

**Minutes**  
**Technical Standards Committee**  
**Wednesday, 20 October 2004**  
**13:00 - 17:00**  
**Harrah's Las Vegas Casino & Hotel**  
**Las Vegas, NV**

**Chairman:** Paul Vincent; Vincent Lighting Systems; Vincent Lighting Systems; P

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

**Members attending:** Robin Crews; Wrightson, Johnson, Haddon & Williams, Inc., representing the Amer. Society of Theatre Consultants; A  
Steve Terry; Electronic Theatre Controls; P  
Mitch Hefter; Entertainment Technology (Genlyte Group LLC); P  
Lori Rubinstein; ESTA; ex officio  
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  
Ron Bonner; PLASA; A  
Frank Stewart; Specialty Tech Services; P  
Colin Waters; TMB; P  
Rodney F. Kaiser; J.R. Clancy Inc., representing USITT; P  
Florian von Hofen; VPLT; P

**Visitors:** David Saltiel; Bell, Boyd, and Lloyd LLC  
Roger Lattin; IATSE Local 728

**1 Opening remarks**

Paul Vincent called the meeting to order at 13:03. He welcomed all to Las Vegas, and asked people to sign in on the attendance sheet.

**2 Attendance and membership** (five required for quorum) 13:02

**2.1 Taking attendance**

A chartreuse attendance sign-in sheet was circulated. Paul Vincent noted that a quorum was present.

**2.2 Welcome to visitors**

Paul Vincent welcomed the two visitors.

**2.3 Voting body roster**

The full voting body during this meeting, including those not present, was 15:

Name	Company	Representing	Voting status
Colin Waters	TMB		P
Edwin S. Kramer	I.A.T.S.E, Local 1		P
Frank Stewart	Specialty Tech Services		P
Ken Vannice	Colortran (Leviton Manufacturing Co., Inc.)		P
Larry Schoeneman	Interesting Products, Inc.		P
Mark Engel	Rosco Laboratories		P
Mike Garl	James Thomas Engineering, Inc.		P
Mike Wood	Mike Wood Consulting LLC		P

Name	Company	Representing	Voting status
Mitch Hefter	Entertainment Technology (Genlyte Group LLC)		P
Paul Vincent	Vincent Lighting Systems		P
Steve Terry	Electronic Theatre Controls		P
William Conner	Schuler & Shook Inc.	Amer. Society of Theatre Consultants	P
Robin Crews	Wrightson, Johnson, Haddon & Williams, Inc.	Amer. Society of Theatre Consultants	A
Matthew Griffiths	PLASA	PLASA	P
Ron Bonner	PLASA	PLASA	A
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

### 3 Approval of minutes from the previous meeting

Steve Terry moved that we approve the draft minutes as written. The motion was seconded. The motion was accepted by a unanimous show of hands.

### 4 Call for patents

Paul Vincent read the following statement aloud to the assembly:

ESTA intends to publish no standard that contains protected intellectual property, unless that property can be licensed by anyone for a reasonable fee. ESTA uses a process of open patent disclosures to implement this intent. ESTA does not conduct patent searches and does not warrant that its standards contain no protected intellectual property.

In keeping with the open disclosure policy, I ask if anyone present wishes to notify the Technical Standards Committee of the existence of a patent or copyright that might protect material in a standard being developed by a working group. You need not be the holder of the patent or copyright in order to notify the TSC of its existence.

No issues were raised by any member of the assembly.

### 5 Anti-trust statement

Paul Vincent read the following statement aloud to the assembly:

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 \$100,000 and imprisoned for up to three years. An easy to read pamphlet describing restraint of trade issues is available from the Technical Standards Manager.

Mike Garl held up a copy of the easy to read pamphlet.

No restraint of trade or other anti-trust issues were brought to the attention of the assembly.

### 6 Approval of agenda

Paul Vincent asked that we add under item 10 Other business, "Protocol articles," and "TSC leadership."

Mitch Hefter moved that the agenda so modified be accepted. The motion was seconded and then approved with a unanimous show of hands.

**7 Distribution of ESTA committee contact information**

The contact information was distributed. Paul Vincent directed people to check the contact information and to tell Lori Rubinstein of any required changes.

**8 Old business**

**8.1 Financial reports**

**8.1.1 Treasurer's report**

The treasurer's report was distributed. Frank Stewart said there was nothing remarkable in them.

Lori Rubinstein noted that the expenditures report doesn't include the costs of the July meetings. The hotel bill had been disputed and the dispute has been resolved, but that's delayed paying the bill, and we haven't paid it yet.

Stewart noted, as he had at the last meeting, that there is no money budgeted for individual working groups. This money has not been spent in the past and was needed elsewhere. Money will be made available for legitimate projects. A preliminary budget will be presented to the Board at this meeting, Stewart explained, but a final one will be presented in January. Therefore, it would be helpful if any funds are needed by a working group, that they be requested between now and January.

**8.1.2 Status of contributions and pledges**

Lori Rubinstein reported on the status of contributions and pledges.

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

Lori Rubinstein reported that the publications report is back because the numbers sold are significant. USITT staff had been underreporting the sales by only reporting those sold with the ESTA order form or over the publicized ESTA orders phone line. Documents sold via the website or other means hadn't been reported. In general, the sales were actually four to eight times higher than reported.

**8.2 Working group reports**

**8.2.1 Camera Cranes**

**8.2.1.1 Crane handbook**

Steve Terry moved that the changes to the book since the last public review have been found to be non-substantive and that the motion to approve the camera crane handbook shall be approved. The motion was seconded. The motion was approved unanimously by those present, which was a supermajority of the voting body.

Name	Company	Representing	Voting status	Yes	Yes with comments	No with reasons	Abstain with reasons
Colin Waters	TMB		P	X			
Edwin S. Kramer	I.A.T.S.E., Local 1		P				
Frank Stewart	Specialty Tech Services		P	X			
Ken Vannice	Colortran (Leviton Manufacturing Co., Inc.)		P	X			
Larry Schoeneman	Interesting Products, Inc.		P	X			
Mark Engel	Rosco Laboratories		P				
Mike Garl	James Thomas Engineering, Inc.		P	X			
Mike Wood	Mike Wood Consulting LLC		P	X			
Mitch Hefter	Entertainment Technology (Genlyte)		P	X			

Name	Company	Representing	Voting status	Yes	Yes with comments	No with reasons	Abstain with reasons
	Group LLC)						
Paul Vincent	Vincent Lighting Systems		P	X			
Steve Terry	Electronic Theatre Controls		P	X			
William Conner	Schuler & Shook Inc.	Amer. Society of Theatre Consultants	P				
Robin Crews	Wrightson, Johnson, Haddon & Williams, Inc.	Amer. Society of Theatre Consultants	A	X			
Matthew Griffiths	PLASA	PLASA	P				
Ron Bonner	PLASA	PLASA	A	X			
Rodney F. Kaiser	J.R. Clancy Inc.	USITT	P	X			
Jay O. Glerum	Jay O. Glerum & Associates, Inc.	USITT	A				
Florian von Hofen	VPLT	VPLT	P	X			
Eckart Steffens	SOUNDLIGHT	VPLT	A				
				13	0	0	0

There was a discussion of how to gain ESTA Board approval. The consensus was that Ruling shall send the draft document to the Board with a letter ballot after correcting the typographical errors noted by Mitch Hefter in a hard copy he gave Ruling at this meeting.

There was a discussion of the pricing and distribution of the camera cranes book. The sense was that this should be priced in a manner similar to the *Introduction to Modern Atmospheric Effects* fog book. That is, not free, but inexpensive.

#### 8.2.1.2 BSR E1.12 progress

Ruling reported that there had been a task group meeting held in September.

#### 8.2.2 Control Protocols

##### 8.2.2.1 E1.11 (DMX512-A) publication progress report

Ruling reported that progress was being made in reconstructing the document from the text extracted from the PDF approved by the working group. The original Word Perfect version was unusable.

##### 8.2.2.2 E1.27-x (Cabling) public review report

Steve Terry reported that the document is in public review through December 7.

##### 8.2.2.3 E1.17 (ACN) resolution progress

Terry reported that some resolution documents had been distributed to the working group, but not a full set and not within the two-week deadline. They will be discussed at the 21 October working group meeting.

##### 8.2.2.4 E1.20 (Remote Device Management) public review report

Steve Terry reported that the document is in public review through December 7.

##### 8.2.2.5 E1.11 Recommended Practice

Mitch Hefter reported that a project to write a recommended practice for DMX512-A has been started. That is, a group of interested people within the CPWG has been assembled.

#### 8.2.3 Fog and Smoke

##### 8.2.3.1 BSR E1.23 – General fog standard public review report

Larry Schoeneman reported that the document is in public review through December 7.

##### 8.2.3.2 Guidance for fire alarms and fire detection systems

Schoeneman reported that he would be going to an NFPA SPE-AAA meeting in Burbank on 21 October (the day after this TSC meeting) to talk about this issue with the technical committee.

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

Schoeneman said it's a great document. The need for a future public review of the document was discussed.

#### **8.2.4 Followspot position**

Robin Crews reported that the working group has a meeting scheduled for Friday night (22 October) and another meeting in January. The document is proceeding, with some areas moving faster than others.

#### **8.2.5 Photometrics**

Ruling reported that the last public review of BSR E1.25 closed 3 August 2004. The comments and objections were few, so the resolutions will be drafted at the upcoming working group meeting, Friday, 22 October. Ruling gave a synopsis of the purpose of the document, which is to offer guidance on the basic conditions for various ways of measuring a luminaire's light output that involve shining the light at a wall. There is an IESNA standard for measuring output with a goniophotometer, but goniophotometers are expensive and slow, and thus unpopular in our industry.

#### **8.2.6 Rigging**

##### **8.2.6.1 E1.1 – Wire rope ladders comments and reasons resolution**

Mike Garl reported that the working group will discuss some draft resolutions at its meeting.

##### **8.2.6.2 E1.2 – Aluminum towers and trusses public review resolutions**

Mike Garl reported that some resolutions and a revised document had been sent to the working group. The resolutions, if adopted, have resulted in no substantive changes to the draft standards document.

##### **8.2.6.3 E1.4 – Manual Rigging Systems public review report**

Garl reported that the last public review comments had been distributed to the working group. Far fewer comments were received this time, compared to previous public reviews.

##### **8.2.6.4 E1.6 – Powered Rigging Systems comment resolutions**

Mike Garl reported that the task group had been working on a set of resolutions, but that the resolutions were not finished.

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

Garl report that the letter ballot to accept the draft standard as an American National Standard had generated one "Yes with comments" and one "No with reasons." The working group needs to consider the comment and reasons.

##### **8.2.6.7 E1.15 – Boom & Base Assemblies comment resolutions**

Garl reported that the working group will consider a revised draft standard document and a set of comment resolutions.

##### **8.2.6.8 E1.21 – Portable roof systems comment resolution**

Garl reported that the task group has been holding meetings to work on resolutions. The group is making progress, but will meet during this current meeting cycle to work some more.

##### **8.2.6.9 E1.22 – Fire curtain systems comment resolutions**

Garl reported that the task group has radically revised the draft standard as a result of the comments, but has not finished.

## **8.2.7 Electrical Power**

### **8.2.7.1 E1.18 - A recommended practice for selection, installation, and use of portable feeder cable.**

Vannice said he had no news since there has been no EPWG or task group meeting since the last TSC meeting.

### **8.2.7.2 E1.19 - A recommended practice for use of residual current devices in entertainment applications.**

Bob Luther is working hard on this, reported Vannice, but we don't yet have a version for public review.

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

Mitch Hefter reported that he will make a motion at the EPWG meeting to send the current draft to public review.

### **8.2.7.4 EMC issues**

Vannice said that it is time again for the US National Committee to speak out against moves to impose European low frequency power line emissions standards on the US market. Vannice reported that Ruling had sent a letter on our behalf to the US National Committee.

Steve Terry reported that there is a move to remove the exemption for professional lighting equipment from the harmonic limits in Europe. John Woodgate (PLASA's consultant) has been communicating with Adam Bennette of ETC about this. Terry sees this as a train coming down the track at the entertainment industry, and we need to stop the train or get it switched to another track.

### **8.2.7.5 Bob Luther's replacement**

Vannice reported that Bob Luther says that if he is elected to ESTA office he will need to cut back his efforts on the EPWG. Most of the projects are in Luther's field of interest. We need another working group chairman to push Luther's projects forward. They are important projects that will be important for the certification program.

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

Karl Ruling reported that the working group feels it has a document ready for public review, as soon as some SI to U.S. conversions are done. The motion will be decided by letter ballot.

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

### **8.3.1 PLASA**

Ron Bonner reported on the PLASA Control Protocols breakfast meeting. He said that he found it refreshing that many people wanted to meet more often, every six months, to look at the work coming from the Technical Standards Program. Fifty of 70 attending said they were interested. Bonner said he has hopes that regular meetings will get people more interested in participating directly rather than letting others do the work.

Steve Terry said it was a great meeting, and that it pointed out that we have a lot more people to reach with our work.

### **8.3.2 USITT news**

Rodney Kaiser reported no news.

### **8.3.3 ASTC news**

No news, said Crews.

#### **8.3.4 VPLT news**

Florian von Hofen reported that VPLT is working to make sure that important German standards and work practices documents are available in English. BGV C1 (formerly VBG 70) is one of these that is now available in English. VPLT's SR 1.0, SR 2.0, and SR 3.0 will be available by the end of October in English on VPLT website for free. These are standards for work practices. Manufacturing standards are done by DIN.

Von Hofen reported on a ILMC working group. These are events planners and they are working on standards for qualification of people and safe event management. They are working on a web site with a collection of the standards that would apply to productions moving through Europe.

#### **8.3.5 UL liaison**

Vannice reported on the UL staff proposals for adding leakage current tests to UL 1573. He also reported on the change of the personnel in charge of this standard, which stripped the consensus body for the standard (which is UL staff, not the Standards Technical Panel) of much of its experience with this standard and the field of entertainment lighting.

There was a discussion of the need to make UL 1573 an American National Standard and our move to force them to do it. The consensus was that we will closely monitor this situation and review what we will do, if anything, based on UL's response to our call for making UL 1573 an American National Standard.

#### **8.3.6 CANENA liaison**

Visitor Roger Lattin reported that CANENA will attempt to coordinate the next meeting with our January meetings. He gave information to them on who to contact at ESTA for this coordination.

#### **8.3.7 NFPA liaison**

##### **8.3.7.1 NFPA 70 (NEC)**

The 2005 edition of the NEC is published, reported Mitch Hefter. There are no significant changes for our industry. There is a new clause dealing with industrial control panels, Article 409.

Vannice reported that Clark County inspectors are responding to the change to Article 700 that requires putting emergency equipment in sprinklered rooms. Therefore, dimmer racks that handle emergency circuits need to be protected against water, thus requiring the use of NEMA 3 enclosures.

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

Ruling reported that Jerry Gorrell had been attending the recent SAF-AXM meetings. There are continued pushes to require fire curtains in more theatrical venues, which he has successfully argued against. He has also pushed to remove a variety fire safety exemptions enjoyed by churches, since many churches are now indistinguishable from theatres.

##### **8.3.7.3 NFPA 1126 (close pyro) and 160 (flame effects)**

Schoeneman reiterated that he will attend the SPE-AAA meeting in Burbank. The issues the committee is facing are mainly related to correlating the two standards with the new NFPA style guide and with the NFPA 101 and NFPA 5000.

##### **8.3.7.4 NFPA 80**

Conner not present. No report.

#### **8.3.8 Other liaisons**

Ruling described his speaking tour in China. It is described in detail in an article in the Fall 2004 issue of *Protocol*.

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

Paul Vincent read aloud the thank you letter that had been sent to Steve Carlson.

Ruling read aloud his letter to Steve Carson asking for reaffirmation of Vari-Lite's previously stated liberal patent licensing policy.

### **9 New Business**

#### **9.1 Review of the TSP Vision and Mission statements**

The TSP Vision and Mission statements were reviewed and slightly revised. The attached statements show the changes in legislative style.

#### **9.2 Other new business**

None.

### **10 Other business**

#### **10.1 Tenth Anniversary promotion and events**

Paul Vincent pointed out the handout about the Technical Standards Program and using standards. Vincent also described the drawing to be held at the ESTA Banquet.

#### **10.2 Protocol articles**

Paul Vincent reported that Beverly Inglesby will be meeting Thursday morning to work out article ideas from the Post-It Note sessions held at our Ft. Worth meetings. Paul Vincent invited comments on some of the ideas. No one had any comments, except that Colin Waters, who said it was a nice list.

#### **10.3 TSC leadership**

Paul Vincent announced that he will step down as TSC chairman after the USITT meetings. He invited others who might be interested in assuming this leadership position to step forward. He said he has been in a leadership position with ESTA for the last 15 years, and feels that it is time for a change and to give someone else a chance.

### **11 Schedule for future meetings**

The schedule of meetings in January and March was distributed. The next TSC meeting will be Friday, January 14th at the Dallas/Ft. Worth Airport Marriott South in Ft. Worth, TX. The following meeting will be March 16 at the USITT conference in Toronto. The meetings following that will be the last weekend of July.

### **12 Adjournment**

Steve Terry moved that the meeting adjourn. The motion was seconded. The motion was approved by acclamation. Paul Vincent declared the meeting adjourned at 16:14.



## **The Mission of the ESTA Technical Standards Program**

In 1994, the ESTA Board of Directors moved ESTA to a new level in its development as a professional trade association by establishing an ESTA Technical Standards Program. An increasing number of ESTA members were encountering situations where the lack of standards, or the imposition of standards developed outside the entertainment industry, were making it increasingly difficult to conduct business safely, efficiently, and profitably. As a trade association in a technology-based industry, it was the obvious duty of ESTA to serve its membership by establishing a program to deal with issues of technology and standards. In 1996, ESTA'S Technical Standards Program was accredited by the American National Standards Institute as Accredited Standards Committee E1, Safety and Compatibility of Entertainment Technology Equipment and Practices.

The Technical Standards Committee (TSC) was created to oversee the program with the charge to:

- Develop and implement an ESTA Technical Standards Policy.
- Approve technical standards projects and appoint working group chairs.
- ~~• Establish qualified personnel certification programs.~~
- Publish recommended practices and application notes.
- Appoint liaisons to monitor, participate in and support technical standards efforts by other organizations.
- Disseminate information to the ESTA membership on internal and external technical standards projects via a regularly published newsletter.
- Ensure that the ESTA membership is kept fully informed of all technical standards and regulations on a national and international level that might have an effect on the Entertainment Industry.

### **Vision Statement**

The Technical Standards Program (TSP) will serve the needs of the ESTA membership and contribute to the Entertainment Industry through the creation and publication of Recommended Practices and Standards. This effort will facilitate the use of new and existing equipment, improve communications and promote safe working conditions. Through the establishment of Working Groups, the TSP will concentrate its efforts in the areas of performance technology, safety, and loss prevention. As the composition of the ESTA membership evolves, those areas may be expanded, either directly through the establishment of new Working Groups or indirectly through liaisons with other organizations and associations.

The TSP will also serve the needs of the ESTA membership by monitoring the work of other relevant standards-making bodies and regulatory agencies throughout the world. The TSP will support said technical standards efforts through information dispersal or by direct participation. Pertinent information will be disseminated to the membership through general communications and in response to individual requests.

The TSP will support the goals and objectives of ESTA and will significantly contribute to its important role as a trade association.

**Technical Standards Committee Membership and Contact Information as of 04 November 2004**

Name	Company	Representing	Voting status
William Conner	Schuler & Shook Inc.	Amer. Society of Theatre Consultants	P
Robin Crews	Wrightson, Johnson, Haddon & Williams, Inc.	Amer. Society of Theatre Consultants	A
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
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
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
Paul Vincent	Vincent Lighting Systems		P
Florian von Hofen	VPLT	VPLT	P
Eckart Steffens	SOUNDLIGHT	VPLT	A