

Minutes

Electrical Power Working Group

Wednesday, 16 March 2005
Fairmont Royal York Hotel
Toronto, ON, Canada

Chairman: Bob Luther; Lex Products Corp.; P; CP

Recording secretary: Karl G. Ruling; ESTA

Members attending: George Long; Aggreko Event Services (Aggreko); P; DR
Arnold Tang; Arnold Tang Productions; O; G
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
Keith S. Woods; Lakhri Impressions Ltd., representing IATSE Local 891; O; U
(joined at this meeting)
Ken Vannice; Colortran (Leviton Manufacturing Co., Inc.); P; MP (arrived at 10:30)
Louis Bradfield; I; U
Nic Bowker; PLASA; P; G
Jerry Gorrell; Theatre Safety Programs; P; U
Michele Yindrick; TMB; P; MP
Richard Wolpert; Union Connector Company; O; CP
Mitch Hefter; Entertainment Technology (Genlyte Group), representing USITT; P;
U
William L. Maiman; P; U

Visitors: Robert Simon; Hubbell
Mike Harwood; William F. White International
Rodger Dean; R. Dean Lighting Limited
Ian Foulds; IATSE Local 873

1 Opening remarks

Bob Luther called the meeting to order at 08:05. He announced that Ken Vannice would not be able to attend until later, if at all. He welcomed all who were in attendance to the meeting.

2 Attendance and membership

2.1 Introduction of those present and taking attendance

A lime green attendance sign-in sheet was circulated while those present introduced themselves.

2.2 Determination of quorum

Bob Luther asked voters to raise their hands. He counted them and announced that we had a quorum present, so working group business could be conducted.

2.3 Recognition of alternate voting members

Luther asked if there were any alternate voting members present who would be voting instead of the principal. There were none present.

2.4 Requirements for membership

Luther reminded those present 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

Eric Bouchard of Cirque du Soliel applied as an observer in the custom market interest category. Cirque du Soliel makes its own distribution systems for shows.

Eddie Kramer moved that Bouchard's application be accepted. The motion was seconded. The motion was approved by a unanimous show of hands.

Keith S. Woods, who was present, then offered his application. He works for Lakhri Impressions but asked that his representation be listed as IATSE local 891. He applied as an observer in the user interest category.

Roger Lattin moved that Woods's application be accepted. The motion was seconded. The motion was approved by a unanimous show of hands.

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
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
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
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
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
Nic Bowker	PLASA	PLASA	P	G
Michael Lay	Strand Lighting	Strand Lighting Ltd.	P	MP
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	U
Richard D. Thompson	Thompson Associates	Thompson Associates	P	G
Michele Yindrick	TMB	TMB	P	MP
Colin Waters	TMB	TMB	A	MP
Mitch Hefter	Ent. Technology (Genlyte Group)	USITT	P	U
William L. Maiman	William L. Maiman	William L. Maiman	P	U
		Total votes	20	
		Votes by interest category	8	MP
			3	CP
			1	DR
			6	U
			2	G

3 Approval of the minutes from the previous meeting

Nic Bowker said section 7.1 did not accurately state the situation and that the following corrections were needed:

7.1 EMC task group

No news from the US interest group, reported Ken Vannice

Steve Terry reported that Adam Bennette is now on the British European committee that deals with mains harmonic emissions. He will attend meetings and prepare a report for the entertainment industry.

Eddie Kramer moved that the minutes so amended be approved. The motion was seconded. the motion was approved with a unanimous show of hands.

4 Reading of the call for patents

Bob Luther read the following call for patents 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 protected intellectual property issues were brought to the attention of the assembly.

5 Reading of the anti-trust statement

Bob Luther read the following anti-trust/restraint of trade 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 held up one of the easy-to-read pamphlets. No restraint of trade issues were brought to the attention of the assembly.

6 Approval of agenda

Roger Lattin asked that in 9, Other business, we discuss CANENA.

Eddie Kramer moved that the agenda so amended 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 arrived at 10:30 and gave this report shortly after his arrival.)

Ken Vannice asked if we should have a representative on the US advisory group to the US's IEC representative. He would be happy to serve.

Roger Lattin moved that we recommend to the TSC that Ken Vannice be our official representative to this IEC advisory committee. The motion was seconded. The motion was approved by a show of hands.

Roger Lattin reported that he had found an interesting teaching tool showing harmonics. Eddie Kramer mentioned the Excel spread sheet from the stagecraft mailing list that shows neutral current with dimmers on three-phase power.

7.2 BSR E1.24 pin connectors

Mitch Hefter reported that the draft standard is in public review. So far, Nic Bowker was the only person who had commented.

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

Kramer reported that his serial review process is moving slowly as each in-house reviewer takes too long to do his part. Kramer will set response deadlines to speed the process.

Kramer said he plans to have a copy to vote on for the next meeting. A partially revised document had been sent to the working group prior to this meeting.

Luther asked if the changes being implemented are going to be editorial or substantive. Kramer's response was that both were being done. There were no major changes in the recommendations, but there were changes to these.

7.4 BSR E1.19 GFCI task group

Bob Luther said that a copy had been circulated to the working group but that only GFCI task group members had commented.

Luther stated his own personal belief that the document is either ready for public review or very close. He noted the three years that this has been in process; it is time to take it to the next step.

There was a discussion of various recent changes to the document made by the task group since the distribution of the draft document. There was further discussion of where GFCIs should be used and the language used to describe these situations.

One person not present had suggested that we should not address dimmed circuits, since they are so difficult. This suggestion was rejected by the working group with a motion made by Eddie Kramer: Eddie Kramer moved that the task group shall be instructed to include advice on the use of GFCIs with dimmed circuits, ballasts, and other non-linear loads in the E1.19 document. The motion was seconded. The motion was approved with a unanimous show of hands.

A person also had objected to the exemption for receptacles used on rides only for quick connection and disconnection, noted in 6.3.3.

6.3.3 Lighting circuits attached to rides and not accessible to the general public are not required to have GFCI protection. Receptacles that only facilitate quick disconnecting and reconnecting of electrical equipment shall not be required to be provided with GFCI protection. These receptacles shall be of the locking type.

In discussion it was noted that this language is directly copied from NFPA 70, which has gone through numerous public reviews. The consensus of the working group was that we could not do better than adopting this language. Therefore, this paragraph should remain as it now reads.

Jerry Gorrell moved that the modified BSR E1.19 (EP/2001-7012r9) be offered for public review. The motion was seconded. The motion shall be decided by letter ballot, since this is the first public review of this document.

Bob Luther thanked everyone for their time in discussing and modifying this document now.

8 New business

None.

9 Other business

9.1 NFPA 1573, Stage and Studio Luminaires and Connector Strips

Ruling shared the news that the resolutions to the comments on the last bulletin had been delayed. The following is the message that had been sent to STP members on 24 February 2005:

STP Members,

On March 29, 2004, UL issued a bulletin pertaining to UL 1573, the Standard for Stage and Studio Luminaires and Connector Strips. The major proposal in this bulletin was the proposed addition of a leakage current test.

On October 1, 2004, UL issued a response to the comments received from the March 29, 2004 bulletin. In addition, the October 2004 bulletin also included a reproposal for the leakage current test.

Numerous comments were received in response to the October 2004 bulletin. We apologize for the delay in responding to all of the comments received as a result of that bulletin. UL is still in the process of reviewing all of the comments received and determining the next course of action. We expect to provide the STP with an update by the end of March 2005.

Again, we apologize for the length of time resolving these issues is taking.

If you have any questions please feel free to contact me or Diana Pappas Jordan, STP Chair, at 847-664-2008.

Kristin Andrews
Project Manager
STP 1573

There was a discussion of the verbal proposal from UL staff for an assured grounding program in lieu of tests and labeling for leakage currents. Karl Ruling said that he had been asked if entertainment venues have personnel capable of carrying out an assured grounding program. He had said that personnel are capable of doing this. Ken Vannice said that in his opinion, this whole push for changes to UL 1573 should stop until the standard is brought into the ANSI process. Vannice feels that a face-to-face meeting is needed to sort this out.

Vannice says that the ground leakage test proposed by UL could easily be a 10-day test. It seems excessive. However, he does not know the details of the proposed test, since it is in a referenced UL standard, which costs several hundred dollars and has not been offered by UL for free to the STP.

There was a discussion of the need for an inspection procedure for luminaires to help the industry-- something that is neither onerously expensive nor difficult. Bob Luther suggested that this be an agenda item for the next meeting.

9.2 CANENA

Roger Lattin asked if there had been any news about CANENA. Art Wanuch reported that the secretary of the CANENA group had resigned, so a new secretary must be found and a meeting scheduled.

9.3 Portable system grounding

Roger Lattin brought up some concerns about grounding for portable power systems and particularly in how to measure the grounding resistance. Bob Luther suggested that this should be on the agenda for the next meeting if this is a request to write a new guidance document. Sharing free advice should be after the meeting adjourns.

It was agreed that the next meeting should have an agenda item to discuss grounding procedures for temporary power systems.

10 Changes to observer status with third meeting missed

Members who have missed the previous two meetings: None.

11 Schedule for future meetings

It was announced that the next meeting will be on 29 July 2005, at 08:00 in the morning, at the Dallas/Ft. Worth Airport Marriott South in Ft. Worth, Texas.

12 Adjournment

Mitch Hefter moved that the meeting adjourn. The motion was seconded. The motion was approved with a voice vote. Bob Luther declared the meeting adjourned at 11:32.

Working Group Membership and Contact Information as of 30 March 2005

Name	Company	Representing (This is the 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
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
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
Keith S. Woods	Lakhri Impressions Ltd.	IATSE Local 891	O	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
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
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
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
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
Eric Tishman	Rosco Laboratories	Rosco Laboratories	O	MP
Richard B. Glickman	Gliconen Corporation	Rosco Laboratories	O	MP
William N. Masten	SMS Inc. / PGS LLC	SMS Inc. / PGS LLC	O	CP
Richard A. Prey	SMS Inc. / PGS LLC	SMS Inc. / PGS LLC	O	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

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