Chairperson:
Mike Garl; Mike Garl Consulting LLC; P

Recording secretaries:
Karl Ruling and Richard Nix (ESTA)

Attendees:
Justin Bennett; USITT; A
William Gillett; Walt Disney Company; A
Jerry Gorrell; USITT; P
Erin Grabe; ESTA; exf
Mitch Heft; Mitch Heft; P
Edwin S. Kramer; I.A.T.S.E. Local 1; P
Michael Lay; Candela Controls, Inc; 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
Mike Wood; Mike Wood Consulting LLC; P

Visitors:
Ethan Gilson

1 Opening Remarks
Mike Garl called the meeting to order at 9:03 AM. He thanked everyone for taking time to attend, and asked everyone to keep their microphones muted when not speaking.

2 Attendance and membership

2.1 Taking attendance and introductions

2.2 Welcome to visitors

2.3 Call for quorum
A quorum is eight or more voters present.

Mike Garl confirmed that a quorum was present.

2.4 Consensus body
The consensus body, after today’s meeting actions, is:

<table>
<thead>
<tr>
<th>Name</th>
<th>Company or representation</th>
<th>Voting status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keith Sklar</td>
<td>Actors’ Equity</td>
<td>P</td>
</tr>
<tr>
<td>D. Andrew Gibbs, Ph.D.</td>
<td>Amer. Society of Theatre Consultants</td>
<td>P</td>
</tr>
<tr>
<td>R. Duane Wilson</td>
<td>Amer. Society of Theatre Consultants</td>
<td>A</td>
</tr>
<tr>
<td>Michael Lay</td>
<td>Candela Controls, Inc.</td>
<td>P</td>
</tr>
<tr>
<td>Matthew Antonucci</td>
<td>Contract Services Administration Trust Fund</td>
<td>P</td>
</tr>
<tr>
<td>Mike Skinner</td>
<td>Contract Services Administration Trust Fund</td>
<td>A</td>
</tr>
<tr>
<td>Steve Terry</td>
<td>Electronic Theatre Controls, Inc.</td>
<td>P</td>
</tr>
</tbody>
</table>
3 Approval of minutes from the previous meeting
See TSCmin03-2022r1_DRAFT.pdf. This r1 version has a paragraph about Mitch Hefter reporting an agreement between the International Association of Electrical Inspectors and the International Code Council.

Steve Terry moved to approve the minutes. The motion was seconded and carried without objection or abstention.

4 Patent and anti-trust statements

4.1 Reading of the anti-trust statement
Mike Garl 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 held up a copy of the pamphlet for everyone to see. No antitrust issues were raised.

4.2 Reading of the call for patents
Mike Garl 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.
5 Approval of agenda
Mike Garl added an item 7.4 to discuss possible collaboration with SMPTE.

Bill Sapsis moved to approve the agenda as amended. The motion was seconded and carried without objection.

6 Old Business and standing reports

6.1 Financial reports

6.1.1 Treasurer’s Report and Status of Contributions and Pledges
Erin Grabe reported. Program budget is break-even.

6.1.2 TSP Fundraising

6.1.3 Accounting of TSP documents sold and downloaded
[See SalesReportforTSC_06-2022.pdf]

6.2 Old Business

6.2.1 Technical Standards Program project report

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 E1.71, Powered Curtain Machines
The Stage Machinery Working Group might vote to offer the draft standard for public review. See BSR_E1-71_202x_2022-10006r1.pdf.

Bill Sapsis moved to approve the first public review. The motion was seconded, and carried without objection or abstention.

6.2.2.1.2 BSR E1.72, Powered Floor Machinery
The Stage Machinery Working Group might vote to offer the draft standard for public review. See BSR_E1.72-202x_2022-10001r1.pdf.

Eddie Kramer moved to approve the first public review. The motion was seconded, and carried without objection or abstention.

6.2.2.1.3 BSR E1.28, Guidance on planning followspot positions in places of public assembly
The Followspot Position Working Group may vote to offer the draft standard for public review. The revision of the existing standard offers new guidance on followspot booth glass. See BSR E1-28_202x_2022-9003r1.pdf.

Bill Gillett moved to approve the first public review. The motion was seconded, and carried without objection or abstention.

6.2.2.2 Withdrawals

6.2.2.3 Accept as ANS

6.2.2.3.1 Reaffirmation of ANSI E1.32, Guide for the Inspection of Entertainment Industry Incandescent Lamp Luminaires
The public review is open through May 23. As of May 17 no comments had been received and the working group’s letter ballot had enough Yes votes without comment to pass the motion. Two ballots are still outstanding, but chances are the motion will carry and no public review comments will need resolution. If this is so, the TSC can vote to approve the reaffirmation.
Mitch Hefter said it “went through as clean as a whistle”, and moved to reaffirm it. The motion was seconded.

<table>
<thead>
<tr>
<th>Name</th>
<th>Company or representation</th>
<th>Voting status</th>
<th>Yes</th>
<th>No</th>
<th>Abstain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keith Sklar</td>
<td>Actors’ Equity</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Andrew Gibbs, Ph.D.</td>
<td>Amer. Society of Theatre Consultants</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R. Duane Wilson</td>
<td>Amer. Society of Theatre Consultants</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Michael Lay</td>
<td>Candela Controls, Inc.</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Matthew Antonucci</td>
<td>Contract Services Administration Trust Fund</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mike Skinner</td>
<td>Contract Services Administration Trust Fund</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steve Terry</td>
<td>Electronic Theatre Controls, Inc.</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Todd Spencer</td>
<td>ESTA President</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edwin S. Kramer</td>
<td>I.A.T.S.E. Local 1</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alan M. Rowe</td>
<td>IATSE Crafts Advancement Program</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mike Garl</td>
<td>Mike Garl Consulting LLC</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mitch Hefter</td>
<td>Mitch Hefter</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bill Sapsis</td>
<td>Sapsis Rigging, Inc.</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jerry Gorrell</td>
<td>USITT</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Justin Bennett</td>
<td>USITT</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>David E. Miller</td>
<td>Walt Disney Company</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>William Gillett</td>
<td>Walt Disney Company</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The roll call vote carried the motion, with 11 “Yes” votes, and no objections or abstentions.

**6.2.2.3.2 Reaffirmation of ANSI E1.37-1, Additional Message Sets for ANSI E1.20 (RDM) -- Part 1, Dimmer Message Sets**

*The public review is open through May 23. As of May 17 no comments had been received and the working group’s letter ballot had 35 Yes votes without comment. Three ballots are still outstanding, but chances are the motion will carry and no public review comments will need resolution. If this is so, the TSC can vote to approve the reaffirmation.*

Karl Ruling reported that it is still in working group letter ballot. The votes are still overwhelmingly Yes. No action necessary.

**6.2.2.4 Weapons Safety working group followup**

*Does the TSC want to formally form the working group?*

**6.2.2.4.1 Membership**

Calls for interest and solicitations by interested parties to draw in participants from outside the TSP have resulted in enough people to form a working group.

**6.2.2.4.2 Legal counsel and insurance**

Our legal counsel, David Saltiel, is not concerned. However, questions to our insurance broker netted a proposal from Neil Huff that
...if the TSC wishes to move forward with a new TG and the subject matter may be considered high profile, controversial, hot topic in the news media, the TSC should notify Beth and Neil Huff

1. Providing a brief summary of the subject matter of work of the new TG or WG. We will then forward to the underwriter for review. At that time, if the situation warrants, the underwriter may introduce changes in the terms and conditions of the policy including any additional premium for consideration by ESTA and the TSC.

2. However, there will be no additional premium due until such draft standards are published. So the Weapons Safety TG can go to work at no charge unless and until a new Standard is published.

3. Just to be clear, when a draft has been approved by the TG, WG, and TSC, before the TSC sends the standard to ANSI for review and publication, we will forward such standards to the insurance company for their review and consideration.

Since these are new requirements effective today, the TSC should notify Beth and I if any and all new WG’s or TG’s are established. It is expected that the underwriter will only request additional information if the subject matter falls into the “high profile, controversial or hot topic” realm. However, since this is a new requirement, let’s treat all newly established TG’s or WG’S as if they were controversial until the underwriter fully understands the activity of the TSC.

In the opinion of David Saltiel, Richard Nix, and Karl Ruling, these conditions are unworkable. David Saltiel wrote, “I don’t know how you can ask your volunteers to spend hours of their personal time developing a standard with the knowledge that an insurance company could effectively override and reject the work by refusing to insure the work product/standard created by the group. Truth be told, the insurance underwriter is in no position to correctly assess the risk resulting from the adoption of an industry standard particularly if its basis for evaluating the risk is whether it is controversial high profile; that’s simply a ridiculous premise.

There was discussion.

Bill Sapsis moved to form a Weapons Safety in Event Production Working Group. The motion was seconded. The motion carried with one objection.

There was discussion about who would be the chairperson. Ethan Gilson said he had volunteered to co-chair a Weapons Safety working group only as someone who had experience with the standards development process, but said he did not have direct experience with the subject matter. Steve Terry said he would prefer to have someone with direct experience lead this effort. Others agreed.

Bill Sapsis moved that Ethan Gilson be named Chairperson. The motion was seconded. There was discussion, and Mike Garl said he must find a co-chairperson with direct subject matter experience. The motion carried without objection.

7 New business

7.1 F&S Working Group leadership
Brad Dittmer has withdrawn and is an observer member. Mike Wood is retiring. Whom shall you appoint to lead the working group?

Karl Ruling reported. The Fog & Smoke Working Group discussed this at their last meeting. Steve Vanciel and Karl Ruling both volunteered to co-chair the working group. Mitch Hefter moved to appoint them both. The motion was seconded, and carried without objection or abstention.

7.2 TSC leadership
Mike Wood is retiring. The ESTA President appoints TSC leadership, but whom would you like to see him appoint?

There was discussion. Mike Garl said Michael Lay would like to stay in CPWG leadership, and Alan Rowe has expressed an interest. The consensus was that Alan would be a good choice.
7.3 P&P revisions
You approved a revision to the P&P at the March meeting. However, Richard Nix has proposed a change to clause 4.5 to address confusion in the Event Safety Working Group about task groups. The existing text reads:

A task group is created by a working group or the Technical Standards Council to address a single task, such as drafting a portion of a standard or identifying technical issues that need to be addressed in a standard. The membership of a task group shall be appointed by the working group chairperson from volunteers in the working group and shall be limited to those people appointed by the chairperson. The task group shall cease to exist when its task has been completed or the deadline for the completion of the task is reached. A task group of a working group may be disbanded at any time by a majority vote of the working group or TSC. A task group of the Technical Standards Council may be disbanded at any time by a majority vote of the TSC.

Nix proposes changing the first two sentences to read:

A task group is created by a working group or the Technical Standards Council to address a single task, such as drafting a portion of a standard or identifying technical issues that need to be addressed in a standard. The membership of a task group subordinate to a working group shall be appointed by the working group chairperson from volunteers in the working group and shall be limited to those people appointed by the chairperson.

Mitch Hefter moved to approve the P&P revision. The motion was seconded and carried without objection or abstention.

7.4 Other new business

7.4.1 SMPTE discussion.
Michael Lay reported about SMPTE—an ANSI-accredited Standards Development Organization—and their Rapid Industry Solutions process, which is their attempt to respond to industry needs in a manner that does not need to conform with ANSI standards development policies and procedures. Many CPWG members are SMPTE members and there are interest overlaps. SMPTE has expressed an interest in working with the CPWG on the OTP project. He moved for the TSC to appoint two CPWG representatives, Scott Blair and Marcus Bengsston, to serve as liaisons. The motion was seconded and carried without objection or abstention.

8 Optional reports

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

8.1.1 Control Protocols
Michael Lay reported, the CPWG voted in three new members at their meeting, making eight new members for this year. There are several active projects, and the WG is actively planning for Plugfest in September.

8.1.2 Electrical Power
Mitch Hefter reported. E1.32 is done. E1.58 is in ballot recirculation. There is a new ad hoc group exploring E1.19 in light of Richard Cadena’s recent Protocol article on GFCI, and will report back in September if there are any actions necessary.

8.1.3 Floors
Jerry Gorrell reported that the tension grid project is moving forward, and also said that a federal court case he had been working on recently settled, using one of the Floors Working Group standards (“Don’t fall off the stage”) as a key component in the settlement.

8.1.4 Fog and Smoke
Karl Ruling reported. They talked about the ventilation project.
8.1.5 Followspot Position
Richard Nix reported. The TSC just acted on the working group’s only active document, which is now going to public review.

8.1.6 Photometrics
Jerry Gorrell reported that work is progressing.

8.1.7 Rigging
Bill Sapsis reported there are three drafts going to letter ballot for ANS approval. The performer flying document is making progress, and he hopes the working group responds to the task group’s request for interim review comments.

8.1.8 Stage machinery
Richard Nix reported. The TSC has just taken action on two of their active documents.

8.1.9 Event Safety
Richard Nix reported. Yesterday’s meeting went very well, and was perhaps the most productive meeting they have had in a while. There was a lot of discussion about two of the drafts, which seem to be a little contentious, but he said he thought that the discussion concluded with the working group having provided sufficient guidance to help the task groups move forward. The rigging draft standard was addressed earlier in this agenda. The Security task group has delivered a first complete draft to the ESWG, and they are reviewing this latest version from the beginning, to wordsmith. They might have a draft for WG review in September.

8.2 Reports of affiliated organizations

8.2.1 ASTC

8.2.2 Event Safety Alliance

8.2.3 NFPA

8.2.3.1 FDW-AAA committee (NFPA 80 fire doors & fire safety curtains)
Jerry Gorrell reported that the committee meets in August.

8.2.3.2 SPE-AAA (NFPA 160 & 1126, flame and pyrotechnics)
Nothing to report, said Karl Ruling.

8.2.3.3 SAF-AXM & BLD (assembly occupancies. NFPA 101, 102, & 5000)
Next meeting in October, reported Jerry Gorrell.

8.2.3.4 NEC (NFPA 70)
Mitch Hefter reported that the Annual conference is next week. There are no certifying amending motions that affect our industry. Bill Ellis was approved as an alternate to Jason Potterf on Code Panel 18.

8.2.3.5 NFPA 70E
Jerry Gorrell reported on the new training checklist for “a qualified person”. This would be setting a standard for what is an electrician. He said the document lacks organization.

8.2.4 USITT
Mitch Hefter reported. The Executive Director position is still in transition.

8.2.5 ICC
Richard Nix reported on attending the code change hearings in Rochester, status of the IBC code change proposal he had reported on at the last meeting, and that the Chairperson of the ASCE 7 Wind Loads committee has joined the Rigging Working Group, to work with the E1.21 task group.
Andy Gibb reported that he is on the ICC standards committee for handicap access. R. Duane Wilson said that ICC is the secretariat for the accessibility American National Standard. Work is going very slowly, despite meeting every two weeks.

8.2.6 IES
Mitch Hefter reported that the IES Controls Committee has resolved Committee comments on new BSR/IES LP 16 Lighting Practice – Documenting Control Intent Narratives and Sequence of Operation. Public Review concluded with comments – all resolved, still waiting on response back from the commenter.

IES has reduced staff by ~1/3 due to fiscal issues.

8.2.7 UL
1573 document is currently in review comment circulation. Steve Terry said that there was an insidious trend to move UL 8750 requirements into individual product standards – i.e. they are tending to apply UL8750 (LED) to any product that contains LEDs.

8.2.8 ASSP
Jerry Gorrell reported nothing specific to report, except that they have a big push now for on-line training, which he finds interesting.

9 Other business and announcements

9.1 Above & Beyond Awards
Information on the Above & Beyond Awards may be found at http://tsp.esta.org/tsp/news/award_recipients.html.

Mike Garl reminded everyone of the link.

9.2 Lifetime Technical Achievement Award
No news or action.

9.3 Volunteer of the Year Award
No news or action.

9.4 Swan Award
No news or action.

9.5 TSP participation fee donor fund
No news. Staff was directed to remove this item and item 9.6 from the agenda.

9.6 INNOVA
No news. Staff was directed to remove this item and item 9.5 from the agenda.

10 Schedule for future meetings
The meeting schedule is posted at http://www.esta.org/ESTA/meetings.php.

The Autumn TSC meeting is scheduled for Sunday 17 September from 09:00 to 13:00 in Westlake, Texas at the Marriott Westlake a.k.a Marriott Dallas/Ft. Worth Westlake (what we used to call the Marriott Solana).

11 Adjournment
Mike Garl closed the meeting with a thank you to Mike Wood for everything he has done for us over these past many years, noting that this would have been Mike Wood’s last meeting, had he been able to attend.

By acclimation, Mike Wood was thanked by all. The agenda business being completed, and there being no further new business brought forth, Mike Garl then adjourned the meeting at 10:29.
## Technical Standards Council members

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