

Minutes
Electrical Power Working Group
Wednesday 9 March 2011
Westin Charlotte

Chairmen:

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

Recording secretary: Richard Cadena; PLASA

Members attending:

James Davey; AC Power Distribution Inc.; P; CP
Wendy Holt; AMPTP/CSATF, representing Alliance of Motion Picture and Television Producers; P; G
Edward R. Condit; O; U
Steve Terry; Electronic Theatre Controls, Inc.; P; MP
Elizabeth E. (Lizz) Pittsley; I; U
Eddie Kramer; IATSE Local 1; P; U
Ian Foulds; IATSE Local 873, representing the Entertainment Electrical Safety Committee of Ontario; P; G
Art Wanuch; Entertainment Electrical Safety Committee of Ontario; A; G
Roger Lattin; I.A.T.S.E. Local 728; P; U
Alan M. Rowe; I.A.T.S.E. Local 728; A; U
Tyrone Mellon_Jr.; Lex Products Corp.; A; CP
Louis Bradfield; I; U
Michael Lay; Philips Color Kinetics (Royal Philips Electronics); P; MP
Jerry Gorrell; Theatre Safety Programs; P; U

Visitors: None

1 Opening remarks

Ken Vannice called the meeting to order at 9:03. He welcomed all present to the PLASA EPWG meeting

2 Attendance and membership

2.1 Introduction of those present and taking attendance

A hot pink sign-in sheet was circulated while those present introduced themselves.

2.2 Determination of quorum

Ken Vannice announced that a quorum was present.

2.3 Recognition of alternate voting members

Tyrone Mellon Jr. of Lex Products Corp. was recognized.

2.4 Requirements for membership

Vannice reminded the assembly that working group membership is open to all who are affected by the work of the group. Voters who would be in the designer or 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 or three consecutive letter ballots without a loss of voting status.

2.5 Changes to observer status

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

James Davey and Greg Mayberry; AC Power Distribution

James Davey was present, so there was no voting status change.

2.6 Processing of new membership requests

Daniel Ayers; Ford Audio-Video Systems, Inc. had applied as an observer in the dealer/rental category.

Roger Lattin moved that Ayers's application be accepted. The motion was seconded and then approved with a show of hands.

2.7 Consensus body

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

Name	Representing	Voting status	Int. cat.
James Davey	AC Power Distribution Inc.	P	CP
Greg Mayberry	AC Power Distribution Inc.	A	CP
Jeff deRecat	Actuant Corporation	P	MP
William Drake	Actuant Corporation	A	MP
George Long	Aggreko	P	DR
Wendy Holt	Alliance of Motion Picture and Television Producers	P	G
Nathan Leonard	Bender GmbH & Co. KG	P	MP
Joe Boardman	Bender GmbH & Co. KG	A	MP
Torsten Gruhn	Bender GmbH & Co. KG	A	MP
Jody Williquette	Electrivers, Inc.	P	CP
Steve Terry	Electronic Theatre Controls, Inc.	P	MP
Elizabeth E. (Lizz) Pittsley	Elizabeth Pittsley	I	U
Ian Foulds	Entertainment Electrical Safety Committee of Ontario	P	G
Art Wanuch	Entertainment Electrical Safety Committee of Ontario	A	G
Ed Garstkiewicz	Harting KGAA	P	G
Howard Forryan	Harting KGAA	A	G
Edwin S. Kramer	I.A.T.S.E. Local 1	P	U
Roger Lattin	I.A.T.S.E. Local 728	P	U
R. Bruce Prochal	I.A.T.S.E. Local 728	A	U
Patric J. Abaravich	I.A.T.S.E. Local 728	A	U
Alan M. Rowe	I.A.T.S.E. Local 728	A	U
Keith S. Woods	IATSE Local 891	P	U
Simon Hunt	IATSE Local 891	A	U
Ken Vannice	Leviton Manufacturing Co., Inc.	P	MP
Bill Grande	Leviton Manufacturing Co., Inc.	A	MP
Bob Luther	Lex Products Corp.	P	CP
Tyrone Mellon_Jr.	Lex Products Corp.	A	CP
Sean Sloat	Lex Products Corp.	A	CP
Louis Bradfield	Louis Bradfield	I	U

Name	Representing	Voting status	Int. cat.
W. G. Krokaugger, P. E.	Mole-Richardson Co.	P	CP
Alex Yoon	Mole-Richardson Co.	A	CP
Vincent J. Cannavale	Motion Laboratories	P	CP
Peter Herrmann	Motion Laboratories	A	CP
David Herrmann	Motion Laboratories	A	CP
Ron Bonner	PLASA EU	P	U
Michael Lay	Royal Philips Electronics	P	MP
Michael Scudday	SSRC, Inc.	P	CP
Jerry Gorrell	Theatre Safety Programs	P	U
Mitch Hefter	USITT	P	U
	Total votes possible	23	
	Votes by interest category	6	CP
		5	MP
		1	DR
		8	U
		3	G
		0	DE

3 Approval of the minutes from the previous meeting

See the draft minutes of the 23 January 2011 meeting, *EPmin01-2011.pdf*

Roger Lattin moved that the draft minutes be accepted. 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 aloud to the assembly:

"PLASA intends not to publish any standard that contains protected intellectual property, unless that information can be licensed by anyone for a reasonable fee. PLASA uses a process of open patent and copyright disclosures to implement its intent. PLASA 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 were revealed.

5 Reading of the anti-trust statement

Ken Vannice read the following statement aloud to the assembly:

"The PLASA Board of Directors, the Technical Standards Council, 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 PLASA chair immediately.

"PLASA 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."

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

6 Approval of agenda

Ken Vannice asked to add NEMA news. Steve Terry asked to add NEC 2014 proposals.

Steve Terry moved that the modified agenda be adopted. The motion was seconded and approved by a unanimous show of hands

7 Old business & task group reports

7.1 EMC task group

Ken Vannice reported that IEC 61000-3-2 and 61000-3-12 with NA deviations are moving forward through the IEEE process. Committees have been formed and they are going to start work. NEMA has a group working on general subject matter with some of the same people involved. The intent is to develop an ANS through the lighting industry that exempts the entertainment industry from requirements.

7.2 ANSI E1.16-2002 (R2007)

No action or news.

7.3 BSR E1.18 portable feeder cable selection and use

Consideration of new draft in response to the resolutions. See E1-18CmmntRslnDraft_r5.pdf and BSRE1-18-1r16.pdf.

Jerry Gorrell said that he compiled the results of voting on comment resolutions and that no further action is required since it was already voted on. It was moved by Jerry Gorell that the document be forwarded for public review. The motion was seconded. There was discussion.

Eddie Kramer said there are editorial comments that cannot be done in public review because a lot of them are substantive.

It was suggested that the public review motion was premature, that the document needed more work.

The motion failed on a show of hands.

The task group is to report back to chairs within 4-6 weeks, then there will be a teleconference meeting about the standard in May.

7.4 ANSI E1.19 – 2009, Recommended Practice for the Use of Class A Ground-Fault Circuit Interrupters (GFCIs) Intended for Personnel Protection in the Entertainment Industry

No news or action.

7.5 BSR E1.24 - 20xx, pin connectors

It was announced that If the TSC approves it, it is going to public review.

7.6 BSR E1.32 luminaire inspection guidance

Jerry Gorrell said several issues came up during the comment resolution related to luminaires that use switching power supplies (HMI's, etc.). Those parts of the document need "substantial work to be useful to anyone."

Steve Terry made a motion to direct a task group to edit the document to focus on luminaires that do not use a switching power supply or ballast. Luminaires that use those kinds of supplies would be included in a subsequent document. The motion was seconded by discussion. It was approved by a unanimous by show of hands.

There was a discussion about leakage current. Ken Vannice said we need to figure out as industry what to do about leakage in luminaire, to have a simple test to do in the field.

Wendy Holt moved that the leakage current test be taken out of the document, that we proceed with the incandescent luminaire document (non-ballasted, non-switching power supply luminaires) with a flag noting the concern for leakage current, and quickly start working on a leakage test. The motion was seconded. The motion was approved with a show of hands.

Jerry Gorrell proposed forming a separate task group to address leakage current issue. Eddie Kramer made a motion to this effect. It was seconded. It was approved with a show of hands. A task group was appointed by Hefter consisting of Ken Vannice, Michael Lay, Steve Terry, Art Wanuch, and Roger Lattin.

Steve Terry initiated a discussion about the maximum acceptable value of leakage current. A discussion ensued about the details of testing and test equipment design. There was no motion offered.

8 New business

None.

9 Other business

9.1 UL news

See UL508_news.pdf.

Ken Vannice reported that all manufacturers using UL's services were notified that products evaluated per UL 508 would be moving into the IEC standard. It has eight categories, and any manufacturer with anything in one of those category had to resubmit the product by 2016. It didn't affect the parties in the EPWG, but the IEC standard replacing UI 508 does not include dimmers or relays. Any manufacturer of a relay product has to determine whether to comply and retest or to take the product off the market. Ken Vannice said he had asked UL what the intentions were with respect to dimmers and 508A with respect to custom switch gear. They intend to leave it intact and will not be moving to IEC standard.

Steve Terry reported that products now covered under UL 942 load control relays is moving into UL 1038 transfer switches, but UL hasn't taken action to make it happen yet.

Vannice said that NEMA had a meeting with the lighting group of UL. Lee Hewlett, PDP for stage & studio lighting units, mentioned he thought the lighting standard needed to be brought up to date. Vannice said that he had talked to him about separating connector strips from the appendix and he was amenable.

9.2 NEMA news

Ken Vannice said there are lots of things going on in NEMA with respect to lighting controls, but NEMA has no vision of entertainment lighting controls. NEMA upgraded NEMA 410 for testing the inrush in fluorescent ballasts to cover HID products; there is going to be a way to evaluate the inrush currents with all big power supplies and ballasts. Ernesto Mendoza from Philips proposed to STPs to get them in alignment dealing with lighting controls and loads, ballasts, and LED drivers. We need to watch to make sure stage lighting controls don't get included.

9.3 Zhaga International Consortium of LED Light Engine Manufacturers news

Vannice reported that the Zhaga international consortium of LED light engine manufacturers is working at breakneck speed to codify lamp bases and connectivity of LED modules, connections to drivers, et cetera. Within one year they are close to having a standard. Standardization of LED equipment is moving fast and we need to be aware. The next thing ZHAGA will target is controls.

9.4 NFPA 70, NEC news

Mitch Hefter reported that proposals were being accepted for the 2014 edition of the NEC. There are a number of items in Article 520 that need work, he thinks, based on number of phone calls he's received from electrical

inspectors. Mitch Hefter said the USITT standards committee was meeting at this Conference, and they would discuss the NEC at that meeting.

9.5 IAEI article

Mitch Hefter, Steve Terry, and Ken Vannice had contributed an article to the IAEI Journal. It will be published in March 2011 issue. Steve Terry said it was a validation of the contents of article.

10 Schedule for future meetings

Mitch Hefter announced that the next working group meeting is scheduled for Friday, 22 July 2011, from 09:00 to noon, at the Marriott Solana in Westlake, TX. The working group might have a web meeting/teleconference in May to address BSR E1.18 issues.

11 Adjournment

Steve Terry moved that the meeting adjourn. The motion was seconded and then approved by a show of hands. Ken Vannice declared the meeting adjourned at 11:18.

Working Group Membership at the End of the Meeting

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
Jeff deRecat	Marinco	Actuant Corporation	P	MP
William Drake	Marinco	Actuant Corporation	A	MP
George Long	Aggreko Event Services	Aggreko	P	DR
Kenny Delahoussaye	Aggreko	Aggreko	O	DR
Richard L. Eberth_Jr.	North Shore Safety	Airpax Corporation	O	MP
Wendy Holt	AMPTP/CSATF	Alliance of Motion Picture and Television Producers	P	G
Mike Skinner	CBS Studio Center	Alliance of Motion Picture and Television Producers	O	U
Andr, Broucke	Andr, Broucke	Andr, Broucke	O	G
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
Nathan Leonard	Bender Group	Bender GmbH & Co. KG	P	MP
Joe Boardman	Bender Inc.	Bender GmbH & Co. KG	A	MP
Torsten Gruhn	Bender Inc.	Bender GmbH & Co. KG	A	MP
Kevin O'Brien	Bestek Lighting & Staging	Bestek Lighting & Staging	O	U
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
Wayne Kowalski	Coleman Cable Inc.	Coleman Cable Inc.	O	MP
Ford Sellers	Cornell University	Cornell University	O	U
Larry Schoeneman	DesignLab Chicago, Inc.	DesignLab Chicago, Inc.	O	DE

Name	Company	Representing (This is the sort field.)	Voting status	Int. cat.
Don Earl	Earl Girls, Inc.	Earl Girls, Inc.	O	DR
Edward R. Condit	Edward R. Condit	Edward R. Condit	O	U
Jody Williquette	Electrivers, Inc.	Electrivers, Inc.	P	CP
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	P	MP
Elizabeth E. (Lizz) Pittsley	Elizabeth Pittsley	Elizabeth Pittsley	I	U
Ian Foulds	IATSE Local 873	Entertainment Electrical Safety Committee of Ontario	P	G
Art Wanuch	Entertainment Electrical Safety Committee of Ontario	Entertainment Electrical Safety Committee of Ontario	A	G
Daniel Ayers	Ford Audio-Video Systems, Inc.	Ford Audio-Video Systems, Inc.	O	DR
Ed Garstkiewicz	Harting Inc., North America	Harting KGAA	P	G
Howard Forryan	Harting Ltd.	Harting KGAA	A	G
Trevor Forrest	Helvar Lighting Control	Helvar Lighting Control	O	MP
Kirk D. Keen	Hollywood Lighting Services, Inc.	Hollywood Lighting, Inc.	O	DR
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
John (Javid) D. Butler	Integrated Theatre, Inc.	Integrated Theatre, Inc.	O	CP
David Murray	IPC Resistors Inc.	IPC Resistors Inc.	O	CP
Jose J. Flores	Kino Flo, Inc.	Kino Flo, Inc.	O	MP
Ken Vannice	Leviton Manufacturing Co., Inc.	Leviton Manufacturing Co., Inc.	P	MP

Name	Company	Representing (This is the sort field.)	Voting status	Int. cat.
Bill Grande	Leviton Manufacturing Co., Inc.	Leviton Manufacturing Co., Inc.	A	MP
Bob Luther	Lex Products Corp.	Lex Products Corp.	P	CP
Tyrone Mellon_Jr.	Lex Products Corp.	Lex Products Corp.	A	CP
Sean Sloat	Lex Products Corp.	Lex Products Corp.	A	CP
Louis Bradfield	Louis Bradfield	Louis Bradfield	I	U
Jim Holladay	Luxence	Luxence	O	G
Martin Moore	Martin Moore	Martin Moore	O	DE
Hiroshi Kita	Marumo Electric Co., Ltd.	Marumo Electric Co., Ltd.	O	MP
Michael J. Carnaby	Mikan Theatricals	Mikan Theatricals	O	DR
W. G. Krokaugger, P. E.	Mole-Richardson Co.	Mole-Richardson Co.	P	CP
Alex Yoon	Mole-Richardson Co.	Mole-Richardson Co.	A	CP
Vincent J. Cannavale	Motion Laboratories	Motion Laboratories	P	CP
Peter Herrmann	Motion Laboratories	Motion Laboratories	A	CP
David Herrmann	Motion Laboratories	Motion Laboratories	A	CP
Natti Pierce-Thomson	North American Theatre Technology	North American Theatre Technology	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
James Eade	PLASA	PLASA	O	G
Ron Bonner	PLASA Technical Resources Office	PLASA EU	P	U
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	Philips Color Kinetics	Royal Philips Electronics	P	MP
Robert Barbagallo	Solotech Inc.	Solotech Inc.	O	DR
Michael Scudday	SSRC, Inc.	SSRC, Inc.	P	CP

Name	Company	Representing (This is the sort field.)	Voting status	Int. cat.
Stephen Vanciel	Stephen Vanciel	Stephen Vanciel	O	U
Reuben Goldberg	Technic Services	Technic Services	O	U
Dominic Vincenty	TPS	Television Production Service	O	DR
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	U
Colin Waters	TMB	TMB	O	DR
Phillip M. Gallo	TMB	TMB	O	DR
Charles (Chuck) Kurten	Underwriters Laboratories, Inc.	Underwriters Laboratories, Inc.	O	G
Richard Wolpert	Union Connector Company (MO)	Union Connector Company	O	CP
Mitch Hefter	Philips Controls (Royal Philips Electronics)	USITT	P	U
William L. Maiman	William L. Maiman	William L. Maiman	O	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
DE designer interest category