

**Minutes**  
**Technical Standards Committee**  
**Wednesday, 16 March 2005**  
**Fairmont Royal York Hotel**  
**Toronto, ON, Canada**

**Chairman:** Mike Garl; James Thomas Engineering, Inc.; P

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

**Members attending:** William Conner; Bill Conner Associates LLC, representing the Amer. Society of Theatre Consultants; P  
Larry Schoeneman; Designlab Chicago, Inc.; P  
Steve Terry; Electronic Theatre Controls; P  
Mitch Hefter; Entertainment Technology (Genlyte Group LLC); P  
Edwin S. Kramer; I.A.T.S.E. Local 1; P  
Ken Vannice; Colortran (Leviton Manufacturing Co.), Inc.; P  
Mike Wood; Mike Wood Consulting LLC; P  
Ron Bonner; PLASA; A  
Bill Groener; PRG Lighting North Bergen; P  
Mark Engel; Rosco Laboratories; P  
Bill Sapsis; Sapsis Rigging, Inc.; P  
Frank Stewart; Specialty Tech Services; P  
Colin Waters; TMB; P  
Rodney F. Kaiser; J.R. Clancy Inc., representing USITT; P  
Lori Rubinstein; ESTA; ex officio

**Visitors:** Paul Vincent; Vincent Lighting Systems  
Roger L. Lattin; IATSE Local 728  
Peter Scheu; Scheu Consulting Service, Inc.  
Richard Nix; Performance Systems Integration, Inc.  
Ted Jones; Chicago Spotlight, Inc.  
Mike Carnaby; Mikan Theatricals  
Kent Jorgensen; IATSE Local 80  
Paul Sullivan; Theatre Health and Safety.Com  
Dr. Randall "Doom" Davidson

## **1 Opening remarks**

Mike Garl called the meeting to order at 13:05. He welcomed all to Toronto and thanked all present for making time for the meeting in their busy schedules. He recognized the other TSC leaders present in who's footsteps he is following, including Paul Vincent and Bill Groener.

Garl asked that all mobile phones be turned off or set to vibrate.

## **2 Attendance and membership**

### **2.1 Taking attendance**

A blue attendance sign-in sheet was circulated.

Mike Garl noted that a quorum was present.

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

Name	Company	Representing	Voting status
William Conner	Bill Conner Associates LLC	Amer. Society of Theatre Consultants	P
Robin Crews	Wrightson, Johnson, Haddon & Williams, Inc.	Amer. Society of Theatre Consultants	A
Bill Groener	PRG Lighting North Bergen		P
Steve Terry	Electronic Theatre Controls		P
Mitch Hefter	Entertainment Technology (Genlyte Group LLC)		P
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P
Larry Schoeneman	Interesting Products, Inc.		P
Mike Garl	James Thomas Engineering, Inc.		P
Ken Vannice	Colortran (Leviton Manufacturing Co., Inc.)		P
Mike Wood	Mike Wood Consulting LLC		P
Matthew Griffiths	PLASA	PLASA	P
Ron Bonner	PLASA	PLASA	A
Mark Engel	Rosco Laboratories		P
Bill Sapsis	Sapsis Rigging, Inc.		P
Frank Stewart	Specialty Tech Services		P
Colin Waters	TMB		P
Rodney F. Kaiser	J.R. Clancy Inc.	USITT	P
Jay O. Glerum	Jay O. Glerum & Associates, Inc.	USITT	A
Florian von Hofen	VPLT	VPLT	P
Eckart Steffens	SOUNDLIGHT	VPLT	A
		Total votes	16

## 2.2 Welcome to visitors

Garl had welcomed the visitors with his opening remarks.

## 3 Approval of minutes from the previous meeting

Eddie Kramer moved that the minutes of the previous meeting be approved as written. The motion was seconded. The motion was approved with a unanimous show of hands.

## 4 Call for patents

The following was read aloud to the assembly by Mike Garl:

"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 the Technical Standards Committee of the existence of a patent or copyright or other intellectual property that might protect material in a standard being developed by a working group. You need not be the holder of the patent or copyright to notify the Technical Standards Committee of its existence."

No issues were brought to the attention of the Committee.

## 5 Anti-trust statement

The following was read aloud to the assembly by Mike Garl:

"The ESTA Board of Directors and the leadership of this Technical Standards Committee 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 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."

Ruling held up a couple of copies of the pamphlet to demonstrate their availability. No issues were brought to the attention of the assembly.

## **6 Approval of agenda**

The following items were added to the agenda: P&P revision, ETCP news under "Other liaisons," ICC under "Liaisons," and ETL under "Other business."

Eddie Kramer moved that the agenda so modified be approved. The motion was seconded. The motion was approved with a unanimous show of hands.

## **7 Distribution of ESTA committee contact information**

Lori Rubinstein reminded the group that we are no longer distributing paper lists of contact information, since all the information is on the new ESTA website. Please visit the site and check it.

## **8 Old business**

### **8.1 Financial reports**

#### **8.1.1 Treasurer's report**

Frank Stewart noted that he's using a simple, single-sheet format, which is essentially a profit and loss statement. There was some concern expressed that the one-page summary is not detailed enough. Frank offered to give the reports in any format or level of detail desired. No further request was made for a more detailed report.

Stewart also explained that we have two different accounting systems in use. Lori keeps track of money coming in and applies it to the expense or the intended account per its scheduled time. Frank works on a cash basis, on the advice of our accounting firm. Thus, someone might give us a donation in December 2004 for the 2005 TSP budget. Lori would record this as a 2005 donation, but Frank would record it as funds received in 2004.

#### **8.1.2 Status of contributions and pledges**

The contributions were discussed. Some concern was expressed that companies that have given in the past may not give in the future. However, if we receive all the contributions pledged, our financial situation will be sound. Stewart noted that 45% of the contributions have already been received this year, which is unusually early and good.

#### **8.1.3 Accounting of TSP documents sold and on-hand**

The report was distributed. Rubinstein reported that the discrepancy between past USITT actual sales and reported sales has not been solved yet.

### **8.2 Ad hoc standards pricing task group report**

A proposal was distributed:

#### **PROPOSED PRICING POLICY FOR ESTA TSP STANDARDS**

This proposed policy is submitted to spur conversation extending our Standards Publishing and Licensing Policy.

We suggest that:

- Standards will still be printed and distributed through USITT and ANSI, as is now the policy.

- We will continue to sell PDF files for the same price as printed standards.
- Organizations that want to purchase multiple copies of the standards may do so at a pre-determined discount schedule, which would apply to both hardcopy and PDF files. (If they want to scan and reprint or reproduce electronically without paying, we really can't control that, and trying to do so will earn very little money and likely not be worth the effort.)

While there is a non-trivial cash stream from entities wanting to own copies of our standards, they will likely never return the cash costs of their creation. However, we didn't enter the standards-writing process as a for-profit venture and we don't think that should necessarily be the primary consideration driving our decisions. The value of our standards and the industry position of ESTA is enhanced the more our standards are actually used. Therefore, we propose that:

- After a set period of time (one year?) all standards should be put up on our website for free reading in a form that can not be downloaded and printed (perhaps with a significant watermark embedded on every page). In this way we address the need to get our information to the occasional user while earning income from those who need the standard on a more urgent basis or who want to "own" a copy.
- Our standard production costs are between 15-25% of the individual member's sales price. If we are not responsible for printing, stocking, and distributing, why not require a licensing fee of 1/3 of our sales price of standards produced by authorized agents who include (embed?) our standards in their works? We get a third, they get a third, and a third is eaten up in production and distribution costs. If they can better control their production costs, their profit goes up. We maintain our copyright and ownership while expanding the audience for our work.

We trust that these suggestions will spur discussion and lead to a more fully formed standards publishing policy.

Respectively,  
 The Standards Publication Pricing Task Group  
 Mark Engel  
 Kent Jorgensen  
 Larry Schoeneman

Steve Terry moved that the report from the standards publication task group be accepted as our policy, with the proviso that more detailed guidelines and contracts be drafted. The motion was seconded. In discussion, it was understood that the price referred to in determining the "one-third price" is the list price of the document. The motion was approved with a unanimous show of hands. The task group was given the job of drafting a more detailed licensing agreement for consideration by the TSC by May 1.

Terry insisted that the TSC shall be the authority for determining who is licensed to publish our standards.

The sense of the committee was that Karl shall be empowered to proceed with the discussions with VPLT for the publication of E1.11 in German.

### **8.3 Possible new TSC member**

The person being considered has declined. There was no further discussion, but we will keep looking. [Since the meeting, David Johnson has been appointed by the ESTA President.]

## **8.4 Working group reports**

### **8.4.1 Camera Cranes**

#### **8.4.1.1 Crane handbook update**

Kent Jorgensen gave Ruling the graphics files, so Ruling now has what he needs to have MaryLisa layout the handbook.

#### **8.4.1.2 BSR E1.12 camera crane standard**

Jorgensen pointed out that there hasn't been a meeting since the last TSC meeting, so he had no news.

### **8.4.2 Control Protocols**

#### **8.4.2.1 E1.11 (DMX512-A)**

The discussion of VPLT's German/English publication proposal was part of the pricing task group discussion.

#### **8.4.2.2 E1.27-x (Cabling)**

Steve Terry reported that the task group is working on comment resolutions under the leadership of Javid Butler.

#### **8.4.2.3 E1.17 (ACN) progress**

Terry reported that the public review is in process.

#### **8.4.2.4 E1.20 (Remote Device Management)**

Steve Terry reported that the task group is working on comment resolutions under the leadership of Scott Blair.

#### **8.4.2.5 E1.11 recommended practice**

Terry reported that a first draft is being written under the leadership of Tim Bachman.

### **8.4.3 Electrical Power**

#### **8.4.3.1 E1.18 - Recommended practice for selection, installation, and use of portable feeder cable.**

Eddie Kramer reported that the first two chapters are in the editorial stream. A third has been rewritten. Subsequent sections need to be worked on. He has implemented a three-day turn-around time for comments from reviewers, who are being polled sequentially. By July 1 he plans to have a draft document for Karl Ruling to distribute.

#### **8.4.3.2 E1.19 - Recommended practice for use of Class A GFCIs**

Ken Vannice reported that the document was reworked at the working group meeting and a motion was made to offer it for public review. The motion will be decided by letter ballot.

#### **8.4.3.3 E1.24, pin connector intermateability standard**

Vannice reported that it is in public review through 26 April 2005 and that so far one person has commented.

### **8.4.4 Floors, BSR E1.26**

The Floors Working Group had voted to offer the draft BSR E1.26 for public review. The TSC considered the motion, and on a roll call ballot rejected the motion with 15 out of 16 (all present) voting "No." Mike Wood pointed out some serious ambiguity in the document, which probably would make it impossible for a person to review it intelligently.

Name	Company	Representing	Voting status	Vote
William Conner	Bill Conner Associates LLC	Amer. Society of Theatre Consultants	P	no
Robin Crews	Wrightson, Johnson, Haddon & Williams, Inc.	Amer. Society of Theatre Consultants	A	
Bill Groener	PRG Lighting North Bergen		P	no
Steve Terry	Electronic Theatre Controls		P	no
Mitch Hefter	Entertainment Technology (Genlyte Group LLC)		P	no
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P	no
Larry Schoeneman	Interesting Products, Inc.		P	no
Mike Garl	James Thomas Engineering, Inc.		P	no
Ken Vannice	Colortran (Leviton Manufacturing Co., Inc.)		P	no
Mike Wood	Mike Wood Consulting LLC		P	no
Matthew Griffiths	PLASA	PLASA	P	
Ron Bonner	PLASA	PLASA	A	no
Mark Engel	Rosco Laboratories		P	no
Bill Sapsis	Sapsis Rigging, Inc.		P	no
Frank Stewart	Specialty Tech Services		P	no
Colin Waters	TMB		P	no
Rodney F. Kaiser	J.R. Clancy Inc.	USITT	P	no
Jay O. Glerum	Jay O. Glerum & Associates, Inc.	USITT	A	
Florian von Hofen	VPLT	VPLT	P	
Eckart Steffens	SOUNDLIGHT	VPLT	A	

Steve Terry moved that the document be returned to the working group with an explanation as to the TSC's refusal to offer it for public review. The motion was seconded and approved with a show of hands. Mike Wood offered to work with Tim Hansen

#### 8.4.5 Fog and Smoke

##### 8.4.5.1 BSR E1.23 – General fog standard

Ruling reported that the last public review had generated 23 comments. The working group now has a draft comment resolution document and a revised draft standard to consider at the upcoming working group meeting.

##### 8.4.5.2 *Introduction to Modern Atmospheric Effects* revision

Ruling reported that there had been no comments received during the public review, so now the working group can decide to change the document some more, or call it done.

There was a discussion of the need for a product safety standard for fog machines. There is no UL standard specifically for fog-making equipment.

#### 8.4.6 Followspot position

Ruling reported that the working group meetings tend to be lively and productive task group meetings, but that the draft standard is not ready for consideration for public review.

#### 8.4.7 Photometrics

##### 8.4.7.1 BSR E1.25

Ruling reported that it was in public review until 26 April 2005.

#### **8.4.7.2 Appeal by Regine Krämer of Arri**

Regine Krämer of Arri had written to ask that one of her public review comments be reconsidered.

Eddie Kramer moved that Ms. Krämer shall be informed that her appeal will be reconsidered as part of this on-going public review. The motion was seconded and approved with a unanimous show of hands.

### **8.4.8 Rigging**

#### **8.4.8.1 Appointment of new co-chairman**

Bill Sapsis asked that Ken Jorgensen be allowed to serve as his co-chair for the Rigging Working Group. The motion was seconded. The motion was approved by a unanimous show of hands.

#### **8.4.8.2 E1.1 – Wire rope ladders**

Bill Sapsis reported that it is in public review through 26 April 2005.

#### **8.4.8.3 E1.2 – Aluminum towers and trusses**

Ruling reported that the ESTA Board letter ballot to accept the new version of E1.2 as an American National Standard had closed on March 10 and that the Board had voted unanimously in favor of the motion.

#### **8.4.8.4 E1.4 – Manual Rigging Systems**

Ruling reported that the TSC's letter ballot for the seventh public review of this document closed on 11 March 2005, and that the motion carried with 15 voting "Yes" and one voted "Abstain with reasons," out of a voting body of 16. It will be offered for a seventh public review.

#### **8.4.8.5 E1.6 – Powered Rigging Systems**

Ruling reported that there are now two task groups now because the document is in two parts: chain hoists and wire rope winches. Chris Kaiser is working as secretary. Wally Blount is heading the chain hoists project while Harvey Sweet is heading the wire rope hoists project.

#### **8.4.8.6 E1.8 – Speaker Enclosures Rigging Standard**

Ruling reported that the TSC letter ballot to accept BSR E1.8 (Rig/1997-2021r12a) as an American National Standard ended on 11 March 2005 with 15 voting "Yes" and one voting "Abstain with reasons" out of a voting body of 16. The motion carried with the required supermajority, so the document will be forwarded to the ESTA Board for approval.

#### **8.4.8.7 E1.15 – Boom & Base Assemblies**

Ruling reported that it is in public review through April 26.

#### **8.4.6.8 E1.21 – Portable roof systems**

Ruling reported that the TSC letter ballot to offer BSR E1.21, Entertainment Technology — Temporary Ground-Supported Overhead Structures Used to Cover the Stage Areas and Support Equipment in the Production of Outdoor Entertainment Events (Rig/2002-2003r5) for public review closed on 11 March 2005. In the voting body of 16, 15 voted "Yes" and one voted "Abstain with reasons," so the motion carried with the required supermajority.

#### **8.4.6.9 E1.22 – Fire safety curtain systems**

Harvey Sweet reported that a revised draft standard has been written, but there about five errata that need to be addressed.

Sweet raised a concern about NFPA 80. He asked for a way to respond on behalf of ESTA in regard to NFPA 80.

Steve Terry moved that any working group wishing to respond to or to make comments on behalf of ESTA in regard to a standard by another organization shall submit that proposed response to the

TSM, who will vet the response to ensure that it is in the broader interests of ESTA. Responses that are so approved may be issued on ESTA letter head and signed by the TSM and working group chair(s). Members of a working group would maintain their rights to submit comments on their own behalf. The motion was seconded and approved by a unanimous show of hands.

## **8.5 Report on liaisons and news from other industry groups**

### **8.5.1 PLASA**

Ron Bonner mentioned the physical agents directive, which will eventually require the measurement of the output of luminaires. This will make photometry more important.

He had no further information on any European powerline harmonics standards work.

### **8.5.2 USITT news**

Mitch Hefter reported that the Engineering and Education commissions were not disbanded, but there is a move to reevaluate the commission structure

### **8.5.3 ASTC news**

Bill Conner reported that there are now 47 members.

### **8.5.4 VPLT news**

Ruling asked about the best way to publicize and distribute the VPLT standards that are translated into English and that are available for free. It is good to make them available because they are likely to be useful documents, but we don't want to suggest that they have been endorsed by the TSC or are a product of the TSP, because they haven't and aren't. Ron Bonner says he simply announces that they are available, and then distributes them on request. Ruling said he thought that was a simple solution.

### **8.5.5 UL liaison**

Ken Vannice described the UL 1573 problem. They have missed their comment resolution deadlines. The UL staff is pushing for either leakage current testing or for the implementation of assured grounding programs. STP members have demanded that UL 1573 be brought into the ANSI process, but there has been no response to this. Vannice says either they will bring it into the ANSI track or we will file an ANS project for stage and studio luminaires.

Vannice suggested that the industry would be better served by developing simple, inexpensive tests that can be used in the field throughout the life of the electrical equipment. This is much better than severe tests imposed on the product when manufactured, followed by years of no maintenance.

### **8.5.6 CANENA liaison**

Vannice said that the second CANENA secretary has left the job. The group is trying to get it started again.

Terry suggested that if the CANENA effort dissipates, we can write a standard for single-pole separable connectors ourselves. The UL 1691A project for the same range of products has languished, so no progress is being made there.

### **8.5.7 NFPA liaison**

#### **8.5.7.1 NFPA 70 (NEC)**

Mitch Hefter said that proposal forms are available on the USITT website. The 2005 edition is out, so revisions for the 2008 version are being considered now.

#### **8.5.7.2 NFPA 101 (Life Safety Code) and 5000 (building code)**

Bill Conner reported where these documents are in the revision cycle.

#### **8.5.7.3 NFPA 1126 (proximate pyro) and 160 (flame effects)**

Larry Schoeneman reported that the NFPA general meeting is in June. The special effects technical committee is supporting our language encouraging delaying fire alarm triggering to allow investigation of smoke alarm alerts.

#### **8.5.7.4 NFPA 80**

Bill Conner said that the revised standard should be available for comments in mid-June.

#### **8.5.7.5 ICC**

Conner reported on his testimony on behalf of ESTA and ASTC at the recent ICC hearings (22 February through 4 March in Cincinnati, Ohio). Gregory J. Cahanin of Cahanin Fire & Code Consulting had proposed (G73-04/05) that in clause 410.3.4 of the *International Building Code* the criterion for when a proscenium wall with a two-hour fire rating is required be changed from having a stage height of greater than 50 feet to having a space above the proscenium opening exceeding 20 feet. This would have mandated fire-rated proscenium walls in many theatres that are not required to have them now. Cahanin also proposed definitions for legitimate stage, arena stage, and theater-in-the-round. Conner spoke against the proposal. It was defeated. The proposed "arena" definition had audience seating on three-sides.

Conner noted that he could only give testimony. With the IBC, non-code officials may testify, but only code enforcement officials may vote.

#### **8.5.8 Other liaisons**

Lori Rubinstein distributed the ETCP candidate handbook. Applications are now being accepted for the computer-based testing. A person also needs to have education and practical experience to qualify to take the exam. All this is laid out in the handbook.

Terry said that this handbook and the certification program will transform the industry, and it is "totally cool."

Bill Sapsis said that developing the test questions was extraordinarily difficult, much harder than anyone expected.

There was a discussion of the exam procedure.

### **8.6 Review of action items from last meeting not covered above**

None.

## **9 New Business**

Ruling reported that the ANSI audit had found places where our P&P has to be modified to be brought in line with ANSI's current published procedures. He proposed that he would write draft copy and the TSC can approve or reject it.

Terry suggested that the ESTA president and the TSC chairman should review the makeup of the TSC roughly annually. Bill Groener suggested that fixed terms would provide times at which a person may elect to leave or to ask to be reappointed, and the President could then decide to replace some people. Suggested a third, a third, a third, over a three year period.

I suggested we might want a list of criteria to be used. Terry suggested that the TSC should be evaluated as one does a stock portfolio: Does the balance meet the needs of ESTA and the Technical Standards Program? This would suggest no set criteria, but criteria that might shift with changes in ESTA, the TSP, or the larger industry.

**10 Other business**

ETL is very interested in putting together a program for ESTA members that would offer discount for their services, reported Lori Rubinstein. Is this something the TSC feels we should pursue on behalf of ESTA members?

Groener noted that this subject is not a TSC concern and is an ESTA member benefit. Rubinstein said she asked for this to be discussed here because of the interests and expertise of the TSC members. There was further discussion by employees of manufacturers about their experiences working with UL and ETL and the relative costs of each. Rubinstein said these comments were very valuable and will help in the negotiations.

**11 Schedule for future meetings**

The next TSC meeting will be the afternoon of July 29 in Ft. Worth, Texas, Mike Garl announced.

**12 Adjournment**

Larry Schoeneman moved that the meeting adjourn. The motion was seconded. There were no objections. The meeting was declared adjourned by Mike Garl at 16:34.

**TSC Membership and Contact Information as of Wednesday, 29 June 2005**

Name	Company	Representing or parent company (This is the main sort field.)	Voting status
William Conner	Bill Conner Associates LLC	Amer. Society of Theatre Consultants	P
Robin Crews	Wrightson, Johnson, Haddon & Williams, Inc.	Amer. Society of Theatre Consultants	A
Larry Schoeneman	Designlab Chicago, Inc.	Designlab Chicago, Inc.	P
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	P
Mitch Heftter	Entertainment Technology	Genlyte Group LLC	P
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P
Mike Garl	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	P
Ken Vannice	Colortran	Leviton Manufacturing Co., Inc.	P
Mike Wood	Mike Wood Consulting LLC	Mike Wood Consulting LLC	P
Matthew Griffiths	PLASA	PLASA	P
Ron Bonner	PLASA	PLASA	A
Bill Groener	PRG Lighting North Bergen	PRG Lighting North Bergen	P
David Johnson	Entertainment Design	Primedia	P
Mark Engel	Rosco Laboratories	Rosco Laboratories	P
Bill Sapsis	Sapsis Rigging, Inc.	Sapsis Rigging, Inc.	P
Frank Stewart	Specialty Tech Services	Specialty Tech Services	P
Colin Waters	TMB	TMB	P
Rodney F. Kaiser	J.R. Clancy Inc.	USITT	P
Jay O. Glerum	Jay O. Glerum & Associates, Inc.	USITT	A
Florian von Hofen	VPLT	VPLT	P
Eckart Steffens	SOUNDLIGHT	VPLT	A