

**Minutes  
 Technical Standards Committee  
 Wednesday, 18 October 2000  
 Harrah's Las Vegas  
 Las Vegas, NV**

**Chair:** Bill Groener; Fourth Phase New Jersey; Principal

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

**Members attending:** Tera Johnson; Electronic Theatre Controls, Inc.; Principal  
 Lori Rubinstein; ESTA; ex officio  
 Mike Wood; High End Systems Inc.; Principal  
 Larry Schoeneman; Interesting Products, Inc.; Principal  
 Rodney F. Kaiser; USITT (J.R. Clancy Inc.); Principal  
 Mike Garl; James Thomas Engineering, Inc.; Principal  
 Ken Vannice; NSI Corporation; Principal  
 Tim Cox; PLASA; Principal  
 Mitch Hefter; Rosco/Entertainment Technology; Principal  
 Eckart Steffens; VPLT (SOUNDLIGHT); Alternate  
 Frank Stewart; Specialty Tech Services; Principal  
 Colin Waters; TMB Associates; Principal

**Visitors:** Tim Hansen; Oasis Stage Werks  
 Matthew Griffiths; PLASA  
 Baer Long; MGM Grand Productions  
 David Saltiel; Bell Boyd & Lloyd LLC  
 Ed Clare, PERA

**Voting body for this meeting:**

Name	Company	Parent Co./Org Represented	Vot. Stat.
Tera Johnson	Electronic Theatre Controls, Inc.	Electronic Theatre Controls	P
Mike Wood	High End Systems Inc.	High End Systems Inc.	P
Edwin S. Kramer	IATSE, Local 1	I.A.T.S.E. Local 1	P (absent)
Larry Schoeneman	Interesting Products, Inc.	Interesting Products, Inc.	P
Mike Garl	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	P
Edward Paget	Jones & Phillips Associates, Inc.	Jones & Phillips Associates, Inc.	P (absent)
Ken Vannice	NSI Corporation	Leviton Manufacturing Co., Inc.	P
Tim Cox	PLASA	PLASA	P
Bill Groener	Fourth Phase New Jersey	PRG	P
Mitch Hefter	Rosco/Entertainment Technology	Rosco Laboratories	P
Frank Stewart	Specialty Tech Services	Specialty Tech Services	P
Colin Waters	TMB Associates	TMB Associates	P
Rodney F. Kaiser	J.R. Clancy Inc.	USITT	P
Eckart Steffens	SOUNDLIGHT	VPLT	A

**1 Opening remarks**

Bill Groener called the meeting to order at 13:02. He welcomed all to the TSC meeting.

**2 Attendance and membership (Five required for quorum.)**

Groener noted that we have a quorum. He pointed out that Karl has a lime green attendance sheet that will be circulated and asked people to sign it to indicate their presence.

## **2.1 Attendance**

Self introductions were given while the attendance sheet was circulated.

## **2.2 Welcome to visitors**

Groener welcomed the visitors. He pointed out that the ESTA 2000 Board of Directors and Committees contact sheet had been distributed. Lori Rubinstein asked for corrections. Corrections were offered.

## **3 Approval of minutes from the previous meeting**

Mike Wood moved the minutes be approved as written. Mike Garl seconded. There was no discussion. The motion carried by a unanimous show of hands.

## **4 Call for patents and anti-trust statement**

Bill Groener read the following statement in regard to patents:

"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."

Ken Vannice noted that he had sent the letter about the NSI networking patent (US Patent 6,020,825) to Karl Ruling. Ruling said he had received it and filed it. [The text of the letter is appended to these minutes.]

Groener then read the anti-trust statement:

"The ESTA Board of Directors and the leadership of this Technical Standards Committee will reject or nullify any actions that restrain trade. Anyone who feels that an action restraining trade is being or has been taken is requested to bring the 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 TSC chair or ESTA president immediately.

"ESTA legal counsel has informed us that any member of this committee may be found individually liable for any action that restrains trade taken by this committee. An individual convicted of a violation of the Sherman Act may be fined as much as \$100,000 and be imprisoned for up to three years. An easy to read pamphlet describing restraint of trade is available from the Technical Standards Committee."

No anti-trust issues were identified.

## **5 Approval of agenda**

Mitch Hefter asked that we add dealing with the CPWG's CAT 5 report to the agenda under CPWG. Schoeneman asked that we discuss the pending Equity/League report as part of the F&S Working Group report.

Mike Wood moved that the agenda be accepted with the above additions. The motion was seconded. The motion passed unanimous on a voice vote.

## **6 Old business**

### **6.1 Financial reports**

#### **6.1.1 Treasurer's report**

Frank Stewart reported that the bill for the ANSI audit had come in. He also reported that the changes to the ANSI dues billing cycle will result in almost no charges from ANSI next year, but the ANSI dues bill will reappear the following year.

Stewart reported that we are well within our budget for the year.

### **6.1.2 Status of contributions and pledges**

Rubinstein distributed a sheet indicating what companies had contributed to the TSP. Bill Groener noted that we had more contribution income than pledged. Lori Rubinstein noted that we had received several donations of the VAT refunds from the PLASA trade show.

Rubinstein also noted that the work on setting up the foundation has been put on hold while the market research project is launched. She expects that we will see a dip in donations to the TSP from manufacturers as they put their money into the market research project. However, the benefits of the market research project will help ESTA and the TSP in the long run.

Colin noted that we have no pledges for 2001. Rubinstein and Groener said we need to re-launch the pledge-gathering program. No volunteers came forward, so Groener tabled the re-launch for now.

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

Lori Rubinstein noted that E1.2 is available for sale. She referred to the TSP/USITT Publications Accounting sheet she distributed for the financial details of what has been sold over the last three years.

### **6.1.4 Swag report**

Rubinstein said that lots of stuff is available at the ESTA booth. She encouraged people to buy it.

## **6.2 Working group reports**

### **6.2.1 Camera Cranes**

Ed Clare reported. He noted that Jimmy Fisher had given a contribution to the TSP, but that it wasn't shown on the contributions sheet. He also said that William F. White of Toronto will make a substantial donation.

#### **6.2.1.1 E1.12, American National Standard for camera cranes task group**

Ed Clare reported that there was no news regarding BSR E1.12. The working group is focusing on writing the operators handbook.

#### **6.2.1.2 Operators handbook task group**

Ed Clare reported that the project had gotten to a point where comments were solicited. Jorgensen has not gotten the comments incorporated into the document. The illustrations have been held up by budget cuts on the part of the union. The working group meeting in January will be to approve the text.

### **6.2.2 Control Protocols**

#### **6.2.2.1 E1.3**

Mitch Hefter reported that the document was back from public review with only editorial comments. It will probably be approved by the working group at tomorrow's meeting (19 October).

#### **6.2.2.2 E1.11**

Hefter reported that the task group had circulated another draft. There had been no working group comments on it. A motion for public review would probably be offered at the next meeting.

### **6.2.2.3 CAT 5**

Ruling explained that the DMX512/CAT 5 Task Group Report - Executive Summary contains a recommended pinout and signal assignments when using CAT5 cable with RJ45 connectors or punchdown blocks. Thus, the report, which is supposed to be simply a report of the results of testing signal emissions and noise pickup over CAT5 cable, contains a recommended practice, but the document has not been developed following our P&P for drafting recommended practices. There is some pressure in the working group to publish the report, but there is also some opposition because people oppose the implicit endorsement of these particular pinouts and signal assignments.

The consensus of the TSC in discussing this was that this is a recommended practice, so it should follow the P&P.

### **6.2.2.4 Report of ACN Task Group**

There was no report. The work is entirely within the task group, and no member of the task group was present to report on progress.

There was a discussion of the concern that this project has not been filed as an ANSI standard. Ruling says this increases our exposure to patent litigation. David Saltiel argued that this project has to be brought into our procedures, or else it needs to be cut loose from the Technical Standards Program.

Colin Waters moved that the CPWG must officially initiate the ACN project as an American National Standard and follow the P&P, or show cause for why this cannot be done. If cause is to be shown, there needs to be a written response distributed to the TSC at least two weeks before the next TSC meeting. A member of the ACN task group is requested to attend the next TSC meeting. Seconded by Mike Wood. The motion was unanimously accepted by a show of hands.

## **6.2.3 Fog and Smoke**

### **6.2.3.1 Working group co-chair appointment**

Larry Schoeneman reported that he had asked Brad Dittmer to be co-chair. Dittmer was waiting for permission from his employer.

Larry Schoeneman moved that Brad Dittmer be a co-chair of the Fog & Smoke Working Group if Brad Dittmer's boss permits him. The motion was seconded. The motion was approved unanimously by a show of hands.

### **6.2.3.2 E1.5, glycol/glycerin fog**

#### **6.2.3.2.1 ACGIH request**

Ruling reported that the ACGIH committee that was to consider our request that they set limits for fog chemicals did not meet in July in Chicago as scheduled. Bad weather had forced the cancellation of the meeting. The group was supposed to next meet in late October.

#### **6.2.3.2.2 Sampling project**

Frank Stewart said that he is administering the project. People are taking samples, but at a slow rate.

### **6.2.3.3 E1.14, Standard for fog machine manuals**

Ruling said that the document is in public review until the 19th of December.

### **6.2.3.4 Equity/League report**

Mike Wood reported that he had recently been contacted by Dr. Allan Kao from the Environ Group. The study is coming to an end and Equity/League have requested that Environ add an Appendix to the report covering suggestions for how to site machines and how to disperse fog to avoid any large concentrations in the immediate vicinity of the machine. To that end Kao would be using the HES demo room to test some fog equipment.

Kao told Wood that the study showed that there were no career threatening effects from using glycol fog but that they showed some transitory association between very high levels (such as right in front of the machine) and some of the symptoms reported. Accordingly they are setting a recommended ceiling level for concentration (not a TWA). He made it very clear that this study ONLY applies to Performers in a Musical Play - he considers this to be a special population with particular concerns. For example they are participating in strenuous activity, breathing deeply and have specific concerns about their vocal cords. He said that this report should not be applied to other populations. It's very specific to the test subjects and, in fact, the figures would be very conservative for other populations.

## **6.2.4 Photometrics**

### **6.2.4.1 E1.9, nutrition label**

Ruling reported that the working group would be considering resolutions to the comments from the second public review at the Saturday meeting.

### **6.2.4.2 Revamp/renew IES procedures**

Ruling reported that Jody Good had sent him an emailed report on the state of the IES testing procedures project. In that report, Good said that the draft procedures document is out of sub-committee and is being sent to the full Testing Procedures Committee for ballot. This will be due around the end of November. Technical Review Committee will review it for about a month, and then the IESNA Board will vote on it at their February Meeting.

### **6.2.4.3 Public information project**

Ruling reported that Tom Pincu and Larry Lieberman have a seminar to give at LDI explaining common procedures used to measure an instrument's output. At the USITT Conference there will be another session for that audience, and that session will present the E1.9 standard, which may be a draft at that point or an approved American National Standard.

## **6.2.5 Rigging**

### **6.2.5.1 E1.2 – Aluminum truss standard**

Mike Garl reported that it's done.

### **6.2.5.2 E1.4 – Manual rigging systems standard**

Garl reported that there had been a discussion of the comments at the last working group meeting. Rodney Kaiser said the project has been stalled because Jay Glerum has been out of town and Reid Neslage has been ill.

### **6.2.5.3 E1.6 – Powered rigging systems**

Garl said that the public review closed October 10. There is an overlap in scopes between E1.6 and E1.13, so the task groups will be put together to address this.

### **6.2.5.4 E1.7 – Recommended practice for flying performers**

The public review closed September 12, reported Garl. The task group is working on comment resolutions.

### **6.2.5.5 E1.8 – Speaker enclosures rigging standard**

Garl reported that it's in public review.

### **6.2.5.6 E1.10 – Building structural requirements standard**

Garl said that the objections to the project were discussed and the consensus is that the project should go forward. It's back from public review and is in comment resolution.

### **6.2.5.7 E1.13 – Arena scoreboards and speakers**

Garl said it's back from public review and that the task group is working on resolving comments.

#### **6.2.5.8 E1.15 – Manufacture, assembly, and use of theatrical boom & base assemblies**

There was a discussion of Ted Paget's vote against sending the document to public review and the quality of the writing in the document. A roll call ballot was held to allow people to change their votes, and the final vote was to reject the motion to send E1.15 to public review with one in favor (Eddie Kramer, who was not present for the roll call) and 13 against.

Groener offered kudos to Ted Paget for raising the issue and forcing the TSC to examine the document more carefully.

The consensus of the TSC was that the project's author should work with an academic, perhaps someone within USITT, to rewrite the document.

### **6.2.6 Power**

#### **6.2.6.1 Task group on a recommended practice for selection, installation, and use of portable feeder cable.**

Ken Vannice said that the task group has developed a survey and that the final draft is supposed to be presented at the upcoming working group meeting.

#### **6.2.6.2 Task group for a recommended practice for use of GFCI (Residual Current Devices) in entertainment applications.**

Vannice reported that the task group has new heads, William Masten and Joe Boardman, who have drafted a list of where GFCI/RCD products may be appropriate. This list will be discussed at the upcoming meeting.

#### **6.2.6.3 E1.16 – Task group to write a configuration standard for HMI power cables**

Vannice said that the project is now an American National Standard project. There is a draft document.

#### **6.2.6.4 EMC task group (including EMC Workshops/LFEIC report)**

Vannice reported that the 105th CENELEC Technical Board ratified the amendment A14 to the standard EN 61000-3-2:1995 – Electromagnetic compatibility (EMC) – Part 3-2: Limits – Limits for harmonic current emissions (equipment input current up to and including 16A per phase) at its meeting in Lucerne, October 3 through 5. The implementation dates for EN 61000-3-2:1995/A14 are:

Date of ratification: October 3, 2000

Date of announcement: December 1, 2000

Date of publication: January 1, 2001

Date of withdrawal: January 1, 2004

The Low Frequency Emissions Industry Coalition has complained to WTO that EN 61000-3-2:1995/A14 constitutes a technical barrier to trade. The WTO has said there isn't a barrier to trade with this restrictive EMC standard because it is a voluntary standard. Other means of demonstrating conformity with the essential requirements of the EMC Directive can be used if the amended EN 61000-3-2:1995 is too stringent.

#### **6.2.6.5 Power quality task group**

Vannice reported that Andy Topinka is working on a document, but he has not shared it with the working group.

### **6.2.7 Floors**

Tim Hansen reported that the group had met and has a mission statement. It created a task group to identify existing standards we can use or modify for entertainment venue purposes. Two Equity representatives attended and joined.

Lori Rubinstein was asked to contract with KSA to create an icon.

### **6.3 Report on liaisons to other industry groups**

NFPA [Schoeneman, Hefter, Vannice, and Ruling]. No report.

### **6.4 NFPA 5000, Building Code**

Hansen shared his concerns about requirements in the draft NFPA 5000. It seems to have been drawn from obsolete versions of NFPA 101.

Mitch Hefter moved that Tim Hansen prepare his comments and circulate them to the TSC for endorsement. Vannice seconded the motion. The motion was approved unanimously by a show of hands.

### **6.5 Non-profit foundation project report**

Rubinstein reported that this project has been put on hold by the effort put into market research project. She described the market research program.

### **6.6 Revenue issues with standards task force report**

Tera Johnson reported that she has worked with Steve Carlson to look at what other standards-developing groups do:

1. There is the professional society approach in which there is a charge for participation.
2. There is the marketing consortium approach. The USB alliance is an example. In this people get together to support the project and to market the standards and would charge the truss companies, for example, for the development of the truss standard.
3. There is the simple model of charging for the standards to support the standards-drafting work.
4. We can solicit donations. If we can get enough from donations, we can give away our product.

Johnson urged us to develop a business model. We need to plan for any projected revenue gap.

Rod Kaiser didn't see a problem with trying to use standards sales as a source of revenue. Lots of people charge for standards; we can and should, too.

Matthew Griffiths spoke to the need for the industry to get behind the Technical Standards Program. It should be part of the whole ESTA project, and it should be funded from dues – increased if need be.

Johnson offered to look at (a) the appropriate charges for standards or (b) look at the broader picture of TSP funding.

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

None.

## **7 New Business**

### **7.1 ANSI Audit report**

There was a discussion of the ANSI Audit and Karl Ruling's proposed responses to it.

Frank Stewart objected to the phrase "with chagrin" that Ruling used in his response everywhere he had to admit making stupid mistakes. Mitch Hefter moved that the TSC accept Ruling's response to ANSI with the deletion of all the "with chagrin" phrases and that the response with these deletions be submitted to ANSI. By this time Mike Wood had left the meeting to attend to business, and the motion was accepted unanimously by all who remained present.

**7.2 Possible action on Meneely vs. NSPI petition**

David Saltiel advised that we should see who else is signing on to the ANSI Amicus Curae. He advised that we should let the bigger organizations fight it out. The consensus was not to sign on.

**8 Other business**

None.

**9 Schedule for future meetings**

Lori Rubinstein announced schedule for meetings for January 2001:

**Thursday, January 18th**

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07:00 – 23:00 DMX Task Group

**Friday, January 19th**

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08:00 – 12:00 Electrical Power Working Group

13:00 – 17:00 TSC Meeting

19:00- 23:00 Rigging Working Group

19:00 – 23:00 DMX Task Group

**Saturday, January 20th**

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09:00 – 18:00 Board Meeting

09:00 – 18:00 Control Protocols Working Group

13:00 – 17:00 Floors Working Group

13:00 – 23:00 DMX Task Group

19:00 – 22:00 Certification Program Committee

**Sunday, January 21st**

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08:00 – 13:00 DMX Task Group

09:00 – 16:00 Certification Program Committee

09:00 – 13:00 Board Meeting

09:00 – 18:00 ACN Task Group

**Monday, January 22nd**

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09:00 – 18:00 ACN Task Group

**Not Meeting** Photometrics Working Group

**10 Adjournment**

Mike Garl moved the meeting adjourn. The motion was seconded. The motion was accepted unanimously on a voice vote.

Bill Groener declared the meeting adjourned at 16:58.



[NSI letterhead]

August 17, 2000

Mr. Karl Ruling  
ESTA  
875 Sixth Ave., Suite 2302  
New York, NY 10001

Dear Karl:

This letter is to document the announcement I made at the last ESTA meetings in Dallas of the issuance of US patent 6,020,825 on February 1, 2000 to NSI Corporation.

NSI would like to inform ESTA and its committees of the issuance of US Patent 6,020,825 entitled Theatrical Lighting Control Network. This patent closely parallels the work being done currently with Ethernet use in the theatre. At this time no decision has been made as to what action, if any, will be taken by NSI with regard to this patent. However, we would like it to be known that we have no intention of taking any action which would have an adverse affect on the industry. We would also like to let ESTA know that we have no intention of interfering with any of its planned work.

We request that the meeting minutes of the TSC and CPWG reflect this statement so that it is of public record.

Yours very truly,

NSI Corporation  
(Signed)  
Kenneth Vannice, Compliance Engineer

Cc: Terry White  
Robert Hick  
Rick Leinen

### TSC Membership at the End of the Meeting

Name	Company	Parent Co./Org Represented	Vot. Stat.
Tera Johnson	Electronic Theatre Controls, Inc.	Electronic Theatre Controls	P
Mike Wood	High End Systems Inc.	High End Systems Inc.	P
Edwin S. Kramer	IATSE, Local 1	I.A.T.S.E. Local 1	P
Larry Schoeneman	Interesting Products, Inc.	Interesting Products, Inc.	P
Mike Garl	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	P
Edward Paget	Jones & Phillips Associates, Inc.	Jones & Phillips Associates, Inc.	P
Ken Vannice	NSI Corporation	Leviton Manufacturing Co., Inc.	P
Tony Douglas-Beveridge	PLASA Standards Office	PLASA	A
Tim Cox	PLASA	PLASA	P
Bill Groener	Fourth Phase New Jersey	PRG	P
Mitch Hefter	Rosco/Entertainment Technology	Rosco Laboratories	P
Frank Stewart	Specialty Tech Services	Specialty Tech Services	P
Colin Waters	TMB Associates	TMB Associates	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