

Minutes
Electrical Power Working Group
Friday, 23 July 2021
via WebEx

Presiding chairperson: Justin Bennett; University of the Incarnate Word

Recording secretaries: Richard Nix & Karl G. Ruling; ESTA

Members attending:

Justin Bennett; University of the Incarnate Word; P; U
Don Earl; Earl Girls, Inc.; P; DR
Nehad El-Sherif; Nehad El-Sherif; I; G
Jerry Gorrell; Theatre Safety Programs; P; U
John Valus Jr.; Lex TM3; A; MP
Edwin S. Kramer; I.A.T.S.E. Local 1; P; U
Hans Lau; I.A.T.S.E. Local 728; A; U
Michael Lay; Candela Controls, Inc; P; G
George Long; Aggreko; P; DR
Rick Montgomery; Motion Laboratories, Inc.; A; MP
Elizabeth E. (Lizz) Pittsley; Elizabeth Pittsley; P; U
Mark Pollock; Littelfuse, Inc.; P; MP
Jason Potterf; Cisco; P; MP
Alan M. Rowe; I.A.T.S.E. Local 728; A; U
Wendy Russell; Electronic Theatre Controls, Inc; A; MP
Mike Skinner; Contract Services Administration Trust Fund; P; U
Steve Terry; Electronic Theatre Controls, Inc.; P; MP
Stephen Vanciel; IATSE Local 631; P; U
Art Wanuch; Entertainment Electrical Safety Association; P; G
Keith S. Woods; IATSE Local 891; P; U

Visitor: Tony Giovannetti

1 Opening remarks

Justin Bennett called the meeting to order at 15:02. He welcomed people to the meeting and said he hoped we had good weather. He introduced himself.

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.

Karl Ruling displayed a copy of the pamphlet to his camera so meeting attendees could see it.

No anti-trust concerns were raised.

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.

No protected IP 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. 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.

Justin Bennett read the names from the participants list and people introduced themselves.

3.3 Determination of quorum

As of today's meeting date there are 23 voting members: a quorum minimum is 8; 12 to pass a vote requiring a supermajority.

Richard Nix reported that more than 50% of the voting body was present, so a motion needing a supermajority vote could be passed.

3.4 Processing of new and other membership requests

There is one new application:

Quinten James; QtoCue Lighting Designs; O; U

Steve Terry moved to approve the application. The motion was seconded. The motion was accepted.

3.5 Changes to observer status due to lack of participation

The following voters have missed the last two meetings. If they miss this one, they will have missed three consecutive meetings and will lose voting status.

Kevin Amick and John (JA) Byerly, IATSE Local 479

The representatives for Local 479 were not present. They were moved to observer status.

3.6 Consensus body during the meetings

| Delegate | Representing | Voting status | Int. cat. |
|---------------|------------------------|---------------|-----------|
| George Long | Aggreko | P | DR |
| Michael Lay | Candela Controls, Inc. | P | DR |
| Jason Potterf | Cisco | P | MP |

| Delegate | Representing | Voting status | Int. cat. |
|-------------------|---|---------------|-----------|
| 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 |
| Lizz Pitsley | Elizabeth Pitsley | P | U |
| Art Wanuch | Entertainment Electrical Safety Association | P | G |
| Ian Foulds | Entertainment Electrical Safety Association | A | G |
| Steve Brock | Guardian Entertainment Inc. | P | DR |
| Edwin S. Kramer | I.A.T.S.E. Local 1 | 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 |
| Stephen Vanciel | IATSE Local 631 | P | U |
| Keith S. Woods | IATSE Local 891 | P | U |
| Simon Hunt | IATSE Local 891 | A | U |
| Ken Wagner | Ken Wagner | I | U |
| Bob Luther | Lex TM3 | P | MP |
| John Valus Jr. | Lex TM3 | A | MP |
| Mark Pollock | Littelfuse, Inc. | P | MP |
| Mike Webb | Motion Laboratories, Inc. | P | MP |
| Rick Montgomery | Motion Laboratories, Inc. | A | MP |
| Michael Shaw | Motion Laboratories, Inc. | A | MP |
| Nehad El-Sherif | Nehad El-Sherif | I | G |
| Jerry Gorrell | Theatre Safety Programs | P | U |
| Robert Haycock | UC Berkeley | I | U |
| Justin Bennett | University of the Incarnate Word | P | U |
| Mitch Hefter | USITT | P | U |
| | TOTAL | 22 | |
| | | 0 | CP |
| | | 0 | DE |
| | | 3 | DR |
| | Subtotals by interest categories | 3 | G |
| | | 5 | MP |
| | | 11 | U |

Key to codes:

| | | | |
|---|------------------|----|------------------------|
| P | Principal voter | CP | Custom-market producer |
| A | Alternate voter | DE | Designer |
| I | Individual voter | DR | Dealer/Rental company |
| | | G | General interest |
| | | MP | Mass-market producer |
| | | U | User |

4 Approval of the minutes from the previous meeting

[See EPmin01-2021_DRAFT.pdf]

Eddie Kramer moved to approve the draft minutes as written. The motion was seconded. The motion was accepted. The minutes were approved.

5 Approval of agenda

Steve Terry moved to approve the draft agenda. The motion was seconded. The motion was accepted. The agenda was approved.

6 Old business**6.1 ANSI E1.16 – 2002 (R2017) Entertainment Technology – Configuration Standard for Metal Halide Ballast Power Cables**

Revision, reaffirmation, or withdrawal by 04 April 2022

Steve Terry moved that we reaffirm the existing standard. The motion was seconded.

There will be a public review with a concurrent letter ballot.

6.2 BSR E1.19, Recommended Practice for the Use of Class A Ground-Fault Circuit Interrupters (GFCIs) Intended for Personnel Protection in the Entertainment Industry (Revision of the 2015 edition)

Task group: Justin Bennett, one representative from Lex (Bob Luther or John Valus Jr.), Ian Foulds, Nehad El Sherif, Mike Skinner, one representative from I.A.T.S.E. Local 728 (Alan Rowe), and one representative from I.A.T.S.E. Local 891 (Keith Woods or Simon Hunt).

The draft's first public review ended on 19 April, with no comments being received. The next step is for someone to make a motion to approve the draft as an ANS. It's up to you! See E1-19_RevwSummary.pdf for the official "There's nothing" report.

Steve Terry moved that we accept the revised document as an ANS. The motion was seconded. The question will be decided by letter ballot.

6.3 ANSI E1.24 – 2012 (R2017), pin connectors

Revision, reaffirmation, or withdrawal by 23 February 2022

Steve Terry moved that we reaffirm the existing standard. The motion was seconded.

There will be a public review with a concurrent letter ballot.

6.4 ANSI E1.32 – 2012 (R2017), Guide for the Inspection of Entertainment Industry Incandescent Lamp Luminaires

Revision, reaffirmation, or withdrawal by 15 September 2022.

No action or news now.

6.5 ANSI 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

Revision, reaffirmation, or withdrawal by 7 November 2023.

No action or news now.

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.

No action or news now.

6.7 ANSI E1.58 – 2017, Indoor equipment outdoors

Reaffirmation, revision, or withdrawal by 11 October 2022.

No action or news now.

6.8 BSR E1.65, Recommended practice for the periodic inspection, testing, and maintenance of Electrical and Electronic equipment used in the entertainment and live event industries

From the draft January meeting minutes:

No leader. Any suggestions on how to move forward, or should this project be abandoned?

Task group:

- *Eddie Kramer,*
- *George Long,*
- *Justin Bennett,*
- *Keith Woods,*
- *Larry Schoeneman,*
- *Michael Harwood,*
- *Mike Skinner.*
- *Mitch Hefter,*
- *Robert Haycock,*
- *Steve Vanciel, and*
- *Wendy Russell*

At the last meeting, Robert Haycock said he would be willing to take this on, but would not have time until other projects are moved along, probably at the end of the summer. Mike Harwood said he would co-chair, but also has resource limits now. Any news?

Steve Terry moved that we abandon the project for lack of interest. The motion was seconded by Eddie Kramer. There shall be a letter ballot to decide the motion.

6.9 Recommended Practices for Avoiding Shock and Electrocution

From the minutes of the April 2021 draft meeting minutes:

Robert Haycock reported that he had talked to Keith Sklar, who joined an ESWG task group meeting. The task group will attempt to integrate his concerns into the medical provisions and electrical safety projects in the ESWG. Sklar's project proposal has content spanning these two ESWG projects.

No news or updates. Justin Bennett suggested we take it off our agenda. There was no opposition.

7 New business

Eddie Kramer had an update on a UL advisory group about attachment plugs and receptacle. UL is proposing to put arcuate contact connectors (locking connectors) into a new standard, UL 62988.

The advisory also dealt with snap switches so the top rating is 20 A tungsten rating. There was talk of a 30 A snap switch rating.

8 Other business and announcements

8.1 Above & Beyond Awards

Justin Bennett reminded attendees that the website is at http://tsp.esta.org/tsp/news/award_recipients.html.

8.2 Volunteer of the Year Award

No news.

8.3 IES report

No news.

8.4 NEC report

Stever Terry reported on a lot of NEC activity worthy of comment:

- Moving the definitions out of the articles into Article 100, has made a mess in that multiple conflicting definitions appear side by side. An example is “portable,” which has different meanings in different articles.
- The new text for Article 530 was accepted by Code Panel 15, but the definitions for the revised Article 530 were not moved into Article 100.
- Article 700 is emergency lighting, and the changes would have a serious effects on emergency lighting, reported Terry. Emergency lighting wiring would have to be separate from other line voltage conductors and separate from other class 2 wiring and conform to Chapter 3 wiring methods, which means conduit or armored cable. PoE lighting cables would have to be in conduit—even the patch cords into the switch, which is, of course, impossible. The task group had done a good job, said Terry, and then the code panel dismembered it.
- The change to the switchboard article regarding the placement of load terminals would have banned all the current high-density theatrical dimmer racks. The TIAs to fix this were accepted so they will be in 2023 code, but since they are *tentative* interim amendments, they must be run through the second review cycle first.

Steve Terry urged people to offer public comments to the NFPA on these things. Terry also urged Canadians to update the sections of the CEC that affect our industry, suggesting they be brought into line with the NEC.

8.5 USITT

Justin Bennett urged attendees to propose sessions for the next conference.

9 Schedule for future meetings

The meeting schedule may be found at <http://www.esta.org/ESTA/meetings.php>. The full meeting schedule is not yet confirmed, but is anticipated to occur sometime within the time frame of the last week in September and the first week in October.

10 Adjournment

Hearing no further business, Justin Bennett declared the meeting adjourned at 16:07.

Electrical Power Working Group Members as of 5 August 2021

| Delegate | Reporting | Voting status | Int. cat. |
|-------------------|---|---------------|-----------|
| Kevin Amick | IATSE Local 479 | O | 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 |
| Steve Brock | Guardian Entertainment Inc | P | DR |
| John (JA) Byerly | IATSE Local 479 | O | G |
| Richard Cadena | Academy of Production Technology | O | G |
| James Davey | A.C.T. Lighting, Inc. | O | CP |
| Jeremy Day | Lumenpulse Group | O | MP |
| Rodger Dean | R. Dean Lighting Limited | O | DR |
| Jim Digby | Event Safety Alliance | O | U |
| Marsha DuBois | Pintech Stage Connectors, Inc. | O | CP |
| James Eade | ABTT | O | G |
| Don Earl | Earl Girls, Inc. | P | DR |
| Nehad El-Sherif | Nehad El-Sherif | I | G |
| Trevor Forrest | Helvar Lighting Control | O | MP |
| Ian Foulds | Entertainment Electrical Safety Association | A | G |
| Mike Garl | Mike Garl Consulting LLC | exf | |
| Jerry Gorrell | Theatre Safety Programs | P | U |
| Erin Grabe | ESTA | exf | G |
| Mike Harwood | William F. White International | O | DR |
| Robert Haycock | UC Berkeley | I | U |
| Mitch Hefter | USITT | P | U |

Electrical Power Working Group Members as of 5 August 2021

| Delegate | Reporting | Voting status | Int. cat. |
|------------------------------|---|---------------|-----------|
| Simon Hunt | IATSE Local 891 | A | U |
| Quinten James | QtoCue Lighting Design | O | U |
| Jerald Kraft | JTH Lighting Alliance | O | G |
| 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 |
| George Long | Aggreko | P | DR |
| 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 |
| Richard J. Nix | ESTA | exf | G |
| Elizabeth E. (Lizz) Pittsley | Elizabeth Pittsley | P | U |
| Mark Pollock | Littelfuse, Inc. | P | MP |
| Jason Potterf | Cisco | P | MP |
| Alan M. Rowe | I.A.T.S.E. Local 728 | A | U |
| Karl G. Ruling | ESTA | exf | G |
| 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 |

Electrical Power Working Group Members as of 5 August 2021

| Delegate | Reporting | Voting status | Int. cat. |
|------------------|---|---------------|-----------|
| Steve Terry | Electronic Theatre Controls, Inc. | P | MP |
| Robert Timmerman | Signify | O | MP |
| John Valus Jr. | Lex TM3 | A | MP |
| Stephen Vanciel | IATSE Local 631 | P | U |
| Ken Wagner | Ken Wagner | I | U |
| Art Wanuch | Entertainment Electrical Safety Association | P | G |
| Colin Waters | TMB | O | DR |
| Mike Webb | Motion Laboratories, Inc. | P | MP |
| Keith S. Woods | IATSE Local 891 | P | U |
| Jeong Sik Yoo | Ghost LX | O | DE |

Key to codes:

| | | | |
|-----|--------------------|----|------------------------|
| P | Principal voter | CP | Custom-market producer |
| A | Alternate voter | DE | Designer |
| I | Individual voter | DR | Dealer/Rental company |
| O | Observer | G | General interest |
| exf | Ex Officio (staff) | MP | Mass-market producer |
| | | U | User |