

Minutes
Electrical Power Working Group
Friday, 11 November 2005
Rosen Plaza Hotel
Orlando, FL

Chairmen: Ken Vannice; Colortran (Leviton Manufacturing Co., Inc.); P; MP
Bob Luther; Lex Products Corp.; P; CP

Recording secretary: Karl G. Ruling; ESTA

Members attending: James Davey; AC Power Distribution Inc.; A; CP
George Long; Aggreko Event Services (Aggreko); P; DR
Joe Boardman; Bender Inc. (Bender GmbH & Co. KG); A; MP
Paul Menetrey; Menetrey Partners (Bender GmbH & Co. KG); A; MP
Ian Foulds; IATSE Local 873, representing the Entertainment Electrical Safety
Committee of Ontario; P; G
Pat Miller; Hubbell Wiring Devices (Hubbell Inc.); P; MP
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; I.A.T.S.E. Local 728; A; U (joined at this meeting)
Keith S. Woods; Lakhri Impressions Ltd., representing IATSE Local 891; P; U
(change in status to P from O at this meeting)
John (Javid) D. Butler; Integrated Theatre, Inc.; P; CP (joined at this meeting)
Kenneth M. Makowski; Lex Products Corp.; A; CP
Jeff deRecat; Marinco/ADI (Marinco); P; MP
Phil Fram; Marinco; O; MP
Al DeMayo; Mole-Richardson Co.; A; CP (joined at this meeting)
Nic Bowker; PLASA; P; G
Stephen Vanciel; P; U (joined at this meeting)
Michael Lay; Strand Lighting (Strand Lighting Ltd.); P; MP
Jerry Gorrell; Theatre Safety Programs; P; U
Michele Yindrick; TMB; P; MP
Richard Wolpert; Union Connector Company; P; CP
William L. Maiman; P; U

Visitors: Roger van der Laan; Rearden, Inc.

1 Opening remarks

The meeting was called to order by Bob Luther at 19:05. He welcomed all to Orlando.

2 Attendance and membership

2.1 Introduction of those present and taking attendance

Karl Ruling explained the attendance sign-in sheet. Those present introduced themselves.

2.2 Determination of quorum

Bob Luther asked for voters to raise their hands. He did a quick count and announced that a quorum was present and business could be conducted.

2.3 Recognition of alternate voting members

The voters were reminded that only one person could vote on an issue if more than one voting member for a voting entity was present.

2.4 Requirements for membership

Bob Luther 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

Ken Vannice read the applications aloud to the assembly. The following had applied in the indicated voting and interest categories:

Marty Lazarus; Chicago Spotlight, Inc.; O; DR
Alan M. Rowe; I.A.T.S.E. Local 728; A; U
John (Javid) D. Butler; Integrated Theatre, Inc.; P; CP
Al DeMayo; Mole-Richardson Co.; A; CP
Stephen Vanciel; P; U

Roger Lattin moved that all the applications be accepted. The motion was seconded and then approved with a unanimous show of hands.

Keith S. Woods of Lakhri Impressions Ltd., representing IATSE Local 891, asked to be moved from Observer to Principal voting status in the User interest group.

Eddie Kramer moved that Keith Woods be moved from Observer to Principal. The motion was seconded and then approved with a unanimous show of hands.

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

Name	Company	Representing	Voting status	Int. cat.
Michael Amorelli	AC Power Distribution Inc.	AC Power Distribution Inc.	P	CP
James Davey	AC Power Distribution Inc.	AC Power Distribution Inc.	A	CP
George Long	Aggreko Event Services	Aggreko	P	DR
Kenny Delahoussaye	Aggreko	Aggreko	A	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	Menetrey Partners	Bender GmbH & Co. KG	A	MP
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	P	MP
Ian Foulds	IATSE Local 873	Entertainment Electrical Safety Committee of Ontario	P	G
Pat Miller	Hubbell Wiring Devices	Hubbell Inc.	P	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	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	A	U
Keith S. Woods	Lakhri Impressions Ltd.	IATSE Local 891	P	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

Name	Company	Representing	Voting status	Int. cat.
Kenneth M. Makowski	Lex Products Corp.	Lex Products Corp.	A	CP
Louis Bradfield	Louis Bradfield	Louis Bradfield	I	U
Jeff deRecat	Marinco/ADI	Marinco	P	MP
Bud Toly	Marinco/ADI	Marinco	A	MP
William Drake	Marinco	Marinco	A	MP
W. G. Krokaugger P.E.	Mole-Richardson Co.	Mole-Richardson Co.	P	CP
Al DeMayo	Mole-Richardson Co.	Mole-Richardson Co.	A	CP
Nic Bowker	PLASA	PLASA	P	G
Michael Scudday	SSRC, Inc.	SSRC, Inc.	P	CP
Stephen Vanciel	Stephen Vanciel	Stephen Vanciel	P	U
Michael Lay	Strand Lighting	Strand Lighting Ltd.	P	MP
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	U
Michele Yindrick	TMB	TMB	P	MP
Colin Waters	TMB	TMB	A	MP
Richard Wolpert	Union Connector Company	Union Connector Company	P	CP
Mitch Hefter	Entertainment Technology (Genlyte Group)	USITT	P	U
William L. Maiman	William L. Maiman	William L. Maiman	P	U
		Total votes	25	
		Votes by interest category	6	CP
			8	MP
			1	DR
			8	U
			2	G

3 Approval of the minutes from the previous meeting

Eddie Kramer moved that the minutes of the 29 July 2005 meeting (EP/2005-7014) be approved as written. The motion was seconded. The motion was approved with an unanimous show of hands.

4 Reading of the call for patents

Bob Luther 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 patent or other protected intellectual property issues were brought to the attention of the assembly.

5 Reading of the anti-trust statement

Bob Luther 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, held up some of the easy-to-read pamphlets to show that they were available.

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

6 Approval of agenda

Roger Lattin asked for a discussion of generator earthing and grounding under new business.

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

7 Old business - task group reports

7.1 EMC task group

Ken Vannice reported that the US TAG to the IEC is having a meeting on the 17 and 18 November to get its ideas together. The question is, Are the IEC 61000 documents stand-alone standards to be applied to products, or are these guidance documents to be used to develop specific product emissions standards? The latter is the American position.

7.2 BSR E1.24 pin connectors

There was a discussion of the one comment received during the last public review with a "yes with comments" response. The consensus of the group was that the explanatory material requested by the commenter was not needed. Connector manufacturers and testing labs needed neither a "description of the history of manufacture preceeding the standard" nor an explanation of the approach taken to specify connector intermateability.

Jerry Gorrell moved that BSR E1.24, Entertainment Technology—Dimensional Requirements for Stage Pin Connectors (EP/2003-7005r2.1), which was the document offered for public review, be accepted as an American National Standard. The motion was seconded. Since not all the voting members were present at the meeting, the motion will be decided by letter ballot to allow all to vote on this final approval.

A comment resolution document, Responses to the Summary of Second Public Review Comments and Reasons for BSR E1.24 and Summary of Responses to the First Review Resolutions (EP/2005-7019), was drafted to express the sentiments of the working group. Javid Butler moved that the resolutions in this document be accepted. The motion was seconded. The motion was approved by a unanimous show of hands, except for one abstention. With 20 people voting in the affirmative out of a total voting body of 25, this was a supermajority voting in favor.

7.3 BSR E1.18 portable feeder cable selection and use

Roger Lattin distributed product literature for devices that can be used to create loop systems and several sheets describing the voltage drop in various scenarios and showing the advantages of loop systems. The presentation generated a discussion, which lasted for more than an hour.

After the presentation and discussion, Bob Luther asked how many accepted the principle of a loop circuit. By a show of hands, a clear majority indicated that it accepted it.

The consensus of the group was that Roger Lattin and Eddie Kramer shall address the objections to the public review motion by modifying the document, not to remove the loop system, but to explain in more detail the relative advantages and disadvantages of loop systems, when they may be a better choice than a radial system, and how to ameliorate risks.

Karl Ruling informed the group that Steve Terry had told him he regretted not being able to be at the meeting for the presentation. Company business would keep him away.

7.4 BSR E1.19 GFCI task group

Bob Luther report that the task group had not met since the public review comments were distributed, so it did not have any tentative resolutions. He described some of the comments in Summary of First Review Comments and Reasons on BSR E1.19 (EP/2005-7016). The definitions of wet and damp locations that are in the NEC were discussed.

7.5 Luminaire inspection guidance

Jerry Gorrell reminded the group that at the July meeting he said he would have something to present at the January 2006 meeting. He is on schedule to do that. He has a copy of the ABTT advice on portable appliance testing in theatres and will use it as a resource.

8 New business, Generator earthing and grounding

Roger Lattin said that the industry needs a guidance document about earthing portable generators and bonding them to each other and, if used to power a system in a building, to the building service entrance. There was a discussion of the need for the project and how widespread the problem of ignorance or resistance to grounding and bonding might be.

Javid Butler moved that a task group be formed to research the issue of earthing portable generators and to report the results to the group for the group to decide on further action. The motion was seconded and then approved by a unanimous show of hands.

With the consent of the working group, Bob Luther appointed Roger Lattin, Ian Foulds, Richard Wolpert, George Long and Keith Woods to be the task group for this reasearch.

9 Other business

9.1 One-hour lessson on closed loop systems

Roger Lattin's presentation was done as part of the consideration of the next step for BSR E1.18, described above.

9.2 CANENA report

Roger Lattin reported that the group was working on dimensional issues via web meetings. A document is supposed to be circulated in December.

9.3 ETCP survey

Ken Vannice asked people to participate in the ETCP's electrician job analysis survey. One thousand people are needed to participate in the survey to develop a statistically useful sampling. Volunteers may indicate their willingness by giving their name and email on a sign-up sheet, which Ken Vannice circulated.

10 Changes to observer status with third meeting missed

None.

11 Schedule for future meetings

It was announced that the next meeting is scheduled for Friday, 20 January 2005, from 8:00 to noon at the Dallas/Ft. Worth Airport Marriott South in Ft. Worth, Texas.

12 Adjournment

Javid Butler moved that the meeting adjourn. The motion was seconded and then approved with a voice vote. Bob Luther declared the meeting adjourned at 21:43.

Working Group Members and Contact Information as of 29 November 2005

Name	Company	Representing (This is the primary sort field.)	Voting status	Int. cat.
Michael Amorelli	AC Power Distribution Inc.	AC Power Distribution Inc.	P	CP
James Davey	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	A	DR
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	Menetrey Partners	Bender GmbH & Co. KG	A	MP
Lee J. Bloch	Blue Sky Design, Ltd.	Blue Sky Design, Ltd.	O	G
Marty Lazarus	Chicago Spotlight, Inc.	Chicago Spotlight, Inc.	O	DR
Eric Bouchard	Cirque du Soleil	Cirque du Soleil	O	CP
Wayne Kowalski	Coleman Cable Inc.	Coleman Cable Inc.	O	MP
Ron Dahlquist	Dadco	Dadco	O	MP
Don Earl	Earl Girls, Inc.	Earl Girls, Inc.	O	DR
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	P	MP
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.	P	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
Patric J. Abaravich	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	A	U
Alan M. Rowe	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	A	U
R. Bruce Prochal	IATSE Local 728	I.A.T.S.E. Local 728	A	U
Keith S. Woods	Lakhri Impressions Ltd.	IATSE Local 891	P	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
Jose J. Flores	Kino Flo, Inc.	Kino Flo, Inc.	O	MP
Don Gray	Kohler Event Services	Kohler Co.	O	U
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
Reinhold Luther	Lex Products Corp.	Lex Products Corp.	O	CP
Kenneth M. Makowski	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
Bud Toly	Marinco/ADI	Marinco	A	MP
William Drake	Marinco	Marinco	A	MP
Hiroshi Kita	Marumo Electric Co., Ltd.	Marumo Electric Co., Ltd.	O	MP
Michael Klein	Metropolitan Engineering, Inc.	Metropolitan Engineering, Inc.	O	G
W. G. Krokaugger P.E.	Mole-Richardson Co.	Mole-Richardson Co.	P	CP
Al DeMayo	Mole-Richardson Co.	Mole-Richardson Co.	A	CP
Chris Guptill	Ohlone College	Ohlone College	O	U
Marsha DuBois	Pintech Stage Connectors, Inc.	Pintech Stage Connectors, Inc.	O	CP
Steve DuBois	Pintech Stage Connectors, Inc.	Pintech Stage Connectors, Inc.	O	CP
Nic Bowker	PLASA	PLASA	P	G
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
Richard B. Glickman	Gliconen Corporation	Rosco Laboratories	O	MP
Eric Tishman	Rosco Laboratories	Rosco Laboratories	O	MP
Richard A. Prey	SMS Inc. / PGS LLC	SMS Inc. / PGS LLC	O	CP
Robert Barbagallo	Solotech Inc.	Solotech Inc.	O	DR

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Michael Scudday	SSRC, Inc.	SSRC, Inc.	P	CP
Stephen Vanciel	Stephen Vanciel	Stephen Vanciel	P	U
Michael Lay	Strand Lighting	Strand Lighting Ltd.	P	MP
Reuben Goldberg	Technic Services	Technic Services	O	U
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	U
Richard D. Thompson	Thompson Associates	Thompson Associates	O	G
Michele Yindrick	TMB	TMB	P	MP
Colin Waters	TMB	TMB	A	MP
Richard Wolpert	Union Connector Company	Union Connector Company	P	CP
Mitch Hefter	Entertainment Technology (Genlyte Group)	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
- A alternate voting member
- I individual voting member
- O observer, non-voting
- MP mass-market producer interest category
- CP custom-market producer interest category
- DR dealer or rental company interest category
- U user interest category
- G general-interest interest category