



ESTA Standards Watch

October 2023 Volume 27, Number 19

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Five ESTA standards approved and published

Five ESTA standards recently were approved and published. You can download them from <http://tsp.esta.org/freestandards> for FREE, or you can buy them from [ANSI](#) and [IHS](#).

ANSI E1.8 - 2018 (R2023), Entertainment Technology -- Loudspeaker Enclosures Intended for Overhead Suspension -- Classification, Manufacture and Structural Testing, is the 2023 reaffirmation of the 2018 edition. This outlines what you should do so flown loudspeakers, such as line arrays that must support the weight of other speakers below them, don't fail, tear apart, and don't rain parts down on the audience below.

ANSI E1.21-2023, Temporary Structures Used for Technical Production of Outdoor Entertainment Events, is a revision of the 2020 edition. This document establishes a minimum level of design and performance parameters for the design, manufacturing, use and maintenance of temporary ground-supported structures used in the production of outdoor entertainment events. The purpose of this guidance is to ensure the structural reliability and safety of these structures and does not address fire safety and safe egress issues. The new edition brings E1.21 into line with current editions of the upcoming 2024 International Building Code.

ANSI ES1.40-2023, Event Safety – Security, is a new standard. This standard is intended to be a companion piece to ANSI ES1.9-2020, Crowd Management, in that event security is an essential component of crowd management, and some of the reasonably foreseeable risks and risk mitigation strategies will overlap. It distinguishes between privately retained or volunteer security providers, and public safety officials such as police, sheriffs, constables, or firefighters who perform crowd control.

ANSI E1.46 - 2018 (R2023), Standard for the Prevention of Falls from Theatrical Stages and Raised Performance Platforms, is the 2023 reaffirmation of the 2018 edition. There's nothing new about the basic risk management principles for not falling off a stage!

ANSI E1.72-2023, Powered Floor Machinery, is a new standard. It establishes requirements for the design, manufacture, installation, inspection, operation and maintenance of powered stage floor machinery such as wagons, turntables, treadmills, slip stages, and trap covers. Machines that produce substantially vertical movement, such as lifts, are excluded from this standard.

What do these standards say? Go to <http://tsp.esta.org/freestandards> and find out. They are free from the TSP website. If you want to spend money, buy them from from [ANSI](#) or [IHS](#). ANSI and IHS will like that, and ESTA will get a royalty.

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.

United States of America Notification USA/2050

Notification date: 25 September 2023

Agency responsible: Department of the Environment, State of Maryland

USA WTO TBT enquiry point: usatbtep@nist.gov

Products covered: Vehicle emissions; Environmental protection; Transport exhaust emissions; Road vehicles in general

Title: Advanced Clean Trucks Program (6 pages in English)

Description of content: Proposed rule - The purpose of this action is to adopt regulations implementing California's Advanced Clean Trucks (ACT) regulation under the Code of Maryland Regulations (COMAR) 26.11.43. The regulations will be submitted to the U.S. Environmental Protection Agency (EPA) for approval as part of Maryland's State Implementation Plan (SIP).

Objective and rationale: Protection of the environment

Relevant documents: Maryland Register 8 September 2023, Volume 50, Issue 18, pages 785-844:

<https://2019-dsd.maryland.gov/MDRIssues/5018/Assembled.aspx>

The Maryland Department of the Environment will hold a virtual public hearing on the proposed action on 11 October 2023, at 10:00 a.m. Eastern Time. Interested persons are invited to attend and express their views. Join the meeting from a computer, tablet or smartphone: <https://meet.goto.com/966883773>.

A Fact Sheet for the amendments to COMAR 26.11.43 is accessible at

<https://mde.maryland.gov/programs/regulations/air/Documents/BEPS/2023%20ACT%20Fact%20Sheet.pdf>.

WTO Members and their stakeholders are asked to submit comments to the USA TBT Enquiry Point by or before 4pm Eastern Time on 11 October 2023. Comments received by the USA TBT Enquiry Point from WTO Members and their stakeholders will be shared with the regulator if received within the comment period.

Proposed date of adoption: To be determined

Proposed date of entry into force: To be determined

Final date for comments: 11 October 2023

Text available from: https://2019-dsd.maryland.gov/MDRIssues/5018/Assembled.aspx#_Toc144896239

https://members.wto.org/crattachments/2023/TBT/USA/23_12582_00_e.pdf

Türkiye Notification TUR/208

Notification date: 27 September 2023

Agency responsible: Ministry of Industry and Technology, DG for EU and Foreign Affairs

Türkiye-TBT enquiry point: Ministry of Trade, DG of Product Safety and Inspection, tbt@ticaret.gov.tr,

<http://www.teknikengel.gov.tr>

DG for EU and Foreign Affairs: Mustafa Kemal Mah, sumeyye.sabanci@sanayi.gov.tr

Products covered: In-Service Internal Combustion Engines Installed in Non-Road Mobile Machinery

Title: Communique On Monitoring Of Gaseous Pollutant Emissions From In-Service Internal Combustion Engines Installed In Non-Road Mobile Machinery (60 pages in English)

Description of content:

- (1) This Communiqué covers the emission limits for all engines in the categories specified in the first paragraph of Article 5 of the aforementioned Regulation and for the gas and particulate pollutants arising from the engines of these machines, which are installed or intended to be fitted to mobile machines used outside the highway determined by The Regulation on Gas and Particulate Pollutant Emission Limits and Requirements Regarding Type Approval for Internal Combustion Engines Installed on Moving Machines Used Outside the Highway (2016/1628 / EU)
- (2) This Communiqué applies to monitoring of the gaseous pollutant emissions from the following categories of in-service engines of emission Stage V installed in non-road mobile machinery regardless of when the EU type-approval for those engines was granted:
- (a) NRE and NRG (all sub-categories);
 - (b) NRS-vi-1b, NRS-vr-1b, NRS-v-2a, NRS-v-2b and NRS-v-3;
 - (c) IWP and IWA (all sub-categories);
 - (d) RLL and RLR (all sub-categories);
 - (e) ATS;
 - (f) SMB;
 - (g) NRSh (all sub-categories);
 - (h) NRS-vi-1a and NRS-vr-1a.
- (3) This Communiqué applies to engine manufacturer. This Notification does not apply to original equipment manufacturer
- (4) This Communiqué does not apply where the manufacturer demonstrates to the approval authority that it is not able to obtain access to any engine installed in a non-road mobile machinery for the purposes of in-service monitoring.

Objective and rationale: The objective of this Communiqué is to add the framework determined by the Regulation on Gas and Particulate Pollutant Emission Limits for Internal Combustion Engines and Requirements Regarding Type Approval (2016/1628 / EU) published in the Official Gazette dated 11/09/2020 and numbered 31241. This Communiqué establishes detailed arrangements with regard to the selection of engines, test procedures and reporting of results relating to monitoring of gaseous pollutant emissions from in-service internal combustion engines installed in non-road mobile machinery using portable emission measurement systems.; Protection of human health or safety; Harmonization

Relevant documents: This Communiqué, considering Commission Delegated Regulation (EU) 2017/655 of 19 December 2016 supplementing Regulation (EU) 2016/1628 of the European Parliament and of the Council with regard to monitoring of gaseous pollutant emissions from in-service internal combustion engines installed in non-road mobile machinery has been prepared within the framework of harmonization with the EU legislation.

This Communiqué was prepared pursuant to; Article 4 of Law No. 7223 on Product Safety and Technical Regulations Law dated 12/03/2021 and 31066 and Articles 385 and 388 of the Presidential Decree No. 1 on the Presidential Organization published in the Official Gazette dated 10/7/2018 and numbered 30474 and the Regulation on Gas and Particulate Pollutant Emission Limits for Internal Combustion Engines and Requirements Regarding Type Approval (2016/1628/EU) published in the Official Gazette dated 11/09/2020 and numbered 31241

Proposed date of adoption: The Communiqué will be adopted upon its publication.

Proposed date of entry into force: Provisions of this Communiqué shall apply from the date of publication.

Final date for comments: 60 days from notification, 26 November 2023

Texts available from: https://members.wto.org/crnattachments/2023/TBT/TUR/23_12623_00_x.pdf

Australia Notification AUS/163

Notification date: 28 September 2023

Agency responsible: Australian Government Department of Health and Aged Care

Australian WTO TBT enquiry point: Office of Global Trade Negotiations, Department of Foreign Affairs and Trade, tbt.enquiry@dfat.gov.au

Products covered: All industrial chemicals used in Australia.

Title: Proposed changes to the Industrial Chemicals (General) Rules and Categorisation Guidelines (60 pages in English)

Description of content: The consultation paper invites public comments on a suite of proposals relating to categorisation, reporting and record-keeping obligations - through proposed amendments to the Industrial

Chemicals (General) Rules 2019 and the Industrial Chemicals Categorisation Guidelines administered by the Australian Industrial Chemicals Introduction Scheme (AICIS).

Key proposals in this consultation include:

1. Replacing written undertakings with records that will make compliance easier.
2. Greater acceptance of International Nomenclature of Cosmetic Ingredients (INCI) names for reporting and record keeping.
3. Changes to the categorisation criteria to benefit:
 - a. small-scale soap makers
 - b. introducers of chemicals in flavour and fragrance blends
 - c. introducers of hazardous chemicals where introduction and use are controlled.
4. Strengthening criteria and/or reporting requirements for health and environmental protection, for example, to prevent persistent organic pollutants (POPs) from being categorised as exempted or reported Introductions.

None of the proposals involve changes to the Industrial Chemicals Act 2019.

Objective and rationale: The Australian Industrial Chemicals Introduction Scheme (AICIS) helps protect the health of Australians and our environment by finding out the risks of industrial chemicals and recommending ways to promote their safer use.

The Industrial Chemicals Act 2019 is the legal framework for the regulation of the importation and manufacture (introduction) of industrial chemicals in Australia. The Industrial Chemicals (General) Rules 2019 (General Rules) form part of the legislative framework and contain the technical and operational details of AICIS under the functions of the Executive Director. The Industrial Chemicals Categorisation Guidelines are issued by the Executive Director of AICIS and set out technical details and requirements for categorising chemical introductions in Australia.

These proposed amendments to the General Rules and the Industrial Chemicals Categorisation Guidelines were developed using an evidence- and risk-based approach to regulation that is appropriate to each circumstance. Proposals that would benefit introducers are based on mechanisms that may lower regulatory burden while maintaining regulatory intent.; Protection of human health or safety; Protection of the environment

Relevant documents: Industrial Chemicals (General) Rules 2019:

<https://www.legislation.gov.au/Series/F2019L01543>

Industrial Chemicals Categorisation Guidelines: <https://www.industrialchemicals.gov.au/sites/default/files/2020-06/Industrial%20Chemicals%20Categorisation%20Guidelines%20%5BPDF%20756%20KB%5D.pdf>

Proposed date of adoption: To be determined

Proposed date of entry into force: Expected timeframe is April 2024.

Final date for comments: 60 days from notification, 27 November 2023

Texts available from: <https://www.industrialchemicals.gov.au/news-and-notice/have-your-say-changes-categorisation-reporting-and-record-keeping>

<https://www.industrialchemicals.gov.au/sites/default/files/2023-09/Explanation%20of%20all%20proposed%20changes%20to%20categorisation%2C%20reporting%20and%20record-keeping%20obligations.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 13 November 2023

BSR/AWC WFCM-202x, Wood Frame Construction Manual for One- and Two-Family Dwellings (revision and redesignation of ANSI/AWC WFCM-2018)

Revise ANSI/AWC WFCM-2018, primarily to address anticipated changes to wind and snow load provisions in ASCE 7-22. [ESTA's own ANSI E1.21 has been revised for congruence with ASCE 7.]

Single copy price: \$30.00

Obtain an electronic copy from: bdouglas@awc.org

Send comments to: Same

BSR/BICSI 007-202x, Information Communication Technology Design and Implementation Practices for Intelligent Buildings and Premises (revision of ANSI/BICSI 007-2020)

This standard covers the design and implementation of the information communication technology systems required to support an intelligent building/premise integrated design. Systems covered, include, but are not limited to: building automation/management, utility utilization, lighting, signage and wayfinding, sound and acoustical services, vertical transportation, location and asset tracking.

Single copy price: Free

Obtain an electronic copy from: jsilveira@bicsi.org

Send comments to: Jeff Silveira <jsilveira@bicsi.org>

BSR/BICSI 008-202x, Wireless Local Area Network (WLAN) Systems Design and Implementation Best Practices (revision of ANSI/BICSI 008-2018)

The standards includes material for the design and implantation of an in-building or campus wireless network (WLAN), including, but not limited to: ICT infrastructure, distribution technology types, compliance and regulations, wireless design, coordination, installation & commissioning, specific locations and situations.

Single copy price: Free

Obtain an electronic copy from: jsilveira@bicsi.org

Send comments to: Jeff Silveira <jsilveira@bicsi.org>

BSR Z535.2 202x, Standard for Environmental and Facility Safety Signs (revision of ANSI Z535.2-2011 (R2017))

This standard sets forth a system for presenting safety and accident prevention information through environmental and facility safety signs. It consolidates a number of previous graphic approaches into a common design direction selected to present hazard information in an orderly and visually consistent manner.

Single copy price: \$127.00

Obtain an electronic copy from: Paul.Crampton@nema.org

Send comments to: Same

BSR Z535.4 202X-202x, Product Safety Signs and Labels (revision of ANSI Z535.4-2011 (R2017))

Establishes performance requirements for the design, application, use, and placement of safety signs and labels on a wide variety of products.

Single copy price: \$118.00

Obtain an electronic copy from: Paul.Crampton@nema.org

Send comments to: Same

BSR Z535.6 202x-202x, Product Safety Information in Product Manuals, Instructions, and Other Collateral Materials (revision of ANSI Z535.6-2011 (R2017))

This standard sets forth requirements for the design and location of product safety messages in collateral materials for a wide variety of products.

Single copy price: \$115.00

Obtain an electronic copy from: Paul.Crampton@nema.org

Send comments to: Same

BSR/UL 498-202x, Standard for Attachment Plugs and Receptacles (revision of ANSI/UL 498-2023)

This proposal for UL 498 covers: (1) 15 & 20 A Receptacle Conductor Markings; (2) Revision to Table 193.4; (3) Editorial error: PLASA reference in 7.2.

Single copy price: Free

Access and offer comments at <https://csds.ul.com/ProposalAvailable>

Due 28 November 2023

BSR/ASME NUM-1-202x, Rules for Construction of Cranes, Monorails, and Hoists (with Bridge or Trolley or Hoist of the Underhung Type) (revision of ANSI/ASME NUM-1-2016)

This standard covers underhung cranes, top-running bridge and gantry cranes with underhung trolleys, traveling wall cranes, jib cranes, monorail systems, overhead hoists, and hoists with integral trolleys used in nuclear facilities.

Single copy price: Free

Access at <https://cstools.asme.org/csconnect/PublicReviewPage.cfm>

Send comments to: Jihoon Oh, ansibox@asme.org

BSR/UL 2524-202x, Standard for In-Building 2-Way Emergency Radio Communication Enhancement Systems (revision of ANSI/UL 2524-2018)

This new proposed edition tackles different topics: (1) Correction to Polarity Reversal Test; (2) Revise nomenclature to "Emergency Responder Communication Enhancement System"; (3) Update references to Model Building and Installation Codes; (4) Optical fiber technology; (5) Relaxation of enclosure requirements for equipment intended for indoor use/dry locations; (6) Clarification of on-premises visual and labeled indications; (7) Shut-down permitted for uncorrectable oscillation; (8) Update of Appendix A - Standards of Components; (9) Added requirements for products intended to be installed outdoors; (10) Corrections to Sec. 25.3; (11) Clarify maximum propagation delay.

Single copy price: Free

Access and offer comments at <https://csds.ul.com/ProposalAvailable>

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/ASC/ICC A118-202x, Acoustics of the Built Environment (new standard)

People with disabilities may face barriers in the Acoustic Built Environment. A standard would address these areas including acoustic design of the built environment, designing for wayfinding, controlling noise and reverberation, design of spaces with special acoustic considerations, service counters, learning spaces, shared office spaces, support spaces, uses of audio amplification and transmission, assistive technology and listening systems and public address systems. Consideration to be given on site design and architectural features of buildings affecting the acoustics and how people with physical and sensory disabilities use public buildings and residential structures including wayfinding.

Contact Karl Aittaniemi <kaittaniemi@iccsafe.org>

BSR C63.10-202x, Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices (revision and redesignation of ANSI C63.10-2020)

This PINS is intended to address the following topics to be incorporated into Edition 4:

- (a) editorial corrections, including clarification of terms & removal of subclauses no longer deemed necessary, updating the FCC crossreference matrix & review any standards references;
- (b) review & clarify as necessary the administrative procedures in Clause 5 of C63.10;
- (c) Test reduction methods based on emerging technologies;
- (d) Add bandwidth correction methods for when a RBW less than reference BW is used (See C63.26 4.2.3);
- (e) review & change as necessary Clause 5.6.3 for testing band edge requirements as power levels change;
- (f) review & change as necessary Clause 11 (DTS) for applicability;
- (g) review & change as necessary procedures for UNII due to changes in FCC Rules, including TPC & antenna elevation mask testing;
- (h) Measurement guidance for 802.11 technologies using resource units;
- (i) review & include as necessary DFS test procedures;
- (j) review & change as necessary MIMO procedures;
- (k) review & include as necessary AFC validation procedures;
- (l) Incorporate or revise Test methods based on relevant FCC KDBs;
- (m) Extend the frequency range;
- (n) Radar test methods for 57-71 GHz;
- (o) incorporate changes made in the corrigendum & amendment;
- (p) create antenna gain measurement procedure;
- (q) review & correct any items as necessary.

Contact Jennifer Santulli <J.Santulli@ieee.org>

BSR/LES IPV1.0.2023-202x, Intellectual Property Valuation (new standard)

The scope of this standard is IP valuation work products. As the importance and prevalence of IP valuation grows in business and legal transactions, a need exists for a standard that provides the a common understanding and a common reference point for IP Valuations. Adopters may reduce the cost and time required to perform IP-oriented transactions and IP management. The standard may apply to different industries, entities, and markets, including commercial, government, public or private institutions, companies, academia, professional organizations, service functions, and consultants. The standard addresses the process steps to perform a valuation of an IP asset comprising patents, trade secrets, or copyrights for a variety of purposes such as, the negotiations of licenses or contractual agreements, settlements, taxes, mergers and acquisitions, venture capital transactions, engagements, and consulting. An objective is to provide a framework that is credible, reproducible, and consistent, independent of who performs the valuation, the purpose, or use. This standard does not explicitly list all factors, such as specific factors that courts may apply in the calculation of damages in various jurisdictions. The adoption and practice is not intended to waive or alter any rules of ethics, rules of professional responsibility, or applicable privileges or protections.

Contact Will Cottrell <standards@les.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/ICC 300-2023, ICC Standard on Bleachers, Folding and Telescopic Seating, and Grandstands (revision of ANSI/ICC 300-2017), 18 September 2023

ANSI/IES LM-85-23-2023, IES Approved Method: Optical and Electrical Measurements of LED Sources (revision of ANSI/IES LM-85-2020), 25 September 2023

ANSI C82.77-6-2023, Standard for Lighting Equipment Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current 16 A per phase and not subject to conditional connection (new standard), 25 September 2023

ANSI/UL 2900-2-1-2023a, Standard for Safety for Software Cybersecurity for Network-Connectable Products, Part 2-1: Particular Requirements for Network Connectable Components of Healthcare and Wellness Systems (revision of ANSI/UL 2900-2-1-2023), 21 September 2023

ANSI/UL 2900-2-3-2023, Standard for Safety for Software Cybersecurity for Network-Connectable Products, Part 2-3: Particular Requirements for Security and Life Safety Signaling Systems (revision of ANSI/UL 2900-2-3-2020), 21 September 2023

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.

65/1021(F)/FDIS, IEC 62443-2-4 ED2: Security for industrial automation and control systems - Part 2-4: Security program requirements for IACS service providers, 13 October 2023

65E/1031(F)/FDIS, IEC 62453-302 ED3: Field device tool (FDT) interface specification - Part 302: Communication profile integration - IEC 61784 CPF 2, 13 October 2023

ISO/DIS 16813, Building environment design – Indoor environment - General principles, 8 December 2023, \$71.0

ISO/DIS 59040, Circular economy - Product circularity data sheet, 9 December 2023, \$125.00

ISO/DIS 14617-2, Graphical symbols for diagrams - Part 2: Graphical symbols, 10 December 2023, \$185.00

56/2002/CDV, IEC 62309 ED2: Dependability of products containing reused parts - Requirements for functionality and tests, 15 December 2023

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 [ANSI Webstore](#).

ISO/CIE TR 3092:2023, Light and lighting - Energy performance of lighting in buildings - Explanation and justification of ISO/CIE 20086, \$263.00

ISO/PAS 11585:2023, Road vehicles - Partial driving automation - Technical characteristics of conditional hands-free driving systems, \$116.00

ISO/IEC 22123-2:2023, Information technology – Cloud computing - Part 2: Concepts, \$183.00

ISO/IEC 22123-3:2023, Information technology – Cloud computing - Part 3: Reference architecture, \$237.00

ESTA Standards Watch

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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 and Plugfest schedule

The next set of TSP working group meetings and Plugfest will be held at the Marriott DFW hotel in Westlake, Texas near the Dallas/Ft. Worth Airport. All the times shown are **US Central Time**. Plugfest information is at <https://tsp.esta.org/tsp/news/plugfest.html>.

CP E1.11 & E1.68, DMX512 TG	14:00 - 18:00	Friday 6 October 2023
CP E1.37-4, Firmware Upload TG	09:00 - 13:00	Sunday 8 October 2023
CP E1.37-8, IPv4/v6 RDM Config TG	14:00 - 17:00	Saturday 7 October 2023
CP E1.63, NAEP TG	17:00 - 18:00	Saturday 7 October 2023
CP E1.73, UDR TG	09:00 - 13:00	Friday 6 October 2023
CP E1.77, sACN Security TG	14:00 - 18:00	Thursday 5 October 2023
CP NextGen Overall/Transport Study Group TG	09:00 - 10:00	Thursday 5 October 2023
CP NextGen Transport TG	10:00 - 13:00	Thursday 5 October 2023
Control Protocols (CP) WG	09:00 - 13:00	Saturday 7 October 2023
Electrical Power WG	19:00 - 22:00	Friday 6 October 2023
Event Safety WG	14:00 - 18:00	Saturday 7 October 2023
Floors WG	13:00 - 16:00	Friday 6 October 2023
Fog & Smoke WG	noon - 15:00	Thursday 5 October 2023
Followspot WG	10am - 11:00	Thursday 5 October 2023
Photometrics WG	10:00 - noon	Friday 6 October 2023
Plugfest	17:00 - 23:00	Wednesday 4 October 2023
	09:00 - 23:00	Thursday 5 October 2023
	09:00 - 23:00	Friday 6 October 2023
	09:00 - 23:00	Saturday 7 October 2023
	09:00 - 23:00	Sunday 8 October 2023
Rigging WG	19:00 - 23:00	Saturday 7 October 2023
Stage Machinery WG	16:00 - 18:00	Friday 6 October 2023
Technical Standards Council	09:00 - 13:00	Sunday 8 October 2023
Weapons Safety WG	16:00 - 20:00	Thursday 5 October 2023

TG = Task Group meeting

WG = Working Group meeting

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

PLASA

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

Theatre Safety Programs

TMB

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

About the Stage

B-Hive Industries, Inc.

Scott Blair

Boston Illumination Group

Candela Controls, Inc.

Clark Reder Engineering

Tracey Cosgrove & Mark McKinney

Doug Fleenor Design

Down Stage Right Industries Ltd.

EGL Event Production Services

Entertainment Project Services

Neil Huff

Interactive Technologies

iStudio Projects

Jules Lauve

Brian Lawlor

Michael Lay

Link

John T. McGraw

Mike Garl Consulting

Mike Wood Consulting

Lizz Pitsley

Reed Rigging

Reliable Design Services

Alan Rowe

Sapsis Rigging Inc.

SBS Lighting

Steve A. Walker Associates

Dana Taylor

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.

Bruce William Darden

Ian Foulds

Liberal Logic, Inc.

Luminator Technology Group

Jessica Sanders

Sehr Gute GmbH

David Thomas

Techni-Lux

Tracy Underhill

Ralph Weber

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

Harlequin Floors

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

High Output

InCord

iWeiss

Oasis Stage Werks

Stagemaker

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

Chip Scott Lighting Design

DMX Pro Sales

Matthew Douglas III

Beverly and Tom Inglesby

Inventions Guité

KASUGA

Bill McCord

Motion FX

Northern Lights Electronic Design

Syracuse Scenery and Stage Lighting Co., Inc.

Vincent Lighting Systems

Wuhan Zhongtian Jiaye Mechanical & Electrical Eng.
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Zeraus

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