

Minutes
Electrical Power Working Group
Friday, 17 January 2003
Dallas/Ft. Worth 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
Bud Toly; Advanced Devices, Inc.; A; MP (change of voting status at this meeting)
Jeff deRecat; Advanced Devices, Inc.; P; MP (change of voting status at this meeting)
Arnold Tang; Arnold Tang Productions; O; G
Lowell R. Nutter; Array Connector Corp.; O; MP (joined at this meeting)
Joe Boardman; Bender Inc., representing Bender GmbH & Co. KG; A; MP
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 (joined at this meeting)
Louis Bradfield; Louis Bradfield; I; U
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
Richard D. Thompson; Thompson Associates; P; G
Brian Dowd; TMB; P; MP
Mitch Hefter; Entertainment Technology (Genlyte Thomas Group), representing;
USITT; 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

Visitors: Bill Maiman; ESTA
Jim Waits; Tukar Productions

Not attending and sending regrets: George Long; Aggreko Event Services
Kevin Stolpe; Illumination Dynamics

1 Opening remarks

Ken Vannice called the meeting to order and welcomed all at 08:05.

2 Attendance and membership

2.1 Introduction of those present and taking attendance

Vannice asked those present to introduce themselves.

A red, yellow, green, and pink attendance sign-in sheet was circulated.

2.2 Determination of quorum

Vannice asked for a show of hands of voting members. He announced that a quorum was present.

2.3 Recognition of alternate voting members

Alternate members voting were recognized.

2.4 Requirements for membership

Vannice reminded the group that membership is open to all who are affected by the work of the group. 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

Bob Luther read the application from Pat Miller of Hubbell Wiring Devices, and noted that he had applied as a principal, but that one of the requirements of a voting member is that he attend meetings.

Eddie Kramer moved that Pat Miller be accepted as an observer. The motion was seconded. By a show of hands Pat Miller was accepted as an observer. There were no negative votes.

Luther read the application from Stephen Kay of K-Tec who had applied as a principal. Roger Lattin moved that he be accepted. The motion was seconded. By a show of hands Stephen Kay was accepted as a principal voting member. There were no negative votes.

Jeff deRecat asked to be restored to voting status. Eddie Kramer moved that Advanced Devices be re-accepted as voting members with Jeff deRecat as the principal and Bud Toly as the alternate. The motion was seconded. The motion was accepted with a unanimous show of hands.

Lowell R. Nutter of Array Connector Corp. applied as an observer in the mass-market interest category. Mitch Hefter moved that his application be accepted. The motion was seconded. The motion was approved by a unanimous show of hands.

Ruling noted that Tim Cox of PLASA had resigned his position at PLASA, but that an application from a new PLASA representative had not been received yet.

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

Name	Company	Representing	Voting status	Interest 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
Jeff deRecat	Advanced Devices, Inc.	Advanced Devices, Inc.	P	MP
Bud Toly	Advanced Devices, Inc.	Advanced Devices, Inc.	A	MP
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
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	P	MP
Michael Klein	Environmental System Design	Environmental System Design	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
Patric J. Abaravich	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
Stephen J. Kay	K-Tec Corporation	K-Tec Corporation	P	MP
Ken Vannice	Colortran	Leviton Manufacturing Co., Inc.	P	MP
Tim Bachman	Leviton/Colortran	Leviton Manufacturing Co., Inc.	A	MP
Bob Luther	Lex Products Corp.	Lex Products Corp.	P	CP

Louis Bradfield	Louis Bradfield	Louis Bradfield	I	U
W. G. Krokaugger P.E.	Mole-Richardson Co.	Mole-Richardson Co.	P	CP
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
Michael Lay	Strand Lighting	Strand Lighting Ltd.	P	MP
Richard D. Thompson	Thompson Associates	Thompson Associates	P	G
Brian Dowd	TMB	TMB	P	MP
Colin Waters	TMB	TMB	A	MP
Mitch Hefter	Entertainment Technology (Genlyte Thomas Group)	USITT	P	U
			18 total	4 CP
				7 MP
				1 DR
				4 U
				2 G

3 Approval of the minutes from the previous meeting

Louis Bradfield said he was at the last meeting but that his presence wasn't noted in the list of attendees. Bob Luther said he remembered that Bradfield was there. Roger Lattin moved that the minutes be accepted with the addition of Louis Bradfield to the list of attendees. The motion was seconded. The motion was accepted with a show of hands.

4 Reading of the call for patents

Ken Vannice read the following aloud:

"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."

No issues were brought to the attention of the assembly.

5 Reading of the anti-trust statement

Ken Vannice read the following aloud:

"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 held up some of the easy to read pamphlets. No restraint of trade issues were raised.

6 Approval of agenda

Eddie Kramer asked to add a report on the New York City code to the agenda. Richard Thompson asked to discuss NEMA's work on a single-pole connector standard. It was decided that these issues should be addressed under new business. Mitch Hefter moved that the agenda with these additions be accepted. The motion was seconded. The motion was approved by a unanimous show of hands.

7 Old business - task group reports

7.1 EMC task group

Vannice reported that there is a project to study harmonics on European power systems. We have data for US systems, but not for the European systems. When the European study is finished, the LFEIC will be abandoned, probably, reported Vannice.

Vannice reported that the phase-out of the LFEIC will not mean the end of US or our involvement in IEC emissions issues. We still have representation to the IEC through ANSI, and Vannice has contact with the advisory group to the US representative.

Vannice reviewed our concern, which is with IEC 6100 and its subparts. This standard would outlaw SCR dimmers if it were applied to them. Fortunately, through the work of PLASA's representative John Woodgate, the standard has an exemption that covers almost all our dimmers. It appears that the standard won't be revised anytime soon, since the utilities won't allow any reduction in the requirements and everyone else won't allow any increases.

The IEC standard applies only to 220V and up devices, but there is concern that it might be applied to lower voltages. Vannice noted that there is now an ANSI standard in place for 120V equipment which is a fairly effective block against the imposition of this IEC standard. There is some concern that Canada might adopt the IEC document, and thus have it imposed in North America that way. There is work being done to lobby Canadian standards organizations to use the ANSI standard rather than the IEC one.

Eddie Kramer suggested that we thank Ken Vannice for his hard work in looking out for the interests of the entertainment industry regarding low frequency emissions. This suggestion was accepted by acclamation and Ken Vannice was thanked and given an ESTA Buck by Bob Luther.

7.2 Problems with pin connectors

7.2.1 BSR E1.24?

Vannice reported that USITT had voted to transfer the maintenance of the USITT pin connector standard to ESTA. Vannice reviewed the advantages of making the pin connector compatibility standard an American National Standard. The USITT S3-1997 standard covers general and dimensional requirements for the connectors but is also gives useful definitions in paragraph 2, conventions in paragraph 3 and general requirements in paragraph 4. It was written to include all the assumptions for proper use of the devices to guide UL and users.

Roger Lattin moved that we start a project to make the USITT pin connector standard (USITT S3-1997) an American National Standard for pin connector intermatebility. The motion was seconded. There was discussion. The motion was accepted by a unanimous show of hands. Ruling said that this project would bear the alpha-numeric of BSR E1.24.

Ken Vannice appointed Mitch Hefter as the chair and Roger Lattin as the co-chair for the BSR E1.24 task group. Brian Dowd, Lowell R. Nutter, and Bud Toly were appointed as task group members.

7.2.2 Letter to UL and pressing UL to use the USITT standard

Vannice said that we need to get the ANSI standard done before we press this much further.

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

The chairmen praise the work that had been done on BSR E1.18 (EP/2002-7003r5).

Eddie Kramer asked for more comments, and asked that they be sent to him for integration into a new version of the document. He will send that next iteration to Karl Ruling for editing. Vannice reminded people that the two-week rule means that documents for the next meeting need to be in

Ruling's hands by February 28, which means that comments to the task group should be offered by February 14.

Kramer and the task group agreed to the goal of having a version of BSR E1.18 to be considered for public review at the Summer meeting.

7.4 BSR E1.19 GFCI task group

Bill Masten explained the late submission of BSR E1.19 (EP/2001-7012r5), which was distributed on paper at the meeting. A series of comments offered on the r4 version that was sent out for the meeting resulted in substantial changes to the first page, which is why the new document was developed.

There was discussion. Vannice urged the task group to include more information on how to plan a system so that it is likely to be reliable. There were also questions about what recertification means and what devices would have to be recertified yearly. Vannice urged the task group to make this clear.

Vannice reiterated the schedule for document comments: to the task group by February 14 and to Ruling by February 28. He asked that new member Steve Kay be included in the task group to work on the project.

8 New business

8.1 Eddie Kramer spoke about New York City issues.

8.1.1 New York Building Code

New York has announced that they will adopt the IBC and will no longer develop its own, reported Kramer.

8.1.2 The new New York City Electrical Code

The new New York City Electrical Code went into effect January 1, 2003, reported Kramer. It's the 1999 version of the NEC with 60 pages of amendments. (Details are available at <http://www.nyc.gov/html/dob/html/elcode.html>.) The significant changes from the old code include:

1. Branch circuits rated higher than 15A are allowed, providing they have proper overcurrent protection.
2. Sections 518-1 and 518-2, Places of Assembly, have been amended to move the determination of what constitutes a place of assembly to the NYC Fire Prevention Code and the NYC Building Code.
3. Section 520-6 Number of Conductors in a Raceway has been modified to remove reference to rigid non-metallic conduit in the first sentence. However, the section's elimination of the 30 conductor fill limitation still applies. This means that the 1999 NEC requirements for conduit or raceway fill in theaters and similar locations are unmodified by any NYC Amendments.

There is a six month transition period allowed through June 30, 2003. During the transition period, any projects that file for electrical permits may elect to file under the old New York City Code, or under the new adoption of the 1999 NEC with amendments. The transition period covers the filing date, not the installation or inspection date. Any filings of projects during the transition period must follow either the old Code or the 1999 NEC and the New York City Amendments to the 1999 NEC, but not both.

8.2 Richard Thompson spoke about some issues that concerned him.

8.2.1 Thompson spoke about the NEMA CANENA project for locking cam-type connectors. He reported that the project had omitted a number of manufacturers of locking cam-type connectors, apparently because they were not NEMA members. Therefore, Thompson has gotten some of these manufacturers to join NEMA. Thompson urged the working group to get involved.

Vannice charged Thompson with finding out if participants in the project have to be NEMA members.

8.2.2 Thompson suggested that we as a working group should invite a particularly well-known code authority to attend our meetings to offer his advice. There was no support for this. The chairs advised Thompson that he can invite anyone he wants personally, but that the working group would issue no special invitation. Our meetings are open to all who are affected, this authority has been informed of our work so he should be aware of it, and if he wants to attend, he may.

8.3 Hoist control cable

Brian Dowd raised the issue of chain hoist control cables. Some in the US use a three-pin connector, which means the ground connector is used as a power conductor. Is this an issue that this working group should address? The consensus was No, but the working group can be a resource to the Rigging Working Group if they should take it up. The Electrical Power Working Group would like to have a chance to review any draft standard or other guidance document developed by the Rigging Working Group.

9 Other business

Bob Luther distributed ESTA Bucks and gave two Bucks for each motion made to the person making the motion.

10 Changes to observer status

None.

11 Schedule for future meetings

Ken Vannice stated that the next meeting will be at the Hilton Minneapolis on Wednesday, 19 March 2003, from 08:00 to 12:00. The Summer meeting will be on July 25, and will be back here at the Dallas/Ft. Worth Marriott South.

12 Adjournment

Mitch Hefter moved that the meeting adjourn. The motion was seconded. The motion was approved by a show of hands. The meeting was declared adjourned at 10:59 by Ken Vannice.

Electrical Power Working Group Membership and Contact Information as of 2003-01-31

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
Jeff deRecat	Advanced Devices, Inc.	Advanced Devices, Inc.	P	MP
Bud Toly	Advanced Devices, Inc.	Advanced Devices, Inc.	A	MP
George Long	Aggreko Event Services	Aggreko	P	DR
Kenny Delahoussaye	Aggreko	Aggreko	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	Bloch Design Group Inc.	Bloch Design Group Inc.	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
Michael Klein	Environmental System Design	Environmental System Design	P	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
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
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
W. G. Krokaugger P.E.	Mole-Richardson Co.	Mole-Richardson Co.	P	CP
Art Wanuch	M.C. Lights & Manufacturing, Ltd.	Ontario Film & Television Prod. Electrical Comm.	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
Andre Broucke	ADB - TTV Technologies	Siemens	O	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
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
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

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