

Minutes
Electrical Power Working Group
Friday, 26 January 2024
Wyndham Anaheim, Anaheim, CA

Chairpersons:

Justin Bennett; University of the Incarnate Word; P; U (presiding)
Mitch Hefter; USITT; P; U

Recording secretaries:

Karl Ruling and Richard Nix (ESTA)

Attendees:

James Davey; A.C.T. Lighting, Inc.; P; CP
Rodger Dean; R. Dean Lighting Limited; P; DR
Ian Foulds; Entertainment Electrical Safety Association; P; G
Todd Fouyer; Musson Theatrical; O; DR
Jerry Gorrell; Theatre Safety Programs; P; U
Robert Haycock; Robert Haycock; I; U
Nick Holmberg; TMB; P; MP
Doug Hook; I.A.T.S.E. Local 58; P; U
John Valus Jr.; Lex TM3; O; MP
Richard (RJ) Kenny; Link USA, Inc.; P; MP
Hans Lau; I.A.T.S.E. Local 728; A; U
Bob Luther; Lex TM3; P; MP
Rick Montgomery; Motion Laboratories, Inc.; A; MP
Mark Pollock; Littelfuse, Inc.; P; MP
Jason Potterf; Cisco; P; MP
Dietmar Rottinghaus; Neutrik AG; P; MP
Alan M. Rowe; I.A.T.S.E. Local 728; A; U
Stephen Vanciel; Stephen Vanciel; I; U
Keith S. Woods; I.A.T.S.E. Local 891; P; U

Visitors:

Tracie Allen; Phase 3 (Motion Labs)

1 Opening remarks

Justin Bennett called the meeting to order at 19:02. He welcomed everyone and thanked them for attending. He took a moment to pay tribute to George Long and Art Wanuch, both of whom had passed since the last meeting. He reminded everyone to mute microphones when not speaking, and to be mindful of live microphones in the meeting room.

2 Patent and anti-trust statements

2.1 Reading of the anti-trust statement

Justin Bennett read the following statement aloud to the assembly:

ESTA and its members take seriously their obligation to comply with all applicable antitrust laws. Therefore, during this meeting and during all ESTA events, all discussions will be limited to those subjects that are permitted by the antitrust laws. All members should refrain from any discussion or mention of competitively sensitive subjects such as the current or future prices charged for any member product or services, current or future marketing plans or strategies, and current or future costs, including employee salaries. There also must be no agreement on the suppliers or customers that members will or will not do business with or the markets in which members will conduct business.

Violations of the antitrust laws can have serious consequences. If you have any questions or concerns about anything that is discussed at an ESTA meeting, please bring your concern to ESTA management. An easy to read pamphlet describing the antitrust laws is available from the ESTA staff.

Richard Nix held up the pamphlet for all to see.

2.2 Reading of the call for patents

Justin Bennett 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, patent application, copyright, or other protected 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.

Nothing was revealed.

3 Attendance and Membership

3.1 Requirements for membership

Justin Bennett read the following statement aloud to the assembly:

Membership is open to all parties who are affected by the work of the group; membership in ESTA is not a requirement, but there is a \$100/person/year participation fee to help fund the costs of running the Technical Standards Program. New applications shall not be processed until the participation fee has been paid. Voting members are required to attend meetings and vote on letter ballots. Any principal member and alternate that both miss three consecutive meetings or letter ballots will have their membership status changed to observer. This action will be taken at the beginning of the first meeting after such inaction and will be recorded in the minutes of that meeting.

3.2 Introduction of attendees and taking attendance

Everyone introduced themselves.

3.3 Determination of quorum

As of 06 January 2024 the consensus body has 29 voters. A quorum is 10. A supermajority is 15.

Richard Nix announced that both requirements had been met.

3.4 Processing of new and other membership requests

As of 06 January 2024 no applications have been received:

3.5 Changes to observer status due to lack of participation

3.5.1 Changes due to attendance

The following voting members have missed the last two meetings, and will have their voting status changed to Observer if not present today:

*Daniel Swalec; Daniel Swalec
Robert Haycock; Robert Haycock*

Robert Haycock was present. Daniel Swalec was not present so his status was changed accordingly.

3.5.2 Changes due to missed letter ballots

There are none.

3.6 Consensus body

This is the consensus body after today's meeting actions:

Delegate	Representing	Voting status	Int. cat.
James Davey	A.C.T. Lighting, Inc	P	CP
Michael Lay	Candela Controls, Inc	P	G

Delegate	Representing	Voting status	Int. cat.
Patrick Teich	Cirque du Soliel Entertainment Group	P	U
Jason Potterf	Cisco	P	MP
Mike Skinner	Contract Services Administration Trust Fund	P	U
Matthew Antonucci	Contract Services Administration Trust Fund	A	U
Chris Moulton	Contract Services Administration Trust Fund	A	U
Don Earl	Earl Girls, Inc.	P	DR
Steve Terry	Electronic Theatre Controls, Inc.	P	MP
Wendy Russell	Electronic Theatre Controls, Inc	A	MP
Elizabeth E. (Lizz) Pittsley	Elizabeth Pittsley	P	U
Ian Foulds	Entertainment Electrical Safety Association	P	G
Robert Haycock	Robert Haycock	I	U
Edwin S. Kramer	I.A.T.S.E. Local 1	P	U
Doug Hook	I.A.T.S.E. Local 58	P	U
Charles McIntyre	I.A.T.S.E. Local 728	P	U
Alan M. Rowe	I.A.T.S.E. Local 728	A	U
Hans Lau	I.A.T.S.E. Local 728	A	U
Kevin Amick	IATSE Local 479	P	G
Keith S. Woods	IATSE Local 891	P	U
Simon Hunt	IATSE Local 891	A	U
Bob Luther	Lex TM3	P	MP
Richard "RJ" Kenny	Link USA, Inc.	P	MP
Mark Pollock	Littelfuse, Inc.	P	MP
Rick Montgomery	Motion Laboratories, Inc.	A	MP
Michael Shaw	Motion Laboratories, Inc.	P	MP
Dietmar Rottinghaus	Neutrik AG Lichtenstein	P	MP
Roger Dean	R. Dean Lighting Limited	P	DR
Chris Ruble	Chris Ruble	I	U
Daniel Swalec	Daniel Swalec	I	U
Stephen Vanciel	Stephen Vanciel	I	U
Nick Holmberg	TMB	P	MP
Jerry Gorrell	Theatre Safety Programs	P	U
Justin Bennett	University of the Incarnate Word	P	U
Mitch Hefter	USITT	P	U
	Total votes possible	28	
Subtotals by interest categories	Custom producer (CP):	1	CP
	Designer (DE):	0	DE
	Dealer or rental company (DR):	2	DR
	General interest (G):	3	G

Delegate	Representing	Voting status	Int. cat.
	Mass-market producer (MP):	8	MP
	User (U):	14	U

P = Principal voter; A = Alternate voter; I=Individual voter

4 Approval of the minutes from the previous meeting

See *EPmin10-2023r1_DRAFT.pdf*

The minutes were approved by unanimous consent.

5 Approval of agenda

The agenda was approved by unanimous consent.

6 Old business

6.1 ANSI E1.16 – 2002 (R2021) Entertainment Technology – Configuration Standard for Metal Halide Ballast Power Cables

Reaffirmation, revision, or withdrawal by 28 October 2026.

No action required.

6.2 ANSI E1.19 – 2021, Recommended Practice for the Use of Class A Ground-Fault Circuit Interrupters (GFCIs) Intended for Personnel Protection in the Entertainment Industry

Reaffirmation, revision, or withdrawal by 15 October 2026.

No action required.

6.3 ANSI E1.24 – 2012 (R2021), pin connectors

Reaffirmation, revision, or withdrawal by 28 October 2026.

No action required.

6.4 ANSI E1.32 – 2012 (R2022), Guide for the Inspection of Entertainment Industry Incandescent Lamp Luminaires

Reaffirmation, revision, or withdrawal by 11 August 2027.

No action required.

6.5 BSR E1.51 – 2018, The Selection, Installation, and Use of Single-Conductor Portable Power Feeder Cable Systems for Use At 600 Volts Nominal or Less for the Distribution of Electrical Energy in the Television, Film, Live Performance and Event Industries in Canada

Open for revision.

[see ANSI_E1-51_2018 Proposed revisions 2 RD 29-12- 2023.pdf]

Rodger Dean has submitted a slightly revised version of proposed changes for discussion.

Rodger Dean reported. He said there were housekeeping changes, and other changes that will appear in upcoming the Electrical Code, due out at any time. He said he thought it was ready for public review.

Keith Woods moved to send to First Public Review. The motion was seconded, and carried without objection or abstention. The TSC will consider this at their meeting on Sunday.

6.6 ANSI E1.53 – 2019, Overhead mounting of luminaires, lighting accessories, and other portable devices: specification and practice

Revision, reaffirmation, or withdrawal by 3 June 2024.

The working group has two meetings, including today's, to decide which action to take.

No action at this time.

6.7 ANSI E1.58 – 2022, Indoor equipment outdoors

Revision, reaffirmation, or withdrawal by 10 August 2027.

6.8 BSR E1.79 – 202x, Television, Film, Live Performance, and Event Electrical Guidelines for Canada

Task group: Keith Woods, Simon Hunt, Mark Pollock, Rodger Dean, and Steve Vanciel (ESWG liaison)

[see E1.79 Proposal Dec 29 2023 (1).pdf]

The task group has submitted a draft for working group discussion.

Rodger Dean reported. He said that Richard Nix had expressed some concerns about mentions of certain trademarked products in the document. Richard Nix said he had noticed several references to trademarked products in the draft. After bringing this to Rodger Dean's attention, Rodger said he thought the references were more explanatory in nature and did not create requirements relative to the products. Karl Ruling said that there are valid ANSI concerns with use of protected intellectual property, and gave the example of a 19-pin Socapex style connector being described generically as a "multipin connector with a locking collar." In any case, the draft has brand names and images of commercial products which may be contrary to ANSI's prohibition against the use of commercial terms and conditions in American National Standards, clause 3.2 "Commercial terms and conditions" in the 2024 edition of *ANSI Essential Requirements: Due process requirements for American National Standards*.

6.9 BSR E1.80 – 202x, 19-pin connector pinout assignments

Task group: Hans Lau (leader), Steve Terry, Rodger Dean, Mike Webb, Eddie Kramer, Ian Foulds, Bob Luther, Doug Hook, James Davey, Dietmar Rottinghaus, and RJ Kenny.

[See E1.80 TABLE PROPOSAL 01082024.pdf]

The task group has submitted a document for discussion.

Hans Lau reported. He said they had invited input from certain code panel members. He reiterated that the intent is not to write new requirements as much as it is to be informational, and also said they did not want to conflict with certain European standards relative to the subject. He explained the content of the draft that had been provided. It is a core document that has received positive input, in terms of it being a good method of presenting the information. It presents pin-out assignments that are customarily used in our industry in the USA and that are specified in BS and European standards that are also used in our industry. Lau also explained that this document only describes pin assignments, which include protective grounding (bonding) connectors, but the specifics of grounding are not included. Grounding requirements and practices are better covered by other standards such as NFPA 70 (the NEC). He plans to have one more task group meeting in February to get consensus on the information and how to address grounding.

Bob Luther commended the task group for this excellent work, to-date. He asked about the British reference. Hans Lau said that it was a direct reference, so as not to conflict.

Mitch Hefter reported on the NFPA effort to revise the existing code to accommodate this reference. The straw poll has positive results, but it will eventually need to go through a formal balloting process. A first draft for public comment will be available in July.

RJ Kelley mentioned that we may eventually need to accommodate other connectors beyond the 19-pin, because it will be referenced by a section of the NFPA that addresses many styles of multipin connectors. Consensus was that this can be accommodated in a number of different ways.

Mitch said the proposed language in 520.68 (D) would require marking to identify the pinout configuration and branch circuit voltage.

Hans said he expected to have something ready for the working group by the March meeting.

7 New business

8 Other business and announcements

8.1 Above & Beyond Awards

Nominations can be made on the website at http://tsp.esta.org/tsp/news/award_recipients.html.

8.2 IES report

Mitch Hefter reported. There is nothing specific to report. Two documents he's been working on might be ready for public review in the spring.

8.3 NEC report

Mitch Hefter reported that the NEC Code Panel 15 meetings this past week are essentially "straw polls" on how to respond to public inputs. The actions will be sent to the Correlating Committee, which will work on consolidating them into a new draft. The public then will be able to comment on the responses to the earlier public input comments and suggestions. The definition of "deploy" has been added by Panel 15. It's the term for putting into service portable equipment and to distinguish this action from installing equipment that is permanent or temporary.

Jason Potterf reported on Code Panel 18's work. It has been argued that cybersecurity should be a maintenance issue and therefore in NFPA 70B, not in NFPA 70. He also reported on the reorganization of the NEC. The 2026 Code will require the Code's Chapter 8 currently independent requirements for communication circuits to be integrated into the full Code.

He also reported on the proposed reorganization of the NEC being considered for the 2029 edition. He put two URLs in the chat to take people to information about the changes to the NEC: <https://images.magnetmail.net/images/clients/IECI//attach/NECCorrelatingCommitteeWhitePaper2023.pdf>, which is linked from <https://insights.ieci.org/larry-ayer-drives-vision-for-modernized-national-electrical-code/>

8.4 USITT report

Justin Bennett said Karl Ruling will receive an award at USITT. Jason Potterf asked if the meeting would be held within the dates as shown on the web site, or if there was a chance the meeting dates would change. Richard Nix said he thought it safe to rely on the dates shown on the meeting scheduling page.

8.5 Event Safety WG – Electrical Task Group

The draft completed its second public review, with no comments received. It's likely that the ESWG may move to approve as ANS at their 27 January meeting.

Robert Haycock reported. The agenda pretty much says it all. They were surprised that no comments were received in light of the first round of comments. The ESWG meeting is tomorrow.

8.6 Incandescent lamp bans

Jerry Gorrell received notices that two states had banned incandescent lamps by 2025 – he hasn't seen the text of these laws. Karl Ruling said the actual text of the legislation is important because we really don't know what a law would do without that. Often there are exceptions and limitations in the scope, noting that there are certain types of medical equipment that require continuous spectrum sources, and they would be nearly impossible to replace.

9 Schedule for future meetings

The meeting schedule may be found at <http://www.esta.org/ESTA/meetings.php>.

The Spring 2024 meetings will be held in Seattle, WA. in conjunction with the USITT Conference during the week of 18 March 2024, and the Summer 2024 meetings will be co-located with NATEAC, in New York City, during the week of 08 July 2024. The Fall 2024 meetings will likely return to Westlake, TX.

Jason Potterf reported that the next set of NEC meetings will be October 14 to 26, probably in Las Vegas. It would be good if we don't schedule a conflict.

10 Adjournment

Justin Bennett adjourned the meeting at 20:05 Pacific Time.

Electrical Power Working Group Members as of 26 January 2024

Name	Representing	Status	Int cat
Kevin Amick	IATSE Local 479	P	G
Matthew Antonucci	Contract Services Administration Trust Fund	A	U
Robert Barbagallo	Solotech Inc.	O	DR
Alyxzander Bear	Insomniac	O	DE
Justin Bennett	University of the Incarnate Word	P	U
John (JA) Byerly	IATSE Local 479	O	G
Richard Cadena	Academy of Production Technology	O	G
James Davey	A.C.T. Lighting, Inc.	P	CP
Jeremy Day	Lumenpulse Group	O	MP
Rodger Dean	R. Dean Lighting Limited	P	DR
Jim Digby	Event Safety Alliance	O	U
Don Earl	Earl Girls, Inc.	P	DR
Trevor Forrest	Helvar Lighting Control	O	MP
Ian Foulds	Entertainment Electrical Safety Association	P	G
Todd Fouyer	Musson Theatrical	O	DR
Jerry Gorrell	Theatre Safety Programs	P	U
Mike Harwood	William F. White International	O	DR
Robert Haycock	Robert Haycock	I	U
Mitch Hefter	USITT	P	U
Nick Holmberg	TMB	P	MP
Doug Hook	I.A.T.S.E. Local 58	P	U
Simon Hunt	I.A.T.S.E. Local 891	A	U
Quinten James	QtoCue Lighting Design	O	U
Richard (RJ) Kenny	Link USA, Inc.	P	MP
Edwin S. Kramer	I.A.T.S.E. Local 1	P	U
Charles (Chuck) Kurten	Underwriters Laboratories, Inc.	O	G
Hans Lau	I.A.T.S.E. Local 728	A	U
Michael Lay	Candela Controls, Inc	P	G
Bob Luther	Lex TM3	P	MP
Charles McIntyre	I.A.T.S.E. Local 728	P	U
Ty Mellon	Tyron J Mellon, Jr.	O	G
Rick Montgomery	Motion Laboratories, Inc.	A	MP
Chris Moulton	Contract Services Administration Trust Fund	A	U
Robert Peterson	Shur-Rig LLC	O	G
Elizabeth E. (Lizz) Pittsley	Elizabeth Pittsley	P	U
Mark Pollock	Littelfuse, Inc.	P	MP

Electrical Power Working Group Members as of 26 January 2024

Name	Representing	Status	Int cat
Jason Potterf	Cisco	P	MP
Dietmar Rottinghaus	Neutrik AG	P	MP
Alan M. Rowe	I.A.T.S.E. Local 728	A	U
Chris Ruble	Christopher Ruble	I	U
Wendy Russell	Electronic Theatre Controls, Inc	A	MP
Ford Sellers	Chauvet Lighting	O	MP
Michael Shaw	Motion Laboratories, Inc.	A	MP
Mike Skinner	Contract Services Administration Trust Fund	P	U
Jonny Starr	TMB	O	MP
Daniel Swalec	Daniel Swalec	I	U
Patrick Teich	Cirque du Soleil Entertainment Group	P	U
Steve Terry	Electronic Theatre Controls, Inc.	P	MP
Stephen Vanciel	Stephen Vanciel	I	U
Ken Wagner	Ken Wagner	O	U
Colin Waters	TMB	O	DR
Keith S. Woods	I.A.T.S.E. Local 891	P	U