



# Technical Standards Program

## ESTA Standards Watch

June 2023 Volume 27, Number 11

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### Eight ESTA standards in public review

Eight standards are in public review on the ESTA Technical Standards Program website at <http://estalink.us/pr>. Two are existing American National Standards being considered for reaffirmation (the ones with “ANSI” in their alphanumeric designation). Six are new standards (the ones with “BSR” in their alphanumeric designation). Seven have comment due dates no later than June 26. One has a comment due date no later than 31 July.

**ANSI E1.8, Entertainment Technology - Loudspeaker Enclosures Intended for Overhead Suspension - Classification, Manufacture and Structural Testing**, is being considered for reaffirmation. The standard covers the requirements for loudspeaker enclosures intended for overhead suspension, but addresses only the structural characteristics of the enclosure pertaining to its suspension, such as enclosure construction, component part

security, enclosure suspension hardware, manufacturing control systems, structural testing, and product representation. Comments are due before June 27.

**BSR E1.21, Temporary Structures Used for Technical Production of Outdoor Entertainment Events**, 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. It is a revision of ANSI E1.21-2020 that includes updates to accommodate current technology, and to harmonize with changes in building code requirements. Comments are due before June 27.

**BSR ES1.40, Event Safety – Security**, is written to help reduce the risk of harm to people and their property while they attend music, sports, cultural, corporate, and other events and mass gatherings. This standard is expressly 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. Comments are due before June 27.

**ANSI E1.46, Standard for the Prevention of Falls from Theatrical Stages and Raised Performance Platforms**, is being considered for reaffirmation. The users of theatrical stages and raised platforms can suffer debilitating injuries from falls into orchestra pits, open stage lifts, and similar openings in stage floors. Health and safety regulations require action to prevent these falls, but offer little guidance that is suitable for theatrical environments. This document provides that guidance. Comments are due before June 27.

**BSR E1.64, Stage Machinery Controls**, establishes minimum requirements for the design, manufacture, installation, commissioning, inspection, operation, and maintenance of machinery control equipment in the entertainment industry including equipment that is used in production, touring, and temporary or permanent installation. Comments are due before June 27.

**BSR E1.71, Powered Curtain Machines**, establishes requirements for the design, manufacture, installation, inspection, and maintenance of machines intended for the movement of curtains. Curtains operated by these machines may be for scenery, performance, presentation, acoustical dampening, museum exhibits, retail displays, and theatrical production. Control systems, mechanical construction, and powertrain components of these machines are included in its scope, but the fabric or other curtain material, tracks and track components, are not included in its scope. Comments are due before June 27.

**BSR E1.76, Tension Wire Grids**, provides guidance on the design and installation of tensioned wire rope grids, including loading and support or suspension from structure. It provides deflection criteria for the woven mesh and structural frame as a walking/working system, and also provides guidance on the size of openings permissible in the surface. The scope includes fall protection and edge protection for the entirety of the walking/working surface. Comments are due before June 27.

**BSR E1.72, Powered Floor Machinery**, establishes requirements for the design, manufacture, installation, inspection, operation, and maintenance of powered Stage Floor Machinery for performance, presentation, and theatrical production. It addresses the machinery, mechanisms, machine safety devices, and control interface requirements for equipment and systems, installed permanently or temporarily. Examples include but are not limited to: wagons, turntables, treadmills, slip stages, and trap covers. This standard does not apply to the structure to which the machine is attached nor to the finished floor including its subflooring construction. Machines that produce substantially vertical movement, such as lifts, are also excluded from this standard. Comments are due before 1 August.

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## **FCC requires video conferencing accessibility and proposes ASL support**

The Federal Communications Commission has voted to require video conferencing platforms, such as Zoom, Microsoft Teams, and Webex, to comply with the accessibility requirements under the Communications Act and

FCC rules that govern interoperable video conferencing services. The Report and Order adopted on 8 June resolves a long-standing legal question. The FCC concludes that the accessibility requirements of section 716 of the Act and Part 14 of the Commission's rules apply to all services and equipment meeting the definition of "interoperable video conference service." Interoperable video conference service providers will have one year and 30 days from the publication of the Federal Register summary to comply with this guidance.

In addition, the FCC proposes to amend Part 14 of the Commission's rules to add specific performance objectives for enhancing the accessibility of interoperable video conferencing services, including: speech-to-text (captioning) capabilities; text-to-speech capabilities; and enabling the use of visual language interpreting. In addition, the Notice of Proposed Rulemaking seeks comment on the integration of telecommunications relay serviced (TRS) with video conferencing services without requiring a dial-up telephone call, and on the performance objectives proposal. Is it specific enough while also allowing necessary flexibility? More information is available at <https://www.fcc.gov/document/fcc-requires-video-conferencing-accessibility-proposes-asl-support-0>

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## **A report from Mike Wood on EU & UK Ecodesign, RoHs, and US laser regs**

Mike Wood (engineering consultant, long-time TSP member, and past-president of ESTA) is involved with task groups working on dealing with lamp regulations in the UK and EU, both for EcoDesign and for the removal of mercury in lamps (RoHS). He's also following US regulations that affect stage lighting. His June 14 report to ESTA's technical standards managers (below) is useful for anyone concerned with what equipment will be available or serviceable in the near future, or wanting to know where their lobbying efforts should be directed. Mike Wood writes . . .

### **EcoDesign**

No change in the EU, but the UK has now formulated its own post-Brexit version of these regulations. The UK's version is much simpler in some ways, but also much less forgiving. The major change in the UK is a move to a single flat, minimum efficacy requirement for lighting of 120 lm/W from November 2023 increasing to 140 lm/W from 2025. They have also removed or reduced many of the 'get-out clauses' and allowances for things like high CRI. They want a one-size-fits-all rule. There is no way anyone in our industry could meet these figures at the moment with additive LED, never mind any legacy technology. The exemptions we have are critical.

The good news is that the UK Department of Energy (BEIS) are leaving entertainment lighting exemptions in place for this cycle. That means that HPL and similar lamps and additive LED are exempt until at least the next cycle, which we believe will be in 2029. Linear theatrical lamps are not exempt; they and PAR lamps have all but disappeared already.

We had been pushing for a simplification of the exemptions, which are currently spread around multiple sections of the regulations, back into a single exemption for stage and studio luminaires as defined by EN 60598-1 and EN 60598-2-17, but the BEIS remain resistant to that change. That in the opinion of the UK and EU industry should still be our eventual goal. These standards are not going to go away, nor get any more lenient. It is also clear that similar statutes will start to appear in other countries, so if we can get model legislation with an exemption somewhere, then that will help us world-wide. It's not that legislators don't understand when the situation is explained. It's more that legislators come and go so we will be having this argument forever unless we can get it codified. Theatrical lighting is very, very niche in the eyes of legislators.

It would be disingenuous to think that this kind of regulation won't also eventually come to the US, initially most likely state by state rather than federal. Even if it doesn't, then commercial pressure will mean these lamps will disappear anyway as the global market shrinks. I would encourage ESTA and the TSC to try and push for exemptions for stage and studio luminaires based on the definitions in EN 60598-1 and EN 60598-2-17 if at all possible.

### **RoHS**

The primary concern for both the EU and UK with hazardous substances in lamps is for mercury. Mercury is present in most discharge lamps used by our industry. It is hard to think of any good reason for keeping these lamps. Mercury should be eliminated and we have no good excuse as an industry to be exempted, nor should we be. Replacements with newer technologies are available and are being rapidly adopted. Fortunately just about

every lamp style we use that contains mercury is already being replaced. Metal-halide, including HMI, MSR, MSD and other similar HID lamps are being replaced by LEDs. Xenon lamps as used in some legacy follow-spots and beam projectors do not usually contain mercury, so aren't a concern, but are also being replaced by LEDs.

The current EU RoHS regulations call for a phase out of these lamp types in new equipment by February 2027. Lamps would still be allowed to be sold after this date as spare parts for existing equipment, but I suspect will get harder to find due to commercial forces.

There remains one lamp type that is a problem, the short arc lamps used in narrow angle beam projectors such as the Claypaky Sharpy or the Robe Pointe, and many similar products. These lamps are sold as the Platinum range by Philips, and Sirius by Osram. They do contain mercury, but are not metal-halide, so are not covered by the same exemption. They currently enjoy their own exemption which is due to expire earlier in February 2025. The EU group I participate in is lobbying to extend this exemption to 2027 to match that for metal-halides. These narrow beam lamps are being replaced by LEDs and other technologies, but more slowly, so we need a little more time than 2025.

### **Laser-LED light engines**

A very promising light source type that is being readily adopted in the EU is the laser-LED driven light engine. A problem here is the difference in how these light sources are treated in the US and EU. The EU allows such laser-sourced lamps to be used under IEC 60825 parts 3 and 13 as long as the manufacturer demonstrates that dangerous levels of collimated and/or coherent light cannot be emitted, due to the use of beam expanders or similar technology.

Unfortunately, the FDA regulations in the US have no such exemption. Laser products promoted 'for demonstration purposes' (which is where entertainment use is defined) in the US are limited to hazard Class IIIa by FDA regulation 21 CFR 1040.11(c). This means that luminaires or projectors are limited to 5 milliwatts output power in the visible wavelength range from 400 to 710 nanometers. This is totally inadequate for lighting use. Higher powered laser light sources may be used, but are subject to a variance request from the FDA for every use. In addition, all operators must have FDA clearance to operate such lasers. This need for a variance for every performance and every venue makes the use of such light sources in the US unrealistic apart from the largest shows. The CDRH has issued documents allowing similar laser light sources in Laser Illuminated Projectors to be used, but this is limited to cinema and similar projectors. Although the use is similar, entertainment lighting is currently not covered by these exemptions.

This regional difference in regulation of laser-sourced light sources may well lead to some products just not being available in the US or, if they are, only with FDA variances. The Claypaky Xtylos is a current example, but I expect more to appear, particularly in narrow beam products.

Mike

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### **A fatter Plugfest**

The ESTA Control Protocols Plugfest has been expanded from three days to four days, from 5 October through 8 October 2023, at the Marriott Dallas/Fort Worth in Westlake, Texas. ESTA's Plugfest is an opportunity to connect your lighting products with those of other manufacturers to resolve compatibility challenges. Attendees from around the world bring controllers, automated lights, control protocol analyzers, and other network-connected components to improve their product experiences. The scheduled hours are 09:00 to 23:00 CDT, Thursday thru Sunday. Members of the E1.11 (DMX512), E1.20 (RDM), E1.31 (sACN), and E1.33 (RDMnet) task groups who helped develop the standards will be available to answer questions and to offer assistance.

A larger than usual turnout is anticipated, so please send an email to [plugfest@esta.org](mailto:plugfest@esta.org) to express your interest in attending to reserve a spot. More information is available at <http://tsp.esta.org/tsp/news/plugfest.html>.

## 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.

### Jordan Notification JOR/53

**Notification date:** 7 June 2023

**Agency responsible:** The Ministry of industry, trade and supply

**Title:** Draft Technical regulation on Ecodesign requirement for light sources and separate control gears (30 pages in English)

**Description of content:** This Regulation establishes ecodesign requirements for the placing on the market of light sources and separate control gears. The requirements also apply to light sources and separate control gears placed on the market in a containing product.

**Objective and rationale:** To promote new energy efficient products in order to protect the consumers rights in identifying the most energy efficient products in the market. National security requirements; Consumer information, labelling; Quality requirements; Harmonization; Reducing trade barriers and facilitating trade; Cost saving and productivity enhancement

**Relevant documents:**

- Technical Regulation on Eco-design requirements of Energy related products, for the year 2012.
- Jordan and Metrology law 22/2000.
- Commission Regulation (EU) 2019/2020 of 1 October 2019 laying down ecodesign requirements for light sources and separate control gears pursuant to Directive 2009/125/EC of the European Parliament and of the Council and repealing Commission Regulations (EC) No 244/2009, (EC) No 245/2009 and (EU) No 1194/2012 (Text with EEA relevance.)

**Proposed date of adoption:** To be determined

**Proposed date of entry into force:** To be determined

**Final date for comments:** 1 August 2023

**Texts available from** <https://www.jsmo.gov.jo/ar/Documents/Docs.zip>

### Canadian Notification CAN/697

**Notification date:** 9 June 2023

If applicable, name of local government involved (Article 3.2 and 7.2):

**Agency responsible:** Department of Innovation, Sciences and Economic Development, [enquiry@international.gc.ca](mailto:enquiry@international.gc.ca)

**Products covered:** Radiocommunications

**Title:** RSS-102 Issue 6 (53 pages in English; 57 pages in French) and its companion documents:

1. RSS-102.SAR.MEAS Issue 1 (63 pages in English; 64 pages in French)
2. RSS-102.NS.MEAS Issue 1 (43 pages in English; 47 pages in French)
3. RSS-102.NS.SIM Issue 1 (23 pages in English; 27 pages in French)
4. RSS-102.IPD.MEAS Issue 1 (27 pages in English; 28 pages French)
5. RSS-102.IPD.SIM Issue 1 (20 pages in English; 21 pages in French)

**Description of content:** Notice is hereby given by the Ministry of Innovation, Science and Economic Development Canada that the following have been published:

RSS-102, Issue 6 – Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands) sets out the requirements and measurement techniques for evaluating radio frequency (RF) exposure compliance of radiocommunication apparatus designed to be used within the vicinity of the human body.

In addition to RSS-102 issue 6, the Department is also concurrently issuing the following documents as part of this consultation:

- RSS-102.SAR.MEAS Issue 1 – Measurement procedure for assessing specific absorption, replaces, in part, (Supplementary Procedures) SPR-001, SPR-004 and SPR-APD (Absorbed power density)
- RSS-102.NS.MEAS Issue 1 – Measurement procedure for assessing nerve stimulation, replaces, in part, SPR-002
- RSS-102.NS.SIM Issue 1 – Simulation procedure for assessing nerve stimulation, replaces, in part, SPR-002

- RSS-102.IPD.MEAS Issue 1 – Measurement procedure for assessing incident power density, replaces SPR-003
- RSS-102.IPD.SIM Issue 1 – Simulation procedure for assessing incident power density, replaces SPR-003

**Objective and rationale:** Consultation

**Proposed date of adoption:** Not applicable

**Proposed date of entry into force:** Not applicable

**Final date for comments:** 1 September 2023

**Full text:** RSS-102, Issue 6 <https://www.rabc-cccr.ca/radio-standards-specification-rss-102-issue-6-radio-frequency-rf-exposure-compliance-of-radiocommunication-apparatus-all-frequency-bands/> (English)  
 CNR-102, 6e édition <https://www.rabc-cccr.ca/fr/cahier-des-charges-sur-les-normes-radioelectriques-cnr-102-6e-edition-conformite-des-appareils-de-radiocommunication-aux-limites-dexposition-humaine-aux-radiofrequences-rf-tout/> (French)

## 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](mailto:psa@ansi.org).

### Due 17 July 2023

**BSR C82.77-5-202X, For Lighting Equipment - Voltage Surge Requirements** (revision of ANSI C82.77-5-2017)

This standard specifies voltage surge limits and testing requirements for lighting equipment. It covers all types of lighting equipment used for general illumination (typically found in residential, commercial, and industrial applications) and connected to any of the commonly distributed, Low Voltage, 60 Hz alternating current (AC) power line systems, detailed in Table 1 of ANSI C84.1. This standard covers lighting equipment in terms of application and wattage (operating input power level).

Single copy price: \$66.00

Obtain an electronic copy from and send comments to [michael.erbesfeld@nema.org](mailto:michael.erbesfeld@nema.org)

### Due 24 July 2023

**BSR/ASME A17.2-202x, Guide for Inspection of Elevators, Escalators, and Moving Walks** (revision of ANSI/ASME A17.2-2020)

This guide covers recommended inspection and testing procedures for electric and hydraulic elevators, escalators, and moving walks required to conform to the Safety Code for Elevators and Escalators.

Single copy price: Free

Obtain an electronic copy from <https://cstools.asme.org/csconnect/PublicReviewPage.cfm>

Send comments to Riad Mohamed, [ansibox@asme.org](mailto:ansibox@asme.org)

**BSR/UL 752-202x, Standard for Bullet-Resisting Equipment** (revision of ANSI/UL 752-2006 (R2021))

These requirements cover materials, devices, and fixtures used to form bullet-resisting barriers which protect against robbery, holdup, or armed attack such as those by snipers. This standard can also be used to determine the bullet resistance of building components that do not fit the definition of equipment, such as windows, walls, or barriers made out of bullet resistant materials. This standard does not address personal protective equipment, such as body armor, helmets, and shields. As used in these requirements, the term "bullet-resisting" signifies that protection is provided against complete penetration, passage of fragments of projectiles, or spalling (fragmentation) of the protective material to the degree that injury would not be caused to a person standing directly behind the bullet-resisting barrier. These requirements also cover electrically-operated equipment, such as teller's fixtures using electrically-driven deal trays or package passers, and intercommunication or other electrical equipment that is an integral part of the bullet-resisting product. The term "product" as used in this standard refers to all bullet-resisting equipment or any part thereof covered by this standard unless specifically noted otherwise.

Single copy price: Free

Obtain an electronic copy from Annabelle Hollen, [Annabelle.Hollen@ul.org](mailto:Annabelle.Hollen@ul.org),

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

Send comments to Annabelle Hollen, [Annabelle.Hollen@ul.org](mailto:Annabelle.Hollen@ul.org), <https://csds.ul.com/Home/ProposalsDefault.aspx>

## Due 1 August 2023

### **BSR/ASME HST-2-202x, Performance Standard for Hand Chain Manually Operated Chain Hoists** (revision of ANSI/ASME HST-2-2018)

This standard establishes performance requirements for hand chain manually operated chain hoists for vertical lifting service involving material handling of freely suspended (unguided) loads, using welded link type load chain as a lifting medium, with one of the following types of suspension: (1) hook or clevis or (2) trolley. This standard is applicable to hoists manufactured after the date on which this standard is issued. Differential pulley and selflocking worm drive type hoists are not covered in this standard. This standard is not applicable to:

- (1) damaged or malfunctioning hoists,
- (2) hoists that have been misused or abused,
- (3) hoists that have been altered without authorization of the manufacturer or a qualified person,
- (4) hoists used for lifting or supporting people,
- (5) hoists used for the purpose of drawing both the load and the hoist up or down the hoist's own load chain,
- (6) hoists used in applications where the load on the hand chain hoist is not freely suspended from the hand chain hoist,
- (7) hoists used for marine and other applications as required by the Department of Defense (DOD) unless Nonmandatory Appendix A has been invoked.

Single copy price: \$43.00

Order from <https://cstools.asme.org/csconnect/PublicReviewPage.cfm>

Send comments to: Justin Cassamassino, <[cassasmassinoj@asme.org](mailto:cassasmassinoj@asme.org)>

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## **CSA public review announcements**

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

### Due 11 July 2023

#### **CSA W59, Welded Steel Construction** (new edition)

This standard covers welding requirements for carbon and low-alloy welded steel construction. Requirements that are essentially common to all such structures are covered in Clauses [3](#) to [10](#), while provisions applying specifically to statically-loaded structures and to cyclically-loaded structures are included in Clauses [11](#) and [12](#), respectively. This standard is not intended to apply to pressure vessels or to structures governed by special codes such as those of the American Petroleum Institute, the American Society of Mechanical Engineers, or the American Water Works Association.

### Due 28 July 2023

#### **Z301, Equity, Diversity and Inclusion in Apprenticeship Programs** (new standard)

This standard specifies requirements and provides guidelines for equity, diversity, inclusion, and accessibility (EDIA) in apprenticeship programs. This standard is applicable to all aspects of an apprenticeship system including pre-apprenticeship, classroom learning, mentorship and on-the-job training delivered in an apprenticeable trade, and for which recognition is given by an apprenticeship authority toward apprenticeship in that trade.

### Due 31 July 2023

#### **Z462, Workplace electrical safety**

This standard specifies requirements for workplace electrical safety necessary for the practical safeguarding of workers during activities such as the installation, removal, inspection, operation, maintenance, and demolition of electric conductors and electric equipment, as well as work in proximity of energized electrical equipment. While it can be applied by organizations of any type or size, this standard does not cover:

- a) installations in ships, watercraft other than floating buildings, railway rolling stock, aircraft, and automotive vehicles other than mobile homes and recreational vehicles;
- b) installations of railways for the generation, transformation, transmission, or distribution of power used exclusively for operation of rolling stock or installations used exclusively for signalling and communications;
- c) installations of communications equipment under the exclusive control of communications utilities located outdoors or in building spaces used exclusively for such installations; and

d) installations under the exclusive control of an electric utility.

### **Due 12 August 2023**

#### **CSA W59.2, Welded Aluminum Construction (new edition)**

This standard specifies the requirements for all types of welded aluminum construction. Common requirements that are essential to all structures, including statically-loaded structures and cyclically-loaded structures, are included in this standard. This standard is not intended to apply to pressure vessels or to structures governed by special codes such as those of the American Petroleum Institute, the American Society of Mechanical Engineers, or the American Water Works Association.

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### **DIN public review announcements**

The Deutsches Institut für Normung has announced documents possibly of interest to *Standards Watch* readers open for public review from 12 May until 12 July 2023. After you register with DIN at <http://www.entwuerfe.din.de/>, you may purchase a copies of the draft standards from Beuth Verlag. They are in German.

#### **Due 12 July 2023**

#### **DIN 56920-3, Veranstaltungstechnik - Begriffe für bühnentechnische Einrichtungen im Theater**

(Entertainment technology - Terms for stage equipment in the theater)

Dieser Norm-Entwurf legt Begriffe für bühnentechnische Einrichtungen in Veranstaltungs- und Produktionsstätten sowie für deren Betrieb erforderlichen Anlagenteile fest.

(This draft standard specifies terms for stage equipment in event and production facilities as well as components required for their operation.)

#### **DIN 56929, Veranstaltungstechnik - LED-Wandsysteme und Zubehör, Schnittstellen und sicherheitstechnische Anforderungen** (Entertainment Technology - LED wall systems and accessories, interfaces and safety requirements)

Dieses Dokument gilt für LED-Wandsysteme die als Arbeitsmittel der Veranstaltungs- und Medientechnik temporär aber auch als dauerhaft ortsfeste Einrichtungen für Veranstaltungen und Produktionen zusammengestellt und in Betrieb genommen werden. Es macht Vorgaben und gibt Hinweise zur Herstellung, Bereitstellung, Installation, Nutzung und Außerbetriebnahme von LED-Wandsystemen. Festgelegt werden konstruktive und sicherheitstechnische Anforderungen an LED-Wandsysteme, ihre Bestandteile und deren Wechselwirkung insbesondere unter Beachtung der aus dem modularen Aufbau möglichen Konfigurationen. Hierbei wird insbesondere die vorwiegende Installation als Lasten über oder im direkten Einflussbereich von Personen berücksichtigt. Dieses Dokument legt darüber hinaus die Mindestanforderungen an die zwischen Hersteller und Benutzer auszutauschenden Informationen und die erforderlichen Angaben über die bestimmungsgemäße Verwendung von LED-Wandsystemen fest. Aus dem Bauordnungsrecht können zusätzliche Anforderungen an LED-Wandsysteme entstehen, wenn diese als bauliche Anlagen einzuordnen sind.

(This document applies to LED wall systems that are assembled and commissioned as temporary or permanently fixed event and media technology equipment for events and productions. It specifies requirements and provides information on the manufacture, provision, installation, use and decommissioning of LED wall systems. It specifies design and safety requirements for LED wall systems, their components and their interaction, in particular taking into account the configurations possible from the modular design. In particular, the predominant installation as loads above or in the direct sphere of influence of persons is taken into account. This document also specifies the minimum requirements for the information to be exchanged between the manufacturer and the user and the necessary information on the intended use of LED wall systems. Additional requirements for LED wall systems may arise from the building code if they are classified as structural installations.)

#### **DIN 56950-5, Veranstaltungstechnik - Maschinentechnische Einrichtungen - Teil 5: Sicherheitstechnische Anforderungen an Elektrokettenszugsysteme** (Entertainment technology - Machinery installations - Part 5: Safety requirements for electric chainhoist systems)

Dieser Norm-Entwurf gilt für Elektrokettenszugsysteme in der Veranstaltungs- und Produktionstechnik. In solchen Systemen werden Elektrokettenzüge und Steuerungen unterschiedlicher Bauart und Ausrüstung eingesetzt. Sie werden temporär und zeitlich begrenzt für Veranstaltungen und Produktionen zusammengestellt und in Betrieb genommen. Hierbei handelt es sich um Systeme aus Elektrokettenzügen nach DIN EN 14492-2 und/oder



Kettenzügen, die die sicherheitstechnischen Anforderungen an maschinentechnische Einrichtung im Sinne der DIN 56950-1 erfüllen. Die Steuerungen von Elektrokettenszugsystemen sind nach DIN EN 60204-32 und/oder entsprechend der Anforderungen der DIN 56950-1 ausgeführt.

Elektrokettenszugsysteme müssen dem Anwendungsfall entsprechende Sicherheitsniveaus bezüglich der mechanischen und steuerungstechnischen Ausrüstung erreichen (siehe DIN 56950-1). Dabei werden folgende Anwendungsfälle unterschieden: - Halten von Lasten ohne Aufenthalt von Personen im Gefahrenbereich; - Bewegen von Lasten ohne Aufenthalt von Personen im Gefahrenbereich; - Halten von Lasten mit Aufenthalt von Personen im Gefahrenbereich (Lasten über Personen); - Bewegen von Lasten mit Aufenthalt von Personen im Gefahrenbereich (Lasten über Personen); - Bewegen von Personen während künstlerischer Vorführungen und deren Proben. Dieses Dokument gilt nicht für die in der Veranstaltungs- und Produktionstechnik eingesetzten Lastaufnahmemittel und Anschlagmittel.

Dieser Norm-Entwurf definiert auch die Mindestanforderungen an die zwischen Hersteller und Benutzer auszutauschenden Informationen und die erforderlichen Angaben über die bestimmungsgemäße Verwendung der Kettenszugsysteme.

Die in diesem Teil 5 definierten Abweichungen gegenüber der DIN 56950-1 beruhen auf den besonderen Einsatzbedingungen für Elektrokettenszugsysteme und lassen sich nicht auf andere maschinentechnische Einrichtungen übertragen. Ortsfeste, dauerhaft in Veranstaltungs- und Produktionsstätten installierte maschinentechnische Einrichtungen sind immer nach DIN 56950-1 auszuführen.

(This draft standard applies to electric chain hoist systems in event and production technology. Electric chain hoists and control systems of various designs and equipment are used in such systems. They are assembled and put into operation temporarily and for a limited period of time for events and productions. These are systems consisting of electric chain hoists in accordance with DIN EN 14492-2 and/or chain hoists that meet the safety requirements for mechanical equipment as defined in DIN 56950-1. The control systems of electric chain hoist systems are designed in accordance with DIN EN 60204-32 and/or in accordance with the requirements of DIN 56950-1.

Electric chain hoist systems must achieve safety levels appropriate to the application in terms of mechanical and control equipment (see DIN 56950-1). A distinction is made between the following applications: - Holding loads without people being present in the danger zone; - Moving loads without people being present in the danger zone; - Holding loads with people being present in the danger zone (loads above people); - Moving loads with people being present in the danger zone (loads above people); - Moving people during artistic performances and their rehearsals. This document does not apply to load lifting and slinging equipment used in event and production technology.

This draft standard also defines the minimum requirements for the information to be exchanged between the manufacturer and the user and the necessary data on the intended use of the chain hoist systems.

The deviations from DIN 56950-1 defined in this Part 5 are based on the special conditions of use for electric chain hoist systems and cannot be transferred to other mechanical engineering equipment. Stationary mechanical equipment permanently installed in event and production facilities must always be designed in accordance with DIN 56950-1.)

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## 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/ACI 318-19, Building Code Requirements for Structural Concrete and Commentary** (withdrawal of ANSI/ACI 318-2019)

The "Building Code Requirements for Structural Concrete" ("Code") provides minimum requirements for the materials, design, and detailing of structural concrete buildings and, where applicable, non-building structures. This Code addresses structural systems, members, and connections, including cast-in-place, precast, plain, nonprestressed, prestressed, and composite construction. Among the subjects covered are: design and construction for strength, serviceability, and durability; load combinations, load factors, and strength reduction factors; structural analysis methods; deflection limits; mechanical and adhesive anchoring to concrete; development and splicing of reinforcement; construction document information; field inspection and testing; and

methods to evaluate the strength of existing structures.  
Contact Shannon Banchemo <[shannon.banchemo@concrete.org](mailto:shannon.banchemo@concrete.org)>

**BSR/ACI CODE 562-21, Assessment, Repair, and Rehabilitation of Existing Concrete Structures—Code Requirements and Commentary** ([withdrawal](#) of ANSI/ACI CODE-562-2021)

This code provides minimum requirements for assessment, repair, and rehabilitation of existing structural concrete buildings, members, systems and where applicable, nonbuilding structures. The Code is specifically written for use by a licensed design professional. This code provides minimum requirements for assessment, design and construction, or implementation of repairs and rehabilitation, including quality assurance requirements, for structural concrete in service.

Contact Shannon Banchemo <[shannon.banchemo@concrete.org](mailto:shannon.banchemo@concrete.org)>

**BSR ASSE Z359.15-2014 (R202x), Safety Requirements for Single Anchor Lifelines and Fall Arresters for Personal Fall Arrest Systems** (reaffirmation 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).

Contact Lauren Bauerschmidt <[LBauerschmidt@assp.org](mailto:LBauerschmidt@assp.org)>

**BSR/ASSP Z359.13-202x, Personal Energy Absorbers and Energy Absorbing Lanyards** (revision and redesignation of ANSI/ASSP Z359.13-2013 (R2022))

This standard establishes requirements for the performance, design criteria, marking, qualification and verification testing, instructions, inspections, maintenance and removal from service of personal energy absorbers and energy absorbing lanyards for users within the capacity range of 110 to 310 pounds (50 - 140 kg).

Contact Lauren Bauerschmidt <[LBauerschmidt@assp.org](mailto:LBauerschmidt@assp.org)>

**BSR/ASSP Z359.14-202x, Safety Requirements for Self-Retracting Devices for Personal Fall Arrest and Rescue Systems** (revision and redesignation of ANSI/ASSP Z359.14-2021)

This standard establishes requirements for the performance, design, qualification testing, markings and instructions, inspections, maintenance and storage, and removal from service of self-retracting devices (SRDs) including selfretracting lanyards (SRLs), self-retracting lanyards with integral rescue capability (SRL-Rs), and self-retracting lanyards, personal (SRL-Ps). This standard establishes requirements for SRDs intended for use in personal fall arrest or rescue systems for authorized persons within the capacity range of 110 to 310 pounds (50 to 141 kg).

Contact Lauren Bauerschmidt <[LBauerschmidt@assp.org](mailto:LBauerschmidt@assp.org)>

**BSR/ASSP Z359.16-202x, Safety Requirements for Climbing Ladder Fall Arrest Systems** (revision and redesignation of ANSI ASSE Z359.16-2016)

This standard establishes requirements for the performance, design, marking, qualification testing, instructions for use, inspection, maintenance, storage and removal from service of vertically oriented Climbing Ladder Fall Arrest Systems (CLFAS) consisting of flexible and rigid carriers with multiple attachment points and associated carrier sleeves for users within the capacity range of 110 to 310 pounds (50 to 140 kg).

Contact Lauren Bauerschmidt <[LBauerschmidt@assp.org](mailto:LBauerschmidt@assp.org)>

**BSR/IEEE 45.8-202x, Recommended Practice for Electrical Installations on Shipboard - Cable Systems** (revision of ANSI/IEEE 45.8-2016)

The scope of this document is to provide recommendations for selection, application, and installation of electrical power, signal, control, data, and specialty marine cable systems on shipboard. These recommendations include the present day technologies, engineering methods, and engineering practices.

Contact Suzanne Merten <[s.merten@ieee.org](mailto:s.merten@ieee.org)>

**BSR/IEEE 1143-202x, Guide on Shielding Practice for Low Voltage Cables** (revision of ANSI/IEEE 1143-2012)

This guide addresses the shielding practice, systems, and test methods of low voltage cables. The guide includes:  
- a review of shielding techniques to control electrostatic and electromagnetic interference for varying types of low voltage cable used for power, control and instrumentation services, including signal and communications cable;  
- an overview of the functional characteristics of various types of shielding;

- recommendations on shielding practices, including suggestions on terminating and grounding methods;  
- suggested tests or techniques for measuring shielding effectiveness.  
An overview of typical tests of cable shielding is provided for information.  
Contact Suzanne Merten <[s.merten@ieee.org](mailto:s.merten@ieee.org)>

**BSR/IEEE 1679.1-202x, Guide for the Characterization and Evaluation of Lithium-Based Batteries in Stationary Applications** (new standard)

This document provides guidance for an objective evaluation of lithium-based energy storage technologies by a potential user for any stationary application. This document is to be used in conjunction with IEEE Std 1679-2020, IEEE Recommended Practice for the Characterization and Evaluation of Energy Storage Technologies in Stationary Applications. For the purposes of this document, lithium-based batteries include those secondary (rechargeable) electrochemistries with lithium ions as the active species exchanged between the electrodes during charging and discharging. Examples of secondary lithium-based batteries are lithium-ion, lithium-ion polymer, and lithium-sulfur batteries. Emerging solid-state lithium technologies are also discussed. Primary (non-rechargeable) lithium batteries are beyond the scope of this document. While this document does not cover lithium-based batteries used in mobile applications, the information provided is applicable to electric vehicle or similar batteries that are repurposed for use in stationary applications. This document also applies to batteries that are stationary when in operation but are intended to be relocated, for example, containerized or trailer-mounted systems. The outline of IEEE Std 1679-2020 is followed in this document, with tutorial information specific to lithium-based batteries provided as appropriate. Examples of tutorial information include technology descriptions, operating parameters, failure modes, safety information, battery architecture, & qualification and application considerations. This document does not cover sizing, installation, maintenance, & testing techniques, except insofar as they may influence the evaluation of a lithium-based battery for its intended application.  
Contact Suzanne Merten <[s.merten@ieee.org](mailto:s.merten@ieee.org)>

**BSR/INCITS/ISO/IEC 27005:2022 [202x], Information security, cybersecurity and privacy protection - Guidance on managing information security risks** (identical national adoption of ISO/IEC 27005:2022 and revision of INCITS/ISO/IEC 27005:2018 [2019])

Provides guidance to assist organizations to: fulfil the requirements of ISO/IEC 27001 concerning actions to address information security risks; perform information security risk management activities, specifically information security risk assessment and treatment. This document is applicable to all organizations, regardless of type, size or sector.  
Contact Deborah Spittle <[comments@standards.incits.org](mailto:comments@standards.incits.org)>

**BSR/ICC 1500-202x, Standard for Existing Building Safety Inspection** (new standard)

As an ANSI-accredited SDO, ICC is developing a new standard to provide the framework for the regular inspection of structural elements, egress components, active and passive fire protection systems, the building envelope (including the roof), electrical, plumbing, mechanical and fuel gas equipment and systems in order to assess whether an unsafe condition exists.  
Contact Karl Aittaniemi <[kaittaniemi@iccsafe.org](mailto:kaittaniemi@iccsafe.org)>

**BSR/SAIA A92.22-202x, Safe Use of Mobile Elevating Work Platforms (MEWPs)** (revision of ANSI/SAIA A92.22-2021)

Specifies requirements for application, inspection, training, maintenance, repair and safe operation of Mobile Elevating Work Platforms (hereafter known as MEWPs).  
Contact Celeste Ortiz <[celeste@saiaonline.org](mailto:celeste@saiaonline.org)>

**BSR/SAIA A92.24-202x, Training Requirements for the Use, Operation, Inspection, Testing and Maintenance of Mobile Elevating Work Platforms (MEWPs)** (revision of ANSI/SAIA A92.24-2018)

Provides methods and guidelines to prepare MEWP training materials, defines administrative criteria, and delivers elements required for proper training and familiarization. It applies to all types and sizes of MEWPs as specified in ANSI/SAIA A92.20 (design, calculations, safety requirements and test methods) that are intended to position personnel, along with their necessary tools and materials, at work locations.  
Contact Celeste Ortiz <[celeste@saiaonline.org](mailto:celeste@saiaonline.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/APCO 1.122.1-2023**, Career Progression within the Public Safety Emergency Communications Center (new standard), 22 May 2023

**ANSI/ASHRAE/ICC/IES/USGBC Addendum af to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020**, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020), 31 May 2023

**ANSI/ASHRAE/ICC/IES/USGBC Addendum ah to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020**, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020), 28 April 2023

**ANSI/ASHRAE/ICC/IES/USGBC Addendum ai to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020**, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020), 28 April 2023

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**ANSI/ASHRAE/ICC/IES/USGBC Addendum as to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020**, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020), 28 April 2023

**ANSI/ASHRAE/ICC/IES/USGBC Addendum at to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020**, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020), 28 April 2023

**ANSI/ASHRAE/ICC/IES/USGBC Addendum au to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020**, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020), 31 May 2023

**ANSI/ASHRAE/ICC/IES/USGBC Addendum av to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020**, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020), 31 May 2023

**ANSI/ASHRAE/ICC/IES/USGBC Addendum ay to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020**, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020), 31 May 2023

**ANSI/ASHRAE/ICC/IES/USGBC Addendum az to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020**, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020), 31 May 2023

**ANSI/CTA 490-B-2023**, Test Methods of Measurement for Audio Amplifiers (new standard), 1 June 2023

**ANSI/IICRC S800-2023**, Standard for Professional Inspection of Textile Floor Coverings (revision of ANSI/IICRC S800-2013), 22 May 2023

**ANSI/NISO Z39.106-2023**, Peer Review Terminology (new standard) Final Action Date: 6/5/2023

**ANSI/UL 498-2023**, The Standard for Safety for Attachment Plugs and Receptacles (revision of ANSI/UL 498-2022), 23 May 2023

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## Draft IEC & ISO documents

This section lists proposed documents listed 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 the ISO Team ([isot@ansi.org](mailto: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](mailto:tzertuche@ansi.org)). ISO and IEC Drafts can be made available by contacting ANSI's Customer Service department, [sales@ansi.org](mailto:sales@ansi.org).

**65B/1229(F)/CDV, IEC 61131-3 ED4**: Programmable controllers Part 3: Programming languages, 28 July 2023

**JTC1-SC41/350/CD, ISO/IEC TR 30189-1 ED1**: Internet of Things (IoT) - IoT-based cultural heritage management - Part 1: Framework, 28 July 2023

**65C/1261/CD, IEC 62657-2 ED4**: Industrial networks Coexistence of wireless systems - Part 2: Coexistence management, 18 August 2023

**SyCAAL/301/DTS, IEC SRD 63416 ED1**: Ethical considerations of Artificial Intelligence (AI) when applied in the Active Assisted Living (AAL) context, 18 August 2023

**ISO/IEC DIS 14496-26**, Information technology - Coding of audiovisual objects - Part 26: Audio conformance, 19 August 2023, \$215.00

**100/3912/CDV, IEC 62889 ED2**: Digital video interface – Gigabit video interface for multimedia systems, 25 August 2023

**121/141/CD, IEC TR 63482 ED1**: Maintenance of low voltage switchgear and controlgear and their assemblies, 25 August /2023

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## 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 5741:2023**, Healthcare organization management Pandemic response - Temporary medical facility, \$116.00

**ISO 30405:2023**, Human resource management - Guidelines on recruitment, \$116.00

**ISO/IEC 9075-1:2023**, Information technology – Database languages SQL - Part 1: Framework (SQL/Framework), \$237.00

**ISO/IEC 9075-2:2023**, Information technology – Database languages SQL - Part 2: Foundation (SQL/Foundation), \$263.00

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**ISO/IEC 9075-3:2023**, Information technology – Database languages SQL - Part 3: Call-Level Interface (SQL/CLI), \$263.00

**ISO/IEC 9075-4:2023**, Information technology – Database languages SQL - Part 4: Persistent stored modules (SQL/PSM), \$263.00

**ISO/IEC 9075-9:2023**, Information technology – Database languages SQL - Part 9: Management of External Data (SQL/MED), \$263.00

**ISO/IEC 9075-10:2023**, Information technology – Database languages SQL - Part 10: Object language bindings (SQL/OLB), \$263.00

**ISO/IEC 9075-11:2023**, Information technology – Database languages SQL - Part 11: Information and definition schemas (SQL/Schemata), \$263.00

**ISO/IEC 9075-13:2023**, Information technology – Database languages SQL - Part 13: SQL Routines and types using the Java programming language (SQL/JRT), \$263.00

**ISO/IEC 9075-14:2023**, Information technology – Database languages SQL - Part 14: XML-Related Specifications (SQL/XML), \$263.00

**ISO/IEC 9075-15:2023**, Information technology – Database languages SQL - Part 15: Multidimensional arrays (SQL/MDA), \$263.00

**ISO/IEC 9075-16:2023**, Information technology – Database languages SQL - Part 16: Property Graph Queries (SQL/PGQ), \$263.00

**ISO/IEC TR 27563:2023**, Security and privacy in artificial intelligence use cases - Best practices, \$183.00

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## TSP meeting schedule

The next set of TSP working group meetings will be held at the Marriott DFW hotel in bucolic Westlake, Texas near the Dallas/Ft. Worth Airport. The most up to date version of the meeting schedule and a link to “Reserve a Hotel Room” are at <https://www.esta.org/ESTA/meetings.php>. United Airlines offers a discount for flights to these meetings using the code, [ZN7E375552](#). (The discount only applies to DFW Airport.)

Control Protocols Working Group	09:00 – 13:00 CDT	Saturday 22 July 2023
Control Protocols BSR E1.11 & E1.68	14:00 – 18:00 CDT	Friday 21 July 2023
Control Protocols BSR E1.20	19:00 – 23:00 CDT	Friday 21 July 2023
Control Protocols BSR E1.37-5	14:00 – 18:00 CDT	Saturday 22 July 2023
Control Protocols BSR E1.37-8 IPv4/v6	19:00 – 23:00 CDT	Saturday 22 July 2023
Control Protocols BSR E1.73, UDR	09:00 – 13:00 CDT	Friday 21 July 2023
Control Protocols BSR E1.77 security	19:00 – 23:00 CDT	Thursday 20 July 2023
Control Protocols NextGen	09:00 – 13:00 CDT	Sunday 23 July 2023
Electrical Power Working Group	19:00 – 23:00 CDT	Friday 21 July 2023
Event Safety Working Group	14:00 – 18:00 CDT	Saturday 22 July 2023
Floors Working Group	10:00 – 13:00 CDT	Friday 21 July 2023
Fog & Smoke Working Group	10:00 – 13:00 CDT	Thursday 20 July 2023
Followspot Working Group	14:00 – 15:00 CDT	Friday 21 July 2023
Photometrics Working Group	16:00 – 18:00 CDT	Friday 21 July 2023
Rigging Working Group	19:00 – 23:00 CDT	Saturday 22 July 2023
Stage Machinery Working Group	19:00 – 23:00 CDT	Thursday 20 July 2023
Technical Standards Council	09:00 – 13:00 CDT	Sunday 23 July 2023
Weapons Safety Working Group	14:00 – 18:00 CDT	Thursday 20 July 2023

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## ESTA Standards Watch

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