

Minutes
RIGGING WORKING GROUP

31 October 2001
Rosen Centre Hotel
Orlando, FL

Chair: Mike Garl; James Thomas Engineering, Inc.; principal; producer

Recording secretary: Karl G. Ruling, ESTA

Members attending: Michael G. Wiener; Aerial Rigging & Leasing, Inc.; principal; user (changed voting status from observer at this meeting)
William Conner; Schuler & Shook Inc., representing Amer. Society of Theatre Consultants; principal; user
Andrew T. Martin; ATM Group, Inc.; principal; producer
Don Dimitroff; CM Lodestar, representing Columbus McKinnon; principal; producer
Wally Blount; CM Lodestar, representing Columbus McKinnon; alternate; producer
M. Brad Dittmer; Downhome Productions - Springfield, MO; principal; user
Rocky Paulson; Stage Rigging, Inc., representing the Freeman Companies; alternate; user
Reid Neslage; H & H Specialties Inc.; principal; producer
Jeffrey Hoffend; Hoffend & Sons, Inc.; principal; producer (changed voting status from observer at this meeting)
Edwin S. Kramer; IATSE, Local 1; principal; user
Rodney F. Kaiser; J.R. Clancy Inc.; principal; producer
Edward Paget; Jones & Phillips Associates, Inc.; observer; gen. interest
Nevin Kleege; Kleege Industries; principal; user
Louis Bradfield; Louis Bradfield; individual; user
Baer Long; MGM Grand Hotel Casino, representing MGM-Mirage Inc.; principal; user
Richard J. Nix; On Location Lighting Systems Inc.; principal; gen. interest
Tim Cox; PLASA; principal; gen. interest
Michael Akrep; Polar Focus, Inc.; principal; producer
Randall W. A. Davidson; Risk International & Associates, Inc.; observer; user
Bill Sapsis; Sapsis Rigging, Inc.; principal; user
Dan Culhane; SECOA; principal; producer
Jerry Gorrell; Theatre Safety Programs; principal; gen. interest
F. Robert Bauer; Theatrix Inc.; observer; user
John Van Lennep; Theatrix Inc.; observer; user
Keith Bohn; Tomcat USA, Inc.; principal; producer
Doug Recher; Total Structures, Inc.; alternate; producer
Hans van der Moolen; Verlinde N.L., representing Verlinde Spa. France; principal; producer (joined at this meeting)

Visitors: Gregory Cahanin; Cahanin Fire Code Consulting
Les Martin; Hoffend South, Inc.
David Boevers; Carnegie Mellon

1 Opening remarks

Mike Garl called the meeting to order at 19:03 and noted the large attendance. A yellow and pink sign-in sheet was circulated and Garl instructed people to sign in.

2 Attendance and membership

2.1 Introduction of those present

Mike Garl asked those present to introduce themselves, which they did, proceeding around the hollow-square table in a clockwise direction.

2.2 Call for quorum

Mike Garl noted that far more than the eight voting members needed for a quorum were present.

2.3 Requirements for membership

Garl reminded people of the attendance requirement. Every principal member of the working group is 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. Garl also reminded people that they are required to vote on letter ballots.

3 Processing of new membership requests

Four applications had been received and were read by Mike Garl:

Jeffery Hoffend of Hoffend & Sons applied for a change of voting status from observer to principal in the producer interest category.

Michael G. Weiner of Aerial Rigging applied for a change of voting status from observer to principal in the producer interest category.

Hans van der Moolen of Verlinde N.L. representing Verlinde Spa. of France applied as a principal in the producer interest category

John Van Lennep of Theatrix Inc. in Englewood, Colorado, applied as an observer in the general interest category.

Bill Sapsis moved that the all the applications be accepted. The motion was seconded. By show of hands, 18 were in favor, and none opposed. The chairman abstained. The motion passed.

The membership of the full consensus body for this meeting was thus:

Name	Company	Representing	Voting status	Int. cat.
Michael G. Wiener	Aerial Rigging & Leasing, Inc.	Aerial Rigging & Leasing, Inc.	P	U
William Conner	Schuler & Shook Inc.	Amer. Society of Theatre Consultants	P	U
Andrew T. Martin	ATM Group, Inc.	ATM Group, Inc.	P	P
Don Dimitroff	CM Lodestar	Columbus McKinnon	P	P
Wally Blount	CM Lodestar	Columbus McKinnon	A	P
Michael Sandman	CRS Technologies	CRS Technologies	P	P
Ben Saltzman	CRS Technologies	CRS Technologies	A	P
M. Brad Dittmer	Downhome Productions	Downhome Productions	P	U
Dean Hart	Stage Rigging, Inc.	Freeman Companies	P	U
Rocky Paulson	Stage Rigging, Inc.	Freeman Companies	A	U
Reid Neslage	H & H Specialties Inc.	H & H Specialties Inc.	P	P
Jeffrey Hoffend	Hoffend & Sons, Inc.	Hoffend & Sons, Inc.	P	P
Edwin S. Kramer	IATSE, Local 1	I.A.T.S.E. Local 1	P	U
Rodney F. Kaiser	J.R. Clancy Inc.	J.R. Clancy, Inc.	P	P
Jack Suesse	J.R. Clancy, Inc. (NC)	J.R. Clancy, Inc.	A	P
Thomas S. Young	J.R. Clancy Inc.	J.R. Clancy, Inc.	A	P
Mike Garl	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	P	P
Tray Allen	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	A	P
Andrew Smith	Jeamar Winches Inc.	Jeamar Winches Inc.	P	P
Nevin Kleege	Kleege Industries	Kleege Industries	P	U
Louis Bradfield	Louis Bradfield	Louis Bradfield	I	U
Baer Long	MGM Grand Hotel Casino	MGM-Mirage Inc.	P	U
Tim Hansen	Oasis Stage Werks	Oasis Stage Werks	P	U
Richard J. Nix	On Location Lighting Systems Inc.	On Location Lighting Systems Inc.	P	G
Tim Cox	PLASA	PLASA	P	G
Tony Douglas-Beveridge	PLASA	PLASA	A	G

Name	Company	Representing	Voting status	Int. cat.
Michael Akrep	Polar Focus, Inc.	Polar Focus, Inc.	P	P
Bill Sapsis	Sapsis Rigging, Inc.	Sapsis Rigging, Inc.	P	U
Dan Culhane	SECOA	SECOA	P	P
Larry Lutz	Texas Scenic Company	Texas Scenic Company	P	P
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	G
Keith Bohn	Tomcat USA, Inc.	Tomcat USA, Inc.	P	P
Mitch Clark	Tomcat USA, Inc.	Tomcat USA, Inc.	A	P
Mark Newlin	Tomcat USA, Inc.	Tomcat USA, Inc.	A	P
John James	Tomcat USA, Inc.	Tomcat USA, Inc.	A	P
Peter Johns	Total Structures, Inc.	Total Structures, Inc.	P	P
Ian Coles	Total Structures, Inc.	Total Structures, Inc.	A	P
Peter Hind	Total Fabrications Ltd.	Total Structures, Inc.	A	P
Doug Recher	Total Structures, Inc.	Total Structures, Inc.	A	P
Hans van der Moolen	Verlinde N.L.	Verlinde Spa. France	P	P
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4 Approval of minutes from the previous meeting

Dan Culhane moved that the draft minutes be approved as written. The motion was seconded. The motion was approved unanimously by a show of hands.

5 ESTA declarations

The following declarations were read aloud 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."

Bill Maiman held up the pamphlets. No issues were called to the attention of the chairman.

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 one brought any protected intellectual property issues to the attention of the working group.

6 Approval of agenda

Eddie Kramer moved that the draft agenda be accepted. The motion was seconded. The motion was accepted unanimously by a show of hands.

7 Old business

7.1 E1.4 - Manual Rigging Systems

Karl Ruling reported that the draft standard is in public review through December 18.

7.2 E1.6 – Powered Rigging Systems

Karl Ruling reported that the draft standard is in public review through December 18.

7.3 E1.7 - Recommended Practice for Flying Performers

There was an extended discussion of the relative merits of the two versions of BSR E1.7, Rig/1997-2004r9 and Rig/1997-2004r10. The r9 version requires proof testing whenever a flying system is installed. The r10 version only requires proof testing when a system is first put into service and whenever substantial modifications are made, but specifically says that this shall not be required each time a system is installed. The working group at the meeting felt strongly that the system must be tested with a load every time it is installed or any time modifications are made to load-bearing components and that this test must entail, as much as possible, a simulation of the flight maneuvers that the performer will make. Furthermore, this load test must be followed by a system inspection. Ruling offered to make a revised document if the group would take a break for a few minutes and give him time to work on it.

Eddie Kramer moved that the discussion of BSR E1.7 be tabled until after a break. The motion was seconded. By show of hands, 18 were in favor of the motion and none were opposed. Only the chairman abstained.

After a ten minute break Ruling presented Rig/1997-2004r11 and read the sections that had been changed. Bill Sapsis moved that Rig/1997-2004r11 be sent to public review, with the motion to be decided by letter ballot. The motion was seconded. There was an unanimous show of support by a show of raised hands, except for the chairman, who abstained. The motion to send the document to public review shall be decided by a letter ballot.

7.4 E1.8 - Speaker Enclosures Rigging Standard

Andrew Martin reported that he is working on the comment resolutions and a revised document.

7.5 E1.15 – Boom & base standard

Ted Paget reported that the TSC, after reviewing the document that was before the Rigging Working Group (Rig/1998-2032r5), had recommended that the project be abandoned. Ruling outlined the TSC's objections to the document:

1. The draft standard applies to almost nothing that is currently available on the market. In the United States, only Altman Stage Lighting makes complete boom and base assemblies that fall within the scope of the draft standard (Altman catalog numbers 524-18 and 525-18) but these do not meet the requirements of the draft document because of their use of pipe fittings.

2. Most boom and base assemblies are assembled by stagehands from components made by diverse manufacturers. This standard defines "manufacturer" so that the stagehand assembling a boom and base assembly is the manufacturer for the purposes of the standard. A stagehand as a manufacturer cannot comply with the requirements of the draft standard, which include:

- a. Per section 6, the stagehand must carry out and document a structural analysis for each boom and base assembly put together. This analysis includes evaluating the design factors as required in clause 5.1.1. This is impossible because most stagehands are not qualified to do a structural analysis. Even if one were, engineering data is not available for pipe, sidearms, scaffolding clamps, et cetera that are commonly used.

- b. Per section 7, the stagehand must label the assembly, listing the manufacturer and design loads, and must provide cautionary labels.

- c. Per section 8, the stagehand must provide full assembly instructions.
- d. Per section 12, any repairs made to the assembly by the stagehand must be documented. Since a new assembly is created each time a boom is put together for a show, this requirement, along with the other requirements for assembly documentation, would create a substantial record-keeping burden for the stagehand.

The TSC has found other problems with the writing of the draft document, Ruling reported, but the fundamental approach it takes – that of imposing duties appropriate to a manufacturing company on the individual stagehand – is unworkable. Considering that the author has taken this approach in every version of the document and that the product it addresses is such a marginal one in the rigging market, the TSC voted to recommend that the Rigging Working Group abandon the project.

Brad Dittmer moved that the project be abandoned. The motion was seconded. During the discussion some members of the working group stated that toppling boom and base assemblies are a real problem. By a show of hands seven voted in favor of abandoning the project and eleven voted against the motion. The chairman abstained. The motion failed.

Garl urged anyone interested in moving the BSR E1.15 project forward to get together with the author, Richard Nix, to rework the document.

7.6 Stage roofs proposal

Keith Bohn distributed a preliminary draft scope and a potential task group membership list. He stated that the projected date of completion of the first draft would be by LDI 2002. The preliminary draft scope read:

Temporary Outdoor Ground Supported Structures:

This document is intended to provide guidelines for Ground Supported Overhead Structures typically used to support equipment in the production of outdoor entertainment events. These guidelines cover:

- Design & Engineering
- Manufacturing
- Safe Use and Operation
- Inspection
- Maintenance.

This document does not include tent structures in its scope.

There was a discussion of the draft scope, in which it was suggested that "This document does not include tent structures in its scope," should be deleted. There were objections to taking further action on the document at this time, since it was distributed at the meeting and not two weeks in advance. The task group was urged to develop a more fully detailed scope, that more clearly defines what is covered and is not covered.

The interested parties who might be members of the task group were identified by Keith Bohn as:

Keith Bohn; Tomcat USA
Doug Recher; Total Structures
Tray Allen; James Thomas Engineering
Tim Mills; Geiger Engineers
Nevin Kleege; Kleege Industries
George Lathrop; Silhouette Lights & Staging
Mal McLaren; McLaren Engineering
Dean Hart; Stage Rigging
Kent Jorgensen; IATSE Local 80

Karl Ruling noted that some of these people are not members of the Rigging Working Group. Per our P&P, task group members must be drawn from the working group membership. The task group members can be observer members, but they must be members.

7.7 Fire curtain proposal

Bill Conner made a presentation in favor of a project to write a standard for fire curtain rigging. Conner recommended that the Rigging Working Group ask the TSC to

(a) proceed with the development of a standard for fire curtains; inform the ICC and NFPA of our intent to do so; and seek broad-based support and input from manufacturer's, contractors, users, and designers within our industry, and also from the traditional building code and fire code organizations; or

(b) seek to cooperate with the NFPA or ICC in their development of a fire curtain standard with our full and equal voice in the development process of those organizations.

Conner also noted that

(1) any standard for fire curtains should not specify when and where a fire curtain is required. Specifying where fire curtains may or must be used should remain the job of building and fire codes.

(2) a standard for fire curtains should cover all aspects of the system, including all components and materials, the fabrication of the assemblies and their installation, operation, and maintenance.

(3) a standard should be written in a mandatory style so that it may be referenced by the building and fire codes. Furthermore, the document should be so organized that the sections detailing the fire curtain system can be referenced separately from the sections detailing the system's operation and maintenance.

(4) a standard for fire curtains should include quantifiable performance goals so that as new materials become available and old materials are not suitable for whatever reason, the basic goals and functions of the system are understood and new materials and designs can be evaluated.

(5) a standard for fire curtains should be developed with broad-based input from the segment of industry that ESTA represents.

Visitor Gregory Cahanin stated that the NFPA has decided that fire curtains fit within the FDW-AAA technical committee's scope and that the technical committee now is voting on whether to include a section in NFPA 80 to address fire curtains. He offered that there are places on the committee for representatives and that members of the Rigging Working Group would be welcomed to apply. Presentations to the technical committee by an external task group would be welcome, also. The next committee meeting is scheduled to be held over two days in Baltimore, MD in April.

Brad Dittmer moved that we choose option b less the ICC reference of Bill Conner's proposed courses of action, select a member of this working group to apply as a representative, and encourage individuals to apply. The motion was seconded. By a show of hands, all were in favor of the motion and none were against. Only the chairman abstained.

Rocky Paulson moved that Rodney Kaiser apply as a representative for ESTA. The motion was seconded. The motion was accepted unanimously by a show of hands, with only the chairman abstaining.

Jerry Gorrell moved that that Dan Culhane also apply as a representative for ESTA, pending Culhane's boss's approval. The motion was seconded. The motion was accepted unanimously by a show of hands, with only the chairman abstaining.

Eddie Kramer moved that Bill Sapsis and Ted Paget apply as alternates. The motion was seconded. The motion was accepted unanimously by a show of hands, with only the chairman abstaining.

7.8 VPLT SR 1.0

A status update was given by Tim Cox. Cox stated PLASA had offered comments and that he had discussed the draft standard with Florian von Hofen at the PLASA trade show in September. The document will be largely rewritten as a result of the comments that were received. Cox said that he had discussed the possibility of an English version with VPLT.

8 New business

There was none.

9 Other business

The PSA request for guidance on chain hoist control connectors in the UK was discussed. The document was distributed for working group members' information only, Garl pointed out, and it is not a formal request for our guidance on British connectors.

Wally Blount said that there is a move afoot to get consensus in the industry for a common solution. The connectors currently used in the UK for the hoist control circuits can't be used for that purpose and conform to regulations; the practice must change.

Rocky Paulson said that we have similar problems with control connectors here in the States. The only important difference is that it hasn't become an issue here yet.

10 Schedule for future meetings

Garl announced that the next working group meeting is in New Orleans at the Hyatt Regency on the evening of February 13, 2002. The following meeting will be the evening of May 3 in Texas but at a different hotel than usual. The meeting will be at Dallas/Ft. Worth Marriott South in Ft. Worth, rather than at the Dallas/Ft. Worth Marriott in Irving. The following meeting will be in July again at the Dallas/Ft. Worth Marriott South, and the final meeting of 2002 will be at LDI in Las Vegas.

11 Changes of membership status resulting from lack of attendance

Mike Garl noted that Jaemar Winches Inc. had missed three meetings with this one, and would become observers. Wally Blount reported that Andrew Smith, Jaemar's principal representative, is no longer with Jaemar Winches. [Karl Ruling subsequently confirmed this with a telephone call to Jeamar Winches.]

12 Adjournment

Bill Sapsis moved that the meeting adjourn. The motion was seconded. The motion was approved unanimously by a voice vote. Mike Garl declared the meeting adjourned at 22:13.

Working Group Membership as of the End of the 31 October 2001 Meeting

Name	Company	Representing (This is the sort field)	Voting status	Int. cat.
Michael G. Wiener	Aerial Rigging & Leasing, Inc.	Aerial Rigging & Leasing, Inc.	P	U
William Conner	Schuler & Shook Inc.	Amer. Society of Theatre Consultants	P	U
Jim Fletcher	American Sling Company, Inc.	American Sling Company, Inc.	O	P
Andrew T. Martin	ATM Group, Inc.	ATM Group, Inc.	P	P
Lee J. Bloch	Bloch Design Group Inc.	Bloch Design Group Inc.	O	G
Eric Todd	BML Inc.	BML Inc.	O	P
Paul Tardue	BML Inc.	BML Inc.	O	P
Joachim Stoecker	CAMCO GmbH	CAMCO GmbH	O	P
Mark M. Witteveen	Chicago Flyhouse Inc.	Chicago Flyhouse Inc.	O	U
Ted Jones	Chicago Spotlight, Inc.	Chicago Spotlight, Inc.	O	U
Marty Lazarus	Chicago Spotlight, Inc.	Chicago Spotlight, Inc.	O	U
Don Dimitroff	CM Lodestar	Columbus McKinnon	P	P
Wally Blount	CM Lodestar	Columbus McKinnon	A	P
Ron Fogel	Creative Realities, Inc.	Creative Realities, Inc.	O	G
Jason Friedman	Creative Realities, Inc.	Creative Realities, Inc.	O	G
Michael Sandman	CRS Technologies	CRS Technologies	P	P
Ben Saltzman	CRS Technologies	CRS Technologies	A	P
Harry Donovan	Donovan Rigging, Inc.	Donovan Rigging, Inc.	O	U
Wes Jenkins	Down Stage Right Industries	Down Stage Right Industries	O	P
M. Brad Dittmer	Downhome Productions - Springfield, MO	Downhome Productions	P	U
Dean Hart	Stage Rigging, Inc.	Freeman Companies	P	U
Rocky Paulson	Stage Rigging, Inc.	Freeman Companies	A	U

Name	Company	Representing (This is the sort field)	Voting status	Int. cat.
David M. Campbell	Geiger Engineers	Geiger Engineers	O	G
Paul Brady	Grand Stage Company, Inc.	Grand Stage Company, Inc.	O	U
Reid Neslage	H & H Specialties Inc.	H & H Specialties Inc.	P	P
Delbert Hall	Hall Associates Inc.	Hall Associates Inc.	O	U
Jeffrey Hoffend	Hoffend & Sons, Inc.	Hoffend & Sons, Inc.	P	P
Edwin S. Kramer	IATSE, Local 1	I.A.T.S.E. Local 1	P	U
Perry Langenstein	International Theatre Consultants	International Theatre Consultants	O	G
Rodney F. Kaiser	J.R. Clancy Inc.	J.R. Clancy, Inc.	P	P
Jack Suesse	J.R. Clancy, Inc. (NC)	J.R. Clancy, Inc.	A	P
Thomas S. Young	J.R. Clancy Inc.	J.R. Clancy, Inc.	A	P
Mike Garl	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	P	P
Tray Allen	James Thomas Engineering, Inc.	James Thomas Engineering, Inc.	A	P
Jay O. Glerum	Jay O. Glerum & Associates, Inc.	Jay O. Glerum & Associates, Inc.	O	U
Chuck McClelland	Jeamar Winches Inc.	Jeamar Winches Inc.	O	P
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
Ray Robins	Kansas Stage Inc.	Kansas Stage Inc.	O	U
Nevin Kleege	Kleege Industries	Kleege Industries	P	U
Ian J. Warhurst	Lite Structures (GB) Ltd.	Lite Structures (GB) Ltd.	O	P
Louis Bradfield	Louis Bradfield	Louis Bradfield	I	U
Kevin Dallmeyer	Mandalay Resort Group	Mandalay Resort Group	O	U
Baer Long	MGM Grand Hotel Casino	MGM-Mirage Inc.	P	U

Name	Company	Representing (This is the sort field)	Voting status	Int. cat.
Charles E. Gorgen	Midwest Crane Corp.	Midwest Crane Corp.	O	P
Kent H. Jorgensen	MPS Grips, Local 80	MPS Grips, Local 80	O	G
Ted Hickey	OAP Audio Products	OAP Audio Products	O	P
Tim Hansen	Oasis Stage Werks	Oasis Stage Werks	P	U
Gary Justesen	Oasis Stage Werks	Oasis Stage Werks	O	P
Frederick L. Smith	Olaf Soot Associates	Olaf Soot Associates	O	P
Olaf Soot	Olaf Soot Associates	Olaf Soot Associates	O	P
Richard J. Nix	On Location Lighting Systems Inc.	On Location Lighting Systems Inc.	P	G
Joseph Rapier	Parkhill, Smith & Cooper, Inc.	Parkhill, Smith & Cooper, Inc.	O	P
Patrick Stansfield	Patrick Stansfield Assoc., Inc.	Patrick Stansfield Assoc., Inc.	O	U
Peter Letzelter-Smith	Peter Letzelter-Smith	Peter Letzelter-Smith	O	U
Billy Phillips	Phillips Rigging	Phillips Rigging	O	P
Tim Cox	PLASA	PLASA	P	G
Tony Douglas-Beveridge	PLASA	PLASA	A	G
Michael Akrep	Polar Focus, Inc.	Polar Focus, Inc.	P	P
Robert Barbagallo	Proximo Inc.	Proximo Inc.	O	U
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
Mark Fitch	Renkus-Heinz, Inc.	Renkus-Heinz, Inc.	O	P
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

Name	Company	Representing (This is the sort field)	Voting status	Int. cat.
Heinz Siller	RST Präsentationssysteme	RST Präsentationssysteme	O	G
Bill Sapsis	Sapsis Rigging, Inc.	Sapsis Rigging, Inc.	P	U
Dan Culhane	SECOA	SECOA	P	P
Luigi Sbalzarini	Selvolina SNC	Selvolina SNC	O	P
Jon Lagerquist	South Coast Repertory	South Coast Repertory	O	U
Jerrold S. Tiers	St. Louis Music Inc.	St. Louis Music Inc.	O	P
Larry Lutz	Texas Scenic Company	Texas Scenic Company	P	P
Richard C. Mecke	Texas Scenic Company	Texas Scenic Company	O	P
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	U
F. Robert Bauer	Theatrix Inc.	Theatrix Inc.	O	U
John Van Lennep	Theatrix Inc.	Theatrix Inc.	O	U
Thomas Paterson	Thomas Paterson	Thomas Paterson	O	G
Keith Bohn	Tomcat USA, Inc.	Tomcat USA, Inc.	P	P
Mitch Clark	Tomcat USA, Inc.	Tomcat USA, Inc.	A	P
Mark Newlin	Tomcat USA, Inc.	Tomcat USA, Inc.	A	P
John James	Tomcat USA, Inc.	Tomcat USA, Inc.	A	P
Peter Johns	Total Structures, Inc.	Total Structures, Inc.	P	P
Ian Coles	Total Structures, Inc.	Total Structures, Inc.	A	P
Peter Hind	Total Fabrications Ltd.	Total Structures, Inc.	A	P
Doug Recher	Total Structures, Inc.	Total Structures, Inc.	A	P
Hans van der Moolen	Verlinde N.L.	Verlinde Spa. France	P	P

Name	Company	Representing (This is the sort field)	Voting status	Int. cat.
Eckart Steffens	SOUNDLIGHT	VPLT	O	G
Peter Happe	Walt Disney Imagineering	Walt Disney	O	U
Warren A. Bacon	Warren A. Bacon	Warren A. Bacon	O	U

Voting Status

- P Principal voting representative for a company or organization
- A Alternate voting representative for a company or organization
- I Individual representing no organization other than himself or herself
- O Observer; non-voting

Interest Categories

- P Producer (manufacturer) of rigging equipment
- U User of rigging equipment
- G General interest in rigging equipment