

**Minutes**  
**Electrical Power Working Group**  
Friday, 24 October 2008  
Harrah's Las Vegas  
Las Vegas, NV

**Chairmen:**

Mitch Heffer; Entertainment Technology (Royal Philips Electronics), representing USITT; P; U  
Ken Vannice; Colortran (Leviton Manufacturing Co., Inc.); P; MP

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

**Members attending:**

James Davey; AC Power Distribution Inc.; P; CP  
Wendy Holt; AMPTP; Alliance of Motion Picture and Television Producers; P; G  
Elizabeth E. (Lizz) Chancellor; I; U  
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  
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; Lakhri Impressions Ltd.; representing IATSE Local 891; P; U  
John (Javid) D. Butler; Integrated Theatre, Inc.; P; CP  
Tyrone Mellon Jr.; Lex Products Corp.; A; CP  
Phil Fram; Marinco; O; MP  
Jeff deRecat; Marinco/ADI; O; MP  
W. G. Krokaugger, P. E.; Mole-Richardson Co.; P; CP  
Alex Yoon; Mole-Richardson Co.; A; CP (joined at this meeting)  
Ron Bonner; PLASA; P; U  
Michael Lay; Strand Lighting; (Royal Philips Electronics); P; MP  
Stephen Vanciel; O; U  
Jerry Gorrell; Theatre Safety Programs; P; U  
Phillip M. Gallo; TMB; P; DR (joined at this meeting)  
William L. Maiman; P; U

**Visitor:** Tony Locker; Littelfuse, Inc.

**1 Opening remarks**

Ken Vannice called the meeting to order at 19:03. He welcomed all to Las Vegas and to the Electrical Power Working Group meeting.

**2 Attendance and membership**

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

A green attendance sign-in sheet was circulated. As it was passed around the room, those present introduced themselves.

**2.2 Determination of quorum**

Vannice asked for a show of hands of voting members. He counted them and then 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**

The following statement was read aloud to the assembly by Ken Vannice:

"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

The following people applied for membership:

Phillip M. Gallo; TMB; principal; DR

Alex Yoon; Mole-Richardson; alternate; CP

Javid Butler moved that their applications be accepted. The motion was seconded and approved with a show of hands.

## 2.6 The consensus body during this meeting

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

Name	Company	Representing	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
Wendy Holt	AMPTP	Alliance of Motion Picture and Television Producers	P	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
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
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
Tyrone Mellon Jr.	Lex Products Corp.	Lex Products Corp.	A	CP
Louis Bradfield	Louis Bradfield	Louis Bradfield	I	U
Michael J. Carnaby	Mikan Theatricals	Mikan Theatricals	P	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
Ron Bonner	PLASA	PLASA	P	U
Michael Lay	Strand Lighting	Royal Philips Electronics	P	MP
Michael Scudday	SSRC, Inc.	SSRC, Inc.	P	CP
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	U

Name	Company	Representing	Voting status	Int. cat.
Phillip M. Gallo	TMB	TMB	P	DR
Richard Wolpert	Union Connector Company (MO)	Union Connector Company	P	CP
Mitch Hefter	Entertainment Technology (Royal Philips Electronics)	USITT	P	U
William L. Maiman	William L. Maiman	William L. Maiman	P	U
		Total votes possible	26	
		Votes by interest categories	7	CP
			5	MP
			3	DR
			9	U
			2	G

### 3 Approval of the minutes from the previous meeting, document EP/2008-7012

Keith Wood moved that the draft minutes be accepted as written. 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:

"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 copyright issues were brought to the attention of the assembly.

### 5 Reading of the anti-trust statement

Ken Vannice read the following 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, the Technical Standards Manager, held up one of the easy-to-read pamphlets to show its availability.

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

### 6 Approval of agenda

Roger Lattin moved that the draft agenda be approved. The motion was seconded and then accepted with a show of hands

### 7 Old business - task group reports

## 7.1 EMC task group

See the report of the CSA meeting by Steve Terry and Ken Vannice, CSA\_HarmonicMeetingReport.pdf.

Ken Vannice said that he and Steve attended the CSA meeting, and wrote the report that has been distributed. Essentially the situation is that the electrical power generating companies in Canada want to impose harmonic regulations on power-using products now as a proactive move against rising harmonics on the power lines; the manufacturers on both sides of the border are opposed to the adoption, but are willing to work toward solutions gradually if harmonics become a problem.

There was discussion, but no motions were offered.

## 7.2 ANSI E1.16-2002 (R2007)

No news or action.

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

### 7.3.1 Consideration of draft public review comment resolutions

See file PrpsdCmmntResols\_E1-18-1.pdf.

Karl Ruling suggested that people write down the comment resolutions that they see as being a problem on a slip of paper. He would then collect the papers and make a list. The working group can then accept those for which there is no disagreement and confine discussion to those over which there is disagreement or concern.

Javid Butler moved that the plan described by Ruling be accepted. The motion was seconded and then accepted with a show of hands, with two voters abstaining but the rest voting in the affirmative.

The following resolutions were discussed and modified: 01, 02, 06, 07, 08, 09, 10, 11, 12, 16, 19, 20, 21, 24, 27, 31, 71, 82, and 92.

Javid Butler moved that we accept the comment resolutions as edited. The motion was seconded and then approved with a show of hands with all present voting yes, and none opposed and none abstaining. The 16 without any opposition constituted a supermajority of the consensus body.

### 7.3.2 Consideration of the next step with BSR E1.18-1

See files TaskGrpReport.pdf and BSRE1-18-1r12.pdf.

Tyrone Mellon Jr. moved that the references to "NEMA" be changed to "Type." in clause 2.2.4. The motion was seconded and passed with a show of hands.

Jerry Gorrell moved that the references to IP ratings be removed from clause 2.2.4. The motion was seconded and passed with a show of hands.

Roger Lattin moved that the r13 version of the standard be accepted and offered for a second public review. The motion was seconded. On a roll call ballot 16 voted yes, and there was no opposition, and no abstentions.

Name	Company	Representing	Voting status	Int. cat.	Yes	Yes with comments	No with reasons	Abstain with reasons
James Davey	AC Power Distribution Inc.	AC Power Distribution Inc.	P	CP	Y			
Greg Mayberry	AC Power Distribution Inc.	AC Power Distribution Inc.	A	CP				
George Long	Aggreko Event Services	Aggreko	P	DR				
Wendy Holt	AMPTP	Alliance of Motion Picture and Television Producers	P	G	Y			
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				

Name	Company	Representing	Voting status	Int. cat.	Yes	Yes with comments	No with reasons	Abstain with reasons
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	P	MP				
Elizabeth E. (Lizz) Chancellor	Elizabeth Chancellor	Elizabeth Chancellor	I	U	Y			
Ian Foulds	IATSE Local 873	Entertainment Electrical Safety Committee of Ontario	P	G	Y			
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	Y			
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	Y			
Simon Hunt	IATSE Local 891	IATSE Local 891	A	U				
John (Javid) D. Butler	Integrated Theatre, Inc.	Integrated Theatre, Inc.	P	CP	Y			
Stephen J. Kay	K-Tec Corporation	K-Tec Corporation	P	MP				
Ken Vannice	Colortran	Leviton Manufacturing Co., Inc.	P	MP	Y			
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	Y			
Louis Bradfield	Louis Bradfield	Louis Bradfield	I	U				
Michael J. Carnaby	Mikan Theatricals	Mikan Theatricals	P	DR				
Alex Yoon	Mole-Richardson Co.	Mole-Richardson Co.	A	CP				
W. G. Krokaugger, P. E.	Mole-Richardson Co.	Mole-Richardson Co.	P	CP	Y			
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				
Ron Bonner	PLASA	PLASA	P	U	Y			
Michael Lay	Strand Lighting	Royal Philips Electronics	P	MP	Y			
Michael Scudday	SSRC, Inc.	SSRC, Inc.	P	CP				
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	U	Y			
Richard Wolpert	Union Connector Company (MO)	Union Connector Company	P	CP				
Mitch Hefter	Entertainment Technology (Royal Philips Electronics)	USITT	P	U	Y			
William L. Maiman	William L. Maiman	William L. Maiman	P	U	Y			
Phillip M. Gallo	TMB	TMB	P	DR	Y			
Total			26		16	0	0	0
Votes by category			7	CP	4	0	0	0
			5	MP	2	0	0	0
			3	DR	1	0	0	0
			9	U	7	0	0	0
			2	G	2	0	0	0

The task group's recommendations were discussed:

(1) The task group feels that even though it feels the subject of closed loop systems is beyond the scope of this document and have rejected comments on that basis, it is the recommendation of the task group that a task group be appointed to proceed with a document on closed loop systems as soon as possible.

(2) The task group recommends that a task group be appointed to create a condensed "field manual" that personnel can easily carry with them in the field.

Roger Lattin was appointed to start work on a draft standard for closed loop systems, an E1.18-2, and to identify others to work with him. His deliverables for the January 2009 meeting would be a scope statement, and a section stating why and where closed loops are advantageous, and a section stating why and where closed loop systems are not. He is also to develop a timeline for the completion of the rest of the document.

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

### **7.4.1 Report of EPWG acceptance ballot recirculation**

See EP\_E1-19AcceptVoteFinal.pdf. The working group voted to accept BSR E1.19, Recommended Practice for the use of Class A Ground-Fault Circuit Interrupters (GFCIs) intended for personnel protection in the Entertainment Industry (document number EP/2001-7012r14) as an American National Standard, with 21 out of a possible 27 voting "Yes," one voting "No with reasons," and five ballots not returned.

### **7.4.2 Consideration of any further work or projects to come out of BSR E1.19**

See E1-19\_r14.pdf for what the document looks like now, before a final edit for spelling, font format consistency, et cetera.

There was a final discussion of the document and Keith's Woods objections. No motions were offered.

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

No news or action.

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

Report on public review comments. See E1-32CmmntSmmry.pdf. What's the plan to resolve them?

Jerry Gorrell was assigned the task of drafting comment resolutions with Steve Vanciel, Alan Rowe, Javid Butler, and Roger Lattin as his task group. The due date was set as the March meeting.

## **8 New business**

None.

## **9 Other business**

**9.1** Mitch Hefter announced that the deadline for changes to the NEC for the next edition are due November 7 at 5:00 p.m. Eastern Time at the NFPA office in Quincy. The forms for proposals are available on the NFPA website.

**9.2** Ian Foulds announced that Ontario will adopt the new Canadian Electrical Code in the first quarter of 2009. The code will be introduced in January and come into force in March.

## **10 Changes to observer status**

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

None now, but Louis Bradfield has missed the last two letter ballots. Wendy Holt and the representatives for IATSE Local 728 missed the last one. The last ballot went into a recirculation, so there were two opportunities to vote.

### **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 requirement for voters if this meeting is missed:

Greg Mayberry and James Davey; AC Power Distribution  
Stephen J. Kay; K-Tec Corporation  
Michael Scudday; SSRC Inc.  
Richard Wolpert; Union Connector

James Davey was present, thus preserving the voting status for the AC Power Distribution representatives. Mitch Hefter announced that the others—Stephen Kay, Michael Scudday, and Richard Wolpert—are moved to observer status.

## **11 Schedule for future meetings**

Mitch Hefter announced that the next meeting is scheduled for Friday, 23 January 2009, from 09:00 to noon at the Dallas/Ft. Worth Marriott Solana in Westlake, TX.

## **12 Adjournment**

Javid Butler moved that the meeting adjourn. The motion was seconded and then accepted with a show of hands. Mitch Hefter declared the meeting adjourned at 22:10.

**Working Group Membership and Contact Information as of 6 November 2008**

Name	Company	Representing (Primary 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
Wendy Holt	AMPTP	Alliance of Motion Picture and Television Producers	P	G
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
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
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	O	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
Tyrone Mellon Jr.	Lex Products Corp.	Lex Products Corp.	A	CP
Louis Bradfield	Louis Bradfield	Louis Bradfield	I	U



Name	Company	Representing (Primary sort field.)	Voting status	Int. cat.
Jim Holladay	Luxence	Luxence	O	G
Phil Fram	Marinco	Marinco	O	MP
Jeff deRecat	Marinco/ADI	Marinco	O	MP
William Drake	Marinco	Marinco	O	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
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
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
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	Strand Lighting	Royal Philips Electronics	P	MP
Jeremy B. Collins	Selecon	Selecon	O	MP
Robert Barbagallo	Solotech Inc.	Solotech Inc.	O	DR
Michael Scudday	SSRC, Inc.	SSRC, Inc.	O	CP
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
Phillip M. Gallo	TMB	TMB	P	DR
Colin Waters	TMB	TMB	O	DR
Richard Wolpert	Union Connector Company (MO)	Union Connector Company	O	CP
Mitch Hefter	Entertainment Technology (Royal Philips Electronics)	USITT	P	U
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