

Minutes
RIGGING WORKING GROUP
Friday, 14 January 2005
Dallas/Ft. Worth Airport Marriott South
Ft. Worth, TX

Presiding chairmen: Bill Sapsis; Sapsis Rigging, Inc.; P; U
Mike Garl; James Thomas Engineering, Inc.; P; MP

Recording secretary: Karl G. Ruling; ESTA

Members present: William Conner; Schuler & Shook Inc., representing the Amer. Society of Theatre Consultants; P; U
Andrew T. Martin; ATM Group, Inc.; P; MP
Don Dimitroff; Columbus McKinnon Corp.; P; MP
Howard R. Ott; D.E.O. Associates, Inc.; P; G
M. Brad Dittmer; Downhome Productions; P; U
Rocky Paulson; Stage Rigging, Inc. (the Freeman Companies); O; DR
Reid Neslage; H & H Specialties Inc.; P; MP
Jeffrey Hoffend; Hoffend & Sons, Inc.; P; CP
Edwin S. Kramer; I.A.T.S.E, Local 1; P; U
Michael Keppler; Bogen (IFF); P; MP
Rodney F. Kaiser; J.R. Clancy Inc.; P; CP
Tray Allen; James Thomas Engineering, Inc.; A; MP
William Beautyman; Limelight Productions, Inc.; P; DR
Kent H. Jorgensen; MPS Grips, Local 80; O; G
Tim Hansen; Oasis Stage Werks; P; DR
Richard J. Nix; Performance Systems Integration; P; G
Ron Bonner; PLASA; P; G
Peter A. Scheu; Scheu Consulting Services; P; G
Dan Culhane; SECOA; P; CP
Shawn Nolan; Entertainment Structures Group (Steven Schafer Associates); O; G
(voting status change to principal at this meeting)
Mark Newlin; Texas Scenic Company; P; CP (joined at this meeting)
Jerry Gorrell; Theatre Safety Programs; P; G
John C. Snook; Thermotex Industries Inc.; P; CP
Jeff Wilkowski; Thern, Inc.; P; MP
Keith Bohn; Tomcat USA, Inc.; P; MP
Robin Crews; Wrightson, Johnson, Haddon & Williams, Inc.; P; G

Visitors: Tim Wade; IATSE Local 600

1 Opening remarks

Mike Garl called the meeting to order at 19:04.

2 Attendance and membership

2.1 Introduction of those present

Mike Garl asked those present to introduce themselves. They did so, proceeding in a clockwise direction around the table, starting with Bill Sapsis and finishing with Mike Garl.

2.2 Circulation of attendance sign-in sheet

Mike Garl pointed out that we have a multi-colored attendance sheet circulating and instructed those present to sign in.

2.3 Call for quorum

Mike Garl announced that a quorum was present and working group business could be conducted.

2.4 Requirements for membership

Mike Garl reminded the assembly that membership is open to all who are affected by the work of the group. However, voting members are required to attend meetings. Any principal member and voting alternate who both miss three consecutive meetings will have their membership status changed to observer. This action will be taken as the last item of business at each meeting and recorded in the minutes of that meeting.

In addition, Garl reminded voters that they must vote on letter ballots. If three consecutive ballots are missed, voting status will be changed to observer.

3 Processing of new membership requests

Mike Garl read aloud the applications received:

Todd Peterson of Mixed Productions applied as an observer in the user category

Christine Kaiser of Syracuse Scenery and Stage Lighting applied as a principal in the dealer/rental company interest category. Christine Kaiser was not present.

Mark Newlin applied to replace Larry Lutz as a principal for Texas Scenic in the custom producer category,

Shawn Nolan, representing Steven Shafer Associates in the general interest category, also asked to be moved from observer to principal voting status.

Keith Bohn moved that the applications for membership and status change be accepted, except that Kaiser be given observer status, since she was not present and attending meetings is a requirement for voting members. The motion was seconded. The motion was approved by a unanimous show of hands.

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

Name	Company	Representing (This is the sort field.)	Voting status	Int. cat.
William Conner	Schuler & Shook Inc.	Amer. Society of Theatre Consultants	P	U
Andrew T. Martin	ATM Group, Inc.	ATM Group, Inc.	P	MP
Ted Jones	Chicago Spotlight, Inc.	Chicago Spotlight, Inc.	P	U
Don Dimitroff	Columbus McKinnon Corp.	Columbus McKinnon Corp.	P	MP
Wally Blount	Columbus McKinnon Corp.	Columbus McKinnon Corp.	A	MP
Howard R. Ott	D.E.O. Associates, Inc.	D.E.O. Associates, Inc.	P	G
M. Brad Dittmer	Downhome Productions	Downhome Productions	P	U
F. Robert Bauer	F.R. Bauer & Associates, LLC	F.R. Bauer & Associates, LLC	P	G
David M. Campbell	Geiger Engineers	Geiger Engineers	P	G
Timothy Mills	Geiger Engineers	Geiger Engineers	A	G
Reid Neslage	H & H Specialties Inc.	H & H Specialties Inc.	P	MP
Jeffrey Hoffend	Hoffend & Sons, Inc.	Hoffend & Sons, Inc.	P	CP
Peter Hoffend	Hoffend & Sons, Inc.	Hoffend & Sons, Inc.	A	CP
Edwin S. Kramer	I.A.T.S.E, Local 1	I.A.T.S.E. Local 1	P	U
Michael Keppler	Bogen	IFF	P	MP
Rodney F. Kaiser	J.R. Clancy Inc.	J.R. Clancy, Inc.	P	CP
Jack Suesse	J.R. Clancy, Inc. (NC)	J.R. Clancy, Inc.	A	CP
Thomas S. Young	J.R. Clancy Inc.	J.R. Clancy, Inc.	A	CP
Mike Garl	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	P	MP
Tray Allen	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	A	MP
William Beautyman	Limelight Productions, Inc.	Limelight Productions, Inc.	P	DR
Harvey Sweet	LVH Entertainment Systems	LVH Electric, Inc.	P	DR

Name	Company	Representing (This is the sort field.)	Voting status	Int. cat.
Michael J. Carnaby	Mikan Theatricals	Mikan Theatricals	P	DR
Tim Hansen	Oasis Stage Werks	Oasis Stage Werks	P	DR
Richard J. Nix	Performance Systems Integration	Performance Systems Integration	P	G
Ron Bonner	PLASA	PLASA	P	G
Michael Patterson	Pook Diemont & Ohl, Inc.	Pook Diemont & Ohl, Inc.	P	CP
Bill Sapsis	Sapsis Rigging, Inc.	Sapsis Rigging, Inc.	P	U
Peter A. Scheu	Scheu Consulting Services	Scheu Consulting Services	P	G
Dan Culhane	SECOA	SECOA	P	CP
Jerald Kraft	SECOA	SECOA	A	CP
Shawn Nolan	Entertainment Structures Group	Steven Schafer Associates	P	G
Mark Newlin	Texas Scenic Company	Texas Scenic Company	P	CP
Larry Lutz	Texas Scenic Company	Texas Scenic Company	A	CP
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	G
John C. Snook	Thermotex Industries Inc.	Thermotex Industries Inc.	P	CP
Jeff Wilkowski	Thern, Inc.	Thern, Inc.	P	MP
Tim Franklin	Theta-Consulting	Theta-Consulting	P	G
Richard D. Thompson	Thompson Associates	Thompson Associates	P	G
Keith Bohn	Tomcat USA, Inc.	Tomcat USA, Inc.	P	MP
Mitch Clark	Tomcat USA, Inc.	Tomcat USA, Inc.	A	MP
John James	Tomcat USA, Inc.	Tomcat USA, Inc.	A	MP
Peter Hind	Total Structures, Inc.	Total Structures, Inc.	P	MP
Hans van der Moolen	Stagemaker Division Europe	Verlinde Spa. France	P	MP
Pete Happe	Walt Disney Imagineering	Walt Disney Company	P	U
Robin Crews	Wrightson, Johnson, Haddon & Williams, Inc.	Wrightson, Johnson, Haddon & Williams, Inc.	P	G
		Total	36	
		By interest category	9	MP
			6	CP
			4	DR
			6	U
			11	G

4 Approval of minutes from the previous meeting

Brad Dittmer moved that the minutes be approved as written. The motion was seconded. The motion was approved by a unanimous by show of hands.

5 ESTA declarations

The following two statements were read aloud to the assembly by Mike Garl.

5.1 Anti-trust statement

"The ESTA Board of Directors, the Technical Standards Committee, and the leadership of this working group 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 TSC chair or 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."

Karl Ruling held up two of the pamphlets. No restraint of trade issues were brought to the attention of the assembly.

5.2 Call for 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 working group of the existence of a patent that might protect material in a standard being developed by the working group. You need not be the holder of the patent in order to notify the working group of its existence."

No patent or protected intellectual property issues were brought to the attention of the assembly.

6 Approval of agenda

Mike Garl asked if two items could be added under "New business," those items being working group leadership changes and a notice about a Dutch rigging standard now in public review. His request was met with a unanimous show of hands in support

7 Old business

7.1 E1.1 — Wire rope ladders

Karl Ruling reported that the working group had voted by letter ballot to offer the revised document (Rig/2004-2029) for public review. [See document Rig/2005-2001 for vote summary.] The motion has been approved by the Technical Standards Committee at the TSC meeting. The document will be offered for public review.

7.2 E1.2 — Aluminum trusses and towers revision

Ruling reported that the working group had voted to accept E1.2-200x (Rig/2002-2019r4) as an American National Standard by a supermajority. Out of a voting body of 35, 29 voted yes and one voted yes with comments. There were no negative votes and no abstentions. Five ballots were not returned. The one comment was:

"My compliments to the entire E1.2 team for a document that is well thought out and well written. This document will serve the industry well."

The motion has been approved by the Technical Standards Committee at the TSC meeting. The vote by the ESTA Board for acceptance will be done by letter ballot, since the Board will need time to read the document.

7.3 E1.4 — Manual rigging systems — Nix

Approval of public review responses, motion to send to public review

Dan Culhane moved that the responses (Rig/2004-2034) be accepted and that the revised document (Rig/1997-2002r10) be sent to public review. The motion was seconded. The motion was approved by a roll call ballot, with all present voting in favor.

Name	Company	Representing (This is the sort field.)	Vote status	Int. cat	Yes	No	Abstain
William Conner	Schuler & Shook Inc.	Amer. Soc. of Theatre Consultants	P	U	X		
Andrew T. Martin	ATM Group, Inc.	ATM Group, Inc.	P	MP	X		
Ted Jones	Chicago Spotlight, Inc.	Chicago Spotlight, Inc.	P	U			
Don Dimitroff	Columbus McKinnon Corp.	Columbus McKinnon Corp.	P	MP	X		
Wally Blount	Columbus McKinnon Corp.	Columbus McKinnon Corp.	A	MP			
Howard R. Ott	D.E.O. Associates, Inc.	D.E.O. Associates, Inc.	P	G	X		
M. Brad Dittmer	Downhome Productions	Downhome Productions	P	U	X		

Name	Company	Representing (This is the sort field.)	Vote status	Int. cat	Yes	No	Abstain
F. Robert Bauer	F.R. Bauer & Associates, LLC	F.R. Bauer & Associates, LLC	P	G			
David M. Campbell	Geiger Engineers	Geiger Engineers	P	G			
Timothy Mills	Geiger Engineers	Geiger Engineers	A	G			
Reid Neslage	H & H Specialties Inc.	H & H Specialties Inc.	P	MP	X		
Jeffrey Hoffend	Hoffend & Sons, Inc.	Hoffend & Sons, Inc.	P	CP	X		
Peter Hoffend	Hoffend & Sons, Inc.	Hoffend & Sons, Inc.	A	CP			
Edwin S. Kramer	I.A.T.S.E., Local 1	I.A.T.S.E. Local 1	P	U	X		
Michael Keppler	Bogen	IFF	P	MP	X		
Rodney F. Kaiser	J.R. Clancy Inc.	J.R. Clancy, Inc.	P	CP	X		
Jack Suesse	J.R. Clancy, Inc. (NC)	J.R. Clancy, Inc.	A	CP			
Thomas S. Young	J.R. Clancy Inc.	J.R. Clancy, Inc.	A	CP			
Mike Garl	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	P	MP			
Tray Allen	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	A	MP	X		
William Beautyman	Limelight Productions, Inc.	Limelight Productions, Inc.	P	DR	X		
Harvey Sweet	LVH Entertainment Systems	LVH Electric, Inc.	P	DR			
Michael J. Carnaby	Mikan Theatricals	Mikan Theatricals	P	DR			
Tim Hansen	Oasis Stage Werks	Oasis Stage Werks	P	DR	X		
Richard J. Nix	Performance Systems Integration	Performance Systems Integration	P	G	X		
Ron Bonner	PLASA	PLASA	P	G	X		
Michael Patterson	Pook Diemont & Ohl, Inc.	Pook Diemont & Ohl, Inc.	P	CP			
Bill Sapsis	Sapsis Rigging, Inc.	Sapsis Rigging, Inc.	P	U	X		
Peter A. Scheu	Scheu Consulting Services	Scheu Consulting Services	P	G	X		
Dan Culhane	SECOA	SECOA	P	CP	X		
Jerald Kraft	SECOA	SECOA	A	CP			
Shawn Nolan	Entertainment Structures Group	Steven Schafer Associates	P	G	X		
Mark Newlin	Texas Scenic Company	Texas Scenic Company	P	CP	X		
Larry Lutz	Texas Scenic Company	Texas Scenic Company	A	CP			
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	G	X		
John C. Snook	Thermotex Industries Inc.	Thermotex Industries Inc.	P	CP	X		
Jeff Wilkowski	Thern, Inc.	Thern, Inc.	P	MP	X		
Tim Franklin	Theta-Consulting	Theta-Consulting	P	G			
Richard D. Thompson	Thompson Associates	Thompson Associates	P	G			
Keith Bohn	Tomcat USA, Inc.	Tomcat USA, Inc.	P	MP	X		
Mitch Clark	Tomcat USA, Inc.	Tomcat USA, Inc.	A	MP			
John James	Tomcat USA, Inc.	Tomcat USA, Inc.	A	MP			
Peter Hind	Total Structures, Inc.	Total Structures, Inc.	P	MP			
Hans van der Moolen	Stagemaker Division Europe	Verlinde Spa. France	P	MP			
Pete Happe	Walt Disney Imagineering	Walt Disney Company	P	U			
Robin Crews	Wrightson, Johnson, Haddon & Williams, Inc.	Wrightson, Johnson, Haddon & Williams, Inc.	P	G	X		
		Total	36		25	0	0
		By interest category	9	MP	7		
			6	CP	5		
			4	DR	2		
			6	U	4		
			11	G	7		

7.4 E1.6 — Revision of E1.6, powered rigging systems, comment resolutions

Don Dimitroff reported that a set of comment resolutions have been drafted, but the task group does not feel that the resulting draft standard is very effective. Therefore the task group asks to split chain hoists out to a second document. This motion was seconded. There was discussion. By show of hands: one opposed, the rest in favor; the motion carried.

Don Dimitroff also announced that Chris Kaiser has taken over as the task group leader.

Mike Garl gave the task group the charge of writing scope statements that define what is covered in each of the two documents.

7.5 E1.8 acceptance

Peter Hind had offered the following comment with his "Yes with comments" vote on accepting BSR E1.8 as an American National Standard:

"section 7 — The test procedures shall be written by a qualified person. (Standard says qualified person performs the testing.) Reason: To ensure orientation of load is considered and to ensure results are correctly analysed. (If a qualified person performs the test, then a qualified person should write the test!)"

Ruling explained that this should have been considered at the last meeting, when the recirculation of the letter ballot was finally closed, but he had failed to make this point and allowed the working group to skip over considering this while following the agenda.

In response to the comment, Andrew Martin pointed out that the standard specifies the test, so no person, qualified or competent, is required to write the test.

Keith Bohn moved that the comment shall be rejected and the above statement given as the rationale. The motion was seconded. The motion was approved by a unanimous show of hands, which was a supermajority of the working group. There were no dissenting votes or abstentions.

Eddie Kramer moved that to clarify paragraph 7.1 and to make it clear that no further design is needed for the testing that it "be designed to" be deleted from the sentence stating the purpose of the tests. The motion was seconded. The motion was approved with a unanimous show of hands. There were no dissenting votes or abstentions.

7.1 Test Method

The enclosure design shall be tested in each orientation of load for which the enclosure is suspended according to manufacturer's instructions. The enclosure shall be tested to destruction using the manufacturer's recommended enclosure hardware attachment method. The enclosure shall be tested with a method of gradually increasing load tension until material and/or component failure, or until required strength is demonstrated. The test shall ~~be designed to~~ determine the ultimate load value for the weakest structural suspension point in the enclosure. If multiple suspension points are used during the test, a reduction in the ultimate load shall be incorporated to determine the ultimate load value for a single suspension point. The reduction ratios will vary with material type and shall be determined through independent testing.

This made a 12a version of the document.

Andrew Martin moved that we go on record as stating that this deletion is not a substantive change. The motion was seconded. The motion was approved by a supermajority of the working group. There were no dissenting votes or abstentions.

Name	Company	Representing (This is the sort field.)	Vote status	Int. cat	Yes	No	Abstain
William Conner	Schuler & Shook Inc.	Amer. Soc. of Theatre Consultants	P	U	X		
Andrew T. Martin	ATM Group, Inc.	ATM Group, Inc.	P	MP	X		
Ted Jones	Chicago Spotlight, Inc.	Chicago Spotlight, Inc.	P	U			
Don Dimitroff	Columbus McKinnon Corp.	Columbus McKinnon Corp.	P	MP	X		
Wally Blount	Columbus McKinnon Corp.	Columbus McKinnon Corp.	A	MP			
Howard R. Ott	D.E.O. Associates, Inc.	D.E.O. Associates, Inc.	P	G	X		
M. Brad Dittmer	Downhome Productions	Downhome Productions	P	U	X		
F. Robert Bauer	F.R. Bauer & Associates, LLC	F.R. Bauer & Associates, LLC	P	G			
David M. Campbell	Geiger Engineers	Geiger Engineers	P	G			
Timothy Mills	Geiger Engineers	Geiger Engineers	A	G			
Reid Neslage	H & H Specialties Inc.	H & H Specialties Inc.	P	MP	X		
Jeffrey Hoffend	Hoffend & Sons, Inc.	Hoffend & Sons, Inc.	P	CP	X		

Name	Company	Representing (This is the sort field.)	Vote status	Int. cat	Yes	No	Abstain
Peter Hoffend	Hoffend & Sons, Inc.	Hoffend & Sons, Inc.	A	CP			
Edwin S. Kramer	I.A.T.S.E., Local 1	I.A.T.S.E., Local 1	P	U	X		
Michael Keppler	Bogen	IFF	P	MP	X		
Rodney F. Kaiser	J.R. Clancy Inc.	J.R. Clancy, Inc.	P	CP	X		
Jack Suesse	J.R. Clancy, Inc. (NC)	J.R. Clancy, Inc.	A	CP			
Thomas S. Young	J.R. Clancy Inc.	J.R. Clancy, Inc.	A	CP			
Mike Garl	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	P	MP			
Tray Allen	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	A	MP	X		
William Beautyman	Limelight Productions, Inc.	Limelight Productions, Inc.	P	DR	X		
Harvey Sweet	LVH Entertainment Systems	LVH Electric, Inc.	P	DR			
Michael J. Carnaby	Mikan Theatricals	Mikan Theatricals	P	DR			
Tim Hansen	Oasis Stage Werks	Oasis Stage Werks	P	DR	X		
Richard J. Nix	Performance Systems Integration	Performance Systems Integration	P	G	X		
Ron Bonner	PLASA	PLASA	P	G	X		
Michael Patterson	Pook Diemont & Ohl, Inc.	Pook Diemont & Ohl, Inc.	P	CP			
Bill Sapsis	Sapsis Rigging, Inc.	Sapsis Rigging, Inc.	P	U	X		
Peter A. Scheu	Scheu Consulting Services	Scheu Consulting Services	P	G	X		
Dan Culhane	SECOA	SECOA	P	CP	X		
Jerald Kraft	SECOA	SECOA	A	CP			
Shawn Nolan	Entertainment Structures Group	Steven Schafer Associates	P	G	X		
Mark Newlin	Texas Scenic Company	Texas Scenic Company	P	CP	X		
Larry Lutz	Texas Scenic Company	Texas Scenic Company	A	CP			
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	G	X		
John C. Snook	Thermotex Industries Inc.	Thermotex Industries Inc.	P	CP	X		
Jeff Wilkowski	Thern, Inc.	Thern, Inc.	P	MP	X		
Tim Franklin	Theta-Consulting	Theta-Consulting	P	G			
Richard D. Thompson	Thompson Associates	Thompson Associates	P	G			
Keith Bohn	Tomcat USA, Inc.	Tomcat USA, Inc.	P	MP	X		
Mitch Clark	Tomcat USA, Inc.	Tomcat USA, Inc.	A	MP			
John James	Tomcat USA, Inc.	Tomcat USA, Inc.	A	MP			
Peter Hind	Total Structures, Inc.	Total Structures, Inc.	P	MP			
Hans van der Moolen	Stagemaker Division Europe	Verlinde Spa. France	P	MP			
Pete Happe	Walt Disney Imagineering	Walt Disney Company	P	U			
Robin Crews	Wrightson, Johnson, Haddon & Williams, Inc.	Wrightson, Johnson, Haddon & Williams, Inc.	P	G	X		
		Total	36		25	0	0
		By interest category	9	MP	7		
			6	CP	5		
			4	DR	2		
			6	U	4		
			11	G	7		

The next step for the BSR E1.8 project is approval as an American National Standard by the TSC. The results of the working group's letter ballot vote on the motion to accept the resolutions and to approve the standard as an ANS are summarized in Rig/2004-2024r2.

Mike Garl offered thanks to Andrew Martin for his work on this project.

7.6 E1.15 – Boom & base standard

Ruling reported that the TSC had voted to offer BSR E1.15 (Rig/1998-2032r11) for public review, so it will be available on the ESTA website as soon as he can prepare the materials and file the announcement request with ANSI.

Ruling also noted that the vote at the last meeting to send the document to public review, while it was a clear supermajority, should have been recorded as a roll call vote. The motion at the last meeting had been a combined one to accept the comment resolutions and to send the revised document to public review. The first part of the motion can be decided by a show hands, but the second part is supposed to be by letter ballot or roll call ballot.

Dan Culhane moved that the Rigging Working Group reaffirms the vote of the last meeting for public review of BSR E1.15 and that this go on record as a roll call ballot. The motion was seconded.

Name	Company	Representing (This is the sort field.)	Vote status	Int. cat	Yes	No	Abstain
William Conner	Schuler & Shook Inc.	Amer. Soc. of Theatre Consultants	P	U	X		
Andrew T. Martin	ATM Group, Inc.	ATM Group, Inc.	P	MP	X		
Ted Jones	Chicago Spotlight, Inc.	Chicago Spotlight, Inc.	P	U			
Don Dimitroff	Columbus McKinnon Corp.	Columbus McKinnon Corp.	P	MP	X		
Wally Blount	Columbus McKinnon Corp.	Columbus McKinnon Corp.	A	MP			
Howard R. Ott	D.E.O. Associates, Inc.	D.E.O. Associates, Inc.	P	G	X		
M. Brad Dittmer	Downhome Productions	Downhome Productions	P	U	X		
F. Robert Bauer	F.R. Bauer & Associates, LLC	F.R. Bauer & Associates, LLC	P	G			
David M. Campbell	Geiger Engineers	Geiger Engineers	P	G			
Timothy Mills	Geiger Engineers	Geiger Engineers	A	G			
Reid Neslage	H & H Specialties Inc.	H & H Specialties Inc.	P	MP	X		
Jeffrey Hoffend	Hoffend & Sons, Inc.	Hoffend & Sons, Inc.	P	CP	X		
Peter Hoffend	Hoffend & Sons, Inc.	Hoffend & Sons, Inc.	A	CP			
Edwin S. Kramer	I.A.T.S.E., Local 1	I.A.T.S.E. Local 1	P	U	X		
Michael Keppler	Bogen	IFF	P	MP	X		
Rodney F. Kaiser	J.R. Clancy Inc.	J.R. Clancy, Inc.	P	CP	X		
Jack Suesse	J.R. Clancy, Inc. (NC)	J.R. Clancy, Inc.	A	CP			
Thomas S. Young	J.R. Clancy Inc.	J.R. Clancy, Inc.	A	CP			
Mike Garl	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	P	MP			
Tray Allen	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	A	MP	X		
William Beautyman	Limelight Productions, Inc.	Limelight Productions, Inc.	P	DR	X		
Harvey Sweet	LVH Entertainment Systems	LVH Electric, Inc.	P	DR			
Michael J. Carnaby	Mikan Theatricals	Mikan Theatricals	P	DR			
Tim Hansen	Oasis Stage Werks	Oasis Stage Werks	P	DR	X		
Richard J. Nix	Performance Systems Integration	Performance Systems Integration	P	G	X		
Ron Bonner	PLASA	PLASA	P	G	X		
Michael Patterson	Pook Diemont & Ohl, Inc.	Pook Diemont & Ohl, Inc.	P	CP			
Bill Sapsis	Sapsis Rigging, Inc.	Sapsis Rigging, Inc.	P	U	X		
Peter A. Scheu	Scheu Consulting Services	Scheu Consulting Services	P	G	X		
Dan Culhane	SECOA	SECOA	P	CP	X		
Jerald Kraft	SECOA	SECOA	A	CP			
Shawn Nolan	Entertainment Structures Group	Steven Schafer Associates	P	G	X		
Mark Newlin	Texas Scenic Company	Texas Scenic Company	P	CP	X		
Larry Lutz	Texas Scenic Company	Texas Scenic Company	A	CP			
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	G	X		
John C. Snook	Thermotex Industries Inc.	Thermotex Industries Inc.	P	CP	X		
Jeff Wilkowski	Thern, Inc.	Thern, Inc.	P	MP	X		
Tim Franklin	Theta-Consulting	Theta-Consulting	P	G			
Richard D. Thompson	Thompson Associates	Thompson Associates	P	G			
Keith Bohn	Tomcat USA, Inc.	Tomcat USA, Inc.	P	MP	X		
Mitch Clark	Tomcat USA, Inc.	Tomcat USA, Inc.	A	MP			
John James	Tomcat USA, Inc.	Tomcat USA, Inc.	A	MP			
Peter Hind	Total Structures, Inc.	Total Structures, Inc.	P	MP			
Hans van der Moolen	Stagemaker Division Europe	Verlinde Spa. France	P	MP			
Pete Happe	Walt Disney Imagineering	Walt Disney Company	P	U			
Robin Crews	Wrightson, Johnson, Haddon & Williams, Inc.	Wrightson, Johnson, Haddon & Williams, Inc.	P	G	X		
		Total	36		25	0	0
		By interest category	9	MP	7		
			6	CP	5		
			4	DR	2		
			6	U	4		
			11	G	7		

7.7 E1.21 – Stage roofs standard public review responses — Bohn

Keith Bohn moved that we accept the BSR E1.21 first review comment resolutions (Rig/2004-2033). The motion was seconded. The motion was approved by a supermajority with a unanimous show of hands.

Dan Culhane moved that we accept the revised BSR E1.21 draft (Rig/2002-2003r5) and that the revised document be offered for public review. The motion was seconded. The motion was approved by a supermajority of the working group on a roll call ballot.

Name	Company	Representing (This is the sort field.)	Vote status	Int. cat	Yes	No	Abstain
William Conner	Schuler & Shook Inc.	Amer. Soc. of Theatre Consultants	P	U	X		
Andrew T. Martin	ATM Group, Inc.	ATM Group, Inc.	P	MP	X		
Ted Jones	Chicago Spotlight, Inc.	Chicago Spotlight, Inc.	P	U			
Don Dimitroff	Columbus McKinnon Corp.	Columbus McKinnon Corp.	P	MP	X		
Wally Blount	Columbus McKinnon Corp.	Columbus McKinnon Corp.	A	MP			
Howard R. Ott	D.E.O. Associates, Inc.	D.E.O. Associates, Inc.	P	G	X		
M. Brad Dittmer	Downhome Productions	Downhome Productions	P	U	X		
F. Robert Bauer	F.R. Bauer & Associates, LLC	F.R. Bauer & Associates, LLC	P	G			
David M. Campbell	Geiger Engineers	Geiger Engineers	P	G			
Timothy Mills	Geiger Engineers	Geiger Engineers	A	G			
Reid Neslage	H & H Specialties Inc.	H & H Specialties Inc.	P	MP	X		
Jeffrey Hoffend	Hoffend & Sons, Inc.	Hoffend & Sons, Inc.	P	CP	X		
Peter Hoffend	Hoffend & Sons, Inc.	Hoffend & Sons, Inc.	A	CP			
Edwin S. Kramer	I.A.T.S.E., Local 1	I.A.T.S.E. Local 1	P	U	X		
Michael Keppler	Bogen	IFF	P	MP	X		
Rodney F. Kaiser	J.R. Clancy Inc.	J.R. Clancy, Inc.	P	CP	X		
Jack Suesse	J.R. Clancy, Inc. (NC)	J.R. Clancy, Inc.	A	CP			
Thomas S. Young	J.R. Clancy Inc.	J.R. Clancy, Inc.	A	CP			
Mike Garl	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	P	MP			
Tray Allen	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	A	MP	X		
William Beautyman	Limelight Productions, Inc.	Limelight Productions, Inc.	P	DR	X		
Harvey Sweet	LVH Entertainment Systems	LVH Electric, Inc.	P	DR			
Michael J. Carnaby	Mikan Theatricals	Mikan Theatricals	P	DR			
Tim Hansen	Oasis Stage Werks	Oasis Stage Werks	P	DR	X		
Richard J. Nix	Performance Systems Integration	Performance Systems Integration	P	G	X		
Ron Bonner	PLASA	PLASA	P	G	X		
Michael Patterson	Pook Diemont & Ohl, Inc.	Pook Diemont & Ohl, Inc.	P	CP			
Bill Sapsis	Sapsis Rigging, Inc.	Sapsis Rigging, Inc.	P	U	X		
Peter A. Scheu	Scheu Consulting Services	Scheu Consulting Services	P	G	X		
Dan Culhane	SECOA	SECOA	P	CP	X		
Jerald Kraft	SECOA	SECOA	A	CP			
Shawn Nolan	Entertainment Structures Group	Steven Schafer Associates	P	G	X		
Mark Newlin	Texas Scenic Company	Texas Scenic Company	P	CP	X		
Larry Lutz	Texas Scenic Company	Texas Scenic Company	A	CP			
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	G	X		
John C. Snook	Thermotex Industries Inc.	Thermotex Industries Inc.	P	CP	X		
Jeff Wilkowski	Thern, Inc.	Thern, Inc.	P	MP	X		
Tim Franklin	Theta-Consulting	Theta-Consulting	P	G			
Richard D. Thompson	Thompson Associates	Thompson Associates	P	G			
Keith Bohn	Tomcat USA, Inc.	Tomcat USA, Inc.	P	MP	X		
Mitch Clark	Tomcat USA, Inc.	Tomcat USA, Inc.	A	MP			
John James	Tomcat USA, Inc.	Tomcat USA, Inc.	A	MP			
Peter Hind	Total Structures, Inc.	Total Structures, Inc.	P	MP			
Hans van der Moolen	Stagemaker Division Europe	Verlinde Spa. France	P	MP			
Pete Happe	Walt Disney Imagineering	Walt Disney Company	P	U			
Robin Crews	Wrightson, Johnson, Haddon & Williams, Inc.	Wrightson, Johnson, Haddon & Williams, Inc.	P	G	X		
		Total	36		25	0	0
		By interest category	9	MP	7		
			6	CP	5		
			4	DR	2		
			6	U	4		
			11	G	7		

7.8 E1.22 – Fire safety curtain systems comment resolutions

Peter Scheu reported that the Harvey Sweet has taken over from Bill Conner as task group head. Conner has had to step down because of his professional work load. Scheu said that the task group

plan to have a revised document and a set of comment resolutions sent to the working group for the March meeting.

Scheu said that the task group feels they need to conduct some original research. The expected life of a fire curtain that is raised and lowered daily is one of the issues requiring research. Dan Culhane has developed a test protocol for determining the wear by abrasion, and this test needs to be done on some samples so a curtain replacement schedule can be suggested. Also, there is concern about the assumptions of the air pressure differentials on curtains in fires. We don't have real data on this, so the task group is considering contracting for some computer modeling that might determine the maximum air pressure differential.

Bill Conner said that the progress on the standard will not be held up by this research. We can go forward using the assumptions that have been used for years, and change the document later if the tests show that these assumptions have been incorrect.

Jerry Gorrell offered thanks to Bill Conner for working on this project as the leader for as long as he has. This offer was greeted by applause from the working group.

8 New business

None.

9 Other business

9.1 Leadership change

Mike Garl reported that he is becoming the TSC chairman and will step down as chairman of the Rigging Working Group. Bill Sapsis will take over as the Rigging Working Group chairman. Bill will be looking for a co-chairman.

9.2 Dutch rigging standard

Mike Garl announced that there is a Dutch rigging standard for "safety factors" that is in public review. This was announced on the PLASA website in the LSI news headlines.

[The document is called NPR 8020-10 Entertainment - Rigging - Design factors for safety, and can be obtained from <http://www2.nen.nl/nen/servlet/dispatcher.Dispatcher?id=BIBLIOGRAFISCHEGEVENS&contentID=196359&searchType=kaderzoek>. The document is written in Dutch and costs €12.50. It is eight pages long.]

9.3 Other other business

Bill Sapsis reported that industry pioneer Bill McManus had passed away on Wednesday, 12 January 2005. He was president of McManus Enterprises and PeakBeam Systems

Bill Sapsis offered thanks to Mike Garl for his working group leadership for all the years, since the inception of the Technical Standards Program. This too was greeted with applause from the working group.

10 Schedule for future meetings

Mike Garl announced that the next working group meeting will be at the Fairmont Royal York Hotel, Toronto, 16 March 2005, from 19:00 to 23:00. The following one will be back at the current hotel, the Dallas/Ft. Worth Airport Marriott South, on 29 July 2005, from 19:00 to 23:00

11 Changes of membership status resulting from lack of attendance.

Principals (and alternates) who have missed the previous two meetings:

William Conner, representing ASTC
F. Robert Bauer; F.R. Bauer and Associates
Michael Patterson; Pook Diemont & Ohl, Inc.
Larry Lutz; Texas Scenic Company

Bill Conner was present and a new representative for Texas Scenic was voted in at this meeting and was in attendance. Therefore, of the above, only F. Robert Bauer of F.R. Bauer and Associates and Michael Patterson of Pook Diemont & Ohl, Inc. had missed three consecutive meetings. Mike Garl announced that they were now observers since they had failed to meet the minimum attendance requirement for voters.

12 Adjournment

Mike Garl asked for a motion to adjourn. The group responded with a vote by acclamation. Mike Garl declared the meeting adjourned at 20:34.

Working Group Membership and Contact Information as of 2005-01-20

Name	Company	Representing (This is the sort field.)	Voting status	Int cat
Baer Long	Ninja Rigging	Act 1 Rigging Inc.	O	G
Andre Broucke	ADB - TTV Technologies	ADB-TTV Group	O	MP
Michael G. Wiener	Aerial Rigging & Leasing, Inc.	Aerial Rigging & Leasing, Inc.	O	U
Andy Sutton	AFX UK Ltd.	AFX UK Ltd.	O	U
William Conner	Schuler & Shook Inc.	Amer. Society of Theatre Consultants	P	U
Jim Fletcher	American Sling Company, Inc.	American Sling Company, Inc.	O	MP
Andrew T. Martin	ATM Group, Inc.	ATM Group, Inc.	P	MP
Dennis J. Lopez	Automatic Devices Co.	Automatic Devices Co.	O	MP
Jiantong Wu	Beijing Special Engineering Design & Research Institute	Beijing Special Engineering Design & Research Institute	O	G
Buddy Braile	Bestek Lighting & Staging	Bestek Lighting & Staging	O	U
Lee J. Bloch	Blue Sky Design, Ltd.	Blue Sky Design, Ltd.	O	G
Eric Todd	BML Inc.	BML Inc.	O	MP
Paul Tardue	BML Inc.	BML Inc.	O	MP
Joachim Stoecker	CAMCO GmbH	CAMCO GmbH	O	MP
Charles E. Gorgen	Charles E. Gorgen	Charles E. Gorgen	O	G
Mark M. Witteveen	Chicago Flyhouse Inc.	Chicago Flyhouse Inc.	O	U
Ted Jones	Chicago Spotlight, Inc.	Chicago Spotlight, Inc.	P	U
Don Dimitroff	Columbus McKinnon Corp.	Columbus McKinnon Corp.	P	MP
Wally Blount	Columbus McKinnon Corp.	Columbus McKinnon Corp.	A	MP
Mylan Lester	Creation Logics Ltd.	Creation Logics Ltd.	O	U
Howard R. Ott	D.E.O. Associates, Inc.	D.E.O. Associates, Inc.	P	G
Harry Donovan	Donovan Rigging, Inc.	Donovan Rigging, Inc.	O	G
Wes Jenkins	Down Stage Right Industries	Down Stage Right Industries	O	CP
M. Brad Dittmer	Downhome Productions	Downhome Productions	P	U
F. Robert Bauer	F.R. Bauer & Associates, LLC	F.R. Bauer & Associates, LLC	O	G
Thomas Reaach	RC Consultoria e Representação Ltda.	Feeling Structures	O	MP
Hamilton Nunes Callegari	Feeling Structures	Feeling Structures	O	MP
Ben Hayes	Freedom Flying	Freedom Flying	O	G
Dean Hart	Stage Rigging, Inc.	Freeman Companies	O	U
Rocky Paulson	Stage Rigging, Inc.	Freeman Companies	O	DR
David M. Campbell	Geiger Engineers	Geiger Engineers	P	G
Timothy Mills	Geiger Engineers	Geiger Engineers	A	G
Paul Brady	Grand Stage Company, Inc.	Grand Stage Company, Inc.	O	U
Reid Neslage	H & H Specialties Inc.	H & H Specialties Inc.	P	MP
Delbert Hall	Hall Associates Inc.	Hall Associates Inc.	O	U
Jeffrey Hoffend	Hoffend & Sons, Inc.	Hoffend & Sons, Inc.	P	CP
Peter Hoffend	Hoffend & Sons, Inc.	Hoffend & Sons, Inc.	A	CP
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P	U
G. Anthony Phillips	I.A.T.S.E. Local 16	I.A.T.S.E. Local 16	O	U
Gregory C. Collis	I.A.T.S.E. Local 16	I.A.T.S.E. Local 16	O	G
Gian Carlo C. Bartolotti	Ibeam SP / Banco de Eventos	Ibeam SP / Banco de Eventos	O	U
Michael Keppler	Bogen	IFF	P	MP
Rodney F. Kaiser	J.R. Clancy Inc.	J.R. Clancy, Inc.	P	CP
Jack Suesse	J.R. Clancy, Inc. (NC)	J.R. Clancy, Inc.	A	CP
Thomas S. Young	J.R. Clancy Inc.	J.R. Clancy, Inc.	A	CP
Mike Garl	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	P	MP
Tray Allen	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	A	MP
Jay O. Glerum	Jay O. Glerum & Associates, Inc.	Jay O. Glerum & Associates, Inc.	O	U
Chuck McClelland	Jeamar Winches Inc.	Jeamar Winches Inc.	O	MP
John Kaes	John Kaes	John Kaes	O	U
John R. Burgess	John R. Burgess	John R. Burgess	O	U
Edward Paget	Jones & Phillips Associates, Inc.	Jones & Phillips Associates, Inc.	O	G
Christopher Purpura	Jones & Phillips Associates, Inc.	Jones & Phillips Associates, Inc.	O	G
Nevin Kleege	Kleege Industries	Kleege Industries	O	U
William Beautyman	Limelight Productions, Inc.	Limelight Productions, Inc.	P	DR
Louis Bradfield	Louis Bradfield	Louis Bradfield	O	U
Harvey Sweet	LVH Entertainment Systems	LVH Electric, Inc.	P	DR
Michael L. Savage, Sr.	Middle Dept. Inspection Agency, Inc.	Middle Dept. Inspection Agency, Inc.	O	G
Michael J. Carnaby	Mikan Theatricals	Mikan Theatricals	P	DR
Todd Petersen	Mixed Productions	Mixed Productions	O	U
Kent H. Jorgensen	MPS Grips, Local 80	MPS Grips, Local 80	O	G

Name	Company	Representing (This is the sort field.)	Voting status	Int cat
Bradford A. Kegel	National Production Services Inc.	National Production Services Inc.	O	U
David Gisbourne	Newtex Industries, Inc.	Newtex Industries, Inc.	O	CP
François Deffarges	Nexo	Nexo	O	MP
Tracy Nunnally	Northern Illinois University	Northern Illinois University	O	U
Ted Hickey	OAP Audio Products	OAP Audio Products	O	MP
Tim Hansen	Oasis Stage Werks	Oasis Stage Werks	P	DR
Gary Justesen	Oasis Stage Werks	Oasis Stage Werks	O	U
Robert A. Grenier Jr.	Ocean State Rigging Systems Inc.	Ocean State Rigging Systems Inc.	O	DR
Olaf Soot	Olaf Soot Associates	Olaf Soot Associates	O	CP
Joseph Rapier	Parkhill, Smith & Cooper, Inc.	Parkhill, Smith & Cooper, Inc.	O	CP
John Jones	PCM/Pfaff Silberblau Ltd.	PCM/Pfaff Silberblau Ltd.	O	DR
Richard J. Nix	Performance Systems Integration	Performance Systems Integration	P	G
Ron Bonner	PLASA	PLASA	P	G
Michael Akrep	Polar Focus, Inc.	Polar Focus, Inc.	O	MP
Michael Patterson	Pook Diemont & Ohl, Inc.	Pook Diemont & Ohl, Inc.	O	CP
Marc Hendriks	Prolyte	Prolyte	O	MP
Douglas Franz	QVC Network	QVC Network	O	U
Scott Mohr	R&R Cases and Cabinets	R&R Cases and Cabinets	O	G
Michael Reed	Reed Rigging, Inc.	Reed Rigging, Inc.	O	U
Rinus Bakker	Rhino Rigs B.V.	Rhino Rigs B.V.	O	G
Rikki Newman	Rikki Newman	Rikki Newman	O	U
Randall W. A. Davidson	Risk International & Associates, Inc.	Risk International & Associates, Inc.	O	U
Roo Dunn	Pennsylvania Convention Center	Roo Dunn	O	U
Heinz Siller	RST Presentations-systeme	RST Presentations-systeme	O	G
Thomas M. Granucci	Associated Students, Cox Arena	San Diego State University	O	U
Bill Sapsis	Sapsis Rigging, Inc.	Sapsis Rigging, Inc.	P	U
Peter A. Scheu	Scheu Consulting Services	Scheu Consulting Services	P	G
Dan Culhane	SECOA	SECOA	P	CP
Jerald Kraft	SECOA	SECOA	A	CP
Luigi Sbalzarini	Selvolina SNC	Selvolina SNC	O	MP
Robert Barbagallo	Solotech Inc.	Solotech Inc.	O	DR
Jon Lagerquist	South Coast Repertory	South Coast Repertory	O	U
Jerrold S. Tiers	St. Louis Music Inc.	St. Louis Music Inc.	O	MP
Roger Barrett	Star Events Group Ltd.	Star Events Group Ltd.	O	DR
Shawn Nolan	Entertainment Structures Group	Steven Schafer Associates	P	G
Christine L. Kaiser	Syracuse Scenery & Stage Lighting Co., Inc.	Syracuse Scenery & Stage Lighting Co., Inc.	O	DR
Reuben Goldberg	Technic Services	Technic Services	O	U
Mark Newlin	Texas Scenic Company	Texas Scenic Company	P	CP
Richard C. Mecke	Texas Scenic Company	Texas Scenic Company	O	CP
Larry Lutz	Texas Scenic Company	Texas Scenic Company	A	CP
Alan Broadhurst	The Broadhurst Partnership	The Broadhurst Partnership	O	P
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	G
Ed Nicholas	Theatrical Lighting Systems, Inc.	Theatrical Lighting Systems, Inc.	O	DR
John Van Lennep	Theatrix Inc.	Theatrix Inc.	O	DR
John C. Snook	Thermotex Industries Inc.	Thermotex Industries Inc.	P	CP
Jeff Wilkowski	Thern, Inc.	Thern, Inc.	P	MP
Tim Franklin	Theta-Consulting	Theta-Consulting	P	G
Thomas Paterson	Thomas Paterson	Thomas Paterson	O	G
Richard D. Thompson	Thompson Associates	Thompson Associates	P	G
Keith Bohn	Tomcat USA, Inc.	Tomcat USA, Inc.	P	MP
Mitch Clark	Tomcat USA, Inc.	Tomcat USA, Inc.	A	MP
John James	Tomcat USA, Inc.	Tomcat USA, Inc.	A	MP
Peter Hind	Total Structures, Inc.	Total Structures, Inc.	P	MP
Ian Coles	Total Structures, Inc.	Total Structures, Inc.	O	MP
Peter Johns	Total Structures, Inc.	Total Structures, Inc.	O	MP
Doug Recher	Total Structures, Inc.	Total Structures, Inc.	O	MP
Hans van der Moolen	Stagemaker Division Europe	Verlinde Spa. France	P	MP
JoAnna Kamorin-Lloyd	Vincent Lighting Systems	Vincent Lighting Systems	O	U
Eckart Steffens	SOUNDLIGHT	VPLT	O	G
Hank Miller	W.E. Palmer Co.	W.E. Palmer Co.	O	CP
Rand Goddard	W.E. Palmer Co.	W.E. Palmer Co.	O	CP
Pete Happe	Walt Disney Imagineering	Walt Disney Company	P	U
Warren A. Bacon	Warren A. Bacon	Warren A. Bacon	O	U
Robin Crews	Wrightson, Johnson, Haddon & Williams, Inc.	Wrightson, Johnson, Haddon & Williams, Inc.	P	G

Name	Company	Representing (This is the sort field.)	Voting status	Int cat
Ray Robins	XS Lighting, Inc.	XS Lighting, Inc.	O	CP
Robert Dean	ZFX Inc.	ZFX Inc.	O	CP

Key to codes:

- | | | | |
|---|--------------------------|----|--|
| P | principal voting member | MP | mass-market producer interest category |
| A | alternate voting member | CP | custom-market producer interest category |
| I | individual voting member | DR | dealer or rental company interest category |
| O | observer, non-voting | U | user interest category |
| | | G | general-interest interest category |