



ANSI E1.46 — 2016

**STANDARD FOR THE PREVENTION OF FALLS FROM
THEATRICAL STAGES AND RAISED PERFORMANCE
PLATFORMS**

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Published by:

The Entertainment Services and Technology Association
630 Ninth Avenue, Suite 609
New York, NY 10036
USA
Phone: 1-212-244-1505
Fax: 1-212-244-1502
standards.na@ESTA.org

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The ESTA Technical Standards Program was created to serve the ESTA membership and the entertainment industry in technical standards related matters. The goal of the Program is to take a leading role regarding technology within the entertainment industry by creating recommended practices and standards, monitoring standards issues around the world on behalf of our members, and improving communications and safety within the industry. ESTA works closely with the technical standards efforts of other organizations within our industry, including USITT and VPLT, as well as representing the interests of ESTA members to ANSI, UL, and the NFPA. The Technical Standards Program is accredited by the American National Standards Institute.

The Technical Standards Council (TSC) was established to oversee and coordinate the Technical Standards Program. Made up of individuals experienced in standards-making work from throughout our industry, the Council approves all projects undertaken and assigns them to the appropriate working group. The Technical Standards Council employs a Technical Standards Manager to coordinate the work of the Council and its working groups as well as maintain a "Standards Watch" on behalf of members. Working groups include: Control Protocols, Electrical Power, Floors, Fog and Smoke, Followspot Position, Photometrics, Rigging, and Stage Lifts.

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The Floors Working Group, which authored this Standard, consists of a cross section of entertainment industry professionals representing a diversity of interests. ESTA is committed to developing consensus-based standards and recommended practices in an open setting.

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Steve Terry
Christopher B. Tilton
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Tracy Underhill
Arjan van Vught
Stephen Vanciel
Vincent Lighting Systems*

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Contact Information:

Technical Standards Manager

Karl G. Ruling
The Entertainment Services and Technology Association
630 Ninth Avenue, Suite 609
New York, NY 10036
USA
1-212-244-1505
karl.ruling@esta.org

Assistant Technical Standards Manager

Erin Grabe
The Entertainment Services and Technology Association
630 Ninth Avenue, Suite 609
New York, NY 10036
USA
1-212-244-1505
erin.grabe@esta.org

Technical Standards Council Chairpersons

Mike Garl
Mike Garl Consulting LLC
836 Smoke Creek Rd.
Knoxville, TN 37934
USA
1-865-389-4371
mike@mikegarlconsulting.com

Mike Wood
Mike Wood Consulting LLC
6401 Clairmont Drive
Austin, TX 78749
USA
1-512-288-4916
mike@mikewoodconsulting.com

Floors Working Group Chairpersons

Jerry Gorrell
Theatre Safety Programs
P. O. Box 17734
Fountain Hills, AZ 85269
USA
1-480-837-9401
jerryg@jgorrell.com

Tim Hansen
Oasis Stage Werks
249 S. Rio Grande Street
Salt Lake City, UT 84101
USA
1-801-363-0364
thansen@oasis-stage.com

Acknowledgments

The Floors Working Group members when this document was approved by the working group on 18 December 2015 are shown below.

Voting members:

K.J. Bartosh; U
Patricia Basileo; Harlequin Corporation; MP
Bob Dagger; Harlequin Corporation; MP
Jerry Gorrell; Theatre Safety Programs; U
Tim Hansen; Oasis Stage Werks; MP
Pete Happe; Walt Disney Company; U
Gary Justesen; Oasis Stage Werks; MP
Fred Kosiewski; Walt Disney Company; U
Bob McVay; Schuler Shook; DE
Jeff T. Miller; Walt Disney Company; U
Kimberly Corbett ; Oates; Schuler Shook; DE
Robert R. Scales; U
Stephen Spendiff; Rosco Laboratories; MP

Observer (non-voting) members:

Fred Allen; Fred Allen & Associates; U
Robert Barbagallo; Solotech Inc.; DR
Ron Bonner; PLASA Technical Resources Office; G
Donna-Lynne Dalton; Teamsters Local 385; G
Mark Elliott; Walt Disney Company; U
William Gillett; Walt Disney Company; U
Nevin Kleege; Kleege Industries; G
David Nash; StoweNash Associates LLC; U
Kimberly Ribold; Actors' Equity Association; G
David H. Rosenberg; Theatre Projects Consultants, Inc.; U
Monona Rossol; Arts, Crafts & Theater Safety, representing IATSE Local 829; G
Steven Serafin; Chubb Group of Insurance Companies; G
Keith Sklar; Actors' Equity Association; G
Steven Wiese; Wenger Corp.; MP

Interest category codes:

DE = designer
DR = dealer rental company
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1 Scope (mandatory)

This Standard offers guidance to people working in the entertainment industry on preventing falls by performers, technicians, and members of the public from theatrical stages and raised performance platforms into orchestra pits, into audience areas, into stage traps, and from raised surfaces to surfaces that are lower. Its guidance is intended to be applied to stages and raised platforms used for performance of a show or event to an audience. It is not intended to offer guidance for fall protection in off-stage areas or audience spaces, such as theatre lobbies, although the recommendations in this Standard may be used in those areas at the discretion of the reader. The guidance offered in this Standard may be applied on a per show basis or to a performance venue.

2 Problem (informative)

2.1 Fall protection is needed

Management, supervisors, and workers have a responsibility to ensure that all persons are kept safe from fall hazards. Workplace health and safety regulations in virtually all industrialized nations require this, but it is also good management. Falls and the injuries that result are expensive in money and time. Even when there is no significant injury, a fall stops a show, stops work, and generally wastes time and damages morale.

2.2 Adequate fall protection often is not provided

Because a standard guardrail historically has not been installed across the front of a stage, and because a guardrail would be visibly obtrusive in most stage shows, there is the common perception that stages and raised performance platforms are special places where fall protection is not needed. The expectation is that people understand that the edge of a stage or raised platform, or an open trap in a stage floor, is a danger and will take appropriate action to protect themselves. This expectation is often proven to be unfounded, with expensive results.

3 Solution

3.1 Purpose of this Standard (informative)

The purpose of this Standard is to encourage people in safety management positions to accept their responsibility to provide fall protection against falls from stages and raised performance platforms for all the people whom they might need to protect in an entertainment venue. The purpose of this Standard also is to help them successfully fulfill that responsibility. It lays out what is required to provide this protection, and offers suggestions on some of the methods that might be used.

This Standard is not written as a compliance or enforcement document.

3.2 Language used in this Standard (mandatory)

3.2.1 "Shall," "shall not," and "shall not be" indicate mandatory requirements.

3.2.2 "Should" indicates something that is recommended but not mandatory. "Should not" indicates something that is not recommended but that is not prohibited.

3.3 Definitions (mandatory)

Competent Person: a person who is capable of identifying existing and predictable hazards in the workplace, and who is authorized to take prompt corrective measures to eliminate hazards.

Orchestra pit bridge: in a theatre, a narrow walkway that extends over the orchestra pit from the stage.

Passerelle: in a theatre, a narrow walkway that extends from the stage and that encircles the orchestra pit, separating the pit from the auditorium.

Performer Blocking: how the performers are placed and move around on the stage during rehearsals or performances of a play, dance, or other entertainment event.