

**Minutes**  
**Rigging Working Group**  
Saturday, 26 October 2024  
Marriott D/FW Westlake, Westlake, TX

**Chairpersons:**

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

**Recording secretary:**

Richard Nix - ESTA

**Attendees:**

Kris Ackerman; Encore Global; A; U  
Brent Armstrong; Alpine Rigging & Structural Design; O; CP  
William Ian Auld; Auld Entertainment; P; CP  
Patrick Bash; In-House Production; O; DR  
Peter W. Batt; Mainstage Theatrical Supply, Inc; P; DR  
Drew Becker; InterAmerica Stage, Inc.; A; CP  
Ian Bevan; Walt Disney Company; P; DE  
Samuel Brohaugh; Kimley-Horn & Associates, Inc.; O; DE  
David Carmack; Dave Carmack Consulting, Inc.; O; G  
Joseph Champelli; Entertainment Project Services, LLC; P; CP  
Lee Chuong; Walt Disney Company; A; DE  
Dawn Copeland; Dawn Copeland; I; U  
Wade Cordts; Wade Cordts; 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; A; 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  
Derek Epstein; Encore Global; O; U  
Jennifer Ferguson; Kito Group; P; MP  
Nick Fleming; Columbus McKinnon Corp.; A; MP  
Mike Garl; Mike Garl Consulting LLC; P; DE  
Siobhan Gee; Siobhan Gee; I; G  
Ethan W Gilson; Entertainment Rigging Services, LLC; P; U  
Sanford P. Gilzow; Shur-Rig LLC; P; G  
Joe Golden; Joe Golden Enterprises; P; DE  
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  
Jeremy Hodgson; Jeremy Hodgson; I; G  
Ted Jones; Grand Stage; P; U  
Shane Kelly; Shane Kelly; P; U  
Richard (RJ) Kenny; Link USA, Inc.; P; MP  
Edwin S. Kramer; I.A.T.S.E. Local 1; O; U  
Ryan Kunkel; Tait Towers Manufacturing LLC; A; CP  
Ed Leahy; Chicago Flyhouse, Inc; P; CP  
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

Sam Michael; Avista Ingenuity, LLC; P; DE  
Orestes Mihaly; Production Resource Group; P; DR  
Rick Montgomery; Motion Laboratories, Inc.; P; MP  
Neil Montour; Atlanta Rigging Systems; P; DR  
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  
Shawn Nolan; Clark-Reder Engineering, Inc.; A; G  
Carlos Ortega; LER Rigging LLC; P; DR  
Robert Peterson; Shur-Rig LLC; A; G  
Stefan Pries; NEP Live Events; P; DR  
Seth Randall-Tapply; Actors' Equity Association; O; U  
Jason Rasinowich; Theatre Projects Consultants, Inc.; A; DE  
John Ringelman; Freeman Companies; P; DR  
Marco Robles; I.A.T.S.E. Local 80; P; G  
Shane Rogers; Warner Bros. Discovery; O; U  
John Rourke; Stagecraft Industries, Inc.; P; DR  
Chris Ruble; Christopher Ruble; I; U  
Tim Salamon; Encore Global; A; U  
Chris Schmidt; Freeman Companies; A; DR  
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  
Patrick Stewart; Patrick Stewart; O; U  
Dana Taylor; Dana W. Taylor Consulting, LLC; O; G  
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  
Jason S. Waller; GIS Corporation US; O; MP  
Charlie Weiner; Encore Global; A; U  
Drew Wending; Encore Global; A; U  
Mike Weston; Encore Global; P; U  
Adam Wilds; Encore Global; A; U  
Greg Williams; Encore Global; A; U  
Allen Winzler; Entertainment and Rigging Engineering; P; DE  
Stephan Jon Wood; Tait Towers Manufacturing LLC; P; CP

#### **Visitors:**

Marty Wesstrom; Mountain Productions  
Joey Solomini; Mountain Productions  
Keith Bohn; Area Four Industries  
Kent Jorgensen; I.A.T.S.E. Local 1  
Michael Ruiz; Encore Global  
Jonathan (JT) Lee; Pinnacle Live

### **1 Opening Remarks**

Bill Sapsis called the meeting to order at 14:10. He welcomed everyone and thanked them for taking time to attend.

### **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.

Richard Nix held up the pamphlet for all to see.

## **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.*

Bruce Darden said that Mike Wood had posted notice of a new patent on chain hoist motor control systems. A link was posted: <https://patents.google.com/patent/US12110217>

## **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**

Everyone introduced themselves.

### **3.3 Determination of a quorum**

*There are 77 voting entities before this meeting's actions. A quorum is 26, a supermajority is 39.*

Richard Nix confirmed that both requirements had been met.

### **3.4 Processing of new membership and status change requests**

*The following applications or status change requests have been received:*

*Seth Randall-Tapply; Actors' Equity Association; O; U (new application)  
Samuel Brohaugh; Kimley-Horn & Associates, Inc.; O; DE (new application) present  
Charlie Weiner; Encore Global; A; U (change of representation) present  
Shane Kelly; Shane Kelly; P; U (status change request from O to P) present  
Dana Taylor; Dana W. Taylor Consulting, LLC; O; G (new application) present  
Marco Robles; I.A.T.S.E. Local 80; P; G (new application)  
Richard (RJ) Kenny; Link; P; MP (new application)  
Adam Wilds; Encore Global; A; U (new application - applied as P in DR category, adjusted for Encore's status and interest category)*

Dan Culhane moved to approve the applications as submitted, with the exception that applicants not present but applying for primary voting status be approved with Observer status. The motion was seconded and carried, without objection or abstention.

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

#### 3.5.1 Attendance notices

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

Allen Winzler; Entertainment and Rigging Engineering  
Joseph Champelli; Entertainment Project Services, LLC  
Pat Grenfell; Hoist Sales & Service  
Stefan Pries; NEP Live Events  
Tim Hansen; Oasis Stage Werks  
Ryan Niemi; Sunset Dynamics

All were present.

#### 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.

There are none!

#### 3.5.3 Automatic status changes occurring before this meeting

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

Charlie Weiner (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	CP
Sam Michael	Avist Ingenuity LLC	P	DE
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
Dawn Copeland	Dawn Copeland	I	U
Tyler DeLong	DeLong Rigging Solutions	P	U

<b>Name</b>	<b>Representing</b>	<b>Status</b>	<b>Int Cat</b>
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
Greg Williams	Encore Global	A	U
Cameron Miller	Encore Global	A	U
Kris Ackerman	Encore Global	A	U
Scott Davis	Encore Global	A	U
Charlie Weiner	Encore Global	A	U
Adam Wilds	Encore Global	A	U
Allen Winzler	Entertainment and Rigging Engineering	P	DE
Joseph Champelli	Entertainment Project Services, LLC	P	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
Ted Jones	Grand Stage	P	U
Pat Grenfell	Hoist Sales & Service	P	DR
Marco Robles	I.A.T.S.E. Local 80	P	G
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
Joe Golden	Joe Golden Enterprises	P	DE
Jonathan Deull	JSD Projects LLC	P	U
Jennifer Ferguson	Kito Group	P	MP
Carloe Ortega	LER Rigging LLC	P	DR
Richard (RJ) Kenny	Link USA, Inc.	P	MP
William B. Gorlin	M.G. McLaren, P.C.	P	G
Peter W. Batt	Mainstage Theatrical Supply, Inc	P	DR
John Caudill	Major Artistic Productions (MAP)	P	DE
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
Jay Cid	R&M Materials Handling / Stagemaker	P	MP
Bartholomew J. Mueller	Recreation Engineering Inc.	P	DE
Bennett Brian	Reed Rigging Inc.	P	DR

<b>Name</b>	<b>Representing</b>	<b>Status</b>	<b>Int Cat</b>
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
Bill Sapsis	Sapsis Rigging, Inc.	P	U
Eric Rouse	Sapsis Rigging, Inc.	A	U
Dan McLaughlin	Scenic Solutions LLC	P	DR
Shane Kelly	Shane Kelly	I	U
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
Thomas Cowdery	Thomas Cowdery	I	U
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
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
<b>Total consensus votes:</b>		<b>79</b>	
<b>Votes by interest category</b>	<b>Custom market producers (CP):</b>	<b>12</b>	
	<b>Mass market producers (MP):</b>	<b>10</b>	
	<b>Designers (DE):</b>	<b>13</b>	

Name	Representing	Status	Int Cat
	Dealer or rental company (DR):	15	
	User (U):	17	
	General Interest (G):	12	

#### 4 Approval of the minutes from the last meeting

[See RWGmin07-2024\_Draft.pdf]

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

#### 5 Approval of agenda

Richard Nix asked to add two agenda items, one for EU standards updates and another for sales of standards. Dan Culhane moved to approve the agenda as amended. The motion was seconded and carried, without objection or abstention.

#### 6 Old Business

**6.1 ANSI E1.1 – 2024, Entertainment Technology - Construction and Use of Wire Rope Ladders** (reaffirm, revise, or withdraw by 23 March 2029)

*Any news or action?*

No action required at this time.

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

*Task group members:* Elmer Veith (task group leader), Shawn Nolan, Scott England, Mike Weston, Chris Schmidt, and Sam Brohaugh

*Any news or action?*

Elmer Veith reported. They're not as far as they'd hoped. They are overhauling the inspections section, and have discovered some other topics they want to expand upon. They hope to have a document ready in March.

There was discussion about competent persons and adding a definition for "authorized person", because – by definition – a competent person is authorized, but the converse is not true.

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

*Any news or action?*

No action required at this time.

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

*Any news or action?*

No action required at this time.

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

*Any news or action?*

No action required at this time.

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

*Task group members:* Joe Jeremy, Jesse Adams, Robert Dean, Bill Gorlin, Bruce Darden (task group leader), Peter Batt, Tracy Nunnally, Stefan Pries, and Joe Golden

*Any news or action?*

Bruce Darden reported. They have taken a brief recess from TG meetings to take in requirements from other recently published standards. They'll begin meeting again next month.

**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)

*Any news or action?*

No action required at this time.

**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. They had a productive meeting that morning, and are making great progress. They hope to have it ready for March meetings.

**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)

*Any news or action?*

No action required at this time.

**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)

*Any news or action?*

No action required at this time.

**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)

*Any news or action?*

No action required at this time.

**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)

*Any news or action?*

No action required at this time.

**6.13 ANSI E1.21 - 2024, Entertainment Technology — Temporary Structures Used for Technical Production of Outdoor Entertainment Events** (reaffirm, revise, or withdraw by 23 March 2029)

*Any news or action?*



No action required at this time.

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

*Any news or action?*

No action required at this time.

**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)

*Any news or action?*

No action required at this time.

**6.16 BSR E1.43 - 202x, Live performer flying effect standard** (Open for revision) *Task group members:* Bill Gorlin (task group leader), Jonathan Deull, Ryan Kunkel, Robert Dean, Tracy Nunnally, and Stewart Stephens. [see E1.43 PR3 Resolutions draft 2024-09-24.pdf and E1-43\_PerformerFlyingSystems\_Rig2020-2032r3.pdf]

*The task group has provided draft comment resolutions and a revised draft standard for consideration.*

Bill Gorlin reported. He moved to approve the comment resolution. The motion was seconded. There was discussion. Neither Reid Neslage nor John Marczewski agree with the resolution. Bill Gorlin said the intent is to address all components, including components such as shackles. Siobhan Gee said she thought the beginning of the phrase, before the comma, covered those items without the need for the latter part of the sentence. Others agreed. Wade Cordts asked how the proposed resolution had evolved from what was suggested in the original comments. Bill Gorlin explained that the proposed language was what the task group preferred. Wade said the current wording forces him to take responsibility in cases where the manufacturer doesn't certify components for such a use. Shawn Nolan said this is similar to how an engineer assumes responsibility for their designs, and agreed that the system designer is (and should be) responsible; the proposed language says that. Luke Lewkowicz said that nothing will change the litigation that will occur, and agreed with deleting words after the comma. Others agreed. Robert Dean equated the discussion topic with chain hoists, and how the manufacturers all say not to lift over people, asking, "Where do we begin and end with that logic?" Many agreed. Jonathan Duell said the task group's intent is to help identify the system designer's job and responsibility to design the system. There was more discussion.

Bill Sapsis suggested that there might be an opportunity for an amended motion. Dan Culhane suggested the following: 6.1.6. *The flying system designer shall determine the appropriate selection and function of all equipment used to attach to, or as part of, the performer flying system.* " Bill Gorlin asked if that would satisfy the working group. The working group consensus affirmed this, so Bill Gorlin amended the motion accordingly, and it carried without objection or abstention. It was noted that two objectors, Wayne Cordts and Dawn Copeland, were present and had voted in favor of the approved resolution. They were notified of the appeal process.

Bill Gorlin moved to send the revised draft to public review, and – if no actionable comments – approve as ANS. The motion was seconded and carried, without objection and one abstention by Bill Auld. The public review will commence, with the approval letter ballot following immediately thereafter, conditioned on the motion's stipulation.

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

*Any news or action?*

No action required at this time.

**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 E1.50-1 PR3 CmmntResols\_Draft.pdf and BSR E1.50-1-202x\_Rig2023-2001r2.pdf]

*The task group has returned draft PR3 comment resolutions and an updated draft standard for consideration.*

Sandy Gilzow moved to approve the comment resolutions. The motion was seconded and carried, without objection or abstention. He then moved to approve another public review. The motion was seconded and carried, 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 (task group leader), Dan Culhane, Steve Walker, Chris Schmidt, Robert Dean, Shane Kelly, Sam Brohaugh  
*[see BSR E1.56-202x\_Rig2024-2024r0.pdf]*

*The task group has submitted (three months ahead of schedule!) a revised draft for working group consideration.*

Shawn Nolan moved to send the draft out for first public review. The motion was seconded. Dan Culhane noted two items where references to appendices notes could be deleted, since there are now no appendices. Richard Nix deleted the references. The motion carried, without objection or abstention.

**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).

*Any news or action?*

No action required at this time.

**6.21 BSR E1.70 – 202x, Selection and Use of Ground Supported Winch Stands and Towers in the Entertainment Industry** *Task group members:* Mike Weston (task group leader), Sam Michael, Charlie Weiner; Derek Epstein

*A new task group has been appointed. Any news or action?*

Mike Weston reported. They've been making progress, but doesn't think they'll be ready until after March. He asked for volunteers. Eric Silzer volunteered. Bill Sapsis made it so. Marco Robles was also appointed, he told someone he was interested?

**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, Stan Jordan, and John Marczeski.

*Any news or action?*

John Marczeski said that Chris Kaiser had sent an email update earlier that day. They've had scheduling issues keeping the group from meeting, but they're getting back on track.

## **7 New business**

### **7.1 New project request: Boom lifts**

*[see TSP\_ProjectRequest\_Boom Lift.pdf]*

*Chris Schmidt has submitted a new project request entitled, "Selection and Use of Boom Lifts used in the Trade Show, Entertainment, Broadcast, and motion picture industry"*

Chris Schmidt reported. Using boom lifts as cranes, to lift lightweight signage for installation at trades shows and expositions has been done for years, but Freeman has had issues with enforcement, so the project addresses this practice. Cal OSHA has exceptions permitting unconventional use, but that's just in California. The Exposition Services Contractors Association (ESCA) supports this effort. There may be other support opportunities from ESCA. Kent Jorgensen said Scaffold Industry Association may have an overlapping interest. Richard Nix suggested the PINS could move forward unless there was a compelling reason to hold it. Chris Schmidt moved to approve the project request. The motion was seconded and carried, without objection or abstention.

Bill Sapsis appointed Chris Schmidt as task group leader. Chris requested time to confer with ESCA and others, before a task group is appointed. Bill Sapsis agreed.

## 8 Other business and announcements

### 8.1 EU standards activity updates

Michael Lichter reported on EU standards. (see email report). He explained the differences between US and EU standards terminology. Technical Committee TC 433 is similar to the Rigging Working Group. Their working groups are similar to our task groups. TC 433 is comprised of four working groups: WG1 addresses machinery; WG2 addresses working materials; WG3 addresses terminology (it's not active at this time); WG4 addresses codes of practice. Key points of interest:

- WG1 and WG2 are of direct interest to RWG members;
- EN7206 part 1 is roughly similar to E1.6-1, and originated in CWA 25;
- EN7206 part 2, *Stands and truss lifts* is equivalent to BSR E1.72;
- EN7206 part 3, *Drones UAV*

### 8.2 Sale of standards

Richard Nix spoke about document downloads and sale of standards. ESTA used to charge for published standards per-download, then they were offered for free due to a sponsorship agreement. The sponsorship ended several years ago, yet the documents remain free of charge on our website. The TSP has always operated at a deficit, so consideration is being given to re-implement a fee to download. Richard asked for the working group participant's opinions on how they felt about - and how they thought the industry at-large might react to - paying for our standards. There was considerable discussion, all in affirmation that charging for standards was acceptable, if not appropriate, as long as consideration was given to TSP participants. Several ideas for how to structure this implementation were brought forward.

### 8.3 Investors in Innovation significant donation announcement

Don Earl announced that he had made a \$50k challenge donation. He challenges everyone to match his contribution before the end of the year. He received applause.

### 8.4 Call for NAMM educational session proposals

*A call for session proposals is now open for NAMM Show 2025. Please contact Laura Hoepker ([laura.hoepker@esta.org](mailto:laura.hoepker@esta.org)) if you are interested in submitting a session proposal.*

### 8.5 Above & Beyond Awards

*Information on the Above & Beyond Awards may be found at [http://tsp.esta.org/tsp/news/award\\_recipients.html](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 Winter 2025 meetings will return to Anaheim, CA in conjunction with the NAMM Show 2025, during the week of 20 January 2025 This working group is scheduled to meet at 10:00 AM Pacific Time on Friday 24 January 2025.

## 10 Adjournment

Bill Sapsis adjourned the meeting at 16:06.

Rigging Working Group members as of 26 Oct 2024

Name	Representing	Status	Int cat
Kris Ackerman	Encore Global	A	U
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	P	CP
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
Samuel Brohaugh	Kimley-Horn & Associates, Inc.	O	DE
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.	O	G
John Caudill	Major Artistic Productions (MAP)	P	DE
Joseph Champelli	Entertainment Project Services, LLC	P	CP
Lee Chuong	Walt Disney Company	A	DE
Jay Cid	R&M Materials Handling / Stagemaker	P	MP

Rigging Working Group members as of 26 Oct 2024

Name	Representing	Status	Int cat
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	A	U
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
Derek Epstein	Encore Global	O	U
Jennifer Ferguson	Kito Group	P	MP
Nick Fleming	Columbus McKinnon Corp.	A	MP
Tim Franklin	Theta Consulting LLC	O	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
Joe Golden	Joe Golden Enterprises	P	DE
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

Rigging Working Group members as of 26 Oct 2024

Name	Representing	Status	Int cat
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	P	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	P	U
Richard (RJ) Kenny	Link USA, Inc.	P	MP
Christina Keryczynskij	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	O	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

Rigging Working Group members as of 26 Oct 2024

Name	Representing	Status	Int cat
John Marczeski	Texas Scenic Company	P	MP
Dan McLaughlin	Scenic Solutions LLC	P	DR
Sam Michael	Avista Ingenuity, LLC	P	DE
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
Carlos Ortega	LER Rigging LLC	P	DR
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	O	G
Robert Peterson	Shur-Rig LLC	A	G
Camille Petrillo	Sapsis Rigging, Inc.	O	U
Kurt Pragman	Pragman Associates, LLC	O	G

Rigging Working Group members as of 26 Oct 2024

Name	Representing	Status	Int cat
Stefan Pries	NEP Live Events	P	DR
Demian Purdy	Encore Global	A	U
Seth Randall-Tapply	Actors' Equity Association	O	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
Marco Robles	I.A.T.S.E. Local 80	P	G
Ryan Roby	Ryan Roby	O	U
Shane Rogers	Warner Bros. Discovery	O	U
John Rourke	Stagecraft Industries, Inc.	P	DR
Eric Rouse	Sapsis Rigging, Inc	A	U
Chris Ruble	Christopher Ruble	I	U
Tim Salamon	Encore Global	A	U
Bill Sapsis	Sapsis Rigging, Inc.	P	U
Bryan Schafer	Warner Bros. Discovery	O	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 & Sons, Inc.	O	MP
Steven Serafin	The Hartford Group	O	G
Michael Shaw	Motion Laboratories, Inc.	A	MP
Jonathan Shimon	University at Buffalo - SUNY	P	U



Rigging Working Group members as of 26 Oct 2024

Name	Representing	Status	Int cat
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
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
Dana Taylor	Dana W. Taylor Consulting, LLC	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	Encore Global	A	U
Drew Wending	Encore Global	A	U
Mike Weston	Encore Global	P	U
Adam Wilds	Encore Global	A	U
Jeff Wilkowski	Thern, Inc.	A	MP
Greg Williams	Encore Global	A	U

Rigging Working Group members as of 26 Oct 2024

Name	Representing	Status	Int cat
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