



Standards as high as an elephant's eye!

*“There’s a bright golden haze on the meadow,
There’s a bright golden haze on the meadow,
The corn is as high as an elephant’s eye,
An’ it looks like its climbin’ clear up to the sky.”*

SO CURLY SINGS IN “Oh, What a Beautiful Mornin’,” the opening number of Rodgers and Hammerstein’s musical *Oklahoma!* “Knee high by the Fourth of July,” was an expression often used by Midwest farmers to predict a good crop of maize. If the corn reached that height by then, the field’s yield would be good. The height Curly describes would be much later in the season in 1906, if at all, but modern hybrids indeed can reach as high as an elephant’s eye by the Fourth of July.

We’ve got a good crop of standards coming along, although a few are only as tall as wild teosinte as I write this in late May. By the time you read this in July

(or later), they should be significantly more mature. Here are some of the latest developments in PLASA’s Technical Standards Program, and a few guesses as to what mid-summer will show.

ANSI E1.21 in New York State Uniform Fire Prevention and Building Code

In 2012, Anne vonWeller of vonWeller and Associates, LLC, one of the firms charged with finding standards that might have prevented the 2011 Indiana State Fair stage collapse, suggested that more people would use *ANSI E1.21* if it were referenced in local codes. To get it referenced in local codes, it should be referenced in the *International*

Fire Code (IFC). Accordingly, she and your Technical Standards Manager submitted a proposal (she wrote it, I endorsed it) to include it in the *IFC*. The proposal was accepted in 2013, and *E1.21-2006, Entertainment Technology – Temporary Ground Supported Overhead Structures Used to Cover the Stage Areas and Support Equipment in the Production of Outdoor Entertainment Events*, is now one of the referenced standards in Chapter 80 of the 2015 *IFC*.

Anne vonWeller was right. *ANSI E1.21* is getting picked up in local codes—and, even better than we’d hoped, governments are picking up the most recent edition. Most recently, *ANSI E1.21-2013, Entertainment Technology — Temporary Structures Used for Technical Production of Outdoor Entertainment Events*, will be part of the *New York State Uniform Fire Prevention and*

Building Code. New York State Executive Law Section 102 requires that the State maintain copies of all reference standards for public inspection at designated locations in the state and for copying at two of those locations; permission for this was sought on April 20 by Jasmine M. Liverpool, legal counsel for the State, and eagerly given by your Technical Standards Manager. It's a no-brainer. As the letter from the State says, "As a reference standard in the NYS Uniform Codes, the documents receive exposure to thousands of contractors, developers, architects, and engineers." That's good, and it costs us nothing! Because of the sponsorship of Prosight Specialty Insurance, we post our standards for free download; PLASA doesn't lose a dime if some people look at the State's copies instead of ours. Finally, if people use our standards and that saves lives, the value to the entertainment industry will be immeasurable.

A few people have asked, Why the *International Fire Code* and not the *International Building Code*? The reason is that fire safety inspectors are used to working on weekends and odd times; building code officials are not. Building code officials are more used to traditional bankers' hours, and those hours do not fit weekend music festivals. Besides that, a big part of the safety in *E1.21* comes from the Operations Management Plan and the organization put in place for an event to carry out that plan. The structure's design has to be documented, and then it has to be assembled as designed, and building code officials are good at looking to see if those things have been done. However, evacuation plans, crowd control, and organizational management structures are likely to be outside their ken, but not so for fire safety inspectors.

To be published soon, we hope

On May 19, Assistant Technical Standards Manager Erin Grabe filled out and filed the BSR 9 forms with ANSI for the final approval of BSR E1.17, Entertainment

Technology – Architecture for Control Networks (ACN), a revision to *ANSI E1.17-2010*, and BSR E1.54-2015 – PLASA Standard for Color Communication in Entertainment Lighting, a new standard. EPI 19, ACN Discovery on IP Networks, was the only part of the multi-document ACN standard that was revised and offered for public review. The last review, the second of two, netted no comments, so there were no objections to consider. BSR E1.54 was only offered for public review once, and no one commented. It had been circulated informally within the entertainment lighting community before the formal review, so it already had been pretty well vetted, and perhaps that is why it received no comments—a very rare non-event in the Technical Standards Program. I also suspect that most of the companies that really care about color communication in lighting control have representatives on the Photometrics Working, the group that created the document.

On May 21, two days later, we received notice from Anne Caldas, Secretary of the ANSI Board of Standards Review, that these two draft standards had been approved by the Board and are now *ANSI E1.17-2015* and *ANSI E1.54-2015*. They should be published in a few weeks, well before you

read this. *ANSI E1.17* will take some work to publish, maybe a couple of days, since it is a 5 megabyte ZIP file of many documents that need to be re-dated, but publishing E1.54 should take no more than a few hours. It's only one document, and the public review version was laid out like a regular standard, with only a few blanks, such as the approval date, to be filled in.

100₂ PLASA standards in public review, 101₂ soon

100₂ is 4 in binary notation, and we have four draft standards in public review on the PLASA TSP website, as I write this, but I hope that there will be another added within the next couple of weeks. One voter who needs to approve the review hasn't gotten around to voting yet, so the ballot is still open, but, unless that voter votes No and offers reasons that persuade the 13 who have voted Yes to change their votes, the motion will pass. By the time this issue of *Protocol* ships from the printer, probably only two of the five I list here will still be in public review, but this listing will give you an idea of our progress. In any case, you can check out whatever is in public review whenever

**Celebrating
30 Years
1985-2015**

www.jmfx.net **BROOKLYN, NY** 718.875.0140

Smoke • Haze • Rain • Mist • Snow • Pyrotechnics • Theatrical Firearms • Trick Weapons • Breakaway Glass

you want by visiting <http://plasa.me/4xvjf>. There is an RSS feed there.

BSR E1.37-2, Entertainment Technology – Additional Message Sets for *ANSI E1.20 (RDM) – Part 2, IPv4 & DNS Configuration Messages*, is in public review through June 29. This document is part two of the E1.37 project. It provides additional get/set parameter messages (PIDs) for use with the *ANSI E1.20 Remote Device Management* protocol. Messages in this document are intended for configuring network interfaces and Domain Name System settings on devices with an IPv4 address. There is a version of E1.37-2 now published, but it contains errors. The new version being offered for public review corrects those errors.

BSR E1.46, Standard for the Prevention of Falls from Theatrical Stages and Raised Performance Platforms, is in public review through July 13. OSHA regulations in the US and occupational safety and health regulations in just about every industrialized

nation require a safe workplace for employees, and theatres are workplaces. While having a guardrail across the front of the stage during performance is obviously undesirable, something needs to be planned and implemented to keep people from falling into the orchestra pit. Also, OSHA regulations apply to employer-employee relationships only, not to independent contractors or visitors, but having anybody fall and be injured is unacceptable; a person in charge of a stage can't reasonably dismiss a body lying at the bottom of an orchestra pit or trap with, "Hey, not my employee. Not my problem."

BSR E1.46 has been renamed from "Recommended Practice for the Prevention . . ." to "Standard for the Prevention . . ." The original intention of the project was to remind people of their duty to provide fall protection, not simply for employees but for all users of a stage or performance platform, and then to suggest ways this duty might be fulfilled consistent with the needs of public performance. However, saying that the manager of a performance venue should have a fall prevention program, and thus implying that a program isn't required, didn't seem strong enough. A program is legally required in many instances, and not having one is foolishly negligent in many others. However, members of the public who reviewed the "recommended practice" objected to there being any mandatory requirements in it. So it now says it's a standard, but it offers recommendations as well as requirements. The clauses in the body of the document that are flagged as "mandatory" add up to 1,030 words; the clauses flagged as "informative" add up to 16,153 words. It's probably a moot argument, anyway; the difference between "should" and "shall" tends to disappear in a court of law when someone is injured.

BSR E1.47, Entertainment Technology – Recommended Guidelines for Entertainment Rigging System Inspections, is in public review through June 22. The draft standard offers guidance on inspecting entertainment rigging systems, which are

systems used to lift and support scenery, luminaires, and other equipment overhead in entertainment venues, such as theatres, video/film studios, amphitheatres, and arenas used for live performances or special events. The guidelines include recommended inspector qualifications and responsibilities, scope and frequency of inspections, content of the rigging inspection report, and related information concerning the inspection process.

BSR E1.55, Standard for Theatrical Makeup Mirror Lighting, is in public review through June 22. This draft standard applies to lighting systems for makeup mirrors and makeup stations used by performers and makeup artists for applying makeup in theatres and other performance venues. It describes the topology of the makeup mirror lighting system, the quantity of light, the distribution of light from those sources, apparent source size, brightness, color rendering, and correlated color temperature.

The E1.55 project is being done in response to a request from Actors' Equity for help with modern lighting technology. Rows of incandescent lamps encircling makeup mirrors have been a common solution for years, but many people now want to use fluorescent or LED sources, or different lamp arrangements to allow for a more flexible makeup station assignment.

The final draft standard, the one waiting for that last vote to be cast, is BSR E1.51, The Selection, Installation, and Use of Single-Conductor Portable Power Feeder Cable Systems for Use at 600 Volts Nominal or Less for the Distribution of Electrical Energy in the Television, Film, Live Performance and Event Industries in Canada. As the British colloquial expression goes, "It does what it says on the tin," that is, what it says in the title. It might seem odd to have an American National Standard specifically for Canadian work practices, but the Canadian members of the Electrical Power Working Group feel that it would be useful, and there is indeed a lot of cross-border movement of film and video productions and equipment. The

Call for members

PLASA's TSP works to maintain a balance of interest 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: dealer/rental companies, designers

Electrical Power: dealer/rental companies, designers

Floors: dealer/rental companies, designers

Fog and Smoke: dealer/rental companies, designers, general interest, manufacturers

Photometrics: dealer/rental companies, designers, users

Rigging: designers

Stage Lifts: users, general interest

Voters in PLASA's Technical Standards Program are required to attend meetings and to vote on letter ballots. Membership in PLASA is not a requirement for participation in the PLASA Technical Standards Program. More information about becoming involved in the Technical Standards Program is available at http://tsp.plasa.org/tsp/working_groups/index.html.

real value of the ANSI designation is that it means that a standard has been developed in accordance with ANSI's essential requirements for due process, for equity and fair play. Due process, equity, and fair play are valuable everywhere.

And a fog doc soon to be published

At the Fog & Smoke Working Group's March 20 meeting, the group voted to offer a revised version of the *Introduction to Modern Atmospheric Effects* for public review. This fifth edition is not much different from the fourth edition, but it makes clear that e-cigarettes and electric hookahs are not part of the "modern atmospheric effects" that are within the book's scope. It also corrects some formatting errors. The fourth edition's notation consistently squared oxygen rather than showing it as a diatomic molecule.

It was in review for 45 days and no one commented, so there are no objections or suggestions from the public to consider. Unless the working group wants to further revise the revision, it's good to go.

Look for the *Introduction to Modern Atmospheric Effects*, fifth edition, to be standing proudly in our standards field at <http://www.tsp.plasa.org/freestandards> in early August. Download it and enjoy! No salt or butter necessary.

Investors in Innovation

The Technical Standards Program is supported by companies and individuals who make undirected donations. That is, the donations go to support the Technical Standards Program in general, and not any particular Working Group or any particular standard or project. If you would like to help support the Technical Standards Program in its work, please consider joining the Investors in Innovation. Information

about becoming an Investor in Innovation is available at <http://tsp.plasa.org/invest>.

Since April 15, 2013, all of the standards published by PLASA's Technical Standards Program are available to download free of charge at <http://www.tsp.plasa.org/freestandards>, thanks to the sponsorship of ProSight Specialty Insurance. As of May 20, 2015, there have been 32,936 standards, with a total value of \$1,003,985, downloaded by 5,875 users. The sponsorship has been invaluable in making PLASA's standards part of the way the entertainment industry does business and talks about our industry with other standards organizations and government. ■



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

CAREER BUILDING, TRAINING, & SAFETY START

ETCP Recognized Training for Corporate or Individual

On-Site or Online

www.APTXL.com

HERE

APT

ACADEMY OF PRODUCTION TECHNOLOGY

Post. Interview. Hire.

Need to Hire Someone New?

Post your jobs and access industry professionals at a fraction of the cost of commercial boards and newspapers.

Jobboard.plasa.org[^] | +1 212 244 1505

Jobboard.eu.plasa.org^{^^} | +44 (0)1323 524120

^{*} Special pricing available for PLASA members.
[^] Pay in USD. ^{^^} Pay in GBP.

www.plasa.org