEC 61010-1/AMD2 ED3**: Amendment 2 – Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements, 03 May 2024

125/92(F)/FDIS, IEC 63281-3-1 ED1: E-Transporters - Part 3-1: Performance test method for total run time of escooters with consideration to environmental conditions of actual use, 08 March 2024

JTC1-SC25/3215/NP, PNW JTC1-SC25-3215 ED1: Information technology - Home Electronic System (HES) – Communication messages for safe product operation, 03 May 2024

ISO/DIS 9241-161, Ergonomics of human-system interaction - Part 161: Guidance on visual user-interface elements – 2 May 2024, \$134.00

ISO/DIS 14486, Laminate floor coverings - Specification - 5 May 2024, \$46.00

ISO/DIS 8559-2, Size designation of clothes - Part 2: Primary and secondary dimension indicators – 4 May 2024, \$112.00

ISO/DIS 5106, Traditional Chinese Medicine--Polygala tenuifolia and Polygala sibirica root – 6 May 2024, \$62.00

ISO/DIS 5471, Traditional Chinese medicine – Carthamus tinctorius flower – 3 May 2024, \$62.00

ISO/DIS 19836, Traditional Chinese medicine – Platycodon grandiflorus root – 2 May 2024, \$62.00

ISO/DIS 19851, Traditional Chinese medicine – Cinnamomum cassia branch – 4 May 2024, \$67.00

100/4114/NP, PNW 100-4114 ED1: Audio, video, and related equipment - Determination of power consumption - Part 8: Small Network Equipment, 10 May 2024

100/4115/NP, PNW 100-4115 ED1: Portable multimedia equipment - Determination of battery duration - Part 3: Wearable powered loudspeaker equipment, 10 May 2024

46F/667/NP, PNW 46F-667 ED1: Radio-frequency connectors - Part 74: Sectional specification for HN series RF coaxial connectors with screw coupling - Characteristic impedance 50 ohms, 10 May 2024

56/2047/CD, IEC 62402-3 ED1: Obsolescence Management Part 3: Exchange of information regarding change and discontinuance of products, 10 May 2024

3/1651(F)/FDIS, IEC 81355-1 ED1: Industrial systems, installations and equipment and industrial products - Classification and designation of information - Part 1: Basic rules and classification of information, 15 March 2024

120/358/FDIS, IEC 62933-1 ED2: Electrical energy storage (EES) systems - Part 1: Vocabulary, 29 March 2024

64/2651(F)/CDV, IEC 60364-1 ED6: Low-voltage electrical installations - Part 1: Fundamental principles, assessment of general characteristics, definitions, 05 April 2024

105/1034/FDIS, IEC 62282-8-201 ED2: Fuel cell technologies - Part 8-201: Energy storage systems using fuel cell modules in reverse mode - Test procedures for the performance of powerto- power systems, 29 March 2024

105/1035/NP, PNW 105-1035 ED1: Unmanned aircraft systems -- General requirements and test methods for the hydrogen fuel gas pipes of gaseous hydrogen fuel cell powered UAV, 10 May 2024

105/1036/NP, PNW 105-1036 ED1: Unmanned aircraft systems -- General requirements and test methods for the attachable hydrogen cylinders of gaseous hydrogen fuel cell powered UAV, 10 May 2024

57/2639(F)/CDV, IEC 62351-7 ED2: Power systems management and associated information exchange - Data and communications security - Part 7: Network and System Management (NSM) data object models, 03 May 2024

116/742/NP, PNW 116-742 ED1: Electric motor-operated tools - Dust measurement procedure - Part 3-1: Particular requirements for transportable table saws, 10 May 2024

21/1193/FDIS, IEC 63330-1 ED1: Repurposing of secondary batteries - Part 1: General requirements, 29 March 2024

8/1695/DTR, IEC TR 63282 ED2: LVDC systems - Assessment of standard voltages and power quality requirements, 12 April 2024

91/1935/FDIS, IEC 61189-2-808 ED1: Test methods for electrical materials, printed board and other interconnection structures and assemblies - Part 2-808: Thermal resistance of an assembly by thermal transient method, 29 March 2024

Recently published ISO & IEC documents

Listed here are documents recently approved by the ISO or IEC and listed in ANSI's *Standards Action* that may be of use or interest to *Standards Watch* readers. Prices shown are for purchases from the <u>ANSI Webstore</u>.

ISO 10364:2024, Structural adhesives - Determination of the pot life (working life) of multi-component adhesives, \$77.00

ISO 603-8:2024, Bonded abrasive products - Dimensions - Part 8: Grinding wheels for deburring and fettling/snagging on stationary machine, \$51.00

ISO 603-9:2024, Bonded abrasive products - Dimensions - Part 9: Grinding wheels for high-pressure grinding, \$51.00

ISO/TR 15263:2024, Measurement uncertainties in mechanical tests on metallic materials - The evaluation of uncertainties in tensile testing, \$210.00

IEC 61970-302 Ed. 2.0 b:2024, Energy management system application program interface (EMS-API) - Part 302: Common information model (CIM) dynamics, \$512.00

IEC 62271-100 Ed. 3.0 b Cor.3:2024, Corrigendum 3 – Highvoltage switchgear and controlgear - Part 100: Alternatingcurrent circuit-breakers, \$0.00

IEC/TR 63447-2 Ed. 1.0 en:2024, Form factor of smart mobile device - Part 2: Use cases of multimedia services, \$145.00

IEC/TR 61760-5-1 Ed. 1.0 en:2024, Surface mounting technology - Part 5-1: Surface strain on circuit boards - Strain gauge measurement applied to chip components, \$190.00

IEC/TS 62878-2-10 Ed. 1.0 en:2024, Device embedding assembly technology - Part 2-10: Design specification for cavity substrate, \$51.00

ISO 3549:2024, Zinc dust pigments for paints – Specifications and test methods, \$157.00

ISO 105-C12:2024, Textiles - Tests for colour fastness - Part C12: Colour fastness to industrial laundering, \$77.00

ISO 7249:2024, Textiles - Fibres - Determination of burning behaviour by oxygen index, \$116.00

ISO 9319:2024, Traditional Chinese medicine - Poria cocos sclerotium, \$116.00

ISO/TR 5604:2024, Electrochemical noise measurement for assessing the protection of metal afforded by organic coatings, \$116.00

IEC 63403-1 Ed. 1.0 b:2024, Horticultural lighting - LED packages for horticultural lighting - Part 1: Specification sheet, \$95.00

IEC 63403-2 Ed. 1.0 b:2024, Horticultural lighting - LED packages for horticultural lighting - Part 2: Binning, \$25.00

IEC 63281-2-1 Ed. 1.0 b:2024, E-Transporters - Part 2-1: Safety requirements and test methods for personal e-Transporters, \$278.00

ISO 41011:2024, Facility management - Vocabulary, \$157.00

ISO 5060:2024, Translation services - Evaluation of translation output - General guidance, \$157.00

ISO/TR 18986:2024, Traditional Chinese medicine - Report on the global industry and standardization development of Panax ginseng, \$183.00

IEC 61084-1 Amd.1 Ed. 2.0 en:2024, Amendment 1 – Cable trunking systems and cable ducting systems for electrical installations - Part 1: General requirements, \$25.00

IEC 61084-1 Ed. 2.1 en:2024, Cable trunking systems and cable ducting systems for electrical installations - Part 1: General requirements, \$582.00

IEC 61523-4 Ed. 2.0 en Cor.1:2024, Corrigendum 1 - Delay and power calculation standards - Part 4: Design and Verification of Low-Power, Energy-Aware Electronic Systems, \$0.00

ESTA Standards Watch

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

Editors

Erin Grabe, Executive Director ESTA PO Box 23200 Brooklyn, NY 11202-3200 USA erin.grabe@esta.org 1 212 244 1505 ext. 606 Karl G. Ruling, Senior Technical Standards Manager ESTA, Technical Standards Program PO Box 23200
Brooklyn, NY 11202-3200 USA
karl.ruling@esta.org
1 212 244 1505 ext. 703

If you would like to receive an email notice each time a new edition of *Standards Watch* is published, send a request to standards@esta.org. Find back issues at http://estalink.us/nn7a1.

TSP meetings

The next set of TSP working group meetings are scheduled to coincide with The USITT Conference and Stage Expo in Seattle, Washington. Visit https://esta.org/ESTA/meetings.php for links to hotel booking, discounted flights through United Airlines, and the latest meeting schedule. The meetings will be at the Sheraton Grand Seattle.

Wednesday, March 20	9am - 1pm	TSP Control Protocols Working Group, Room - Metro B
	2pm - 5pm	TSP E1.31 Security Task Group, Room - Ballard
	6pm - 10pm	TSP Electrical Power Working Group, Room - Metro B
	7pm - 11pm	ESTA Board Meeting, Room - Ballard
Thursday, March 21	8am - 10:30am:	TSP E1.6-1 Powered Hoist Task Group, Room - Ballard
	10:30am - 2:30pm	TSP NextGen Overall Task Group, Room - Ballard
	11am - 2pm	TSP Rigging Working Group, Room - Metro B
	4pm - 8pm	ETCP Council, Room - Ballard
	6pm - 10pm	TSP Event Safety Working Group, Room - Metro B
Friday, March 22	8:30am - 10:30am	Members Advisory Committee, Room - Ballard
	10am - noon	TSP Floors Working Group, Room - Metro B
	10:30am - 1pm	TSP NextGen Task Group, Room - Ballard
	2pm - 4pm	TSP Stage Machinery Working Group, Room - Metro B
	2pm - 6pm	TSP E1.37-8 RDM IPv4/v6PIDS Task Group, Room - Ballard
	6pm - 10pm	TSP Weapons Safety Working Group, Room - Metro B
Saturday, March 23	9am - 1pm	TSP Technical Standards Council, Room - Metro B

Investors in Innovation, supporters of ESTA's Technical Standards Program

This lists the donors who have made contributions in the last 12 months.

VISIONARY LEADERS (\$50,000 & up)

ETC

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

Cisco

Columbus McKinnon Entertainment Technology

Disney Parks Live Entertainment

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

Altman Lighting, Inc.

McLaren Engineering Group

Rose Brand Stage Rigging Theatre Projects

Michael Lay

Lizz Pitsley

Alan Rowe

Reed Rigging

John T. McGraw

Mike Garl Consulting Mike Wood Consulting

Reliable Design Services

Theatre Safety Programs

TMB

Link

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

Down Stage Right Industries Ltd. **EGI Event Production Services Entertainment Project Services**

Neil Huff

Interactive Technologies

iStudio Projects Jules Lauve **Brian Lawlor**

SBS Lighting Steve A. Walker Associates Dana Taylor

Sapsis Rigging Inc.

Steve Terry Vertigo

WNP Services

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

Actors' Equity Association

Golden Sea Professional Lighting Provider

IATSE Local 728 IATSE Local 891

Lex NAMM

Texas Scenic Company

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

American Society of Theatre Consultants

Area Four Industries

BMI Supply

City Theatrical Inc. H&H Specialties, Inc. InterAmerica Stage, Inc. Lycian Stage Lighting

Niscon Inc.

Tomcat Staging, Lighting and Support Systems

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

Baxter Controls, Inc.

ChamSix

Concept Smoke Systems Ltd.

Reid Neslage
Ondelight
Jessica Sanders

Bruce William Darden Jessica Sanders
Shenzhen Pony Systems Tech Co., Ltd.

Ian FouldsSehr Gute GmbHPaat GrenfellDavid ThomasLiberal Logic, Inc.Techni-LuxLive Production IndonsiaTracy UnderhillLuminator Technology GroupRalph Weber

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

Harlequin Floors

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

High Output Syracuse Scenery and Stage Lighting Co., Inc.

InCord Vincent Lighting Systems

iWeiss Wuhan Zhongtian Jiaye Mechanical & Electrical Eng.

Oasis Stage Werks Co. Stagemaker Zeraus

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

Chip Scott Lighting Design

Northern Lights Electronic Design

DMX Pro Sales PragmaLab

Matthew Douglas III Shanxi Tian Gong Sheng Optoelectronic Equipment

Beverly and Tom Inglesby Technology Co.

Inventions Guité

KASUGA

Laser AV

Lighting Elements Inc.

Sigma Net

John Tringas

Stephen Vanciel

Patrick Wallace

Philip Watson

Bill McCord Philip Watson
Motion FX Mitchell Weisbrod

Extraordinary legacy gift: Ken Vannice

You can make a donation by visiting https://tsp.esta.org/tsp/inv in innovation/sponsor.html.

Become an Investor in Innovation!