

**Minutes**  
**Electrical Power Working Group**  
Friday, 16 November 2007  
Rosen Plaza Hotel  
Orlando, FL

**Chairmen:**

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

**Recording secretary:** Karl G. Ruling; ESTA

**Members attending:**

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, Inc.; P; MP  
Ian Foulds; IATSE Local 873, representing the Entertainment Electrical Safety Committee of Ontario;  
P; G  
Roger Lattin; I.A.T.S.E. Local 728; P; U  
Alan M. Rowe; I.A.T.S.E. Local 728; A; U  
Keith S. Woods; Lakhri Impressions Ltd., representing IATSE Local 891; P; U  
John (Javid) D. Butler; Integrated Theatre, Inc.; P; CP  
Kenneth M. Makowski; Lex Products Corp.; A; CP  
Tyrone Mellon Jr.; Lex Products Corp.; A; CP (joined at this meeting)  
Louis Bradfield; I; U  
Jeff deRecat; Marinco; P; MP  
Phil Fram; Marinco; O; MP  
Michael J. Carnaby; Mikan Theatricals; P; DR (joined at this meeting)  
W. G. Krokaugger, P. E.; Mole-Richardson Co.; P; CP  
Peter Herrmann; Motion Laboratories; A; CP  
Ron Bonner; PLASA; P; U  
Stephen Vanciel; P; U  
Jerry Gorrell; Theatre Safety Programs; P; U  
William L. Maiman; P; U

**Visitors:** Tom Lakowski; Coleman Cable, Inc.

Dennis Grow; IATSE Local 728  
Natti Pierce-Thomson; North American Theatre Technology  
Harris Meyers; North American Theatre Technology

**1 Opening remarks**

Mitch Hefter called the meeting to order at 9:03.  
Hefter announced the recent death of Michael Klein, a member of the working group.

**2 Attendance and membership**

**2.1 Introduction of those present and taking attendance**

A green and yellow sign-in sheet was circulated. Those present introduced themselves.

**2.2 Determination of quorum**

Hefter asked for a show of hands of voters. After a quick count he announced that we have a quorum and business could be conducted.

### 2.3 Recognition of alternate voting members

Hefter reminded the assembly of the one vote per company rule. A principal and an alternate, or two alternates, may not both vote on a question. Only one may.

### 2.4 Requirements for membership

Mitch Hefter read the following statement aloud to the assembly:

"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

Membership applications had been received from the following people:

Michael J. Carnaby; Mikan Theatricals; DR; P  
Tyrone Mellon Jr. ;Lex Products; CP; A

Steve Terry moved that their applications be accepted. The motion was seconded, and then accepted with a unanimous show of hands.

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

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
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
Michael Lay	Strand Lighting	Genlyte Group LLC	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	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
Michael J. Carnaby	Mikan Theatricals	Mikan Theatricals	P	DR

Name	Company	Representing (This is the sort field.)	Voting status	Int. cat.
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 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
Mitch Hefter	Entertainment Technology (Genlyte Group)	USITT	P	U
William L. Maiman	William L. Maiman	William L. Maiman	P	U
		Total votes possible	27	
		Votes by interest categories	7	CP
			7	MP
			2	DR
			10	U
			1	G

### 3 Approval of the minutes from the previous meeting

See document EP/2007-7017, file name EPmin07-2007.pdf

Mitch Hefter asked if there were any corrections needed. There were none.

Steve Terry moved that the draft minutes be accepted as written. The motion was seconded. The motion was approved with a show of hands. There were no objections and one abstention, Michael Carnaby, who was not at the last meeting.

### 4 Reading of the call for patents

The following statement was read aloud to the assembly by Mitch Hefter:

"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 patents or other protected intellectual property was brought to the attention of the assembly.

### 5 Reading of the anti-trust statement

The following statement was read aloud to the assembly by Mitch Hefter:

"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 one of the easy-to-read pamphlets to show that it was available.

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

## **6 Approval of agenda**

Keith Woods moved that the draft agenda be accepted. 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 said he had no news. Ron Bonner stated there had been the worry that EMC assessment certification would be needed for temporary audio systems. Bonner went to ask for clarification from the DTI. He was assured that would not happen, that this was not the intention. CE marking on the equipment is enough to make the assembled system compliant.

### **7.2 ANSI E1.24-2006, pin connectors**

Karl Ruling reported there had been a proposal to reference ANSI E1.24 in BSR/UL 498-200x, Standard for Safety for Attachment Plugs and Receptacles (Proposal dated September 7, 2007) (revision of ANSI/UL 498-2007). However, the proposal was not accepted by the STP because the members had not had a copy of ANSI E1.24 to review. Therefore, Ruling received a request from UL for copies of the standard that the STP could review as part of the UL 498 proposal. He provided a PDF file to UL for this purpose, and also asked for a copy of UL 998 for use by the Fog & Smoke Working Group. He received that document from UL.

### **7.3 BSR E1.18 portable feeder cable selection and use**

Public review comment resolution report. See E1-18\_10-1-07\_ROC.pdf.

Eddie Kramer was not present, but had reported via email that draft resolutions remain to be written for a few comments, and then the draft standard needs to be revised. Lattin at the meeting reported that Kramer sends his regrets for not being at the meeting. He also expressed his own regrets for not having gotten more done on the document. Lattin's health issues had impeded how much work he can do.

Roger Lattin reported that they have found some technical issues with paralleling conductors. Eddie Kramer has forwarded to Lattin some IEEE documents that describe these issues in mathematical terms. He was working hard to understand them.

Steve Terry suggested that the draft comment resolution the task group is writing simply needs a footnote that help from an electrical engineer in the working group is needed. The EPWG has a lot of professional engineers who can sort out the math. The task group does not need to draft a complete resolution document, only a good start for the working group to finish.

### **7.4 BSR E1.19 GFCI**

See comment summary E1-19ThrdRevwComments.pdf.

Ken Makowski reported that there will be a presentation tomorrow morning on GFCI, and that the task group will meet after that to work on the comments. Not many comments. He is hopeful that they will resolve comments quickly because they are not many and are not too difficult.

Roger Lattin said that Steve Kay had sent his regrets via email for not attending the working group meeting and that he had sent comments to him to convey to the task group for its meeting tomorrow.

#### **7.5 BSR E1.32 luminaire inspection guidance**

See comment summary E1-32PublicRevwCmmentsSummary.pdf

Jerry Gorrell reported that he hopes to have a draft resolution document done in time for the USITT meeting. Mike Wood, who supplied many of the comments, has expressed a willingness to help him with it.

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

Ruling reported that the TSC, the ESTA Board, and ANSI had approved the reaffirmation. We just need to publish it now. It's a reaffirmation, so there are no changes other than the ANSI acceptance date, the copyright date, and the working group membership list.

#### **7.7 Generator earthing**

Roger Lattin reported that he has heard about some more problems with earthing, but he did not have a report.

Steve Terry moved that we remove this project from the working group's list of active projects until we have resources to work on it. The motion failed for lack of a second.

Steve Terry moved that we move the generator earthing project to an inactive list (not on the agenda) until there is something to report. The motion was seconded. There was discussion. By a show of hands, the motion was accepted, with two voting to abstain, and the rest voting in favor.

#### **7.8 CANENA report**

Ken Vannice said they are still working on resolving dimensional issues. Work is being done via web meetings.

#### **8 New business**

The possibility of having a meeting in New York City in the summer of 2008 was discussed.

Steve Terry moved that we not have a summer 2008 meeting. The motion was seconded. The motion was accepted by a simple majority on a show of hands, with five voting in favor of the motion to not have a meeting, four voting against the motion, and the rest abstaining.

#### **9 Other business**

Ian Foulds reported that the Ontario provincial government is doing a high level review to see if certification will be required for stage electricians in Ontario.

#### **10 Changes to observer status**

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

None now.

##### **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**

Mitch Hefter announced that the next meeting is scheduled for Friday, 25 January 2008, 09:00 - 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. The motion was approved with a unanimous show of hands. Mitch Hefter declared the meeting was adjourned at 19:57.

**Working Group Membership and Contact Information as of 30 November 2007**

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 Soliel	Cirque du Soliel	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
Michael Lay	Strand Lighting	Genlyte Group LLC	P	MP
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

Name	Company	Representing (This is the sort field.)	Voting status	Int. cat.
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
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
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 (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	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