

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

Chairmen:

Ken Vannice; Colortran (Leviton Manufacturing Co., Inc.); P; MP
Mitch Hefter; Entertainment Technology (Royal Philips Electronics), representing USITT; P; U

Recording secretary: Karl G. Ruling; ESTA

Members attending:

James Davey; AC Power Distribution Inc.; P; CP
Paul Menetrey; Bender Inc. (Bender GmbH & Co. KG); A; MP
Steve Terry; Electronic Theatre Controls, Inc.; P; MP
Elizabeth E. (Lizz) Chancellor; I; U
Ian Foulds; IATSE Local 873, representing the Entertainment Electrical Safety Committee of Ontario;
P; G
Edwin S. Kramer; I.A.T.S.E. Local 1; P; U
Roger Lattin; I.A.T.S.E. Local 728; P; U
Alan M. Rowe; IATSE Local 728; A; U
John (Javid) D. Butler; Integrated Theatre, Inc.; P; CP
Stephen J. Kay; K-Tec Corporation; P; MP
Bob Luther; Lex Products Corp.; P; CP
Kenneth M. Makowski; Lex Products Corp.; A; CP
Tyrone Mellon Jr.; Lex Products Corp.; A; CP
Louis Bradfield; I; U
Vincent J. Cannavale; Motion Laboratories; P; CP
Ron Bonner; PLASA; P; U
Michael Scudday; SSRC, Inc.; P; CP
Jerry Gorrell; Theatre Safety Programs; P; U
Richard Wolpert; Union Connector Company; P; CP
William L. Maiman; P; U

Visitor: Tony Locker; I-Gard

1 Opening remarks

Mitch Hefter called the meeting to order at 09:00. Ken Vannice welcomed all to Ft. Worth.

2 Attendance and membership

2.1 Introduction of those present and taking attendance

Those present introduced themselves while a blue attendance sign-in sheet was circulated.

2.2 Determination of quorum

Ken Vannice asked for a show of hands of voters. He counted the raised hands and then announced that we have a quorum.

2.3 Recognition of alternate voting members

Alternate voting members were recognized.

2.4 Requirements for membership

Vannice reminded the assembly that membership is open to all who are affected by the work of the group. Companies that would be in the dealer/rental company interest category in particular are encouraged to become members. Voting members are required to attend meetings and to vote on

letter ballots. Voting members and their alternates may not miss three consecutive meetings without a loss of voting status.

2.5 Processing of new membership requests

Mitch Hefter's parent company, Genlyte, had been sold to Royal Philips Electronics, thus needing a reconsideration of his status by the membership.

Jerry Gorrell moved that Mitch Hefter's membership be reaffirmed. The motion was seconded and then approved with a show of hands.

The full consensus body, including those not present, during the period of this meeting was:

Name	Company	Representing	Voting status	Int. cat.
James Davey	AC Power Distribution Inc.	AC Power Distribution Inc.	P	CP
Greg Mayberry	AC Power Distribution Inc.	AC Power Distribution Inc.	A	CP
George Long	Aggreko Event Services	Aggreko	P	DR
Wolfgang Hofheinz	Bender GmbH & Co. KG	Bender GmbH & Co. KG	P	MP
Joe Boardman	Bender Inc.	Bender GmbH & Co. KG	A	MP
Paul Menetrey	Bender Inc.	Bender GmbH & Co. KG	A	MP
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	P	MP
Elizabeth E. (Lizz) Chancellor	Elizabeth Chancellor	Elizabeth Chancellor	I	U
Ian Foulds	IATSE Local 873	Entertainment Electrical Safety Committee of Ontario	P	G
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P	U
Roger Lattin	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	P	U
R. Bruce Prochal	IATSE Local 728	I.A.T.S.E. Local 728	A	U
Patric J. Abaravich	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	A	U
Alan M. Rowe	IATSE Local 728	I.A.T.S.E. Local 728	A	U
Keith S. Woods	Lakhri Impressions Ltd.	IATSE Local 891	P	U
Simon Hunt	IATSE Local 891	IATSE Local 891	A	U
John (Javid) D. Butler	Integrated Theatre, Inc.	Integrated Theatre, Inc.	P	CP
Stephen J. Kay	K-Tec Corporation	K-Tec Corporation	P	MP
Ken Vannice	Colortran	Leviton Manufacturing Co., Inc.	P	MP
Bill Grande	Leviton Manufacturing Co., Inc.	Leviton Manufacturing Co., Inc.	A	MP
Bob Luther	Lex Products Corp.	Lex Products Corp.	P	CP
Kenneth M. Makowski	Lex Products Corp.	Lex Products Corp.	A	CP
Tyrone Mellon Jr.	Lex Products Corp.	Lex Products Corp.	A	CP
Louis Bradfield	Louis Bradfield	Louis Bradfield	I	U
Jeff deRecat	Marinco/ADI	Marinco	P	MP
William Drake	Marinco	Marinco	A	MP
W. G. Krokaugger, P. E.	Mole-Richardson Co.	Mole-Richardson Co.	P	CP
Vincent J. Cannavale	Motion Laboratories	Motion Laboratories	P	CP
Peter Herrmann	Motion Laboratories	Motion Laboratories	A	CP
Ron Bonner	PLASA	PLASA	P	U
Michael Lay	Strand Lighting	Royal Philips Electronics	P	MP
Michael Scudday	SSRC, Inc.	SSRC, Inc.	P	CP
Stephen Vanciel	Stephen Vanciel	Stephen Vanciel	P	U
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	U
Brett Paddor	TMB	TMB	P	MP
Colin Waters	TMB	TMB	A	MP
Richard Wolpert	Union Connector Company (MO)	Union Connector Company	P	CP

Name	Company	Representing	Voting status	Int. cat.
Mitch Hefter	Entertainment Technology (Genlyte Group)	USITT	P	U
William L. Maiman	William L. Maiman	William L. Maiman	P	U
		Total votes	26	
		Votes by interest category	7	CP
			7	MP
			1	DR
			10	U
			1	G

3 Approval of the minutes from the previous meeting

See document EP/2007-7027, file name EPmin11-2007.pdf.

Roger Lattin pointed out some typos and Karl Ruling fixed them.

Steve Terry moved that the amended minutes be approved. The motion was seconded and then approved with a show of hands.

4 Reading of the call for patents

Ken Vannice read the following statement 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 intellectual property was reported to the assembly.

5 Reading of the anti-trust statement

Ken Vannice read the following statement 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, held up some of the easy-to-read pamphlets to demonstrate that they were available.

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

6 Approval of agenda

Mitch Hefter added "NEC issues" to New Business.

Javid Butler moved that the modified agenda be approved. The motion was seconded and then approved with a show of hands.

7 Old business - task group reports

7.1 EMC task group

Ken Vannice mentioned the circulated document (UPDATE_Harmonics_(Jan_8_2008).pdf) from CSA in which they backed down from imposing IEC 61000-3-2 on the North American market. The proposal hasn't really gone away, just being reconsidered indefinitely. CSA is supposed to form a subcommittee by February 15 to study the issue. He thinks they will study it and then come back with the same proposal.

Vannice said if anyone wants to get involved, to see him. We need to ensure that the ANSI standard for mitigating harmonics is used in Canada, rather than the IEC 61000-3-2 document. He said that he has let Pierre Desilets of Leviton Canada guide him, and will continue to do so. Desilets's voice is better heard in Canada than the voice of any American.

Steve Terry recommended that we not forget the harmonic mitigation that is offered by delta-wye transformers. This is a great tool for not allowing harmonics generated in a facility to propagate into the distribution network outside the facility. The IEC 61000-3-2 document is based on European distribution systems, which are different from the systems used in North America. Ken Vannice added that transformers on the premises are fairly common in North America, and, because of the higher voltages used in European systems, are less likely to be used in Europe.

7.2 ANSI E1.24-2006, pin connectors

No news.

Steve Terry noted that the adoption of ANSI E1.24 in UL 1573 will require the reevaluation of pin connectors. Mitch Hefter agreed that this was true.

7.3 BSR E1.18 portable feeder cable selection and use

Public review comment resolutions progress report.

Eddie Kramer reviewed the history of the project, starting with the initial survey of the sex of ground conductor connectors. He explained how far the group has gotten with the resolutions and noted his limited amount of time to work on the project because of the tremendous workload of the Radio City Music Hall Christmas show. He described the few comments for which he has not drafted possible comment resolutions, which he thinks would only take a few more hours to resolve. He would then have comment resolutions for all the comments. He explained that he is reluctant to submit the comment resolutions with a matching revised draft standard.

Kramer explained that some of the comments on the original document had complained that it is too large and complicated, and recommended removing sections. In conversation with Karl G. Ruling, he had discussed breaking the document into smaller pieces. Kramer distributed a proposal for a suite of eighteen documents for E1.18. (See KramerE1-18SuiteOutline.pdf.) Kramer said that this was a discussion document. The first page TOC lists the following sections:

- E1.18-1 Set-up and Lay out Concept, Intro.
- E1.18-2 Cables parts needed
- E1.18-3 Ampacity Current tables
- E1.18-4 Installation
- E1.18-5 Initial energization (prior to initial use)
- E1.18-6 Operational energization after Initial energization
- E1.18-7 Operational requirements while system is energized
- E1.18-8 System de-energizing (powering down)
- E1.18-9 Removal of the Installation
- E1.18-10 Small Systems 2 or less power sources

- E1.18–11 Medium Systems 3 to 5 power sources
- E1.18–12 Large Systems Between 5 and 15 power sources
- E1.18–13 Huge Systems More than 15 power sources
- E1.18–14 Closed loop Systems All Closed loop, of any size
- E1.18–15 Canada
- E1.18–16 Voltage in Feeder Systems Includes voltage drop tables
- E1.18–17 Power sources
- E1.18–18 Wiring of passthroughs

Steve Terry asked Mitch Hefter to give a precise of the history of milestones of the E1.18 project, which Hefter did, starting in 1999. Terry said that the work going into this standard is out of proportion to the complexity of the project. Terry spoke in favor of Ken Vannice's radically edited version of E1.18 (BSRE1-18r10-2x2.pdf).

Karl Ruling explained his idea, which he said that he had not clearly explained to Kramer, of a basic document to which additional documents make modifications or add detail.

Bob Luther commented that it is troubling that there are two documents before the working group without there seeming to have been consultation with the recognized task group. He recommended better organization, more structure for the project.

Ruling reminded Luther and the working group that the working group is responsible for writing the documents. The task groups are ghost writers, and their work can be modified or rejected by the working group. They are not the consensus body, and have no special status.

Jerry Gorrell suggested that the Vannice document be called E1.18-1. It accomplishes something, gets it done, and lets us focus

Lizz Chancellor said that Vannice's shorter document covers everything she has had to deal with in the last ten years. She found it a manageable, understandable, and appropriate document.

Eddie Kramer said that he took offence at being blamed for being too busy to get the job done. He said that other people in the task group also did not do what they said they would do in a timely fashion. He also objected to not doing a comment-by-comment resolution document, saying that not providing one was unacceptable. Ruling said that we can ask the commenters if it is acceptable or not when we inform them of the lack of a comment-by-comment resolution. If anyone objects, we can respond to that person's comments, comment-by-comment.

Terry pointed out that he thought that all the commenters, except Bill Ellis, were in the room. Were they willing to waive the comment-by-comment resolution? Gorrell said that he was willing to waive it in the interest of moving forward with the document.

Kramer moved that we

- (a) accept the division of the document, and
- (b) that we offer Ken Vannice's version for public review, with the addition of the missing voltage drop tables, and
- (c) that it be offered as E1.18-1.

The motion was seconded. There was further discussion.

There was a question about whether later documents can modify the requirements of the base document. Ruling said that they can. They can't ignore the requirements of the original document, but they can call for specific changes while recognizing that they are changes to the requirements. Jerry Gorrell said that the NEC is an example of this: basic requirements are in the first four chapters, and the following five chapters add to or modify the basic requirements.

Luther asked about the public review comments. Terry said that he thought we had agreed that the response would be that we are not able to provide a comment-by-comment resolution, but that we will provide one for a commenter if requested. We will send the revised document to the previous commenters and ask them to review the new document, and see if it addresses their concerns.

By a roll call ballot, the motion was approved by a supermajority, with 16 out of a possible 26 voting Yes, three abstentions, and no negative votes.

Name	Company	Representing	Voting status	Int. cat.	Yes	Yes with comments	No with reasons	Abstain
James Davey	AC Power Distribution Inc.	AC Power Distribution Inc.	P	CP	Y			
Greg Mayberry	AC Power Distribution Inc.	AC Power Distribution Inc.	A	CP				
George Long	Aggreko Event Services	Aggreko	P	DR				
Wolfgang Hofheinz	Bender GmbH & Co. KG	Bender GmbH & Co. KG	P	MP				
Joe Boardman	Bender Inc.	Bender GmbH & Co. KG	A	MP				
Paul Menetrey	Bender Inc.	Bender GmbH & Co. KG	A	MP	Y			
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	P	MP	Y			
Elizabeth E. (Lizz) Chancellor	Elizabeth Chancellor	Elizabeth Chancellor	I	U	Y			
Ian Foulds	IATSE Local 873	Entertainment Electrical Safety Committee of Ontario	P	G	Y			
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P	U	Y			
Roger Lattin	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	P	U	Y			
R. Bruce Prochal	IATSE Local 728	I.A.T.S.E. Local 728	A	U				
Patric J. Abaravich	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	A	U				
Alan M. Rowe	IATSE Local 728	I.A.T.S.E. Local 728	A	U				
Keith S. Woods	Lakhri Impressions Ltd.	IATSE Local 891	P	U				
Simon Hunt	IATSE Local 891	IATSE Local 891	A	U				
John (Javid) D. Butler	Integrated Theatre, Inc.	Integrated Theatre, Inc.	P	CP	Y			
Stephen J. Kay	K-Tec Corporation	K-Tec Corporation	P	MP	Y			
Ken Vannice	Colortran	Leviton Manufacturing Co., Inc.	P	MP				Y
Bill Grande	Leviton Manufacturing Co., Inc.	Leviton Manufacturing Co., Inc.	A	MP				
Bob Luther	Lex Products Corp.	Lex Products Corp.	P	CP	Y			
Kenneth M. Makowski	Lex Products Corp.	Lex Products Corp.	A	CP				
Tyrone Mellon Jr.	Lex Products Corp.	Lex Products Corp.	A	CP				
Louis Bradfield	Louis Bradfield	Louis Bradfield	I	U	Y			
Jeff deRecat	Marinco/ADI	Marinco	P	MP				
William Drake	Marinco	Marinco	A	MP				
W. G. Krokaugger, P. E.	Mole-Richardson Co.	Mole-Richardson Co.	P	CP				
Vincent J. Cannavale	Motion Laboratories	Motion Laboratories	P	CP	Y			
Peter Herrmann	Motion Laboratories	Motion Laboratories	A	CP				
Ron Bonner	PLASA	PLASA	P	U				Y
Michael Lay	Strand Lighting	Royal Philips Electronics	P	MP				
Michael Scudday	SSRC, Inc.	SSRC, Inc.	P	CP	Y			
Stephen Vanciel	Stephen Vanciel	Stephen Vanciel	P	U				
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	U	Y			
Brett Paddor	TMB	TMB	P	MP				
Colin Waters	TMB	TMB	A	MP				
Richard Wolpert	Union Connector Company	Union Connector Company	P	CP	Y			
Mitch Hefter	Entertainment Technology (Royal Philips Electronics)	USITT	P	U				Y
William L. Maiman	William L. Maiman	William L. Maiman	P	U	Y			
					16	0	0	3

	Total possible	Yes	Yes with comments	No with reasons	Abstain	Not present
CP	7	6	0	0	0	1
MP	7	3	0	0	1	3
DR	1	0	0	0	0	1
U	10	6	0	0	2	2
G	1	1	0	0	0	0
Total	26	16	0	0	3	7

Terry moved that the comments received during the public review shall be sent out with the BSR E1.18-1 document to the original commenters with a statement that a comment-by-comment resolution has not been done because of the massive rework of the document, but that we will provide a specific comment response if requested. We shall also inform them that deleted material may be published in other documents. We will send the BSR E1.18-1 document to the previous commenters and ask them to review the new document, to see if it addresses their concerns. The motion was seconded, and then approved by a supermajority with a show of hands. All voted in favor, except for one person who voted to abstain.

Kramer moved that E1.18 be broken into a suite of documents. The motion was seconded. The motion was approved by a supermajority with a show of hands, with all voted in favor, except for one person who voted to abstain.

Hefter asked the task group to identify what the next document should be done for the suite. Ruling suggested keeping the additional documents short, to about two dozen pages or less. If they go beyond two dozen pages, consider if it really is about one topic, or perhaps two. He said he based this recommendation on what seems to be the maximum size of a document that our working groups can develop and edit expeditiously.

7.4 BSR E1.19 GFCI

Report on draft comment resolutions and revised draft standard.
See E1-19_r13.pdf and E1-19ThrdResols.pdf

Bob Luther explained the changes to the draft standard that were made in a recent task group meeting. These changes required a change to the comment resolution document to reject comment 6. The comment had been accepted in the draft resolution document (document number EP/2008-7000, E1-19ThrdResols.pdf), but now would be rejected with the following explanation:

- 6 4 This section needs some additional text to describe that for the purpose of this document only the Feb.1, 2006 version of UL 943 Standard is relevant.

My suggestion is to add text as I did in the following sentence:

"Class A GFCI products must be Listed by a NRTL to the Class A UL 943 Standard and in accordance to the Feb.1, 2006 version of that standard or newer."

This is very important for three reasons. One is that The Feb. 1, 2006 version is the only one that has been adopted by the US, Canada, and Mexico. As since we are asking these countries to utilize this recommended practice, it is only reasonable that they would be asked to comply with a recommended practice that coincides with the UL943 document that they have agreed to adopt and also supports the level of safety that they have been assured of through the adopted standard. Second, there are many items within the Feb.1, 2006 version that are specifically called out for Canada or the US separately because of the harmonized tri-national standard. Therefore this recommended practice is only relevant to Canada or the US if it is referred specifically to the version of the standard that applies to them. And third is because there have been many changes in the UL 943 standard going

back many years. Important safety issues have been discovered and changes have been made to the standard acknowledging the importance of these issues. It would be going backwards at this point in time to consider anything older than the current UL943 standard as the basis for the recommended practice and it should be mentioned specifically.

Paul Menetrey
Bender ET

Resolution

Reject. This change would make all existing GFCI products Listed before February 1, 2006 obsolete. This would make this document more stringent than what UL itself requires, which does not seem reasonable. If a product is Listed, it should be allowed.

Roger Lattin moved that the revised comment resolution document (document number EP/2008-7000r1) be approved. The motion was seconded, and then approved by a supermajority with a show of hands, with all voting in favor except for one person.

Steve Terry moved that BSR E1.19 document with modifications from changing comment resolution 6 (document number EP/2001-7012r14) be offered for public review. The motion was seconded, and then approved by a supermajority on a roll call ballot, with all present, 19 out of a voting body of 26, voting Yes.

Name	Company	Representing	Voting status	Int. cat.	Yes	Yes with comments	No with reasons	Abstain
James Davey	AC Power Distribution Inc.	AC Power Distribution Inc.	P	CP	Y			
Greg Mayberry	AC Power Distribution Inc.	AC Power Distribution Inc.	A	CP				
George Long	Aggreko Event Services	Aggreko	P	DR				
Wolfgang Hofheinz	Bender GmbH & Co. KG	Bender GmbH & Co. KG	P	MP				
Joe Boardman	Bender Inc.	Bender GmbH & Co. KG	A	MP				
Paul Menetrey	Bender Inc.	Bender GmbH & Co. KG	A	MP	Y			
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	P	MP	Y			
Elizabeth E. (Lizz) Chancellor	Elizabeth Chancellor	Elizabeth Chancellor	I	U	Y			
Ian Foulds	IATSE Local 873	Entertainment Electrical Safety Committee of Ontario	P	G	Y			
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P	U	Y			
Roger Lattin	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	P	U	Y			
R. Bruce Prochal	IATSE Local 728	I.A.T.S.E. Local 728	A	U				
Patric J. Abaravich	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	A	U				
Alan M. Rowe	IATSE Local 728	I.A.T.S.E. Local 728	A	U				
Keith S. Woods	Lakhri Impressions Ltd.	IATSE Local 891	P	U				
Simon Hunt	IATSE Local 891	IATSE Local 891	A	U				
John (Javid) D. Butler	Integrated Theatre, Inc.	Integrated Theatre, Inc.	P	CP	Y			
Stephen J. Kay	K-Tec Corporation	K-Tec Corporation	P	MP	Y			
Ken Vannice	Colortran	Leviton Manufacturing Co., Inc.	P	MP	Y			
Bill Grande	Leviton Manufacturing Co., Inc.	Leviton Manufacturing Co., Inc.	A	MP				
Bob Luther	Lex Products Corp.	Lex Products Corp.	P	CP	Y			
Kenneth M. Makowski	Lex Products Corp.	Lex Products Corp.	A	CP				
Tyrone Mellon Jr.	Lex Products Corp.	Lex Products Corp.	A	CP				
Louis Bradfield	Louis Bradfield	Louis Bradfield	I	U	Y			
Jeff deRecat	Marinco/ADI	Marinco	P	MP				
William Drake	Marinco	Marinco	A	MP				
W. G. Krokaugger, P. E.	Mole-Richardson Co.	Mole-Richardson Co.	P	CP				
Vincent J. Cannavale	Motion Laboratories	Motion Laboratories	P	CP	Y			
Peter Herrmann	Motion Laboratories	Motion Laboratories	A	CP				

Name	Company	Representing	Voting status	Int. cat.	Yes	Yes with comments	No with reasons	Abstain
Ron Bonner	PLASA	PLASA	P	U	Y			
Michael Lay	Strand Lighting	Royal Philips Electronics	P	MP				
Michael Scudday	SSRC, Inc.	SSRC, Inc.	P	CP	Y			
Stephen Vanciel	Stephen Vanciel	Stephen Vanciel	P	U				
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	U	Y			
Brett Paddor	TMB	TMB	P	MP				
Colin Waters	TMB	TMB	A	MP				
Richard Wolpert	Union Connector Company (MO)	Union Connector Company	P	CP	Y			
Mitch Hefter	Entertainment Technology (Royal Philips Electronics)	USITT	P	U	Y			
William L. Maiman	William L. Maiman	William L. Maiman	P	U	Y			
					19	0	0	0

	Total possible	Yes	Yes with comments	No with reasons	Abstain	Not present
CP	7	6	0	0	0	1
MP	7	4	0	0	0	3
DR	1	0	0	0	0	1
U	10	8	0	0	0	2
G	1	1	0	0	0	0
Total	26	19	0	0	0	7

7.5 BSR E1.32 luminaire inspection guidance

Report on work to resolve comments. See comment summary E1-32PublicRevwCmmentsSummary.pdf

Jerry Gorrell reported that almost all the comments were from Mike Wood. He met with him recently and came to an agreement on what Mike Wood would like to see changed. He plans to have a revised document and a set of comment resolutions for the Houston meeting.

7.6 Reaffirmation of ANSI E1.16-2002, Configuration Standard for Metal Halide Ballast Power Cables

Ruling reported that the reaffirmation had gained all the necessary approvals. All that remained was for him to publish it.

8 New business—NEC issues

Mitch Hefter reported that there are problems with the use of multiconductor cable in the field, with some inspectors claiming that wires can not be recolored and that tray cable should be used. Hefter pointed out that tray cable is not allowed in 520 venues. Multiconductor cable needs to be flexible and also labeled "extra hard usage." Ken Vannice has done an analysis that shows that recoloring is permissible. Steve Terry has also had some problems with emergency lighting. So, the NEC seems to need some additional clarity and deletion of obsolete terms.

There was extended discussion of the problems with multi-conductor cable assemblies of various types, both with Listing and with approval by AHJs.

Roger Lattin moved that we form a study group to investigate the requirements for Listing for commonly used multi-conductor cables in the entertainment industry. The motion was seconded and then approved by a show of hands.

Mitch Hefter assigned Roger Lattin, Tyrone Mellon, Vincent Cannavale, Bret Paddor, Steve Terry, Ian Foulds, Richard Wolpert, and Ken Vannice to the study group. He charged the group with having a report for the Houston meeting.

9 Other business

None.

10 Changes to observer status

10.1 Notice to the working group of those who missed three letter ballots

None .

10.2 Members in danger of losing voting status because of excessive absence

Members who have missed the previous two meetings and who will not have met the minimum attendance requirements if this meeting is missed:

None.

11 Schedule for future meetings

Hefter announced that the next meeting is scheduled for Wednesday, 19 March 2008, 9:00 to noon, at the Hilton Americas in Houston, Texas.

Roger Lattin asked if we should schedule a meeting in New York. There was a brief discussion of what kind of meeting that might be, but no motion was offered and no action was taken.

12 Adjournment

Eddie Kramer moved that the meeting adjourn. The motion was seconded and then approved with a unanimous show of hands. Mitch Hefter declared the meeting adjourned at 12:02.

Working Group Membership and Contact Information as of 22 February 2008

Name	Company	Representing (This is the sort field.)	Voting status	Int. cat.
James Davey	AC Power Distribution Inc.	AC Power Distribution Inc.	P	CP
Greg Mayberry	AC Power Distribution Inc.	AC Power Distribution Inc.	A	CP
Andre Broucke	ADB - TTV Technologies	ADB-TTV Group	O	MP
George Long	Aggreko Event Services	Aggreko	P	DR
Kenny Delahoussaye	Aggreko	Aggreko	O	DR
Brian Merriken	Airpax Corporation	Airpax Corporation	O	MP
Richard L. Eberth Jr.	North Shore Safety	Airpax Corporation	O	MP
Mike Skinner	CBS Studio Center	Alliance of Motion Picture and Television Producers	O	U
Arnold Tang	Arnold Tang Productions	Arnold Tang Productions	O	G
Jiantong Wu	Beijing Special Engineering Design & Research Institute	Beijing Special Engineering Design & Research Institute	O	G
Wolfgang Hofheinz	Bender GmbH & Co. KG	Bender GmbH & Co. KG	P	MP
Joe Boardman	Bender Inc.	Bender GmbH & Co. KG	A	MP
Paul Menetrey	Bender Inc.	Bender GmbH & Co. KG	A	MP
Lee J. Bloch	Bloch Design Group, Inc.	Bloch Design Group, Inc.	O	G
Marty Lazarus	Chicago Spotlight, Inc.	Chicago Spotlight, Inc.	O	DR
Eric Bouchard	Cirque du Soleil	Cirque du Soleil	O	CP
Julie Rogers	City of Phoenix Civic Plaza	City of Phoenix	O	G
Wayne Kowalski	Coleman Cable Inc.	Coleman Cable Inc.	O	MP
Ford Sellers	Cornell University	Cornell University	O	U
Don Earl	Earl Girls, Inc.	Earl Girls, Inc.	O	DR
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	P	MP
Elizabeth E. (Lizz) Chancellor	Elizabeth Chancellor	Elizabeth Chancellor	I	U
Ian Foulds	IATSE Local 873	Entertainment Electrical Safety Committee of Ontario	P	G
Art Wanuch	Robertson Electric Wholesale	Entertainment Electrical Safety Committee of Ontario	O	G
Trevor Forrest	Helvar Lighting Control	Helvar Lighting Control	O	MP
Pat Miller	Hubbell Wiring Devices	Hubbell Inc.	O	MP
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P	U
Roger Lattin	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	P	U
R. Bruce Prochal	IATSE Local 728	I.A.T.S.E. Local 728	A	U
Patric J. Abaravich	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	A	U
Alan M. Rowe	IATSE Local 728	I.A.T.S.E. Local 728	A	U
Keith S. Woods	Lakhri Impressions Ltd.	IATSE Local 891	P	U
Simon Hunt	IATSE Local 891	IATSE Local 891	A	U
Gian Carlo C. Bartolotti	Ibeam SP / Banco de Eventos	Ibeam SP / Banco de Eventos	O	U
Bill Kanne	Illumination Dynamics	Illumination Dynamics	O	U
John (Javid) D. Butler	Integrated Theatre, Inc.	Integrated Theatre, Inc.	P	CP
David Murray	IPC Resistors Inc.	IPC Resistors Inc.	O	CP
Stephen J. Kay	K-Tec Corporation	K-Tec Corporation	P	MP
Jose J. Flores	Kino Flo, Inc.	Kino Flo, Inc.	O	MP
Ken Vannice	Colortran	Leviton Manufacturing Co., Inc.	P	MP
Bill Grande	Leviton Manufacturing Co., Inc.	Leviton Manufacturing Co., Inc.	A	MP
Bob Luther	Lex Products Corp.	Lex Products Corp.	P	CP
Reinhold Luther	Lex Products Corp.	Lex Products Corp.	O	CP
Kenneth M. Makowski	Lex Products Corp.	Lex Products Corp.	A	CP
Tyrone Mellon Jr.	Lex Products Corp.	Lex Products Corp.	A	CP
Louis Bradfield	Louis Bradfield	Louis Bradfield	I	U
Jim Holladay	Luxence	Luxence	O	G
Jeff deRecat	Marinco/ADI	Marinco	P	MP
Phil Fram	Marinco	Marinco	O	MP
William Drake	Marinco	Marinco	A	MP
Hiroshi Kita	Marumo Electric Co., Ltd.	Marumo Electric Co., Ltd.	O	MP
Michael J. Carnaby	Mikan Theatricals	Mikan Theatricals	P	DR
W. G. Krokaugger, P. E.	Mole-Richardson Co.	Mole-Richardson Co.	P	CP
Vincent J. Cannavale	Motion Laboratories	Motion Laboratories	P	CP
Peter Herrmann	Motion Laboratories	Motion Laboratories	A	CP
Marsha DuBois	Pintech Stage Connectors, Inc.	Pintech Stage Connectors, Inc.	O	CP
Steve DuBois	Pintech Stage Connectors, Inc.	Pintech Stage Connectors, Inc.	O	CP
Ron Bonner	PLASA	PLASA	P	U

Name	Company	Representing (This is the sort field.)	Voting status	Int. cat.
James Eade	PLASA	PLASA	O	G
Mac Perkins	PNTA Inc.	PNTA Inc.	O	G
Paul F. Mardon	Pulsar Ltd.	Pulsar Ltd.	O	MP
Douglas Franz	QVC Network	QVC Network	O	U
Eric Tishman	Rosco Laboratories	Rosco Laboratories	O	MP
Richard B. Glickman	Gliconen Corporation	Rosco Laboratories	O	MP
Michael Lay	Strand Lighting	Royal Philips Electronics	P	MP
Jeremy B. Collins	Selecon	Selecon	O	MP
Robert Barbagallo	Solotech Inc.	Solotech Inc.	O	DR
Michael Scudday	SSRC, Inc.	SSRC, Inc.	P	CP
Stephen Vanciel	Stephen Vanciel	Stephen Vanciel	P	U
Reuben Goldberg	Technic Services	Technic Services	O	U
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	U
Brett Paddor	TMB	TMB	P	MP
Colin Waters	TMB	TMB	A	MP
Richard Wolpert	Union Connector Company (MO)	Union Connector Company	P	CP
Mitch Hefter	Entertainment Technology (Royal Philips Electronics)	USITT	P	U
Eckart Steffens	SOUNDLIGHT	VPLT	O	G
William L. Maiman	William L. Maiman	William L. Maiman	P	U

Key to codes:

P	principal voting member	MP	mass-market producer interest category
A	alternate voting member	CP	custom-market producer interest category
I	individual voting member	DR	dealer or rental company interest category
O	observer, non-voting	U	user interest category
		G	general-interest interest category