

**Minutes**  
**Electrical Power Working Group**

Friday, 25 July 2003  
Dallas/Ft. Worth Airport Marriott South  
Ft. Worth, TX

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

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

**Members attending:** James Davey; AC Power Distribution Inc.; A; CP  
Jeff deRecat; Advanced Devices, Inc.; P; MP  
Arnold Tang; Arnold Tang Productions; O; G  
Wolfgang Hofheinz; Bender GmbH & Co. KG; P; MP  
Joe Boardman; Bender Inc. (Bender GmbH & Co. KG); A; MP  
Stewart Cox; Crouse-Hinds Molded Products; O; MP  
Art Wanuch; M.C. Lights & Manufacturing, Ltd., representing the Entertainment  
Electrical Safety Committee of Ontario; O; G  
Edwin S. Kramer; I.A.T.S.E. Local 1; P; U  
Roger Lattin; I.A.T.S.E. Local 728; P; U  
Stephen J. Kay; K-Tec Corporation; P; MP  
Bill Grande; Leviton Manufacturing Co., Inc.; A; MP (joined at this meeting)  
Michael Klein; Metropolitan Engineering, Inc.; P; G (rejoined with new affiliation at  
this meeting)  
W. G. Krokaugger P.E.; Mole-Richardson Co.; P; CP  
William N. Masten; SMS Inc. / PGS LLC; P; CP  
Michael Lay; Strand Lighting (Strand Lighting Ltd.); P; MP  
Jerry Gorrell; Theatre Safety Programs; P; U (joined at this meeting)  
Richard D. Thompson; Thompson Associates; P; G  
Brian Dowd; TMB; P; MP  
Mitch Hefter; Entertainment Technology (Genlyte Thomas Group), representing  
USITT; P; U

**Visitors:** Les Lindenstrauss; Leviton Manufacturing Co.  
Doug Lombardi; ITT Veam  
Pierre Desilets; Leviton Canada  
Kevin Burke; ETC, Inc.  
Rick Rudolph; Stage Equipment & Lighting, Inc.  
Bill Maiman; ESTA  
Michael Skinner; CBS Studios, representing the Alliance of Motion Picture and Television  
Producers

**1 Opening remarks**

Ken Vannice called the meeting to order at 08:04. He welcomed all to Ft. Worth.

**2 Attendance and membership**

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

Karl Ruling asked people to sign in on the red and yellow attendance sheet. Ken Vannice asked those present to introduce themselves. He noted that the many visitors from the Canena meeting.

**2.2 Determination of quorum**

Ken Vannice asked for a show of hands from voting members. After counting the number of upraised hands, Vannice announced that a quorum was present.

### 2.3 Recognition of alternate voting members

It was noted that one alternate was present. James Davey would be voting in place of Michael Amorelli.

### 2.4 Requirements for membership

Ken Vannice explained that any person or company with a vested interest in the work of the group can become a member. He noted that voting members are required to attend meetings and to vote on letter ballots. He warned that voting members and their alternates may not together miss three consecutive meetings without a loss of voting status.

### 2.5 Processing of new membership requests

Bob Luther read the applications:

Bill Grande; Leviton Manufacturing; alternate; mass-market producer

Jerry Gorrell; Theatre Safety Programs; principal; user

Roger Lattin moved that the applications be accepted. The motion was seconded. The motion was approved by a unanimous show of hands

Michael Klein, previously with Environmental Design but now with Metropolitan Engineering, Inc., applied as a principal for MEI in the general interest category. Roger Lattin moved that Klein's application be accepted. The motion was seconded. The motion was approved with a unanimous show of hands.

There was now both a principal and an alternate for Leviton present. They were reminded that only one could vote on a question; Leviton may not vote twice.

The complete voting body, including those not present, was thus:

Name	Company	Representing (sort field)	Voting status	Interest categories				
				G	U	MP	CP	DR
Michael Amorelli	AC Power Distribution Inc.	AC Power Distribution Inc.	P				1	
James Davey	AC Power Distribution Inc.	AC Power Distribution Inc.	A					
Jeff deRecat	Advanced Devices, Inc.	Advanced Devices, Inc.	P			1		
Bud Toly	Advanced Devices, Inc.	Advanced Devices, Inc.	A					
George Long	Aggreko Global Event Services	Aggreko LLC	P					1
Kenny Delahoussaye	Aggreko	Aggreko LLC	A					
Wolfgang Hofheinz	Bender GmbH & Co. KG	Bender GmbH & Co. KG	P			1		
Joe Boardman	Bender Inc.	Bender GmbH & Co. KG	A					
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	P			1		
Pat Miller	Hubbell Wiring Devices	Hubbell Inc.	P			1		
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P		1			
Roger Lattin	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	P		1			
R. Bruce Prochal	IATSE Local 728	I.A.T.S.E. Local 728	A					
Patric J. Abaravich	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	A					
Stephen J. Kay	K-Tec Corporation	K-Tec Corporation	P			1		
Ken Vannice	Colortran	Leviton Manufacturing Co., Inc.	P			1		
Tim Bachman	Leviton/Colortran	Leviton Manufacturing Co., Inc.	A					
Bill Grande	Leviton Manufacturing Co., Inc.	Leviton Manufacturing Co., Inc.	A					
Bob Luther	Lex Products Corp.	Lex Products Corp.	P				1	
Louis Bradfield	Louis Bradfield	Louis Bradfield	I		1			
Michael Klein	Metropolitan Engineering, Inc.	Metropolitan Engineering, Inc.	P	1				
W. G. Krokaugger P.E.	Mole-Richardson Co.	Mole-Richardson Co.	P				1	
James Eade	PLASA	PLASA	P	1				
Richard B. Glickman	Glicon Corporation	Rosco Laboratories	P			1		
Eric Tishman	Rosco Laboratories	Rosco Laboratories	A					
William N. Masten	SMS Inc. / PGS LLC	SMS Inc. / PGS LLC	P				1	
Richard A. Prey	SMS Inc. / PGS LLC	SMS Inc. / PGS LLC	A					
Paul Menetrety	Power Guard Systems, LLC	SMS Inc./PGS LLC	A					
Michael Lay	Strand Lighting	Strand Lighting Ltd.	P			1		
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P		1			

Richard D. Thompson	Thompson Associates	Thompson Associates	P	1				
Brian Dowd	TMB (NJ)	TMB	P			1		
Colin Waters	TMB	TMB	A					
Mitch Hefter	Entertainment Technology (Genlyte Thomas Group)	USITT	P		1			
				22	3	5	9	4
								1

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

Eddie Kramer moved that the draft minutes be approved as written. The motion was seconded. The motion was accepted with a unanimous show of hands.

### 4 Reading of the call for patents

The following was read aloud by Ken Vannice:

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

"In keeping with the open disclosure policy, I ask if anyone present wishes to notify the working group of the existence of a patent or copyright that might protect material in a standard being developed by the working group. You need not be the holder of the patent or copyright in order to notify the working group of its existence."

There were no protected intellectual property issues brought to the attention of the group.

### 5 Reading of the anti-trust statement

The following was read aloud by Ken Vannice:

"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 \$100,000 and imprisoned for up to three years. An easy to read pamphlet describing restraint of trade issues is available from the Technical Standards Manager."

Bill Maiman and Karl Ruling held up copies of the pamphlets to demonstrate their availability. No anti-competitive issues were raised by any member of the assembly.

### 6 Approval of agenda

Ken Vannice asked to add two items to the agenda under item 9 "Other business": reflector sites and Canena.

Eddie asked for a discussion of his noted changes to the NEC under "Other business."

Richard Thompson asked to give comments about the CE mark under "Other business."

Bill Maiman had LDI passes under "Other business."

Steve Kay moved that the amended agenda be accepted. The motion was seconded. The motion was approved with a unanimous show of hands.

### 7 Old business - task group reports

#### 7.1 EMC task group

Ken Vannice reported that there are items of news on the international scene:

1) The US rep to the IEC has told Ken Vannice that there has been some work. There is some movement toward looking at systems for harmonics control, rather than looking at the harmonics of individual devices. That is, a systems approach vs. a product approach.

2) There is confusion about "under consideration" statement about the exemption for our dimmer devices in the IEC powerline harmonics standard. The phrase will be moved to an informative annex so that people do not think that "under consideration" means that regulations are imminent.

On the national scene, there is a move in the FCC to put broadband signals on the power lines. There is the concern that this might require a tightening of powerline emissions standards. The work so far is about home systems and coupling around transformers, but we need to watch this. The document is FR doc 03-12914. Comments on it are due by August 6.

## **7.2 BSR E1.24 pin connectors**

Mitch Hefter announced that the task group will meet Saturday night. The starting document is the USITT standard. Jerry Gorrell said that his files from the development of that document were sent to the USITT archives and should be there.

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

Eddie Kramer reported that the task group has been active. He asked for comments from working group on the most recent draft document. He talked about the voltage drop tables and their need to be metric. The how-to-use-it information will be put in a separate handbook to make the document smaller.

C84.1, Electric Power Systems and Equipment - Voltage Ratings (60 Hertz) R(2001) is the ANSI standard for nominal power line voltage, reported Kramer. It has ranges for standard voltages on power lines.

Eddie Kramer reported on the issue of color temperature and voltage drop. A survey of people in film and television has revealed that the range of color temperature that is acceptable is actually quite wide. Some interviewees said the color shift of dimming is negligible until the dimming is below 80%. Others said it is negligible until 50%. Lattin concurred in that almost any yellowish cast can be fixed in post-production.

Ken Vannice noted that there was the idea of making this document a North American document. He suggested that pulling in Canadian code requirements would slow the development. He suggested that a US document be done first, and a Canadian addendum done later. There was a discussion of these ideas, which was aided by the presence of many Canadian visitors, who had attended the Canena meeting.

The consensus was that the group should press ahead with writing a document to cover US and Canadian codes and practices, which implies that addressing practices from elsewhere will be outside the scope of this document.

The working group chairmen praised for the amount of work that has been done.

## **7.4 BSR E1.19 GFP task group**

Joe Boardman reported about the meeting the task group had yesterday and the discussions they have had and with whom.

Bob Luther asked what was the plan for proceeding in an expeditious manner. There was discussion of why the document is not proceeding. The problems identified were that people don't do their homework on time and that documents are submitted at the last minute. Also, the document now has a structure that is inappropriate for dealing with the identified problems. There was discussion of these problems.

Ken Vannice set deadlines:

1. Comments to the task group from outside the task group shall be sent to the task group by 9/1.
2. New material done in response to those comments shall be done by 9/26 for distribution to the other members of the task group.
3. Everything shall be in NYC by 10/31 so that Karl Ruling has time to organize and distribute it.

There were further discussions of the purpose of the document and how to proceed.

## **8 New business**

## **9 Other business**

- 9.1** Bob Luther talked about the archived email reflector site. He said that the archives would be remarkably valuable. He said that principal members must sign up to use the site and that alternates and observers should do this if they want to be in the information loop. He handed out the sign-up information sheets and said that he would be calling people to make sure they are signed up.

There was a discussion of the need for a file naming convention for task group internal documents.

- 9.2** Ken Vannice reported on the Canena meetings. Canena is a forum in which UL, CSA, et al can get together and write safety standards. The current project is to harmonize single-pole connectors throughout North America, primarily Canada and the US. The group is working heavily on cam-type connectors but the intention is to address all single-pole connectors used in North America. The meetings are being held in conjunction with ESTA's TSP meetings because the interested parties are here, too.

Pierre Desilets of Leviton Canada spoke about how Canena works. Membership is open to all who pay the \$100 US dues.

Eddie Kramer reported on the proposed changes to the NEC. He has searched the official Report On Proposals and found some that would have an impact on our business. He pointed out in particular proposal 2-70, which proposes changes to 210.8b (4) to require GFCI on all outdoor receptacles in public spaces where accessible by the public.

- 9.3** Richard Thompson reminded the assembly that the CE mark does not mean a product is acceptable in the US. In the US, third-party testing by a NRTL is required, stated Thompson.
- 9.4** Bill Maiman announced that he has free trade show floor passes for LDI. He noted that the show is rebranded as the "Entertainment Technology Show." The old name LDI is being phased out.

## **10 Changes to observer status with third meeting missed**

None.

## **11 Schedule for future meetings**

Ken Vannice announced that our next meeting will be held in conjunction with the trade show formerly known as LDI on Friday, 21 November 2003, from 19:00 to 23:00. The meeting will be at the Sheraton World Resort, Orlando, FL.

Ken Vannice reviewed the tasks the various task groups will need to have done before this next meeting:

- The E1.24 task group shall meet tomorrow night and lay out a schedule for its work.
- The E1.18 task group shall have a document for the next meeting, developed per the schedule noted in 7.4 of these minutes for the E1.19 task group.

- The E1.19 task group shall have a meeting immediately following the adjournment of this working group meeting. The task group shall develop a guidance document on where to use GFCI by 31 October.

## **12 Adjournment**

Ken Vannice noted that all the working group's business had been completed and asked for a motion to adjourn. Eddie Kramer moved that the meeting adjourn. The motion was seconded. The motion was approved by a unanimous show of hands. Vannice declared the meeting adjourned at 11:04.

## Electrical Power Working Group Membership and Contact Information as of 2003-09-02

Name	Company	Representation (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
Jeff deRecat	Advanced Devices, Inc.	Advanced Devices, Inc.	P	MP
Bud Toly	Advanced Devices, Inc.	Advanced Devices, Inc.	A	MP
George Long	Aggreko Global Event Services	Aggreko LLC	P	DR
Kenny Delahoussaye	Aggreko	Aggreko LLC	A	DR
Arnold Tang	Arnold Tang Productions	Arnold Tang Productions	O	G
Lowell R. Nutter	Array Connector Corp.	Array Connector Corp.	O	MP
Wolfgang Hofheinz	Bender GmbH & Co. KG	Bender GmbH & Co. KG	P	MP
Joe Boardman	Bender Inc.	Bender GmbH & Co. KG	A	MP
Lee J. Bloch	Blue Sky Design, Ltd.	Blue Sky Design, Ltd.	O	G
Jeffrey Measley	Crouse-Hinds Molded Products	Cooper Crouse-Hinds Molded Products Inc.	O	MP
Stewart Cox	Crouse-Hinds Molded Products	Cooper Crouse-Hinds Molded Products Inc.	O	MP
Ron Dahlquist	Dadco	Dadco	O	MP
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	P	MP
Art Wanuch	M.C. Lights & Manufacturing, Ltd.	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
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
Richard Thornton Brown	Zero 88 Ltd.	i Light Group PLC	O	MP
Gian Carlo C. Bartolotti	Ibeam SP / Banco de Eventos	Ibeam SP / Banco de Eventos	O	U
Bill Kanne	Illumination Dynamics	Illumination Dynamics	O	U
Kevin Stolpe	Illumination Dynamics	Illumination Dynamics	O	U
Stephen J. Kay	K-Tec Corporation	K-Tec Corporation	P	MP
Jose J. Flores	Kino Flo, Inc.	Kino Flo, Inc.	O	MP
Don Gray	Kohler Event Services	Kohler Co.	O	U
Ken Vannice	Colortran	Leviton Manufacturing Co., Inc.	P	MP
Tim Bachman	Leviton/Colortran	Leviton Manufacturing Co., Inc.	A	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
Louis Bradfield	Louis Bradfield	Louis Bradfield	I	U
Jim Holladay	Luxence	Luxence	O	G
Phil Fram	Marinco	Marinco	O	MP
Hiroshi Kita	Marumo Electric Co., Ltd.	Marumo Electric Co., Ltd.	O	MP
Michael Klein	Metropolitan Engineering, Inc.	Metropolitan Engineering, Inc.	P	G
W. G. Krokaugger P.E.	Mole-Richardson Co.	Mole-Richardson Co.	P	CP
James Eade	PLASA	PLASA	P	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	P	MP
Eric Tishman	Rosco Laboratories	Rosco Laboratories	A	MP
William N. Masten	SMS Inc. / PGS LLC	SMS Inc. / PGS LLC	P	CP
Richard A. Prey	SMS Inc. / PGS LLC	SMS Inc. / PGS LLC	A	CP
Paul Menetrey	Power Guard Systems, LLC	SMS Inc./PGS LLC	A	CP
Robert Barbagallo	Solotech Inc.	Solotech Inc.	O	DR
Stephen Vanciel	Stephen Vanciel	Stephen Vanciel	O	U
Michael Lay	Strand Lighting	Strand Lighting Ltd.	P	MP
Reuben Goldberg	Technic Services	Technic Services	O	U
Andy Topinka	Technical Group Services, Inc.	Thea & Schoen, Inc.	O	G
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	U
Richard D. Thompson	Thompson Associates	Thompson Associates	P	G
Brian Dowd	TMB	TMB	P	MP
Colin Waters	TMB	TMB	A	MP
Richard Wolpert	Union Connector Company	Union Connector Company	O	CP
Mitch Hefter	Entertainment Technology (Genlyte Thomas Group)	USITT	P	U
Eckart Steffens	SOUNDLIGHT	VPLT	O	G

**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