

Minutes  
**Technical Standards Council**  
Saturday 15 April 2023  
**Wyndham Anaheim – Anaheim, CA**

**Chairperson:** Alan M. Rowe; IATSE Local 728

**Recording secretary:** Richard Nix: ESTA

**Members attending:**

D. Andrew Gibbs, Ph.D.; Amer. Society of Theatre Consultants; P  
William Gillett; Walt Disney Company; A  
Jerry Gorrell; USITT; P  
Erin Grabe; ESTA; exf  
Mitch Hefter; Mitch Hefter; P  
Edwin S. Kramer; I.A.T.S.E. Local 1; P  
Michael Lay; Candela Controls, Inc; P  
Richard J. Nix; ESTA; exf  
Alan M. Rowe; I.A.T.S.E. Local 728; P  
Mike Skinner; Contract Services Administration Trust Fund; P  
Keith Sklar; Actors' Equity Association; P  
Steve Terry; Electronic Theatre Controls, Inc.; P  
R. Duane Wilson; Amer. Society of Theatre Consultants; A

No visitors.

**1 Opening Remarks**

Alan Rowe called the meeting to order at 14:00 PDT. He reminded those online to remain muted when not speaking, and for those in the room to speak loudly and clearly..

**2 Patent and anti-trust statements**

**2.1 Reading of the anti-trust statement**

Alan Rowe 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 displayed the pamphlet. No restraint of trade issues were reported.

**2.2 Reading of the call for patents**

Alan Rowe shall 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 introductions

Richard Nix read the list of attendees aloud.

#### 3.1 Welcome to visitors

There were none.

#### 3.2 Determination of a quorum

Nix announced that a quorum was present.

#### 3.3 Consensus body

The full consensus body during the time of this meeting, including voters not present, was:

Name	Company or representation	Voting status
Keith Sklar	Actors' Equity	P
D. Andrew Gibbs, Ph.D.	Amer. Society of Theatre Consultants	P
R. Duane Wilson	Amer. Society of Theatre Consultants	A
Michael Lay	Candela Controls, Inc.	P
Matthew Antonucci	Contract Services Administration Trust Fund	P
Mike Skinner	Contract Services Administration Trust Fund	A
Steve Terry	Electronic Theatre Controls, Inc.	P
Todd Spencer	ESTA President	P
Edwin S. Kramer	I.A.T.S.E. Local 1	P
Alan M. Rowe	I.A.T.S.E. Local 728	P
Mike Garl	Mike Garl Consulting LLC	P
Mitch Hefter	Mitch Hefter	P
Bill Sapsis	Sapsis Rigging, Inc.	P
Jerry Gorrell	USITT	P
Justin Bennett	USITT	A
David E. Miller	Walt Disney Company	P
William Gillett	Walt Disney Company	A
	<b>Total votes possible</b>	<b>13</b>

### 4 Approval of minutes from the previous meeting

[See [TSCmin01-2023\\_DRAFT.pdf](#)]

A motion to accept the minutes was made by Billy Gillett. The motion was seconded, then approved with no abstentions or objections.

## 5 Approval of agenda

Steve Terry moved to approve the agenda. The motion was seconded, then approved with no abstentions or objections.

## 6 Old Business and standing reports

### 6.1 Financial reports

Erin Grabe reported the financials are not yet approved by the Board - they have until May. They'll be forthcoming. She also reported that the Board of Directors has established a Fundraising committee, and she is excited about the plans they have been discussing.

#### 6.1.1 Treasurer's Report and Status of Contributions and Pledges

#### 6.1.2 TSP Fundraising

No report.

#### 6.1.3 Accounting of TSP documents sold and downloaded

[See *SalesReportforTSC\_04-2023.pdf*]

Nix noted that document downloads have increased 2.4% over the last report. Nothing further to report.

## 6.2 Old Business

### 6.2.1 Technical Standards Program project report

[See *TSP Project Status Summary\_04-2023.pdf*]

Richard Nix said there are new project requests that will cause this report to change between now and the next meeting by adding new projects.

### 6.2.2 Working group documents for possible action by the TSC

#### 6.2.2.1 First public reviews

#### 6.2.2.1.1 BSR E1.64 – 202x, Stage Machinery Controls

[BSR E1.64-202x\_SL2023-10002r0.pdf]

The working group approved the latest draft revision for its first public review at their 12 April meeting, making only minor editorial changes at the meeting, reported Richard Nix.

Billy Gillett moved that the public review be approved. The motion was seconded. The motion carried.

Name	Company or representation	Voting status	Vote
Keith Sklar	Actors' Equity	P	Y
D. Andrew Gibbs, Ph.D.	Amer. Society of Theatre Consultants	P	Y
R. Duane Wilson	Amer. Society of Theatre Consultants	A	
Michael Lay	Candela Controls, Inc.	P	Y
Matthew Antonucci	Contract Services Administration Trust Fund	P	
Mike Skinner	Contract Services Administration Trust Fund	A	Y
Steve Terry	Electronic Theatre Controls, Inc.	P	Y

Name	Company or representation	Voting status	Vote
Todd Spencer	ESTA President	P	
Edwin S. Kramer	I.A.T.S.E. Local 1	P	Y
Alan M. Rowe	I.A.T.S.E. Local 728	P	Y
Mike Garl	Mike Garl Consulting LLC	P	
Mitch Hefter	Mitch Hefter	P	Y
Bill Sapsis	Sapsis Rigging, Inc.	P	
Jerry Gorrell	USITT	P	Y
Justin Bennett	USITT	A	
David E. Miller	Walt Disney Company	P	
William Gillett	Walt Disney Company	A	Y
<b>Total votes possible</b>		<b>13</b>	<b>10</b>

### 6.2.2.1.2 BSR E1.21 – 202x, Temporary Structures Used for Technical Production of Outdoor Entertainment Events

[see BSR\_E1.21-202x\_Rig2023-2003r0.pdf]

Richard Nix reported that two mildly substantive changes had been made at the RWG meeting. Then the working group approved the public review.

Steve Terry moved that the public review be approved. The motion was seconded. The motion carried.

Name	Company or representation	Voting status	Vote
Keith Sklar	Actors' Equity	P	Y
D. Andrew Gibbs, Ph.D.	Amer. Society of Theatre Consultants	P	Y
R. Duane Wilson	Amer. Society of Theatre Consultants	A	
Michael Lay	Candela Controls, Inc.	P	Y
Matthew Antonucci	Contract Services Administration Trust Fund	P	
Mike Skinner	Contract Services Administration Trust Fund	A	Y
Steve Terry	Electronic Theatre Controls, Inc.	P	Y
Todd Spencer	ESTA President	P	
Edwin S. Kramer	I.A.T.S.E. Local 1	P	Y
Alan M. Rowe	I.A.T.S.E. Local 728	P	Y
Mike Garl	Mike Garl Consulting LLC	P	
Mitch Hefter	Mitch Hefter	P	Y
Bill Sapsis	Sapsis Rigging, Inc.	P	
Jerry Gorrell	USITT	P	Y
Justin Bennett	USITT	A	

Name	Company or representation	Voting status	Vote
David E. Miller	Walt Disney Company	P	
William Gillett	Walt Disney Company	A	Y
<b>Total votes possible</b>		<b>13</b>	<b>10</b>

#### 6.2.2.2 Withdrawals or abandonments

Nothing.

#### 6.2.2.3 Accept as ANS

Nothing.

#### 6.2.2.4 Reaffirmations

Nothing.

#### 6.2.2.5 New project requests

##### 6.2.2.5.1 – Parade Safety

[See 2023-02-10 TSP Standards Project Request Form - Parade Safety.pdf]

The ESWG approved the project, reported Richard Nix. They're excited and have enlisted further help.

Steve Terry moved to approve the project. Mike Skinner seconded the motion. The motion carried.

##### 6.2.2.5.2 – Split E1.73 into three parts

[see TSP\_ProjectRequest-Core-1.pdf, TSP\_ProjectRequest-IntensityColor-2.pdf, and TSP\_ProjectRequest-Motion-3.pdf]

*At their 13 April meeting, the CPWG may approve three project requests to split the E1.73 project into a range of parent/child documents.*

*E1.73 would become the E1.73-1 "parent" document with core definitions, and we would add the following "child" documents:*

*E1.73-2 Intensity/Color Definitions*

*E1.73-3 Motion Definitions*

*It is useful to note that the referenced DIN Spec is not a standard, per se, so there should be no overlap between our standard and any other standard.*

Mike Lay moved to accept the projects. The motion was seconded and then approved with no objections or abstentions.

##### 6.2.2.5.3 19-pin connector pinout assignments

[See TSP\_ProjectRequest\_19-pin connector pinouts\_Signed.pdf]

*The EPWG approved a new project request for 19-pin connector pinout assignments.*

Steve Terry reported that these connectors are used at various voltages with varying pin-out assignments. It's evident that we need to do something.

Terry moved to approve the project. The motion was seconded. Mitch Hefter noted that there is a USITT RP1 that deals primarily with 120-volt systems. He said they will coordinate with USITT, and foresees no issue.

The motion carried.

### **6.2.3 Discontinuation of task group email reflector maintenance**

*From the draft January meeting minutes:*

*Michael Lay said that Maya Nigrosh was going to investigate some other possible alternatives.*

Alan Rowe asked if this was “a done deal”. Richard Nix said yes. Mike Lay said that Maya Nigrosh had reported to the CPWG meeting that she has a solution requiring some custom code she can write. TSP staff will continue with the reflector maintenance until she has the alternate method in place, but the end of that is in sight.

### **6.2.4 P&P revisions**

*The P&P revisions were submitted to ANSI, who returned their Executive Standards Council Administrative approval for our reaccreditation on 27 March 2023. Done!*

Richard Nix reported it's done. The new version will be posted to our website in about a week or two. There are a few coordinating document revisions to do.

### **6.2.5 DIN collaboration**

Update.

Richard Nix reported, the letter authorized by the TSC was sent, and cc:d to Mike Garl and Alan Rowe. DIN will have representatives at Prolight + Sound. He looks forward to further communication with them in person when he attends the show. They have a meeting scheduled to be held in the VPLT booth.

### **6.2.6 UL and NFPA representation**

No news or action.

## **7 New business**

Nothing!

## **8 Optional reports**

### **8.1 Optional reports by working and task group leaders on active projects**

#### **8.1.1 Control Protocols**

Mike Lay reported nine new members, many due to European Plug Fest. They are going to open DMX for revision. Mitch Hefter will lead the task group.

Steve Terry expressed concerns about the compatibility document, which seemed to indicate that some of the changes to ANSi E1.11 (DMX512) may be significant. Mitch Hefter said he doesn't think the changes are major, and even the biggest changes will not have wide-spread impact on most users. For example, protection levels are difficult to maintain, and they aren't sure how this is managed by the users. 3-pin XLR connectors will still not be permitted.

Alan Rowe said he was excited to see PlugFest return.

#### **8.1.2 Electrical Power**

Mitch Hefter said they had a great meeting, and the main effort was the new project request the TSC had just approved.

#### **8.1.3 Floors**

Richard Nix said the meeting was largely about proposed comment resolutions that had to be modified to satisfy the commentor. They are now acceptable.

#### **8.1.4 Fog and Smoke**

Richard Nix reported a straightforward meeting. They are making progress on air quality.

#### **8.1.5 Followspot Positions**

Richard Nix said there was nothing to report, because there was no meeting this cycle.

#### **8.1.6 Photometrics**

The working group will have a meeting in July, reported Jerry Gorrell.

#### **8.1.7 Rigging**

Richard Nix reported that the E1.21 first public review was approved.

#### **8.1.8 Stage machinery**

Richard Nix reported that the first public review of BSR E1.64 was approved.

#### **8.1.9 Event Safety**

Richard Nix reported that the new Parade Safety project was approved.

Steve Terry expressed concerns about the public review comments for ES1.17, most of which were made by Mitch Hefter, who added that the task group leader acknowledged the document wasn't ready for publication, and knew there was more work to do.

Steve Terry said he thinks the TSC must carefully scrutinize this document. He does not think it is anywhere near ready, and doesn't represent the quality of standard we should be releasing.

Mike Lay said he had expressed similar concerns about the Security document, too. Jerry Gorrell agreed and said he would review it.

Eddie Kramer reminded everyone that the ES1.17 electrical document had only just gone out for first public review, after having been through numerous internal reviews.

Erin Grabe asked if the TSC could require their review for this document prior to every review. Alan said he would need to review this. Jerry Gorrell said he thought there might be some underlying mechanism in place.

Since they have acknowledged the document was not ready for public review, Steve Terry moved that all future versions of this draft being considered for public review not be sent without TSC review. The motion was seconded. Mitch Hefter commented that he liked that the motion was phrased in the context of them having "acknowledged it wasn't ready". Jerry Gorrell said he had a problem with the Medical standard, too.

Alan Rowe called the question. The motion carried. The TSC directed the TSM to forward all progress drafts being considered for public review to the TSC, at the time they are distributed to the working group.

#### **8.1.10 Weapons Safety**

Richard Nix reported, today's meeting was very productive. They finalized a scope and outline, and there are now two task groups to begin drafting from existing bodies of work we have been given access to. He hopes progress will be smooth.

### **8.2 Reports of affiliated organizations**

#### **8.2.1 ASTC**

Andy Gibbs said nothing to report.

#### **8.2.2 Event Safety Alliance**

No news.

### **8.2.3 NFPA**

#### **8.2.3.1 FDW-AAA committee (NFPA 80 fire doors & fire safety curtains)**

Nothing to report, said Jerry Gorrell.

#### **8.2.3.2 SPE-AAA (NFPA 160 & 1126, flame and pyrotechnics)**

No report.

#### **8.2.3.3 SAF-AXM & BLD (assembly occupancies. NFPA 101, 102, & 5000)**

They are planning for the next cycle, said Jerry Gorrell.

#### **8.2.3.4 NEC (NFPA 70)**

Steve Terry reported big structural changes are being proposed, not yet out of correlating committee, now soliciting comments on the proposed restructuring of the document. Alan Rowe asked how important is it for us to discuss comments on proposed changes. Steve Terry said it's urgent. He recommended all of the affected entertainment parties convene as soon as possible. Mitch said the restructuring could possibly move 520-530 farther apart from each other, and will very likely cause section number changes in any case.

#### **8.2.3.5 NFPA 70E**

Mitch Hefter reported NFPA 70E is open for public submissions for proposed changes until 07 September.

Jerry Gorrell said that many elements of 70 were also incorporated into 70E, and they might do away with the references.

### **8.2.4 USITT**

Mitch Hefter reported that there were 4500+ attendees at the conference in St. Louis, with about 1/3 of them being first-time attendees. The new executive director, Laura Lee Everett, started soon after the Conference. Mike Wood received a Distinguished Engineering Award, and the ceremony was small but very well-presented. The next Conference will be in 2024 in Seattle, WA.

### **8.2.5 ICC**

Nix said that all IBC building code changes were all accepted. The 2024 edition will be published later this year; In addition to E1.21, ES1.7 is also included!

### **8.2.6 IES**

No news.

### **8.2.7 UL**

No news.

### **8.2.8 ASSP**

Jerry Gorrell said they are holding a webinar on the new fall protection standard, heavily promoting it. Free copies are available to ASSP members, documents worth over \$1000.

## **9 Other business and announcements**

Richard Nix spoke about his recent new appointment to ASCE 7 committee.

### **9.1 Above & Beyond Awards**

Information on the Above & Beyond Awards may be found at [http://tsp.esta.org/tsp/news/award\\_recipients.html](http://tsp.esta.org/tsp/news/award_recipients.html).

Erin Grabe said there will be a formal call for nominations coming later this year.

### **9.2 Lifetime Technical Achievement Award**

No news.

### **9.3 Volunteer of the Year Award**

No news.

### **9.4 Swan Award**

No news.

### **10 Schedule for future meetings**

The meeting schedule is posted at <http://www.esta.org/ESTA/meetings.php>.

*The Summer 2023 meetings will be held during the week of 17 July, back in Westlake, TX; returning there again during the week of 02 October.*

The TSC will meet on 23 July and on 08 October. Erin Grabe reminded everyone that we will move 2024 July meetings to New York for 2024 NATEAC.

### **11 Adjournment**

The agenda being complete, Alan Rowe declared the meeting adjourned at 15:18 PDT.

Technical Standards Council Members as of 15 April 2023

<b>Name</b>	<b>Representing</b>	<b>Status</b>
Matthew Antonucci	Contract Services Administration Trust Fund	A
Justin Bennett	USITT	A
Harry Box	PERG	O
Mike Garl	Mike Garl Consulting LLC	P
William Gillett	Walt Disney Company	A
Jerry Gorrell	USITT	P
Mitch Hefter	Mitch Hefter	P
Edwin S. Kramer	I.A.T.S.E. Local 1	P
Michael Lay	Candela Controls, Inc	P
David E. Miller	Walt Disney Company	P
D. Andrew Gibbs, Ph.D.	Amer. Society of Theatre Consultants	P
Eddie Raymond	IATSE Local 16	O
Alan M. Rowe	I.A.T.S.E. Local 728	P
Bill Sapsis	Sapsis Rigging, Inc.	P
Mike Skinner	Contract Services Administration Trust Fund	P
Keith Sklar	Actors' Equity Association	P
Todd Spencer	ESTA President	P
Steve Terry	Electronic Theatre Controls, Inc.	P
R. Duane Wilson	Amer. Society of Theatre Consultants	A