



Technical Standards Program

ESTA Standards Watch

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An octet in public review

Eight draft ESTA standards are available for public review and comment on the ESTA website at <http://estalink.us/pr>. The downloads are free. (Cheap at twice the price!) The documents in public review, sorted by comment due date, are:

BSR E1.76, Tension Wire Grids, covers design and application criteria including the loading, self-weight considerations, transitions between levels, and suspension from the building structure. It provides deflection criteria for structural elements and the woven mesh. The standard offers guidance on openings, including trap doors and bays similar to loft-wells. It provides requirements for hand rails and step units, and considerations for other accessories. Comment no later than 14 November 2022.

BSR E1.20, Entertainment Technology -- Remote Device Management over USITT DMX512 Networks, is a revision of the existing E1.20 – 2010. The revision is to clarify ambiguities, fix bugs, and incorporate some additional features. E1.20 is an extension to USITT DMX512 and ANSI E1.11 that allows for bi-directional communication on the primary data link. This allows a controller to discover RDM-enabled devices on the link, to set starting addresses and other configuration settings, and to request status messages. The project also is to reinstate E1.20 as an American National Standard. It has lost that status due to being over-age. Comment no later than 28 November.

BSR E1.37-5, General Purpose Messages for E1.20, RDM, is to provide additional Get/Set parameter messages (PIDs) for use with the E1.20 Remote Device Management protocol. The public review package is a

ZIP file with folders of 128 JSON examples. The standard is E1-37-5 General Purpose PIDs r30 2022-09-01.pdf. Comments on any of the files are welcome, but only comments on E1-37-5 General Purpose PIDs r30 2022-09-01.pdf will be formally considered and resolved. Comment no later than 28 November 2022.

BSR E1.59, Entertainment Technology--Object Transform Protocol (OTP), describes a mechanism to transfer object transform information such as position, orientation and velocity over an IP network using a subset of the ACN protocol suite. It covers data format, data protocol, data addressing, and network management. Data transmitted is intended to coordinate visual and audio elements of a production. The existing standard is being revised to include new modules for camera metadata. Comment no later than 28 November 2022.

BSR E1.41, Recommendation for the Measurement of Entertainment Luminaires Utilizing Solid State Light Sources, is intended to be used for the presentation of photometric data for luminaires employing solid state light sources used in the entertainment and performance industries. This standard defines photometric data that may be presented on documents purporting to accurately describe the photometric performance of these luminaires when producing white and colored light. Comment no later than 5 December 2022.

BSR E1.42 - 202x, Safety Standard for Entertainment Lifts, is a revision of ANSI E1.42-2018 Entertainment Technology - Design, Installation, and Use of Orchestra Pit Lifts. Stage and orchestra lifts are specifically excluded from ASME A17.1 Safety Code for Elevators and Escalators. The previous version provided a reference standard for the design, manufacture, installation, and inspection of orchestra pit lifts. This revision expands its scope to include stage lifts and other similar lifts. These lifts have widely varying requirements and operating conditions. Procedures for risk assessment and risk reduction have been added to accommodate these conditions. As a result, many sections have been reorganized and renumbered. To reflect the increased scope and more closely follow ASME A17.1, the title has also been changed to Safety Standard for Entertainment Lifts. Comment no later than 5 December 2022.

BSR ES1.5-202x, Medical Preparedness, helps identify the steps necessary to create a reasonable level of protection from medical hazards that can be created by, exacerbated by, or cause effective treatment delay as a result of, the unique challenges & circumstances presented by the special event environment. Its scope includes the assessment of specific medical hazards, and also addresses the potential impact to local medical services, which may be temporarily impacted by the specific needs of the special event. Comment no later than 12 December 2022.

BSR ES1.40 - 202x, Event Safety – Security, addresses the various guest services and crowd control aspects that are encompassed by "event security," all of which serve a common function of establishing the behavioral expectations for the event, ranging from permissible item possession, access control, and behavioral management, to crime prevention and an overall sense of safety for event attendees. This standard addresses both active and passive security considerations. It distinguishes between private security staff and law enforcement. This standard helps reduce the risk of harm to event attendees and to their property, while helping to improve their on-site experience. Comment no later than 12 December 2022. If you wait until December 13, you missed it!

ANSI seeks comments on ISO management consultancy proposal

The American National Standards Institute seeks comments by 11 November 2022 on a [proposal](#) for a new ISO technical committee (TC) on management consultancy. The proposal document cites data released by management consulting platform Consulting Quest, which indicate that the global management consulting market will exceed US \$300 billion by the end of 2022, with North America accounting for 43%; Europe, the Middle East, and Africa combined at 34%; Asia-Pacific 20%; and Latin America accounting for 4%.

SAC, the ISO member from China, submitted the proposal to ISO for a new ISO TC with the following scope statement: "Standardization in the field of management consultancy." Excluded from the scope are technical aspects already covered by ISO TC 225, *Market, opinion and social research*, and ISO TC 260, *Human resource management*. ISO previously had a project committee that developed ISO 20700:2017, *Guidelines for management consultancy services*, in this subject area. However, since the publication of the standard, external

and internal contexts of the industry have undergone dramatic changes, including digitization, need for agility, and diversification of clients, among other changes.

According to the proposal, the proposed TC would benefit the development of the management consulting industry by:

- providing a classification of management consulting;
- matching service providers and clients more effectively;
- helping clients define their own needs, and evaluate service quality and results;
- providing support from “advising” to “implementation”;
- shortening problem-solving period;
- increasing productivity and ROI; and
- providing innovation, global thinking, and professional competitiveness.

Read the [proposal](#) and submit comments to Steven Cornish, ANSI senior director of international policy and strategy, scornish@ansi.org, by close of business on 12 November 2022. Based on input received from U.S. stakeholders, a recommended ANSI position and any comments will be developed and presented at the ANSI ISO Committee (AIC) for approval before ISO's voting deadline of 27 December 2022.

WTO Technical Barrier 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. The sort order is by comment due-date.

Canada Notification CAN/682

Date issued: 7 October 2022

Agency responsible: Department of Innovation, Sciences and Economic Development

National inquiry point: Notification Authority and Enquiry Point Global Affairs Canada

Products covered: Radiocommunications

Title: RSS-102, SPR-002, Issue 2; (66 pages in English), (67 pages in French)

Description of content: Notice is hereby given by the Ministry of Innovation, Science and Economic Development Canada that the following has been published: - RSS-102, SPR-002, Issue 2 - Supplementary Procedure for Assessing Compliance of Equipment Operating from 3 kHz to 10 MHz with RSS-102 which sets out the technical requirements and assessment procedures for demonstrating compliance of radio apparatus with the radiofrequency (RF) exposure limits outlined in RSS-102 from 3 kHz to 10 MHz. It applies to all radio apparatus producing RF emissions in this range. It also applies to some interference-causing equipment, specifically Industrial, Scientific and Medical (ISM) equipment.

Objective and rationale: Effective spectrum management

Relevant documents: Non applicable

Proposed date of adoption: 4 October 2022

Proposed date of entry into force: 4 October 2022

Final date for comments: Not given by country

Full text: [https://tsapps.nist.gov/notifyus/docs/wto_country/CAN/full_text/pdf/CAN682\[2\]\(english\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/CAN/full_text/pdf/CAN682[2](english).pdf)

Thailand Notification THA/677

Date issued: 10 October 2022

Agency responsible: Department of Industrial Works, Ministry of Industry

National inquiry point: Thai Industrial Standards Institute (TISI)

Products covered: Telecommunication equipment.

Title: Draft Notification of the National Broadcasting and Telecommunications Commission on Technical standard for Telecommunication Equipment: Radiocommunications equipment used frequency 5.925-6.425 Ghz (NBTC TS 103X-256X).; (6 pages in Thai)

Description of content: The standard specifies technical characteristics for Broadband Wireless Access on manner Radio Local Area Network used frequency 5.925-6.425 GHz and the output power must not exceed 250 milliwatts e.i.r.p.

Objective and rationale: Technical performance

Proposed date of adoption: Not given by country

Proposed date of entry into force: Not given by country

Final date for comments: 9 December 2022

Full text: [https://tsapps.nist.gov/notifyus/docs/wto_country/THA/full_text/pdf/THA677\(thai\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/THA/full_text/pdf/THA677(thai).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 6 November 20220

BSR/UL 943-202x, Standard for Safety for Ground-Fault Circuit-Interrupters (revision of ANSI/UL 943-2018)

(1) Corresponding proposal for the formal interpretation decision dated May 26, 2020 - Indication of Supervisory Test Function; (8) Revision of requirements to allow remote ON and OFF switching of GFCIs; (12) Open Neutral Protection – Extra-Low-Resistance Ground Fault Test and Short Circuit Test.

Access and offer comments at <https://csds.ul.com/Home/ProposalsDefault.aspx>

Due 14 November 2022

BSR/UL 1557-202x, Standard for Safety for Electrically Isolated Semiconductor Devices (revision of ANSI/UL 1557 -2018)

These requirements apply to semiconductor devices of the isolated-mounting type - thyristors, transistors, diodes, and the like, and hybrid modules consisting of combinations of these devices. The term isolation, as used in this standard, refers to the isolation of the mounting surface, or surface if there is no dedicated mounting surface, of a device to the electronic circuits within the device. These requirements do not apply to snubber and commutation circuits associated with thyristors, transistors or other analog semiconductor devices. These requirements cover the isolation performance of thyristors, transistors, diodes, and the like, and their combination in module packages and constructional features that are pertinent to that performance. These requirements apply to isolated semiconductors for use as components in products.

Single copy price: Free

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

Send comments to <https://csds.ul.com>

Due 21 November 2022

BSR/ASHRAE Addendum 55h-202x, Thermal Environmental Conditions for Human Occupancy (addenda to ANSI/ASHRAE Standard 55-2020)

Addendum h to Standard 55-2020 proposes multiple changes to the standard, including: A new definition for comfort zone and a cleanup of related definitions; Restructuring to remove the concept of a separate elevated airspeed "method" but instead an "adjustment" to the standard method. This restructuring includes edits to Appendix A, which has had a flow chart added to help guide users through the various models that underpin the standard; Replacing the word "acceptability" with "satisfactory" throughout the standard; A rewrite of Appendix H to account for recent changes in the standard and to better explain the concept of comfort zones; An update to the example surveys provided in Appendix L and associated language.

Single copy price: \$35.00 (Free download)

Free download at <https://www.ashrae.org/technical-resources/standards-andguidelines/public-review-drafts>

Offer comments at <https://www.ashrae.org/technicalresources/standards-and-guidelines/public-review-drafts>

BSR/ASTM E84-202x, Test Method for Surface Burning Characteristics of Building Materials (revision of ANSI/ASTM E84-2022)

<https://www.astm.org/get-involved/technical-committees/ansi-review>

Single copy price: Free

Order from and send comments to accreditation@astm.org

BSR/IAPMO Z1324-202x, Alternate Water Source Systems for Multi-Family, Residential, and Commercial Use (new standard)

This standard covers alternate water source systems for multi-family, residential, and commercial use intended to process water from alternate water sources such as greywater, rainwater, stormwater air conditioning condensate,

cooling tower makeup, vehicle wash, and other nonpotable reuse applications not specifically listed, for use in subsurface and/or surface irrigation and toilet/urinal flushing applications, and specifies requirements for materials, physical characteristics, performance testing, and markings. This standard does not cover using blackwater as an alternate water source.

Single copy price: Free

Order from and send comments to standards@iapmostandards.org

Due 6 December 2022

INCITS/ISO/IEC 27400:2022 [202x], Cybersecurity - IoT security and privacy - Guidelines (identical national adoption of ISO/IEC 27400:2022)

Provides guidelines on risks, principles and controls for security and privacy of Internet of Things (IoT) solutions.

Single copy price: \$200.00

Order from <http://webstore.ansi.org>

Send comments to comments@standards.incits.org

INCITS/ISO/IEC 27021:2017/AM1:2021 [202x], Information technology - Security techniques – Competence requirements for information security management systems professionals - Amendment 1: Addition of ISO/IEC 27001:2013 clauses or subclauses to competence requirements (identical national adoption of ISO/IEC 27021:2017/AM1:2021)

Amendment 1 to ISO/IEC 27021:2017.

Single copy price: \$20.00

Order from <http://webstore.ansi.org>

Send comments to comments@standards.incits.org

BSR/UL 3600-202x, Standard for Measuring and Reporting Circular Economy Aspects of Products, Sites and Organizations (new standard)

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). The metrics and measures are focused on materials and the flow of those materials as a result of the activities of organizations and from any products manufactured by those organizations. In addition to the materials and flows, activities and impacts from those materials and flows in other parts of the supply chain should be included where they represent significant impact and will be used as a modifier on the material flows. By addressing both flows and impacts, this standard seeks to address the progress toward sustainability in a more holistic way.

Single copy price: Free

Order from Caroline Treuthardt, caroline.treuthardt@ul.org

Offer comments at <https://csds.ul.com/Home/ProposalsDefault.aspx>

New ANS projects

ANSI has announced the following new project 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/ASCE/CI 67-202x, Schedule Delay Analysis (revision of ANSI/ASCE/CI 67-2017)

The 35 guidelines in this standard allow for segmentation of responsibility for delay to intermediary milestones and to the project completion date. They also enable delay damages or liquidated damages to be calculated by utilizing critical path method schedule techniques and preparing a schedule delay analysis. The guidelines in this standard are based on principles of schedule delay analysis in the following categories: Critical path, Float, Early completion, Chronology of delay, Concurrent delay, Responsibility for delay, Changing schedules after the fact, and Acceleration. The application of such principles should be based on the terms of the contract, contract administration, consistency in application, and legal precedent. These standard guidelines provide commentary, support for, and explanations of this ASCE standard committee's list of guidelines.

Contact James Neckel, jneckel@asce.org

BSR/CSA V801-202x, Battery Circularity Standard (new standard)

The Battery Circularity Standard includes requirements for the battery lifecycle, covering mineral extraction, processing, battery manufacturing and assembly, distribution, end use application, and end-of-life management (reuse, recycling, and reprocessing). These elements include but are not limited to the following aspects:

- Mining processes;
- Mineral processing;
- Battery manufacturing;
- Labelling of battery (ex. material composition, recycled materials, etc.);
- Design practices to simplify recycling;
- End of life;
- Monitoring database of spent batteries;
- Safe disassembly of the battery from the vehicle;
- Handling of the battery by personnel;
- Transportation of batteries;
- Storage of batteries;
- Refurbishing batteries;
- Facilities for removal, testing, storage, and processing of spent batteries;
- Processing or re-purposing of batteries for second-life application;
- Recycling batteries;
- Processing of batteries for recycling;
- Qualifying recycled materials for new batteries;
- Disposal; and
- Processing of batteries for disposal.

This standard is applicable to lithium-ion batteries for vehicles (on- and off-road), energy storage, and other highpower applications.

Contact Debbie Chesnik, ansi.contact@csagroup.org

BSR/IEST/ISO 14644-4-202x, Design, construction, and start-up (identical national adoption of ISO 14644-4)

This document provides guidance for the design, construction, and start-up of cleanrooms, both new and those undergoing modification or refurbishment. In this edition, a more structured approach is provided with separate normative sections on requirements, design, construction, and start-up, supported by four corresponding informative annexes. For this edition, key recommendations and considerations include: (a) A structured approach with a logical sequential flow through the design, construction, and startup stages; (b) Inclusion of other cleanliness attributes; (c) Importance of a contamination risk assessment; (d) A clear statement of requirements, namely everything needed for input into the design, including the purpose of the cleanroom and the acceptance criteria for performance parameters; (e) Ventilation effectiveness; (f) Using air-supply rate for calculations of contaminant dilution and removal; (g) Energy efficiency and life-cycle considerations; and (h) A clean build protocol.

Contact Jennifer Sklena, jsklena@iest.org

BSR C18.5M Part 1-202x, Portable Lithium Rechargeable Cells and Batteries - General and Specifications (revision of ANSI C18.5M Part 1-2020)

This publication applies to portable rechargeable, or secondary, lithium cells and batteries. This document covers secondary lithium cells and batteries with a range of chemistries. Each electrochemical couple has a characteristic voltage range over which it releases its electrical capacity, a characteristic nominal voltage and a characteristic final voltage during discharge. This document defines a minimum required level of performance and a standardized methodology by which testing is performed and the results of this testing reported to the user.

Contact Khaled Masri, Khaled.Masri@nema.org

BSR/ASME IAM-1-202x, Investment Analysis Guidelines for Manufacturing (new standard)

Scope: To provide guidance to manufacturers to help evaluate potential investments in technologies and processing using primary investment analysis methods. This guidance is intended to aid decisions in capital investments which include, but are not limited to, investments in processes, machinery, and practices.

Contact Terrell Henry, ansibox@asme.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 really ever finished.

ANSI/AISC 341-2022, Seismic Provisions for Structural Steel Buildings (revision of ANSI/AISC 341-2016), 26 September 2022

ANSI/ASHRAE Addendum 62.1e-2022, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2019), 30 September 2022

ANSI/ASHRAE Addendum 62.1m-2022, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2019), 30 September 2022

ANSI/ASHRAE Addendum 62.1n-2022, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2019), 30 September 2022

ANSI/UL 498-2022a, Standard for Safety for Attachment Plugs and Receptacles (revision of ANSI/UL 498-2022), 26 September 2022

ANSI/UL 1559-2017 (R2022), Standard for Insect-Control Equipment - Electrocutation Type (reaffirmation of ANSI/UL 1559-2017), 22 September 2022

ANSI/UL 2200-2022, Standard for Stationary Engine Generator Assemblies (revision of ANSI/UL 2200-2020), 23 September 2022

ANSI/UL 60939-3-2017 (R2022), Standard for Passive filter units for electromagnetic interference suppression - Part 3: Passive filter units for which safety tests are appropriate (reaffirm a national adoption ANSI/UL 60939-3-2017), 25 July 2022

Draft IEC & ISO documents

This section lists proposed documents 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 on a document 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 the ISO Team (isot@ansi.org). The comments on ISO documents must be submitted electronically in the approved ISO template and as a Word document; other formats will not be accepted. US comments should be sent to Tony Zertuche, General Secretary, USNC/IEC, at ANSI's New York offices (tzertuche@ansi.org). Any prices shown are for purchases through ANSI. (Not all have prices.) Some of the due dates are in the past, but the dates shown are what were given. The sort order is by due-date.

ISO/FDIS 22328-3, Security and resilience – Emergency management - Part 3: Guidelines for the implementation of a community-based tsunami early warning system, 31 August 2021 [sic], \$67.00

ISO/DIS 37004, Governance of organizations – Governance maturity model, 28 July 2022 [sic], \$88.00

34/948(F)/FDIS, IEC 62386-102 ED3: Digital addressable lighting interface - Part 102: General requirements – Control gear, 14 October 2022

34/946(F)/FDIS, IEC 62386-103 ED2: Digital addressable lighting interface - Part 103: General requirements – Control devices, 14 October 2022

34/947(F)/FDIS, IEC 62386-101 ED3: Digital addressable lighting interface - Part 101: General requirements – System components, 14 October 2022

77/586/DTR, IEC TR 61000-1-1 ED2: Electromagnetic compatibility (EMC) - Part 1-1: General - Application and interpretation of fundamental definitions and terms, 18 November 2022

77/585/DTR, IEC TR 61000-5-1 ED2: Electromagnetic compatibility (EMC) - Part 5-1: Installation and mitigation guidelines - General considerations, 18 November 2022

JTC1-SC41/311/CD, ISO/IEC 30149 ED1: Internet of Things (IoT) - Trustworthiness Principles, 18 November 2022

SyCAAL/281/CD, IEC SRD 63416 ED1: Ethical considerations of Artificial Intelligence (AI) when applied in the Active Assisted Living (AAL) context, 16 December 2022

ISO/IEC DIS 25010, Systems and software engineering – Systems and software Quality Requirements and Evaluation (SQuaRE) -Product quality model, 9 December 2022, \$82.00

ISO/IEC DIS 25019, Systems and software engineering – Systems and software Quality Requirements and Evaluation (SQuaRE) -Quality-in-use model, 9 December 2022, \$98.00

ISO/IEC DIS 25002, Systems and software engineering – Systems and software Quality Requirements and Evaluation (SQuaRE) -Quality models overview and usage, 12 December 2022, \$71.00

65C/1181/CDV, IEC 61139-3 ED1: Industrial networks - Singledrop digital communication interface - Part 3: Wireless extensions, 23 December 2022

65A/1056/CD, IEC 61508-1 ED3: Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 1: General requirements (see Functional Safety and IEC 61508), 20 January 2023

65A/1057/CD, IEC 61508-2 ED3: Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 2: Requirements for electrical/electronic/programmable electronic safety-related systems (see Functional Safety and IEC 61508), 20 January 2023

65A/1058/CD, IEC 61508-3 ED3: Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 3: Software requirements (see Functional Safety and IEC 61508), 20 January 2023

65A/1059/CD, IEC 61508-4 ED3: Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 4: Definitions and abbreviations (see Functional Safety and IEC 61508), 20 January 2023

65A/1060/CD, IEC 61508-5 ED3: Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 5: Examples of methods for the determination of safety integrity levels (see Functional Safety and IEC 61508), 20 January 2023

65A/1061/CD, IEC 61508-6 ED3: Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 6: Guidelines on the application of IEC 61508-2 and IEC 61508-3 (see Functional Safety and IEC 61508), 20 January 2023

65A/1062/CD, IEC 61508-7 ED3: Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 7: Overview of techniques and measures (see Functional Safety and IEC 61508), 20 January 2023

Recently published IEC & ISO documents

Listed here are documents recently approved by the IEC or ISO 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 [ANSI Webstore](#).

IEC/TR 62471-4 Ed. 1.0 en:2022, Photobiological safety of lamps and lamp systems - Part 4: Measuring methods, \$392.00

ISO 23218-2:2022, Industrial automation systems and integration - Numerical control systems for machine tools – Part 2: Requirements for numerical control system integration, \$73.00

ISO/CIE TR 21783:2022, Light and lighting - Integrative lighting - Non-visual effects, \$111.00

ISO/IEC 13818-1:2022, Information technology - Generic coding of moving pictures and associated audio information - Part 1: Systems, \$250.00

ISO/IEC 18181-3:2022, Information technology - JPEG XL Image Coding System - Part 3: Conformance testing, \$73.00

ISO/IEC 19075-9:2022, Information technology - Guidance for the use of database language SQL - Part 9: Online analytic processing (OLAP) capabilities (Guide/OLAP), \$200.00

ISO/IEC 21000-22:2022, Information technology – Multimedia framework (MPEG-21) - Part 22: User description, \$250.00

ISO/IEC 21122-5:2022, Information technology - JPEG XS low-latency lightweight image coding system - Part 5: Reference software, \$111.00

ISO/IEC 23090-3:2022, Information technology – Coded representation of immersive media - Part 3: Versatile video coding, \$250.00

TSP meeting schedule

The next set of meetings will be in the week of January 16 in 2023. They will be via WebEx.

The following set of meetings will be scheduled in April around the NAMM Show. Meetings will be in person in Anaheim and via WebEx.

The schedules are not set yet. When they are, they will be posted at <https://www.esta.org/ESTA/meetings.php>.

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)

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Altman Lighting, Inc.

Theatre Projects

McLaren Engineering Group

Theatre Safety Programs

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About the Stage

Michael Lay

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EGI Event Production Services

Sapsis Rigging Inc.

Entertainment Project Services

SBS Lighting

Neil Huff

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Interactive Technologies

Dana Taylor

iStudio Projects

Steve Terry

Jules Lauve

Vertigo

Brian Lawlor

WNP Services

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

Actors' Equity Association

Lex

Golden Sea Professional Lighting Provider

NAMM

IATSE Local 728

Texas Scenic Company

IATSE Local 891

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

American Society of Theatre Consultants

InterAmerica Stage, Inc.

Area Four Industries

Lycian Stage Lighting

BMI Supply

Niscon Inc.

City Theatrical Inc.

Tomcat Staging, Lighting and Support Systems

H&H Specialties, Inc.

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

Baxter Controls, Inc.

Jessica Sanders

ChamSix

Sehr Gute GmbH

Concept Smoke Systems Ltd.

David Thomas

Bruce William Darden

Techni-Lux

Ian Foulds

Tracy Underhill

Liberal Logic, Inc.

Ralph Weber

Luminator Technology Group

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

SUPPORTER (\$50 - \$1,499; 20–100 employees/members)
High Output
InCord
iWeiss
Oasis Stage Werks

SUPPORTER (\$50 - \$199; <20 employees/members)
Chip Scott Lighting Design
Matthew Douglas III
Beverly and Tom Inglesby
KASUGA
Luminator Technology Group
Bill McCord

Stagemaker
Syracuse Scenery and Stage Lighting Co., Inc.
Vincent Lighting Systems
Wuhan Zhongtian Jiaye Mechanical & Electrical Eng.
Co.

Motion FX
Northern Lights Electronic Design
Shanxi Tian Gong Sheng Optoelectronic Equipment
Technology Co.
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