

The progression of standards as they manifest before your very eyes

A STICK OF FIREWOOD, once reduced to ashes, cannot once again revert to being a stick of firewood. Nevertheless, you should not hold onto the opinion that the ashes are the future of that which the stick was the past. What you need to understand is that, when firewood is persisting in the physical state of being firewood, there will be a before and there will be an after. Although there is a before and an after, there is a now which is cut off from “before” and “after.” While ashes persist in the physical state of being ashes, they will have their “after” and their “before.”

To keep TSP News from being a boring recitation of our various standards-drafting projects, I usually look for some event of the season as an introduction—the more off-beat the better. However, this time I stumbled across this passage from the Genjō Kōan, part of the *Shōbōgenzō*, written in the thirteenth century by the Japanese Sōtō Zen Master Eihei Dōgen, as translated by the Reverend Hubert Nearman. The passage ends with a comparison of life and death to winter and spring, with a more general point being that the seasons are themselves, not preludes to the next: “. . . do not imagine that winter ‘becomes’ spring, or speak of spring ‘becoming’ summer.” So, I am writing this at the end of spring, before the beginning of summer, but not as spring is becoming summer. Spring is spring, and spring is now.

Koans are cryptic, but there are ideas here apropos standards development. One is the “before” that is cut off from “after” by

“now.” I get people asking me when a draft standard will be an approved standard, and it is clear that the questioner has the expectation that the draft will be a standard at a predestined time. This is often desire shaping perception, and, if so, I have to disappoint my correspondent. I can guess about when the document will be done, but my guess is a work of imagination. Lots of factors go into a working group reaching consensus on a document—and a lot of those factors are external to the people in the room. (New inventions add to the solutions possible; events change people’s perception of “reasonably foreseeable.”) The “now” separating the draft from the published version can turn into a succession of now moments, frustrating a person wanting to have it done NOW.

The second idea is that firewood is firewood and ashes are ashes, and one is not the other, nor is one the future or the past of the other. This can seem metaphysical when dealing with firewood and ash, but it fits standards well. A draft is a draft. It is not the finished standard nor is it the pre-standard. It is simply a draft, and, unlike firewood and ash, it may continue to exist while the standard exists, since we can’t wipe it from every hard-drive in the world. It also may have its uses separate from the uses of the standard, just as firewood may have its uses separate from those of ash, but it should not be confused with the standard. Obvious, but I have often had people refer to a draft as though it were a standard.

Related to the separateness of firewood



and ash is the idea that each edition of a standard is its own. Certainly we will develop a new edition of a standard from the previous edition, but the previous edition has its own existence, embedded in the conditions of its time. Sometimes I will hear someone suggest that a standard was revised because the earlier version was wrong. Sometimes this gets turned into never revising anything because that would be admitting we made a mistake—and if we never admit mistakes, we have achieved perfection! This is insane. Standards are products of their time, written to fit their time. We look at our standards regularly and reaffirm them or revise them as we see they fit the time now or don’t fit. A revision does not invalidate what was done in the past for that time; it simply gives us what we need now.

This all said, let me give you an update of where we are now with some of our standards, at this moment in spring, between the before and the after.

One new, two reaffirmations, all published

ANSI E1.47 – 2017, Entertainment Technology—Recommended Guidelines for Entertainment Rigging System

Inspections, was approved by ANSI’s Board of Standards Review on April 28, and is now published. The standard offers guidance on inspecting entertainment rigging systems, including recommended inspector qualifications and responsibilities, scope and frequency of inspections, content of the rigging inspection report, and related information concerning the inspection process. On Friday, June 9, this was the most popular download from the ESTA website, with three times more downloads than its closest competitor, *ANSI E1.4-1 – 2016, Entertainment Technology—Manual Counterweight Rigging Systems*.

On May 18, ANSI’s Board of Standards Review approved the reaffirmation of two of ESTA’s standards, and they were published the same day. The two standards are *ANSI E1.16 – 2002 (R2017), Entertainment Technology—Configuration Standard for Metal Halide Ballast Power Cables*, and *ANSI E1.37-1 – 2012 (R2017), Additional Message Sets for ANSI E1.20 (RDM) – Part 1*.

ANSI E1.16 describes a standard practice for grounding contact assignment for detachable power cables on metal-halide lamp ballasts used in the motion picture and television industries on portable studio luminaires that use a particular three-pin connector. The standard is simple. It says to use contact A for the grounding contact. The connector itself has no specific function for any of the contacts. You could use any for anything, but if you use A for power on the cord and A for ground on the chassis, there’s a serious problem. *ANSI E1.16* helps avoid that problem.

ANSI E1.37-1 is part one of the E1.37 project, and provides additional get/set parameter messages for RDM, *ANSI E1.20*. It’s a potpourri of useful get/set messages. For example, `DMX_FAIL_MODE` sets what a device will do when the DMX512 signal is lost. *ANSI E1.11*, the DMX512 standard itself, does not define loss of data handling procedures. A device could hold the last state, fade to black, or . . . whatever. This message set lets you control the behavior, if

the manufacturer offers a choice.

There’s lots more in *ANSI E1.37-1*—in all three of these standards. You can download and read all of our published standards for free by visiting the ESTA website at <http://estalink.us/freestandards>. The free download is made possible by the sponsorship of Prosgit Specialty Insurance. If you prefer, you can buy these standards from ANSI at <http://webstore.ansi.org/> and from IHS at <https://global.ihs.com/>. ESTA makes a little money if you do.

Maybe another

BSR E1.50-1, Entertainment Technology—Requirements for the Structural Support of Temporary LED, Video, and Display Systems, is now being voted on by the Technical Standards Council for approval as an American National Standard, having passed that vote in the Rigging Working Group. The Rigging Working Group is the consensus body for this document—the group of experts that needs to consider whether the document meets the needs of the industry and is technologically reasonable and possible. The TSC is responsible for making sure that we followed our ANSI-approved procedures. Today we are waiting for three more votes in the TSC to close the ballot or for the ballot period to end. So far all the votes are Yes.

BSR E1.50-1 covers temporary installations of large format modular display systems, LED, video, and other self-illuminating display structures not otherwise addressed by existing standards. These things are heavy, and they present a large wind-load, so supporting them must be done with care. The draft standard includes planning and site preparedness, assembly and erection, suspension and safety of components, special access requirements, use and dismantling of these systems. E1.50-1 is part one of a two-part standard. The other part will cover permanently installed modular display systems.

One in review

As I write this, there are seven more days for the public to comment on **BSR E1.58 – 201X, Electrical Safety Standard for Portable Stage and Studio Equipment Used Outdoors**, available now at <http://estalink.us/pr>. The draft standard offers guidance in identifying and ameliorating hazards associated with the outdoor use of portable stage and studio lighting equipment and portable power distribution equipment that is not identified (i.e., “listed”) for outdoor use. *NEC* clause 520.10, part of the chapter on theatres, motion picture and television studios, and similar places, allows portable equipment not identified for outdoor use to be used outdoors if the equipment is “supervised by qualified personnel” but says nothing about what practical supervision might be. This document is being written to help fill that advice vacuum.

Comments tend to come in in the few hours before the deadline. So far we have one on BSR E1.58, a Yes with comments, and his comment is essentially that the contents of the draft standard were good, but that management won’t go for it if it costs money. Perhaps, but good management would see that the standard will save money. There is no cost for ignoring a standard until someone is hurt or suffers property loss. Then the party that caused the injury has to deal with compensation to the injured party and perhaps OSHA fines, plus spending time and legal fees on trying to defend a bad decision. That’s expensive, usually far in excess of whatever was saved ignoring the standard.

A quartet of reaffirmations now revisions—maybe

We recently had four standards be offered for public review for reaffirmation. Most of them received no comments from the public, but the concurrent working group

vote for reaffirmation netted one or more “No with reasons,” which at a minimum trigger a further consideration of the objections and perhaps the start of a project to revise the standard. These standards are:

ANSI E1.1 – 2012, Entertainment Technology—Construction and Use of Wire Rope Ladders, describes the construction and use of wire rope ladders in the entertainment industry in order to promote worker safety. The current standard references ANSI/ASSE Z359.1-2007, *Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components*, but the current edition of that standard is ANSI/ASSE Z359.1-2016, *The Fall Protection Code*. It is a complete revision, and several working group members have voted that we should not reaffirm E1.1 until we consider this revised ASSE standard. We could continue to cite the earlier standard, if the earlier standard works better for our wire rope ladder standard, but, in general, it is better to reference the most recent version—unless there is a problem with that newest standard. Is there a problem? The Rigging Working Group needs some time to find out and think about it. There were no comments from the public review.

ANSI E1.8 – 2012, Entertainment Technology—Loudspeaker Enclosures

Intended for Overhead Suspension—Classification, Manufacture and Structural Testing, is a standard for the structural integrity of loudspeaker enclosures that are suspended overhead. It is designed to ensure that flown speaker enclosures don’t break and drop debris. It does not address requirements for sound reproduction. It was offered for public review, and one person—from the Bose Corporation—commented. His comments about enclosure labeling triggered several “No with reasons” votes within the working group, with people arguing that he has a valid point. There are enough Yes votes to approve a reaffirmation, but the Rigging Working Group has to agree on responses to the No votes and the comments. The most reasonable responses might be, “Okay; we’ll change it,” and then a revision project starts.

ANSI E1.14 – 2001 (R2013), Entertainment Technology—Recommendations for Inclusions in Fog Equipment Manuals, is a short standard, briefly listing what should be in a fog machine manual so the user can use the equipment safely. It was originally written when some theatrical dealers were uncomfortable with the very sketchy instruction manuals they had to send out with their rental equipment. What E1.14

requires is fairly comprehensive; no one from the public commented, but one fog machine manufacturer within the Fog and Smoke Working Group suggested that the manuals could be online and not hard-copy. There is some merit to that, but a lot of working group members felt that putting basic safety information online only is a pretty good way to ensure that someone won’t check and will get in trouble. So, what would be acceptable to be online and what should be in hard-copy on or with the equipment? A majority of the working group voted that we not reaffirm the standard and consider revising it to clarify this.

ANSI E1.32 – 2012, Guide for the Inspection of Entertainment Industry Incandescent Lamp Luminaires, provides guidance in the inspection of stage and studio luminaires that use incandescent sources and that are used in the entertainment industry. No one from the public commented during the public review, but one Electrical Power Working Group member voted “No with reasons,” and cited several clauses he thought should be revised to improve the standard—not that anything is wrong with what is there, but some things should be restated for emphasis, some clauses should cross reference others, and more guidance should be offered on deciding appropriate inspection intervals. It’s one No vote against 17 Yes votes, but our ANSI-approved procedures require that the EPWG meet to discuss the No vote’s reasons and offer a response. If the EPWG decides on further consideration that that voter was right, we will be starting a revision project.

A last parable and a call for members

At the end of the Genjō Kōan is a parable relevant to standards development:

Meditation Master Mayoku Hōtetsu, one summer day, sat fanning himself when a monk came up to him and said, “It is said that the nature of the wind always abides and that there is no place where it does not circulate, so why does my reverend monk

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fan himself?”

The Master replied, “You are merely aware that the Nature of the Wind always abides, but you have not yet grasped the principle that there is no place where It is not present and active.”

When the monk then asked, “What is this underlying principle of Its being universally present?” the Master simply continued to fan himself. The monk respectfully bowed to the Master.

One interpretation of this is that the nature of wind always abides, but you have to work to make it manifest. It’s the same with standards. Sometimes ESTA’s Technical Standards Program is regarded as a magical organization that creates standards, all by itself. No. The procedures and structure of the program make it possible to create American National Standards, but people have to do the work. There is no wind if the monk doesn’t fan; there are no standards if we don’t write them and work to achieve consensus. “We” is all of us who have a material interest in the standards, the stakeholders, with the most obvious stakeholders being the members of the working groups.

ESTA’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:** Custom-market producers, general interest
- **Electrical Power:** Custom-market producers, designers
- **Event Safety:** Performing artists, event insurance companies, event equipment manufacturers
- **Floors:** Custom-market producers, dealer/rental companies

- **Fog and Smoke:** Custom-market and mass-market producers, dealer/rental companies, designers, general interest, NOT users
 - **Followspot Position:** Custom-market producers, designers, dealer/rental companies
 - **Photometrics:** Custom-market producers, dealer/rental companies, designers, users
 - **Rigging:** Custom-market producers, designers
 - **Stage Lifts:** Users, mass-market producers
- 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. More information about becoming involved in the Technical Standards Program and links to blank application forms are available at <http://estalink.us/wg>. ■



The *Shōbōgenzō* quotes in this article are taken from the Shasta Abbey Press edition, available at <http://estalink.us/7kaeg> and <http://estalink.us/xl19h>.



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