

Laboring over Labor Day

I'M WRITING THIS THE WEEK BEFORE Labor Day—an American holiday honoring workers that for different people means different things. For many it means picnics and family visits. For college students it means settling in at college dorms and apartments. For others, it means shopping at 40% off sales. For participants in ESTA's Technical Standards Program, it means working other people's Labor Day holiday events, or catching up on their volunteer work for the TSP.

Several members of the *E1.33* task group will be doing the latter over this Labor Day weekend. It's taken a very long time to develop, but *E1.33*, affectionately called "RDMnet," is now *ANSI E1.33 – 2019, Message Transport and Management for ANSI E1.20 (RDM) Compatible and Similar Devices over IP Networks*. It was approved by ANSI's Board of Standards Review on August 27. It's a highly structured document, with tables that have to look just



Child laborer, Newberry, South Carolina. 1908.

so on the page, and hyperlinks to guide the reader around the document. Making sure the document looks and works as it should has generated a lot of email, and a vow from one of the task group principals, who is on a show site, that he will be "spending my weekend in the hotel room to ensure it is ready for Tuesday a.m. at the latest."

It's been a long process with seven public reviews and a time-consuming final vote by the Control Protocols Working Group to affirm its decision to accept the standard. One person had voted No on the initial ballot, which resulted in a consideration of his objections, a written response to his objections, and a second vote to affirm the previous vote after a consideration of

the attempt to resolve the objections. The objections had been that the standard had taken too long to develop and was too complicated. This was not a persuasive argument and not one that could be fixed. (Revising it to make it simpler would have made developing the standard take even longer.) The process was complicated by the objector resigning as a voter between the two ballots so he was no longer part of the consensus body reaffirming its decision. This wrinkle resulted in ANSI staff sharing with ESTA Assistant Technical Standards Manager, Richard Nix, ANSI Board of Standards Review minutes and decisions about what to do in such situations. Richard pointed out that what we had done is exactly what the Board of Standards Review had decided should be done. So now *E1.33* is done—and we need to publish it.

Recently published

New since the last installment of TSP News is the approval and publication of *ANSI E1.53 – 2019, Overhead Mounting of Luminaires, Lighting Accessories, and Other Portable Devices: Specification and Practice*. The ANSI Board of Standards Review approved it on June 28, and it is now available on the ESTA website at <https://tsp.esta.org/freestandards> at no cost,



Labor Day Parade, float of Women's Trade Union League, New York, September 7, 1908

the free download being made possible by the sponsorship of ProSight Specialty Insurance—a gift to the industry from ProSight. If you want to buy it, you can purchase it for \$40 from ANSI and IHS at <https://webstore.ansi.org/> and <https://global.ihs.com/> respectively.

ANSI E1.53 – 2019 is a revision of *ANSI E1.53 – 2016* (which remains on ESTA's website, in case you need the obsolete edition). The revision loosened the working load limit marking requirements, which had specified text too big to fit on some hardware, and moved a requirement that hardware be suitable for the environment from where it only applied to C-clamps to where it would apply to both C-clamps and safety cables. "Don't rig with unrated hardware" has been a mantra in entertainment rigging circles, but American practice had been to hang lighting equipment with unrated hardware, and to back it up—sometimes, but not always—with more unrated hardware. *E1.51* makes it clear that this is unacceptable.

More to come

The last step in approving our standards, before the documentation on the development process is sent to ANSI for approval, is for the ESTA Executive Committee to pass on them. The Executive Committee is composed of ESTA's President, Vice President, Secretary, and Treasurer. Their function is not to vet the technical content of a standard—which had been done by the public review process and the working group—but to make sure the process had been properly managed, and to protect ESTA's interests in making sure that it has. We have three Executive Committee ballots open as I write this. Three out of the four have voted Yes. I suspect that the fourth will have voting on his Labor Day weekend agenda.

The three ballots are for the reaffirmation of existing standards:

***ANSI E1.27-2 – 2009 (R2014),
Recommended Practice for Permanently
Installed Control Cables for Use with***

Roger Lattin presented ESTA's Technical Standards Program Above and Beyond Award



Milton Davis, Eddie Kramer, Roger Lattin, and Michael Lay at the ESTA TSP meetings in July where Eddie presented Roger with a TSP Above and Beyond Award.

Roger Lattin has been involved in the ESTA Technical Standards Program since November 1999—20 years. He is often the first person to greet new attendees. Roger co-hosts the "Power Breakfast," an informal meal the morning of Electrical Power Working Group meeting days, to help new attendees to the program feel welcome.

Roger's participation in technical standards led to Local 728 being one of the first IATSE Locals to belong to ESTA and certainly the first one to contribute to the TSP's support as an Investor in Innovation. Roger's and Local 728's participation encouraged the involvement of the other Hollywood Locals with ESTA.

He has been very involved in the propagation of codes and standards, and he serves on numerous entertainment industry (and other) standards writing organizations. Roger is an instructor in Local 728's training programs, as well as teaching at other industry events.

Roger was recently awarded a Gold Card from his home Local, in appreciation of his involvement in the propagation of codes and standards in the entertainment industry, making Roger the ninth person to receive one in the 80-year history of his Local.

An example of Roger's commitment to the TSP is that in the early days of the program, he would show up early to help set up the power cabling for everyone's laptop and stay late to strike it. Initially he also provided most of the plugging strips and cables.

Roger has demonstrated time and time again the highest level of devotion to the ESTA Technical Standards Program. I am honored to present him with the TSP Above and Beyond Award. ~ Eddie Kramer

DMX512-A Products, is the second part of a two-part standard for DMX512 cabling, and is for permanently installed cables. The first part, *ANSI E1.27-1*, is for portable control cables.

ANSI E1.30-3 – 2009 (R2014), EPI 25 Time Reference in ACN Systems Using SNTP and NTP, is another recipe in the *E1.30* cookbook for ACN. It offers ways of

providing a time reference so events can be synchronized.

ANSI E1.30-10 – 2009 (R2014), EPI 32, Identification of Draft Device Description Language Modules, is a recommended way of identifying a Device Description Language Module for ACN as a trial version, one under development, not for release yet. *ANSI E1.30-10* is part of an open series

of *E1.30* documents that suggests ways of doing common tasks with *ANSI E1.17*, Architecture for Control Networks.

The alphanumeric designations give the initial approval year—2009 in each case—and the year of the last reaffirmation—2014. A decade after their first approval, they are all still useful, so the Control Protocols Working Group has decided that they don't

A call for members

ESTA's TSP works to maintain a balance of the interests represented by the volunteers on the working groups to help ensure that the standards developed are for the benefit of everyone: the people who make equipment, the people who sell or rent it, the people who specify it, and the people who use it. To do this, periodically the TSP issues a call for new members in particular interest categories. At this time, the following working groups are looking for voting members in the noted interest categories to help balance the interests in the working group.

- **Control Protocols:** General interest, dealer/rental companies, designers
- **Electrical Power:** Custom-market producers, designers, general interest
- **Event Safety:** Performing artists, insurance companies—anybody but "general interest"
- **Floors:** Custom-market producers, designers, dealer/rental companies
- **Fog and Smoke:** All categories except users
- **Followspot Position:** Custom-market producers, dealer/rental companies, mass-market producers
- **Photometrics:** Dealer/rental companies, designers, general interest, users
- **Rigging:** Designers, general interest
- **Stage Machinery:** Users, dealer/rental companies

"Interest" means the work of the group affects your livelihood or your health, and not that you simply find it interesting. The interest categories are relative to this material affect; for the working groups except the Event Safety Working Group, the categories are as follows:

Custom-market producer: A working group interest category, a member of which is a producer of goods in which more than 50% of the monetary value of its product lines are designed and manufactured for specific customers to meet specifications provided by those customers and in which the products provided to different customers are substantially different.

Mass-market producer: A working group interest category, a member of which is a producer of goods in which more than 50% of the monetary of its product line is uniform products, designed and manufactured for non-specific customers without modification for any particular customer.

Dealer or rental business: A working group interest category, a member of which is a company whose major business (more than 50%) is in the reselling or renting of products from several manufacturers to the company's customers.

User: A working group interest category, a member of which is a person or company that uses the products that are the subject of a working group, and for whom this use results in a net income that is greater than any income derived from making, selling, or renting the subject products to others. Users for the purposes of this clause shall include educators and product end-users.

Designer: A working group interest category, a member of which incorporates the products and services regulated by ESTA standards in

their work but is not involved in the production, sale, or distribution of the actual products, nor is regularly employed by those who are involved in the production, sale, or distribution of the actual products. Examples are theatre consultants, architects, and engineers who derive more than 50% of their income as a design professional.

The Event Safety Working Group has a slightly different set of interest categories.

Event producer: Person or company involved in the overall management of a live event.

Equipment producer: A person or company that makes equipment for events. These could be considered mass-market or custom-market producers in the other working groups.

Equipment dealer or rental business: A person or company that sells or rents equipment for events.

Designer of events: Person or company that designs elements of an event, but who is not a producer. The elements can be artistic (e.g., scenery) or technical (crowd control plans).

Event worker: Person who works at an event, such as a stagehand, technician, or stage manager.

Performing artist: Persons and companies that perform at live events (e.g., singers, dancers, acrobats).

Event insurance company: A company that provides insurance coverage for live events. An insurance broker would be considered to represent the interests of a company and not be independent if that company represents more than 50% of the broker's business.

For all the working groups, the **general interest** category is for any person or company with a material interest but that cannot be reasonably assigned to one of the other categories. It is the "none of the above" category, not the "I'm just kinda generally interested" category.

Voters in the Technical Standards Program are required to attend meetings and to vote on letter ballots. Membership in ESTA or any other organization is not a requirement for participation in ESTA's Technical Standards Program, but there is a \$100 a year per person participation fee—a flat rate, regardless of voting status or the number of working groups a person joins. The fee is levied to help defray the costs of running the TSP, which has always run a deficit. There is a scholarship fund, with an initial endowment from Chris Kaiser, to help those who would like to participate for whom the participation fee would be a hardship. More information about becoming involved in the Technical Standards Program and links to application forms are available at <http://tsp.esta.org/>.

need revision, simply reaffirmation. They were posted on ESTA's public review website on May 6 with comments due no later than 1 July 2019. No one commented, which is fine: it means people don't have a problem with them. People usually comment when they see something wrong; they rarely comment when all is okay, although a few people do, and it's appreciated. However, the bottom line for all three is that there is no disagreement and nothing to resolve. That greatly simplifies the process.

Three in review and a new

The TSP working group meetings held in Texas in the third week of July resulted in several projects moving forward. A few of them are listed below in order of action due-date, if there is one. Many of these due dates will be passed by the time this edition of *Protocol* is published, but the listing here now should give you an idea of some of the things the participants in the TSP have been doing.

BSR E1.62, Minimum Specifications for Mass-Produced Portable Platforms, Ramps, Stairs, and Choral Risers for Live Performance Events, is being offered for a fourth public review. The proposed standard covers mass-produced portable platforms, stair units, and ramps used with those platforms, and choral risers, designed to be used for the presentation of music concerts, dramatic plays, fashion shows, and other entertainment and special events. The units covered by this standard are of a size and weight that allows them to be moved and erected by one or two people. Larger, heavier units are outside the scope of this standard. The scope also covers the railings provided as fall protection accessories, and the legging systems.

The major substantive change in this fourth review version is rolling back a response to a second public review comment. In that public review a comment suggested we should add specific coefficients of friction values to better define "slip resistance." We did, but later public review comments pointed out flaws in that. The coefficients are meaningless unless the

test method and shoe sole are specified. Specifying shoe soles is the deal-breaker in this because there is no standard shoe sole—even if there were, the probability that people walking on portable platforms at events would be wearing standard shoe soles is just about nil. We have gone back to the language used in the *International Building Code* and *International Fire Code* that simply say floors should be slip resistant.

The revised draft standard is posted at <http://estalink.us/pr>. The public review runs through September 23; by the start of September 24 the review is finished.


BSR E1.4-3, Entertainment Technology — Manually Operated Hoist Rigging Systems, is a standard for permanently installed, human-powered manually operated hoists, used as part of rigging systems for raising, lowering, and

If you could save thousands of plastic bottles from entering the landfill with your next curtain purchase... would you do it?

Introducing
ReVive™
IFR Velour Fabric

Made from recycled plastic bottles. It has the look and ALL the same performance characteristics of Encore® velour, one of the best-selling theatrical fabrics of all time.

Designed exclusively for

 **ROSE BRAND®**

Make A Difference with ReVive



RoseBrand.com | 800-223-1624

A typical 20' x 40' curtain at 50% fullness saves over 1,000 bottles. ReVive is part of the Breathe by Milliken™ collection of fabrics.

suspension of scenery, properties, lighting, and similar loads. This standard establishes requirements for the design, manufacture, installation, inspection, and maintenance of manual hoist systems for lifting and suspension of loads for performance, presentation, and theatrical production. It too is posted at <http://estalink.us/pr>. The public review runs through October 7. It is finished when October 8 starts.

BSR E1.21, Entertainment Technology —Temporary Structures Used for Technical Production of Outdoor Entertainment Events, is a revision of *ANSI E1.21-2013* to deepen the requirements for operations management plans, designated person responsibilities, and related requirements. *ANSI E1.21* establishes a minimum acceptable level of design and performance parameters to ensure

structural reliability, safety, and to establish a reasonable standard of care for temporary special event structures. It is posted with the other public review documents at <http://estalink.us/pr>. The public review runs through October 28. It is over when October 29 starts and the links to the draft standard on the website disappear.

The Fog & Smoke Working Group has voted to open *ANSI E1.23 – 2010 (R2015), Entertainment Technology – Design and Execution of Theatrical Fog Effects*, for revision and to rename it “Entertainment Technology—Design, Execution, and Maintenance of Atmospheric Effects.” The addition of “Maintenance” to the title signifies the changes planned. The existing standard helps an effects designer plan a safe effect and carry it out, but problems emerge when the environment for the effect changes (e.g., the show changes theatres, the HVAC flips from cooling to heating) and so the effect might not be what was originally planned. Problems also can emerge in the motion picture industry when an effect is within safe exposure limits for an eight-hour workday and a 40-hour workweek, but the shoots go on, take after take, so people are exposed for many more hours a day than eight and for many more hours than 40 in a workweek.

Anyone interested in this E1.23 project can help by either joining the Fog & Smoke Working Group or commenting in future public reviews. Information about joining working groups is available at <http://estalink.us/wg>. We are looking for voting members in particular interest categories for all the working groups. See the “A Call for Members” sidebar for more information. ■



Karl G. Ruling is ESTA's Technical Standards Manager. He also serves as *Protocol's* Technical Editor. Karl can be reached at karl.ruling@esta.org.

TAKUMI & SAI

Followspots



TAKUMI-2000A
2kW Xenon Followspot

- 2kW Xenon Medium Throw
- Smallest Size & Weight in its Class
- Seamless Iris Control Down to 0%
- Easy Maneuverability
- Achromatic Lens
- Solid-State Power Supply



SAI-500
440W LED Followspot

- 440W Medium-Throw LED Followspot
- High Illuminance
- High CRI (Ra ≥ 92), 5800K
- Step-less Electronic Dimming with Douser Lever (Patent Pending)
- DMX Dimming Control
- Seamless Iris Control Down to 0%
- Compact and Light Weight



SAI-300
230W LED Followspot

- 230W Single-Chip LED
- Short to Medium-Throw LED Followspot
- 90+ CRI, 5800K
- Lightweight Design and Portable
- Seamless Iris Control Down to 0%
- Local Dimming Down to 0%
- Strobe Function

SEE OUR SAI-500 LIVE AT LDI 2019 BOOTH #1368



800-838-7446 | www.ushio.com