

Minutes
Rigging Working Group
Thursday, 21 March 2024
Sheraton Grand Seattle

Chairpersons:

Christine L. Kaiser; Syracuse Scenery & Stage Lighting Co., Inc.; P; DR
Bill Sapsis; Sapsis Rigging, Inc.; P; U (presiding)

Recording secretaries:

Erin Grabe and Karl Ruling (ESTA)

Attendees:

Kris Ackerman; Encore Global; A; G
Jesse Adams; Rose Brand Wipers, Inc; P; DR
William Ian Auld; Auld Entertainment; O; U
Dana Bartholomew; Bishop Lifting Products; P; DR
Peter W. Batt; Mainstage Theatrical Supply, Inc; P; DR
Drew Becker; InterAmerica Stage, Inc.; A; CP
Ian Bevan; Walt Disney Company; P; DE
David Boevers; Carnegie Mellon University; P; DE
Gert Jan Brouwer; Frontline Rigging & Motion B.V.; P; CP
Paul Brunner; WJHW Consultants; O; DE
Lee Chuong; Walt Disney Company; A; DE
Jay Cid; R&M Materials Handling / Stagemaker; P; MP
Dawn Copeland; Dawn Copeland; I; U
Thomas Cowdery; Thomas Cowdery; I; U
Dan Culhane; Wenger Corp.; A; CP
Bruce Darden; InterAmerica Stage, Inc.; P; CP
Scott Davis; Encore Global; wtg; U
Robert Dean; ZFX, Inc.; P; CP
Tyler DeLong; DeLong Rigging Solutions; P; U
Jonathan Deull; JSD Projects LLC; P; U
Don Earl; Earl Girls, Inc.; P; DR
Scott England; Cirque du Soliel Entertainment Group; P; U
Jennifer Ferguson; Kito Group; P; MP
Sanford P. Gilzow; Shur-Rig LLC; P; G
William B. Gorlin; M.G. McLaren, P.C.; P; G
Jerry Gorrell; Theatre Safety Programs; P; G
Benjamin Hague; Benjamin Hague; I; G
Robert Haycock; Robert Haycock; I; U
Jeremy Hodgson; Jeremy Hodgson; I; G
Joseph Jeremy; Niscon (LFT); P; CP
Ted Jones; Grand Stage; O; U
Stanley Jordan; AVL Designs, Incorporated; P; DE
Paige Kassab; Liberty Mutual Insurance; O; DE
Christina Keryczynskyj; Charcoalblue LLC; P; DE
Ryan Kunkel; Tait Towers Manufacturing LLC; A; CP
Kyle Kusmer; Steven Schaefer Associates, Inc; P; DE
Paul "Luke" Lewkowicz; Paul E Lewkowicz PC; O; DE
Michael Lichter; Electronic Theatre Controls, Inc.; O; MP
Ross Long; I.A.T.S.E. Local 891; A; U
John Marczeski; Texas Scenic Company; A; MP
Dan McLaughlin; Scenic Solutions LLC; P; DR
Orestes Mihaly; Production Resource Group; P; DR
Cameron Miller; Encore Global; A; U
Rick Montgomery; Motion Laboratories, Inc.; P; MP
Neil Montour; Atlanta Rigging Systems; P; DR
Bartholomew J. Mueller; Recreation Engineering Inc.; P; DE
Cole Muth; Electronic Theatre Controls, Inc.; A; MP
Reid Neslage; Reid Neslage; I; G

Shawn Nolan; Clark-Reder Engineering, Inc.; A; G
Tracy Nunnally; Vertigo; P; CP
Shelby Obitts; Liberty Mutual Insurance; O; DE
Matt Panther; Reliable Design Services; A; CP
Miriam Paschetto; Geiger Engineers; O; DE
Camille Petrillo; Sapsis Rigging, Inc.; O; U
Jason Rasinowich; Theatre Projects Consultants, Inc.; A; DE
Jeffrey M. Reder; Clark-Reder Engineering, Inc.; P; G
John Ringelman; Freeman Companies; P; DR
Ryan Riordan; Riordan Rigging LLC; P; U
Chris Ruble; Christopher Ruble; I; U
Chris Schmidt; Freeman Companies; A; DR
Steven Serafin; The Hartford Group; O; G
Jonathan Shimon; University at Buffalo - SUNY; P; U
Eric Silzer; Reed Rigging, Inc.; A; DR
Mike Skinner; Contract Services Administration Trust Fund; P; U
Keith Sklar; Actors' Equity Association; O; U
Stewart Stephens; S2 Technologies; P; G
Peter V. Svitavsky; Wenger Corp.; P; CP
Ken Tilson; Columbus McKinnon Corp.; P; MP
Austin Utley; Thern, Inc.; P; MP
Elmer Veith; Reliable Design Services; P; CP
Nathan Villines; Tyler Truss Systems; P; MP
Steve Walker; Steve A. Walker & Associates; P; G
Patrick Wallace; Encore Global; O; U
Drew Wending; Encore Global; A; U
Max A. Wilson; Applied Electronics; P; MP
Stephan Jon Wood; Tait Towers Manufacturing LLC; P; CP
Paul Zagajeski; Wenger Corp.; A; CP

Visitors:

Sam Michael; Avista Ingenuity
David Bond; Christie Lights
Michael Ohte; I.A.T.S.E. Local 16
Keith Bohn; Area Four
Derek Epstein; Encore Global
Adam Smith; Encore Global
Charles Gregory; PRG
Madeline Principe; PRG

1 Opening Remarks

Bill Sapsis called the meeting to order at 11:05. He welcomed everyone to Seattle, saying it was nice to see so many smiling faces in the room.

2 Patent and anti-trust statements

2.1 Reading of the anti-trust statement

Bill Sapsis read the following statement aloud to the assembly:

ESTA and its members take seriously their obligation to comply with all applicable antitrust laws. Therefore, during this meeting and during all ESTA events, all discussions will be limited to those subjects that are permitted by the antitrust laws. All members should refrain from any discussion or mention of competitively sensitive subjects such as the current or future prices charged for any member product or services, current or future marketing plans or strategies, and current or future costs, including employee salaries. There also must be no agreement on the suppliers or customers that members will or will not do business with or the markets in which members will conduct business.

Violations of the antitrust laws can have serious consequences. If you have any questions or concerns about anything that is discussed at an ESTA meeting, please bring your concern to ESTA management. An easy to read pamphlet describing the antitrust laws is available from the ESTA staff.

Karl Ruling held up the pamphlet for all to see. No concerns were revealed.

2.2 Reading of the call for patents

Bill Sapsis read the following statement aloud to the assembly:

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

In keeping with the open disclosures policy, I ask if anyone present wishes to notify this working group of the existence of a patent, patent application, copyright, or other protected intellectual property that might protect material in a standard being developed by this working group. You need not be the holder of the patent or copyright to notify this working group of its existence.

No protected IP was identified.

3 Attendance and Membership

3.1 Requirements for membership

Bill Sapsis read the following statement aloud to the assembly:

Membership is open to all parties who are affected by the work of the group; membership in ESTA is not a requirement, but there is a \$100/person/year participation fee to help fund the costs of running the Technical Standards Program. This fee will increase to \$150 in 2025. New applications shall not be processed until the participation fee has been paid. Voting members are required to attend meetings and vote on letter ballots. Any principal member and alternate that both miss three consecutive meetings or that miss three consecutive letter ballots will have their membership status changed to observer. This action will be taken at the beginning of the first meeting after such inaction and will be recorded in the minutes of that meeting.

3.2 Introduction of attendees

Those present in the room introduced themselves as a sign-in sheet was circulated. Erin Grabe read off the names of people on line.

3.3 Determination of a quorum

There are 77 voting entities before application actions. A quorum is 26, a supermajority is 39.

Karl Ruling said that we have a quorum.

3.4 Processing of new membership and status change requests

The following applications or status change requests have been received:

*Dana Bartholomew; Bishop Lifting Products; P; DR (change of representation)
Ted Jones; Grand Stage; P; U (status change request) reinstatement
Jason Rasinowich; Theatre Projects Consultants, Inc; A; DE (new application)
Cameron Miller; Encore Global; A; U (new application, applied as DE but changed to U)
William Ian Auld; Auld Entertainment; P; U (status change request)
Kris Ackerman; Encore Global; A; U (new application)
Keith Sklar; Actors Equity; O; U (new application)
Dan McLaughlin; Scenic Solutions LLC; P; U (new application)
Scott Davis; Encore Global; A U*

Dan Culhane moved to approve the applications as submitted, except that principle voter applicants not present be approved as observers. The motion was seconded, and carried without abstentions or objections.

3.5 Changes to observer status due to lack of attendance or missed letter ballots

3.5.1 Attendance notices

The following voters have missed two consecutive meetings, and their status will be changed to that of Observer if this meeting is missed:

Columbus McKinnon Corp.: Ken Tilson, Nick Fleming (Ken Tilson present);

Electronic Theatre Controls, Inc.: Cole Muth, Steven Ricks (Cole Muth is present)
I.A.T.S.E. Local 1: Edwin S. Kramer
Riordan Rigging LLC: Ryan Riordan (present)
Shane Kelly

Neither Eddie Kramer nor Shane Kelly were present, so their status was changed as indicated.

3.5.2 Letter ballot notices

The following voters have missed two consecutive letter ballots, and will be moved to Observer status if the next ballot is missed.

Bartholomew Mueller; Recreational Engineering; DE

3.5.3 Automatic status changes occurring before this meeting

The following automatic status changes have occurred since the last meeting.

Dana Bartholomew (change of representation, see 3.4)

3.6 Consensus body

The consensus body, after today's working group meeting's actions, is as follows:

| Name | Representing | Status | Int Cat |
|------------------------|---|---------------|----------------|
| R. Duane Wilson | Amer. Society of Theatre Consultants | P | DE |
| Peter A. Scheu | Amer. Society of Theatre Consultants | A | DE |
| Max A. Wilson | Applied Electronics | P | MP |
| Jon Lenard | Applied Electronics | A | MP |
| Neil Montour | Atlanta Rigging Systems | P | DR |
| William Ian Auld | Auld Entertainment | P | U |
| Stanley Jordan | AVL Designs, Incorporated | P | DE |
| Benjamin Hague | Benjamin Hague | I | G |
| Dana Bartholomew | Bishop Lifting Products | P | DR |
| David Boevers | Carnegie Mellon University | P | DE |
| Christina Keryczynskij | Charcoalblue LLC | P | DE |
| Ed Leahy | Chicago Flyhouse, Inc | P | CP |
| Chris Ruble | Christopher Ruble | I | U |
| Scott England | Cirque du Soliel Entertainment Group | P | U |
| Jeffrey M. Reder | Clark-Reder Engineering, Inc. | P | G |
| Shawn Nolan | Clark-Reder Engineering, Inc. | A | G |
| Ken Tilson | Columbus McKinnon Corp. | P | MP |
| Nick Fleming | Columbus McKinnon Corp. | A | MP |
| Mike Skinner | Contract Services Administration Trust Fund | P | U |
| Chris Moulton | Contract Services Administration Trust Fund | A | U |
| David Carmack | Dave Carmack Consulting, Inc. | P | G |
| Dawn Copeland | Dawn Copeland | I | U |
| Tyler DeLong | DeLong Rigging Solutions | P | U |
| Don Earl | Earl Girls, Inc. | P | DR |
| Steven Ricks | Electronic Theatre Controls, Inc. | P | MP |
| Cole Muth | Electronic Theatre Controls, Inc. | A | MP |
| Mike Weston | Encore Global | P | U |
| Drew Wending | Encore Global | A | U |
| Demian Purdy | Encore Global | A | U |
| Tim Salamon | Encore Global | A | U |

| Name | Representing | Status | Int Cat |
|------------------------|---------------------------------------|--------|---------|
| Greg Williams | Encore Global | A | U |
| Cameron Miller | Encore Global | A | U |
| Kris Ackerman | Encore Global | A | U |
| Allen Winzler | Entertainment and Rigging Engineering | P | DE |
| Eric Rouse | Entertainment Project Services, LLC | P | CP |
| Joseph Champelli | Entertainment Project Services, LLC | A | CP |
| Ethan W Gilson | Entertainment Rigging Services, LLC | P | U |
| John Ringelman | Freeman Companies | P | DR |
| Chris Schmidt | Freeman Companies | A | DR |
| Gert Jan Brouwer | Frontline Rigging & Motion B.V. | P | CP |
| Joe Golden | Gallagher Staging | P | DR |
| Ted Jones | Grand Stage | P | U |
| Pat Grenfell | Hoist Sales & Service | P | DR |
| Rod Haney | I.A.T.S.E. Local 891 | P | U |
| Ross Long | I.A.T.S.E. Local 891 | A | U |
| Bruce Darden | InterAmerica Stage, Inc. | P | CP |
| Drew Becker | InterAmerica Stage, Inc. | A | CP |
| Jeremy Hodgson | Jeremy Hodgson | I | G |
| Jonathan Deull | JSD Projects LLC | P | U |
| Jennifer Ferguson | Kito Group | P | MP |
| William B. Gorlin | M.G. McLaren, P.C. | P | G |
| Peter W. Batt | Mainstage Theatrical Supply, Inc | P | DR |
| Mike Garl | Mike Garl Consulting LLC | P | DE |
| Rick Montgomery | Motion Laboratories, Inc. | P | MP |
| Michael Shaw | Motion Laboratories, Inc. | A | MP |
| Stefan Pries | NEP Live Events | P | DR |
| Joseph Jeremy | Niscon (LFT) | P | CP |
| Tim Hansen | Oasis Stage Werks | P | DR |
| Orestes Mihaly | Production Resource Group | P | DR |
| Troy Atkinson | Production Resource Group | A | DR |
| Matt Jordan | Production Resource Group | A | DR |
| John Caudill | Productions Unlimited | P | DE |
| Jay Cid | R&M Materials Handling / Stagemaker | P | MP |
| Bartholomew J. Mueller | Recreation Engineering Inc. | P | DE |
| Bennett Brian | Reed Rigging Inc. | P | DR |
| Eric Silzer | Reed Rigging, Inc. | A | DR |
| Reid Neslage | Reid Neslage | I | G |
| Elmer Veith | Reliable Design Services | P | CP |
| Matt Panther | Reliable Design Services | A | CP |
| Richard J. Nix | Richard J. Nix | I | G |
| Ryan Riordan | Riordan Rigging LLC | P | U |
| Robert Haycock | Robert Haycock | I | U |
| Jesse Adams | Rose Brand Wipers, Inc | P | DR |
| Stewart Stephens | S2 Technologies | P | G |
| Patricio (Pat) Perez | SAG AFTRA | P | G |
| Bill Sapsis | Sapsis Rigging, Inc. | P | U |
| Dan McLaughlin | Scenic Solutions LLC | P | DR |

| Name | Representing | Status | Int Cat |
|-----------------------------------|---|-------------------------------|-----------|
| Sanford P. Gilzow | Shur-Rig LLC | P | G |
| Robert Peterson | Shur-Rig LLC | A | G |
| Siobhan Gee | Siobhan Gee | I | G |
| John Rourke | Stagecraft Industries, Inc. | P | DR |
| Steve Walker | Steve A. Walker & Associates | P | G |
| Kyle Kusmer | Steven Schaefer Associates, Inc | P | DE |
| Ryan Niemi | Sunset Dynamics | P | CP |
| Christine L. Kaiser | Syracuse Scenery & Stage Lighting Co., Inc. | P | DR |
| Luke Brenon | Syracuse Scenery & Stage Lighting Co., Inc. | A | DR |
| Stephan Jon Wood | Tait Towers Manufacturing LLC | P | CP |
| Ryan Kunkel | Tait Towers Manufacturing LLC | A | CP |
| John Marczeski | Texas Scenic Company | P | MP |
| Russell Solomon | Texas Scenic Company | A | MP |
| Jim Niesel | Theatre Projects Consultants, Inc. | P | DE |
| Jason Rasinowich | Theatre Projects Consultants, Inc. | A | DE |
| Jerry Gorrell | Theatre Safety Programs | P | G |
| Austin Utley | Thern, Inc. | P | MP |
| Jeff Wilkowski | Thern, Inc. | A | MP |
| Tim Franklin | Theta Consulting LLC | P | G |
| Thomas Cowdery | Thomas Cowdery | I | U |
| Charlie Weiner | Total Structures, Inc | P | MP |
| Nathan Villines | Tyler Truss Systems | P | MP |
| Jonathan Shimon | University at Buffalo - SUNY | P | U |
| Tracy Nunnally | Vertigo | P | CP |
| John P. Moore | Vertigo | A | CP |
| Wade Cordts | Wade Cordts | I | U |
| Ian Bevan | Walt Disney Company | P | DE |
| Lee Chuong | Walt Disney Company | A | DE |
| Shane Rogers | Warner Bros. Discovery | P | U |
| Bryan Schafer | Warner Bros. Discovery | A | U |
| Peter V. Svitavsky | Wenger Corp. | P | CP |
| Dan Culhane | Wenger Corp. | A | CP |
| Paul Zagajeski | Wenger Corp. | A | CP |
| Robert Dean | ZFX, Inc. | P | CP |
| | | Total consensus votes: | 79 |
| Votes by interest category | Custom market producers (CP): | | 11 |
| | Mass market producers (MP): | | 10 |
| | Designers (DE): | | 11 |
| | Dealer or rental company (DR): | | 15 |
| | User (U): | | 18 |
| | General Interest (G): | | 14 |

4 Approval of the minutes from the last meeting

[See [RWGmin01-2024_Draft.pdf](#)]

Dan Culhane moved to approve the minutes. The motion was seconded, and carried without objection or abstention.

5 Approval of agenda

Dan Culhane moved to approve the agenda. The motion was seconded, and carried without objection or abstention.

6 Old Business

6.1 BSR E1.1 – 202x, Wire Rope Ladders (Open for revision)

Chris Schmidt (task group leader), Sandy Gilzow, Pat Bash, and Joe Golden.

The working group letter ballot to approve as ANS ended on 14 March 2024. The motion carried with no objections, so it has been forwarded to the TSC for consideration. The letter ballot summary has been distributed via upload, for the working group's reference.

Bill Sapsis said the TSC meets Saturday.

6.2 BSR E1.2 - 202x, Entertainment Technology - Design, Manufacture and Use of Aluminum Trusses and Towers (Open for revision).

Elmer Veith (task group leader), Shawn Nolan, Scott England, Mike Weston, and Chris Schmidt

Any news or action?

Elmer Veith said the group is getting together today. The schedule is tight, but they're getting started.

6.3 ANSI E1.4-1 - 2022, Entertainment Technology--Manual Counterweight Rigging Systems (Reaffirm, revise, or withdraw by 27 October 2027)

No news or action now.

6.4 ANSI E1.4-2 - 2021, Entertainment Technology—Statically Suspended Rigging Systems (Reaffirm, revise, or withdraw by 06 May 2026)

No news or action now.

6.5 ANSI E1.4-3 - 2020, Entertainment Technology - Manually Operated Hoist Rigging Systems (Reaffirm, revise, or withdraw before 02 June 2025)

No news or action now.

6.6 BSR E1.6-1 - 202x, Entertainment Technology--Powered Hoist Systems (open for revision)

Joe Jeremy, Jesse Adams, Robert Dean, Bill Gorlin, Bruce Darden (leader), Peter Batt, Tracy Nunnally, Stefan Pries, and Joe Golden

Bruce Darden reported that the task group is making “subtle changes” but they enhance clarity. They are reviewing design factors, and are making a lot of progress.

6.7 ANSI E1.6-2 - 2020, Entertainment Technology--Design, Inspection, and Maintenance of Electric Chain Hoists for the Entertainment Industry (Reaffirm, revise, or withdraw before 14 August 2025)

6.8 BSR E1.6-3 - 20xx, Selection and Use of Serially Manufactured Chain Hoists in the Entertainment Industry (open for revision)

Elmer Veith (task group leader), John Ringelman, Mike Weston, Rod Haney, Tyler DeLong, Rick Montgomery, Stephan Jon Wood, and Jennifer Ferguson

Any news or action?

Elmer Veith reported that the task group is meeting today to work on this.

6.9 ANSI E1.6-4 - 2022, Design, Manufacture, and Inspection of Portable Controls for Electric Chain Hoists in the Entertainment Industry (Revise, reaffirm or withdraw before 30 October 2027)

6.10 ANSI E1.6-5 - 2022, Selection and Use of Portable Controls for Electric Chain Hoists in the Entertainment Industry (Revise, reaffirm or withdraw before 30 October 2027)

6.11 ANSI E1.8 – 2018 (R2023), Entertainment Technology—Loudspeaker Enclosures Intended for Overhead Suspension—Classification, Manufacture and Structural Testing (Revise, reaffirm, or withdraw before 05 September 2028)

6.12 ANSI E1.15 - 2006 (R2021), Entertainment Technology--Recommended Practices and Guidelines for the Assembly and Use of Theatrical Boom & Base Assemblies (Reaffirm, revise, or withdraw before 08 March 2026)

6.13 BSR E1.21 - 202x, Entertainment Technology — Temporary Structures Used for Technical Production of Outdoor Entertainment Events (Open for revision)

The working group letter ballot to approve as ANS ended on 14 March 2024. The motion carried with no objections, so it has been forwarded to the TSC for consideration (the tracked changes in the draft have been removed, too). The letter ballot summary has been distributed via upload, for the working group's reference.

Bill Sapsis said the TSC meets Saturday.

6.14 ANSI E1.22 - 2022, Entertainment Technology - Fire Safety Curtain Systems (Reaffirm, revise, or withdraw by 25 April 2027)

No news or action now.

6.15 ANSI E1.39 - 202x, Entertainment Technology –Selection and Use of Personal Fall Arrest Systems on Portable Structures Used in the Entertainment Industry (Reaffirm, revise, or withdraw by 06 May 2026)

No news or action now.

6.16 BSR E1.43 - 202x, Live performer flying effect standard (Open for revision) *Task group members:* Eric Rouse (task group leader), Jonathan Deull, Ryan Kunkel, Robert Dean, Tracy Nunnally, Bill Gorlin, and Stewart Stephens.

It's in public review until 08 April 2024.

Joe Jeremy moved to approve as an American National Standard if there are no actionable public review comments. The motion was seconded, and carried without objection or abstention.

6.17 ANSI E1.47 – 2020, Recommended Guidelines for Entertainment Rigging System Inspections (Reaffirm, revise or withdraw before 18 June 2025)

No news or action now.

6.18 BSR E1.50-1 – 202x, Requirements for the Structural Support of Temporary LED, Video & Display Systems (Open for revision). *Task Group Members:* Charlie Weiner, Stefan Pries, Siobhan Ghee, Joe Golden, Sandy Gilzow (Task group leader), Robert Peterson, Steve Walker, and Richard Nix
[see BSR E1.50-1_PR1 CmmntResols_Draft.pdf and BSR E1.50-1-202x_Rig2023-2001r1.pdf]

The r0 draft distributed to the working group prior to the last meeting was not the most current version. The task group has resubmitted the original draft comment resolutions - with the correct version (r1) of the draft standard - for working group consideration. Their intention is to first approve the original PR1 comment resolutions, then move the (r1) draft standard to its second public review. The correct procedural action is twofold: First, "amend the previous action by approving the original draft public review comment resolutions." Second, "amend the previous action by approving the r1 draft standard for second public review."

Bruce Darden moved to amend the previous action by approving the original draft public review comment resolutions. The motion was seconded, and approved without objection or abstention.

Bruce Darden then moved to amend the previous action by approving the r1 draft standard for second public review. The motion was seconded, and approved without objection or abstention.

6.19 BSR E1.56 - 202x, Rigging Support Points Design, Fabrication, Installation, and Testing (Open for revision) *Task Group members:* Shawn Nolan (leader), Dan Culhane, Steve Walker, Chris Schmidt, Robert Dean, Shane Kelly

Any news or action?

Shawn Nolan reported, they have been meeting regularly and are making progress. They will meet again tomorrow, ad hoc, face to face. He thinks they are on target to send a draft for the working group's consideration in the fall.

6.20 ANSI E1.67 – 2021, Design, Inspection, Maintenance, Selection, and Use of Hand-operated Chain- and Lever Hoists for the Entertainment Industry (Reaffirm, revise, or withdraw by 06 May 2026).

6.21 BSR E1.70 – 202x, Selection and Use of Ground Supported Winch Stands and Towers in the Entertainment Industry *Task group members:* Ethan Gilson (task group leader), Eric Rouse, Elmer Veith, Ryan Riordan, Max Wilson, and Mike Weston.

Elmer Veith reported that the energy for this has died out. He said the task group has not met; it might need new members and a new task group leader. He recommended that the working group appoint a new task group. Bill Sapsis said he thinks there is interest in seeing this document move forward. Chris Schmidt said we could ask the task group if they wish to continue. Bill Sapsis asked for the working group's opinion.

Sandy Gilzow moved to pause (not abandon) the project. The motion was seconded. There was discussion. Robert Haycock asked if the task group would be amenable to this. Elmer Veith and other task group members said they were. Chris Schmidt asked if there had been any material progress yet. Elmer Veith estimated that it was about 25% complete at this time. Bill Sapsis asked the working group to find some stakeholders willing to take up this work. The motion carried without objection or abstentions.

6.22 BSR E1.81, Rigging system signage requirements

Task Group Members: Chris Kaiser (task group leader), Peter Scheu, Pete Svitavsky, Peter Batt, Camille Petrillo, Ed Leahy, and Stan Jordan.

Any news or action?

Chris Kaiser said they have met several times and will continue to do so. They've had good meetings.

7 New business

None.

8 Other business and announcements

Erin Grabe said the Distinguished Achievement Award in Engineering will be presented to Karl Ruling by the Engineering Commission at 3:30 this afternoon. The attendees responded with a hearty round of applause.

8.1 Above & Beyond Awards

Information on the Above & Beyond Awards may be found at http://tsp.esta.org/tsp/news/award_recipients.html. The nomination site is open year round, and the award is designed for members to highlight the work of their peers. The deadline for nominations is 01 November.

9 Schedule for future meetings

The meeting schedule is posted at <http://www.esta.org/ESTA/meetings.php>.

The Summer meetings will be held in NYC, in conjunction with the NATEAC conference, during the week of 08 July 2024. The Fall 2024 meetings will likely return to Westlake, TX during the week of either 14 October or 21 October 2024, TBC. Winter meetings will return to Anaheim, CA in conjunction with the 2025 NAMM Show, during the week of 20 January 2025.

10 Adjournment

Bill Sapsis declared the meeting adjourned at 11:47AM.

Rigging Working Group members as of 21 Mar 2024

| Name | Representing | Status | Int cat |
|-------------------|---|--------|---------|
| Kris Ackerman | Encore Global | A | G |
| Jesse Adams | Rose Brand Wipers, Inc | P | DR |
| Matthew Antonucci | Contract Services Administration Trust Fund | O | U |
| Brent Armstrong | Alpine Rigging & Structural Design | O | CP |
| Troy Atkinson | Production Resource Group | A | DR |
| William Ian Auld | Auld Entertainment | O | U |
| Robert Barbagallo | Solotech Inc. | O | DR |
| Dana Bartholomew | Bishop Lifting Products | P | DR |
| Patrick Bash | In-House Production | O | DR |
| Peter W. Batt | Mainstage Theatrical Supply, Inc | P | DR |
| Drew Becker | InterAmerica Stage, Inc. | A | CP |
| Justin Bennett | University of the Incarnate Word | O | U |
| Jordi Van Berkum | Cybermotion North America | O | DR |
| Ian Bevan | Walt Disney Company | P | DE |
| Tyler Bland | Walt Disney Company | O | U |
| David Boevers | Carnegie Mellon University | P | DE |
| Luke Brenon | Syracuse Scenery & Stage Lighting Co., Inc. | A | DR |
| Bennett Brian | Reed Rigging Inc. | P | DR |
| Gert Jan Brouwer | Frontline Rigging & Motion B.V. | P | CP |
| Paul Brunner | WJHW Consultants | O | DE |
| David M. Campbell | Geiger Engineers | O | G |
| David Carmack | Dave Carmack Consulting, Inc. | P | G |
| John Caudill | Productions Unlimited | P | DE |
| Joseph Champelli | Entertainment Project Services, LLC | A | CP |
| Lee Chuong | Walt Disney Company | A | DE |
| Jay Cid | R&M Materials Handling / Stagemaker | P | MP |
| Dawn Copeland | Dawn Copeland | I | U |
| Wade Cordts | Wade Cordts | I | U |
| Thomas Cowdery | Thomas Cowdery | I | U |
| Dan Culhane | Wenger Corp. | A | CP |
| Bruce Darden | InterAmerica Stage, Inc. | P | CP |
| David Darland | Encore Global | O | U |
| Scott Davis | Encore Global | wtg | U |

Rigging Working Group members as of 21 Mar 2024

| Name | Representing | Status | Int cat |
|---------------------|---|--------|---------|
| Robert Dean | ZFX, Inc. | P | CP |
| Tyler DeLong | DeLong Rigging Solutions | P | U |
| Jonathan Deull | JSD Projects LLC | P | U |
| Jim Digby | Event Safety Alliance | O | U |
| Don Earl | Earl Girls, Inc. | P | DR |
| Scott England | Cirque du Soliel Entertainment Group | P | U |
| Jennifer Ferguson | Kito Group | P | MP |
| Nick Fleming | Columbus McKinnon Corp. | A | MP |
| Tim Franklin | Theta Consulting LLC | P | G |
| Mike Garl | Mike Garl Consulting LLC | P | DE |
| James M. Garner | Walt Disney Company | O | G |
| Siobhan Gee | Siobhan Gee | I | G |
| Ethan W Gilson | Entertainment Rigging Services, LLC | P | U |
| Sanford P. Gilzow | Shur-Rig LLC | P | G |
| Tiny Good | Showtech Australia | O | U |
| William B. Gorlin | M.G. McLaren, P.C. | P | G |
| Jerry Gorrell | Theatre Safety Programs | P | G |
| Pat Grenfell | Hoist Sales & Service | P | DR |
| Benjamin Hague | Benjamin Hague | I | G |
| Rod Haney | I.A.T.S.E. Local 891 | P | U |
| Tim Hansen | Oasis Stage Werks | P | DR |
| Jane Harrington | The Hartford Group | O | G |
| Robert Haycock | Robert Haycock | I | U |
| Jeremy Hodgson | Jeremy Hodgson | I | G |
| Quinten James | ZFX, Inc. | O | CP |
| Joseph Jeremy | Niscon (LFT) | P | CP |
| Zhou Jianzhao | Guangzhou Haoyang Electronic Co., Ltd. | O | CP |
| Ted Jones | Grand Stage | O | U |
| Matt Jordan | Production Resource Group | A | DR |
| Stanley Jordan | AVL Designs, Incorporated | P | DE |
| Christine L. Kaiser | Syracuse Scenery & Stage Lighting Co., Inc. | P | DR |
| Paige Kassab | Liberty Mutual Insurance | O | DE |
| Shane Kelly | Shane Kelly | I | U |

Rigging Working Group members as of 21 Mar 2024

| Name | Representing | Status | Int cat |
|------------------------|---|--------|---------|
| Christina Keryczynskj | Charcoalblue LLC | P | DE |
| Chong Kim | CMK Engineering, PLLC | O | DE |
| Jerald Kraft | Electronic Theatre Controls, Inc | O | MP |
| Edwin S. Kramer | I.A.T.S.E. Local 1 | P | U |
| Ryan Kunkel | Tait Towers Manufacturing LLC | A | CP |
| Kyle Kusmer | Steven Schaefer Associates, Inc | P | DE |
| Ed Leahy | Chicago Flyhouse, Inc | P | CP |
| Jon Lenard | Applied Electronics | A | MP |
| Paul "Luke" Lewkowicz | Paul E Lewkowicz PC | O | DE |
| Michael Lichter | Electronic Theatre Controls, Inc. | O | MP |
| Ross Long | I.A.T.S.E. Local 891 | A | U |
| John Marczeski | Texas Scenic Company | P | MP |
| Dan McLaughlin | Scenic Solutions LLC | P | DR |
| Orestes Mihaly | Production Resource Group | P | DR |
| Cameron Miller | Encore Global | A | U |
| Rick Montgomery | Motion Laboratories, Inc. | P | MP |
| Neil Montour | Atlanta Rigging Systems | P | DR |
| John P. Moore | Vertigo | A | CP |
| Chris Moulton | Contract Services Administration Trust Fund | A | U |
| Bartholomew J. Mueller | Recreation Engineering Inc. | P | DE |
| Cole Muth | Electronic Theatre Controls, Inc. | A | MP |
| Reid Neslage | Reid Neslage | I | G |
| Ryan Niemi | Sunset Dynamics | P | CP |
| Jim Niesel | Theatre Projects Consultants, Inc. | P | DE |
| Richard J. Nix | Richard J. Nix | I | G |
| Shawn Nolan | Clark-Reder Engineering, Inc. | A | G |
| Tracy Nunnally | Vertigo | P | CP |
| Shelby Obitts | Liberty Mutual Insurance | O | DE |
| Gregory Orth | WNP Services, Inc. | O | DR |
| Daniel Louis, P.E. | Daniel Louis, P.E. | O | DE |
| Matt Panther | Reliable Design Services | A | CP |
| Miriam Paschetto | Geiger Engineers | O | DE |
| Patricio (Pat) Perez | SAG AFTRA | P | G |

Rigging Working Group members as of 21 Mar 2024

| Name | Representing | Status | Int cat |
|--------------------|---|--------|---------|
| Robert Peterson | Shur-Rig LLC | A | G |
| Camille Petrillo | Sapsis Rigging, Inc. | O | U |
| Kurt Pragman | Pragman Associates, LLC | O | G |
| Stefan Pries | NEP Live Events | P | DR |
| Demian Purdy | Encore Global | A | U |
| Jason Rasinowich | Theatre Projects Consultants, Inc. | A | DE |
| Jeffrey M. Reder | Clark-Reder Engineering, Inc. | P | G |
| Luke Ricca | Luke Ricca | O | G |
| Steven Ricks | Electronic Theatre Controls, Inc. | P | MP |
| Mark Riddlesperger | LA ProPoint, Inc. | O | CP |
| John Ringelman | Freeman Companies | P | DR |
| Ryan Riordan | Riordan Rigging LLC | P | U |
| Ryan Roby | Ryan Roby | O | U |
| Shane Rogers | Warner Bros. Discovery | P | U |
| John Rourke | Stagecraft Industries, Inc. | P | DR |
| Eric Rouse | Entertainment Project Services, LLC | P | CP |
| Chris Ruble | Christopher Ruble | I | U |
| Tim Salamon | Encore Global | A | U |
| Bill Sapsis | Sapsis Rigging, Inc. | P | U |
| Bryan Schafer | Warner Bros. Discovery | A | U |
| Peter A. Scheu | Amer. Society of Theatre Consultants | A | DE |
| Chris Schmidt | Freeman Companies | A | DR |
| Daniel Schmidt | Western Illinois University | O | U |
| Donald Scott | Structural Engineering Institute of ASCE | O | DE |
| Ford Sellers | Chauvet Lighting | O | MP |
| Steven Serafin | The Hartford Group | O | G |
| Michael Shaw | Motion Laboratories, Inc. | A | MP |
| Jonathan Shimon | University at Buffalo - SUNY | P | U |
| Eric Silzer | Reed Rigging, Inc. | A | DR |
| Mike Skinner | Contract Services Administration Trust Fund | P | U |
| Keith Sklar | Actors' Equity Association | O | U |
| John C. Snook | Thermotex Industries Inc. | O | CP |
| Lynn M. Snook | Thermotex Industries Inc. | O | CP |

Rigging Working Group members as of 21 Mar 2024

| Name | Representing | Status | Int cat |
|--------------------|---------------------------------------|---------------|----------------|
| Russell Solomon | Texas Scenic Company | A | MP |
| Todd Spencer | Ventana Capital Investments LLC | O | G |
| Stewart Stephens | S2 Technologies | P | G |
| Patrick Stewart | Patrick Stewart | O | U |
| Peter V. Svitavsky | Wenger Corp. | P | CP |
| Ross Taylor | Taylor & Taylor Associates | O | G |
| Ken Tilson | Columbus McKinnon Corp. | P | MP |
| Austin Utley | Thern, Inc. | P | MP |
| Stephen Vanciel | Stephen Vanciel | O | U |
| Elmer Veith | Reliable Design Services | P | CP |
| Michael Viau | Pinnacle Live | O | DE |
| Nathan Villines | Tyler Truss Systems | P | MP |
| Steve Walker | Steve A. Walker & Associates | P | G |
| Patrick Wallace | Encore Global | O | U |
| Jason S. Waller | GIS Corporation US | O | MP |
| Charlie Weiner | Total Structures, Inc | P | MP |
| Drew Wending | Encore Global | A | U |
| Mike Weston | Encore Global | P | U |
| Jeff Wilkowski | Thern, Inc. | A | MP |
| Greg Williams | Encore Global | A | U |
| R. Duane Wilson | Amer. Society of Theatre Consultants | P | DE |
| Max A. Wilson | Applied Electronics | P | MP |
| Allen Winzler | Entertainment and Rigging Engineering | P | DE |
| Stephan Jon Wood | Tait Towers Manufacturing LLC | P | CP |
| Paul Zagajeski | Wenger Corp. | A | CP |