

Minutes
Floors Working Group
Friday, 25 January 2008
Dallas/Ft. Worth Airport Marriott South
Ft. Worth, Texas

Presiding chairman: Tim Hansen; Oasis Stage Werks; P; MP

Recording secretary: Karl G. Ruling; ESTA

Members attending: Keith Sklar; Actors' Equity Association; O; G (on phone)
Bob Dagger; American Harlequin Corp. (Harlequin Corporation); P; MP
Patricia Basileo; American Harlequin Corp. (Harlequin Corporation); A; MP
Ron Bonner; PLASA; P; G
Robert R. Scales; I; U
Caroline Rault; Rosco Laboratories; P; MP (on phone)
Jerry Gorrell; Theatre Safety Programs; P; U
Pete Happe; Walt Disney Imagineering (Walt Disney Company); O; U

Visitor: R. Duane Wilson; George C. Izenour Associates

1 Opening Remarks

Tim Hansen called the meeting to order at 13:03.

2 Attendance and Membership

2.1 Introduction of those present

Those present introduced themselves. While they did this, a blue attendance sign-in sheet was circulated.

2.2 Call for quorum

Tim Hansen counted the number of voting members present and then announced that the working group had a quorum.

2.3 Requirements for membership

Tim Hansen directed people to read the following statement, which was printed in the agenda:

"Membership is open to all parties who are affected by the work of the group; membership in ESTA is not a requirement. Voting members are required to attend meetings. Any principal member and alternate that both miss three consecutive meetings will have their membership status changed to observer. This action will be taken as the last item of business at the third missed meeting and will be recorded in the minutes of that meeting."

2.4 Processing of new membership requests

There were none.

Keith Sklar reported that Ken Greenwood is no longer with Actors' Equity Association. Kimberly Rimbold will apply to replace him.

The consensus body during this meeting was

Name	Company	Representing	Voting status	Interest category
Bob Dagger	American Harlequin Corp.	Harlequin Corporation	P	MP
Patricia Basileo	American Harlequin Corp.	Harlequin Corporation	A	MP
Tim Hansen	Oasis Stage Werks	Oasis Stage Werks	P	MP
Gary Justesen	Oasis Stage Werks	Oasis Stage Werks	A	MP
Ron Bonner	PLASA	PLASA	P	G
Robert R. Scales	Robert R. Scales	Robert R. Scales	I	U
Caroline Rault	Rosco Laboratories	Rosco Laboratories	P	MP
David H. Rosenberg	Theatre Projects Consultants, Inc.	Theatre Projects Consultants	P	U
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	U
		Total votes	7	
		Votes by interest category	0	CP
			3	MP
			0	DR
			3	U
			1	G

3 Approval of the minutes from the Wednesday, 14 November 2007 meeting

See Floors/2007-8006, file name FLmin11-2007.pdf

Bob Dagger moved that the minutes be accepted as written. The motion was seconded, and then approved with a voice vote.

4 ESTA Declarations

4.1 Anti-trust statement

Tim Hansen read the following statement aloud to the assembly:

"The ESTA Board of Directors, the Technical Standards Committee, and the leadership of this working group will reject or nullify any actions that unlawfully restrain trade. Anyone who feels that such an action is being or has been taken is requested to bring that matter to the attention of the chair immediately. Anyone who feels that actions in restraint of trade have been taken and not properly annulled is requested to notify the TSC chair or ESTA president immediately.

"ESTA legal counsel has informed us that violations of the anti-trust laws can have serious consequences. Individuals engaged in certain unlawful conduct can be found criminally liable. An individual convicted of a criminal violation of the Sherman Act may be fined as much as \$1,000,000 and imprisoned for up to ten years. An easy to read pamphlet describing restraint of trade issues is available from the Technical Standards Manager."

Karl Ruling, the Technical Standards Manager, I held up one of the easy-to-read booklets to show its ready availability..

No restraint of trade issues were brought to the attention of the assembly.

4.2 Call for Patents

Tim Hansen read the following statement aloud to the assembly:

"ESTA intends not to publish any standard that contains protected intellectual property, unless that information can be licensed by anyone for a reasonable fee. ESTA uses a process of open patent and copyright disclosures to implement its intent. ESTA does not conduct patent or copyright searches and does not warrant that its standards contain no protected intellectual property.

"In keeping with the open disclosures policy, I ask if anyone present wishes to notify this working group of the existence of a patent or copyright or other intellectual property that might

protect material in a standard being developed by this working group. You need not be the holder of the patent or copyright to notify this working group of its existence."

No protected property was brought to the attention of the assembly.

5 Approval of Agenda

Ron Bonner moved that the draft agenda be accepted. The motion was seconded and then approved with a voice vote.

6 Old Business

6.1 ANSI E1.26-2006

6.1.1 Keith Sklar asked for demonstration of how to implement ANSI E1.26. He asked if such a demonstration had ever been done.

Tim clarified that we have never demonstrated the resilience standard at a trade show or anywhere else. Keith Sklar asked if this working group had an interest in doing so. Bob Dagger said that the machine is expensive. He had done some testing in the UK and it took two trained people to operate the machine. It also needs some fairly large sections of floor to be assembled for the test. Tim Hansen said that there are three of the testing machines in the United States.

Karl summarized this testing as being something that would be done as part of a contractual disagreement, because there would be money to pay for it, but probably would not be done as a demonstration without additional funding.

Bob Dagger will try to identify sports floor manufacturers in NY City area.

Tim Hansen asked why Keith Sklar was interested. Sklar said that Actors Equity is trying to figure out how to turn the standard into plain English, and understanding how stages are measured and what values result. The ultimate goal would be to use it to protect performers. He's "trying to get the standard to come home."

There was further discussion of doing this as a demonstration for Equity and League staff, some time in the spring. Bob Dagger will see if he has a video of the testing that was done in the UK. As an alternative, he will ask the testing company if he can record another test they are doing. Pete Happe volunteered to see if Disney has any recorded tests.

Sklar suggested that ESTA or someone should put together this presentation. It would be in line with ESTA's goals. Tim Hansen said that he thinks this will be a job for himself and Karl Ruling. Ruling agreed.

There was a discussion of the need for a simpler device than the DIN device, that is movable and less expensive. Hansen said that we had tried.

6.1.2 The questions of Keith Gerchak of Theatre Projects Consultants about E1.26 were discussed. (Karl Ruling's email response of January 22 to him is printed below, with Gerchak's questions shown with > quote marks and a blue font

- > 1. Recommendations are given under Section 5 for acceptable shock
- > absorption range, acceptable standard deformation, and acceptable
- > deformation depression. Can you share how these were determined?
- > For instance, I know that the DIN standard is minimum 53% for shock
- > absorption, but I am not sure of the basis for the range of 40% to
- > 65%. 2. The acceptable deformation depression at 20" away from

- > impact is listed as a max. 20%. Is this intended to measure the
- > equivalent to the DIN standard for vibration isolation of max. 15%
- > of the impact force at 20" away? Just trying to get my brain wrapped
- > around what is being measured, since this is depression depth
- > instead of actual force. Likewise, I am trying to fully understand
- > the definition of standard deformation.

I can't give you a breakdown on how the numbers were arrived at or what anything means other than what the document says. The document is based on the DIN sports floors standard, but I was minimally involved in its development. It was offered for public review once, but no one commented, so I didn't have to sort out a comment resolution documents. All I can do is forward your letter to the working group chairmen and ask them to respond.

Tim Hansen agreed to write to Gerchak to explain the reasoning for the specific values.

- > 3. How do we specify the standard for construction, i.e.,
- > "the flooring contractor shall meet the requirements of BSR E1.26"?

"BSR" means "draft." No approved standard is BSR anything. The document is "ANSI E1.26 - 2006, Entertainment Technology - Recommended Testing Methods and Values for Shock Absorption of Floors Used in Live Performance Venues."

A flooring contractor would be hard-pressed to meet the requirements of the standard, since the standard specifies a way of measuring the shock absorption of a floor and has no requirements for the floor itself. It gives a range of numbers for some dance floors, but a flooring contractor wouldn't know what numbers you want in the floor you are specifying unless you tell him/her. So, your spec would be something like, "The floor shall have a KA(x) between 50 and 60 when measured per ANSI E1.26 - 2006, and a W500 between 25 and 35%."

- > 4. While the dance floor manufacturers can test their systems in the
- > factory, how do we see field-installed permanent systems to be
- > analyzed?
- > By referencing this standard in our specifications, will we be
- > requiring our owners to pay for this testing, whether directly or
- > indirectly? Will every flooring installer be expected to be aware of
- > the standard and its requirements, or will a separate entity be
- > testing standard systems like hardwood over ply on sleepers at 16"
- > o.c., which would apply to any installation of that detail? In
- > other words, how do we best apply this standard?

Applying the standard is up to you. Floors can be field-tested; it only costs money and someone has to pay for it. Who? That depends on who needs it done and what kind of contract has been worked out.

If you write the numbers that can be derived from using the test method in this standard into your specifications, manufacturers who have these numbers for their products already will have a lead in the bidding for the project. Those that do not, will have to conduct the tests, and either eat the costs or add them into their bid in hopes

that they will get the bid that will pay for the testing they have done.

The alternative is to either specify a floor you and your clients already know or to go try samples of new floor designs. Without numbers though, the evaluation will be entirely subjective, and, if the installed floor seems somehow different from the sample, you don't have any basis on which to decide if it really is different or not.

Regarding installers: I have no expectations for what floor installers might know about this standard, but they might get a fast education. Imagine this scenario:

- 1) You specify a floor that is blah-blah.
- 2) The manufacturer verifies that it is.
- 3) The floor gets installed and the installer leaves out some of the neoprene pads.
- 4) The client complains about the floor.
- 5) You measure the floor, and it doesn't meet spec.
- 6) The search starts for what happened to the floor: Why does it not meet the spec when the manufacturer says that it will when installed as designed?

The email was discussed, but no action was taken other than Tim Hansen agreeing to write to Gerchak to explain the reasoning behind the specific values recommended.

6.2 BSR E1.34 floor slipperiness project

Consideration of the newest version, Floors/2006-8013r2.1.

Tim Hansen reminded the group of the two-week rule, which was not met with this document. There were no objections to acting on the document at this meeting.

The document was discussed and some modifications were made, creating an r2.2 draft.

Jerry Gorrell moved that BSR E1.34 (Floors/2006-8013r2.2) be offered for public review. The motion was seconded. The motion will be decided by letter ballot.

7 New Business

None.

8 Other Business

None.

9 Schedule for Future Meetings

The next working group meeting was scheduled for Saturday, 22 March 2008, 8:00 to 11:00, at the Hilton Americas in Houston, Texas, but there was a discussion of what we might have to do at a March meeting. The E1.34 document should be almost in public review, and it is the working group's one active project.

The consensus was that we not have a March meeting but that Tim Hansen and Karl Ruling continue with the resilience demo/presentation. By Tuesday, February 19, Bob Dagger, Pete Happe, and Tim Hansen will have an idea of what they have available for a E1.26 demo/presentation.

The next meeting is scheduled for Thursday, July 17, 14:00 to 17:00. At that time we should have public review comments on BSR E1.34.

10 Changes to observer status due to lack of attendance

The following voting member has missed the last two meetings and will have failed to meet the minimum attendance requirement for voters if this meeting is also missed:

None

11 Adjournment

Bob Dagger moved that the meeting adjourn. The motion was seconded and then approved with a unanimous show of hands and one voice from the telephone. Tim Hansen declared the meeting adjourned at 15:25.

Working Group Membership and Contact Information as of Monday, 18 February 2008

Name	Company	Representing (This is the sort field.)	Voting status	Int. cat.
Keith Sklar	Actors' Equity Association	Actors' Equity Association	O	G
Julie Rogers	City of Phoenix Civic Plaza	City of Phoenix	O	G
Fred Allen	Fred Allen & Associates	Fred Allen & Associates	O	U
Bob Dagger	American Harlequin Corp.	Harlequin Corporation	P	MP
Patricia Basileo	American Harlequin Corp.	Harlequin Corporation	A	MP
Christopher Purpura	Jones & Phillips Associates, Inc.	Jones & Phillips Associates, Inc.	O	G
Nevin Kleege	Kleege Industries	Kleege Industries	O	G
Seth Popper	League of American Theatres and Producers, Inc.	League of American Theatres and Producers, Inc.	O	G
Tim Hansen	Oasis Stage Werks	Oasis Stage Werks	P	MP
Gary Justesen	Oasis Stage Werks	Oasis Stage Werks	A	MP
Ron Bonner	PLASA	PLASA	P	G
Robert R. Scales	Robert R. Scales	Robert R. Scales	I	U
Caroline Rault	Rosco Laboratories	Rosco Laboratories	P	MP
Steve Rust	Sachs Morgan Studio	Sachs Morgan Studio	O	G
Robert Barbagallo	Solotech Inc.	Solotech Inc.	O	DR
David Nash	StoweNash Associates LLC	StoweNash Associates LLC	O	U
David H. Rosenburg	Theatre Projects Consultants, Inc.	Theatre Projects Consultants	P	U
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	U
Mark Elliott	Walt Disney Company	Walt Disney Company	O	U
Pete Happe	Walt Disney Imagineering	Walt Disney Company	O	U
Steven Wiese	Wenger Corp.	Wenger Corp.	O	MP

Key to codes

- O Observer, non-voting
- P Principal voting on behalf of an organization or company
- A Alternate voting member representing an organization or company
- I Individual voting member representing only himself or herself
- G General interest
- U User of floors or flooring products
- MP Mass-market producer
- CP Custom-market producer
- DR Dealer or rental company