

# NFPA® 140

## Standard on Motion Picture and Television Production Studio Soundstages, Approved Production Facilities, and Production Locations

### 2008 Edition



NFPA, 1 Batterymarch Park, Quincy, MA 02169-7471  
An International Codes and Standards Organization

## **IMPORTANT NOTICES AND DISCLAIMERS CONCERNING NFPA DOCUMENTS**

### **NOTICE AND DISCLAIMER OF LIABILITY CONCERNING THE USE OF NFPA DOCUMENTS**

NFPA codes, standards, recommended practices, and guides, of which the document contained herein is one, are developed through a consensus standards development process approved by the American National Standards Institute. This process brings together volunteers representing varied viewpoints and interests to achieve consensus on fire and other safety issues. While the NFPA administers the process and establishes rules to promote fairness in the development of consensus, it does not independently test, evaluate, or verify the accuracy of any information or the soundness of any judgments contained in its codes and standards.

The NFPA disclaims liability for any personal injury, property or other damages of any nature whatsoever, whether special, indirect, consequential or compensatory, directly or indirectly resulting from the publication, use of, or reliance on this document. The NFPA also makes no guaranty or warranty as to the accuracy or completeness of any information published herein.

In issuing and making this document available, the NFPA is not undertaking to render professional or other services for or on behalf of any person or entity. Nor is the NFPA undertaking to perform any duty owed by any person or entity to someone else. Anyone using this document should rely on his or her own independent judgment or, as appropriate, seek the advice of a competent professional in determining the exercise of reasonable care in any given circumstances.

The NFPA has no power, nor does it undertake, to police or enforce compliance with the contents of this document. Nor does the NFPA list, certify, test or inspect products, designs, or installations for compliance with this document. Any certification or other statement of compliance with the requirements of this document shall not be attributable to the NFPA and is solely the responsibility of the certifier or maker of the statement.

## **ADDITIONAL NOTICES AND DISCLAIMERS**

### **Updating of NFPA Documents**

Users of NFPA codes, standards, recommended practices, and guides should be aware that these documents may be superseded at any time by the issuance of new editions or may be amended from time to time through the issuance of Tentative Interim Amendments. An official NFPA document at any point in time consists of the current edition of the document together with any Tentative Interim Amendments and any Errata then in effect. In order to determine whether a given document is the current edition and whether it has been amended through the issuance of Tentative Interim Amendments or corrected through the issuance of Errata, consult appropriate NFPA publications such as the National Fire Codes® Subscription Service, visit the NFPA website at [www.nfpa.org](http://www.nfpa.org), or contact the NFPA at the address listed below.

### **Interpretations of NFPA Documents**

A statement, written or oral, that is not processed in accordance with Section 6 of the Regulations Governing Committee Projects shall not be considered the official position of NFPA or any of its Committees and shall not be considered to be, nor be relied upon as, a Formal Interpretation.

### **Patents**

The NFPA does not take any position with respect to the validity of any patent rights asserted in connection with any items which are mentioned in or are the subject of NFPA codes, standards, recommended practices, and guides, and the NFPA disclaims liability for the infringement of any patent resulting from the use of or reliance on these documents. Users of these documents are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, is entirely their own responsibility.

NFPA adheres to applicable policies of the American National Standards Institute with respect to patents. For further information contact the NFPA at the address listed below.

### **Law and Regulations**

Users of these documents should consult applicable federal, state, and local laws and regulations. NFPA does not, by the publication of its codes, standards, recommended practices, and guides, intend to urge action that is not in compliance with applicable laws, and these documents may not be construed as doing so.

### **Copyrights**

This document is copyrighted by the NFPA. It is made available for a wide variety of both public and private uses. These include both use, by reference, in laws and regulations, and use in private self-regulation, standardization, and the promotion of safe practices and methods. By making this document available for use and adoption by public authorities and private users, the NFPA does not waive any rights in copyright to this document.

Use of NFPA documents for regulatory purposes should be accomplished through adoption by reference. The term "adoption by reference" means the citing of title, edition, and publishing information only. Any deletions, additions, and changes desired by the adopting authority should be noted separately in the adopting instrument. In order to assist NFPA in following the uses made of its documents, adopting authorities are requested to notify the NFPA (Attention: Secretary, Standards Council) in writing of such use. For technical assistance and questions concerning adoption of NFPA documents, contact NFPA at the address below.

### **For Further Information**

All questions or other communications relating to NFPA codes, standards, recommended practices, and guides and all requests for information on NFPA procedures governing its codes and standards development process, including information on the procedures for requesting Formal Interpretations, for proposing Tentative Interim Amendments, and for proposing revisions to NFPA documents during regular revision cycles, should be sent to NFPA headquarters, addressed to the attention of the Secretary, Standards Council, NFPA, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

For more information about NFPA, visit the NFPA website at [www.nfpa.org](http://www.nfpa.org).

Copyright © 2008 National Fire Protection Association®. All Rights Reserved.

**NFPA® 140**

**Standard on**

**Motion Picture and Television Production Studio Soundstages,  
Approved Production Facilities, and Production Locations**

**2008 Edition**

This edition of NFPA 140, *Standard on Motion Picture and Television Production Studio Soundstages, Approved Production Facilities, and Production Locations*, was prepared by the Technical Committee on Motion Picture and Television Industry. It was issued by the Standards Council on December 11, 2007, with an effective date of December 31, 2007, and supersedes all previous editions.

This edition of NFPA 140 was approved as an American National Standard on December 31, 2007.

**Origin and Development of NFPA 140**

The 1999 edition of NFPA 140, *Standard on Motion Picture and Television Production Studio Soundstages and Approved Production Facilities*, was the first standard developed by the Technical Committee on Motion Picture and Television Industry. It closely paralleled a standard in effect in the state of California.

The 2004 edition incorporated minor reformatting mandated by the *Manual of Style for NFPA Technical Committee Documents*.

The 2008 edition was expanded to include requirements for production locations (i.e., “shooting on location”), and the title was changed to reflect that inclusion.

## Technical Committee on Motion Picture and Television Industry

**Davis R. Parsons**, *Chair*  
BWD Consulting, CA [SE]

**Hamid R. Bahadori**, Hughes Associates, Inc., FL [SE]

**Robert Fash**, Las Vegas Fire & Rescue, NV [E]  
Rep. Uniform Fire Code Committee

**Daniel F. Gemeny**, The RJA Group, Inc., CA [SE]

**John E. Kersten**, NBC Universal City Studios, CA [U]

**Johnson K. Lee**, Aon Risk Services, Inc., CA [I]

**Patrick Moynihan**, American Broadcasting Company,  
NY [U]

**John F. Mueller**, State of New York, NY [E]

**Kenneth R. Quick, Jr.**, City of Culver City Fire  
Department, CA [E]

**Chris R. Reimer**, Facilities Protection Systems, Inc.,  
CA [IM]

**Hugh A. Rose**, The Walt Disney Company, CA [U]

**Richard B. Schiehl**, R. B. Schiehl & Associates, CA [SE]

**Richard D. Thompson**, Thompson Associates, CA [SE]

### Alternates

**Edward B. Armm**, The RJA Group, Inc., NY [SE]  
(Alt. to D. F. Gemeny)

**Paul M. Jordan**, NBC Universal Studios, CA [U]  
(Alt. to J. E. Kersten)

**Ron Coté**, NFPA Staff Liaison

*This list represents the membership at the time the Committee was balloted on the final text of this edition. Since that time, changes in the membership may have occurred. A key to classifications is found at the back of the document.*

NOTE: Membership on a committee shall not in and of itself constitute an endorsement of the Association or any document developed by the committee on which the member serves.

**Committee Scope:** This Committee shall have primary responsibility for documents on the hazards associated with practices, processes, materials, and facilities associated with motion picture and television production.



## Contents

<b>Chapter 1 Administration</b> .....	140- 4	4.10 Means of Egress .....	140- 6
1.1 Scope .....	140- 4	4.11 Fire Protection .....	140- 7
1.2 Purpose. ....	140- 4	4.12 Air Conditioning, Heating, and Ventilating .....	140- 7
1.3 Application .....	140- 4		
1.4 Equivalency .....	140- 4		
<b>Chapter 2 Referenced Publications</b> .....	140- 4	<b>Chapter 5 Production Locations</b> .....	140- 7
2.1 General .....	140- 4	5.1 General. ....	140- 7
2.2 NFPA Publications .....	140- 4	5.2 Permits. ....	140- 7
2.3 Other Publications .....	140- 5	5.3 Pyrotechnic Special Effects and Open Flames. ....	140- 7
2.4 References for Extracts in Mandatory Sections .....	140- 5	5.4 Standby Fire Personnel. ....	140- 7
		5.5 Foamed Plastic Materials. ....	140- 7
		5.6 Smoking. ....	140- 7
<b>Chapter 3 Definitions</b> .....	140- 5	5.7 Structural Loads. ....	140- 7
3.1 General .....	140- 5	5.8 Electrical Requirements. ....	140- 7
3.2 NFPA Official Definitions .....	140- 5	5.9 Fire Department Access. ....	140- 8
3.3 General Definitions .....	140- 5	5.10 Means of Egress. ....	140- 8
		5.11 Fire Protection. ....	140- 8
<b>Chapter 4 Soundstages and Approved   Production Facilities</b> .....	140- 5	<b>Chapter 6 Operating Features</b> .....	140- 8
4.1 General .....	140- 5	6.1 Waste or Refuse .....	140- 8
4.2 Permits .....	140- 5	6.2 Flammable or Combustible Liquids .....	140- 8
4.3 Pyrotechnic Special Effects and Open Flames .....	140- 6	6.3 Welding .....	140- 8
4.4 Standby Fire Personnel. ....	140- 6	6.4 Audience Life Safety .....	140- 8
4.5 Decorative Materials .....	140- 6	6.5 Emergency Services Notification .....	140- 8
4.6 Smoking .....	140- 6	<b>Annex A Explanatory Material</b> .....	140- 8
4.7 Structural Loads .....	140- 6	<b>Annex B Informational References</b> .....	140-10
4.8 Electrical Requirements .....	140- 6	<b>Index</b> .....	140-11
4.9 Fire Department Access .....	140- 6		

**NFPA 140****Standard on****Motion Picture and Television Production Studio Soundstages, Approved Production Facilities, and Production Locations****2008 Edition**

**IMPORTANT NOTE:** This NFPA document is made available for use subject to important notices and legal disclaimers. These notices and disclaimers appear in all publications containing this document and may be found under the heading "Important Notices and Disclaimers Concerning NFPA Documents." They can also be obtained on request from NFPA or viewed at [www.nfpa.org/disclaimers](http://www.nfpa.org/disclaimers).

NOTICE: An asterisk (\*) following the number or letter designating a paragraph indicates that explanatory material on the paragraph can be found in Annex A.

Changes other than editorial are indicated by a vertical rule beside the paragraph, table, or figure in which the change occurred. These rules are included as an aid to the user in identifying changes from the previous edition. Where one or more complete paragraphs have been deleted, the deletion is indicated by a bullet (•) between the paragraphs that remain.

A reference in brackets [ ] following a section or paragraph indicates material that has been extracted from another NFPA document. As an aid to the user, the complete title and edition of the source documents for extracts in mandatory sections of the document are given in Chapter 2 and those for extracts in informational sections are given in Annex B. Editorial changes to extracted material consist of revising references to an appropriate division in this document or the inclusion of the document number with the division number when the reference is to the original document. Requests for interpretations or revisions of extracted text shall be sent to the technical committee responsible for the source document.

Information on referenced publications can be found in Chapter 2 and Annex B.

**Chapter 1 Administration****1.1 Scope.**

**1.1.1\*** This standard shall address fire protection, property protection, and life safety in motion picture and television industry soundstages, approved production facilities, and production locations.

**1.1.2** Practices, processes, materials, and facilities that are addressed by other NFPA standards shall be governed by those standards unless modified herein.

**1.2 Purpose.** The purpose of this standard shall be to provide minimum requirements for the design, construction, operation, and maintenance of soundstages and approved production facilities, as well as the use of production locations, for motion picture and television industry productions.

**1.3 Application.**

**1.3.1** This standard shall apply to the following:

- (1) New buildings, or portions thereof, used as soundstages or approved production facilities in motion picture and television industry productions
- (2) Existing buildings, or portions thereof, used as soundstages or approved production facilities in motion picture and television industry productions to the extent specifically required by other portions of this document
- (3) Additions to buildings used as soundstages or approved production facilities in motion picture and television industry productions
- (4) Alterations, modernizations, or renovations of existing buildings used as soundstages or approved production facilities in motion picture and television industry productions
- (5) Existing buildings, or portions thereof, upon change of occupancy for use as soundstages or approved production facilities in motion picture and television industry productions
- (6) Production locations used in motion picture and television industry productions

**1.3.2** That portion of the standard dealing with operating features shall apply to new and existing soundstages, approved production facilities, and production locations. (See Chapter 6.)

**1.3.3** Existing soundstages, approved production facilities, and production locations that are in conformance with requirements of the authority having jurisdiction at the time of the adoption of this standard shall be permitted to remain in use under the following conditions:

- (1) The occupancy classification and use remain the same.
- (2) No serious hazards to life safety exist that would constitute an imminent threat.

**1.3.4** This standard shall not apply to facilities or locations used exclusively for radio broadcasts, theaters and auditoriums, live broadcasts of news or sporting events, and postproduction facilities.

**1.4 Equivalency.** Nothing in this standard shall be intended to prevent the use of systems, methods, or devices of equivalent or superior quality, strength, fire resistance, effectiveness, durability, and safety as alternatives to those prescribed by this standard, provided that technical documentation is submitted to the authority having jurisdiction to demonstrate equivalency, and the system, method, or device is approved for the intended purpose.

**Chapter 2 Referenced Publications**

**2.1\* General.** The documents or portions thereof listed in this chapter are referenced within this standard and shall be considered part of the requirements of this document. Existing buildings or installations that do not comply with the provisions of the publications referenced in Section 2.2 shall be permitted to be continued in service, provided the lack of conformity to the referenced standards does not present a serious hazard.

**2.2 NFPA Publications.** National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 10, *Standard for Portable Fire Extinguishers*, 2007 edition.  
NFPA 13, *Standard for the Installation of Sprinkler Systems*, 2007 edition.

NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*, 2008 edition.



NFPA 30, *Flammable and Combustible Liquids Code*, 2008 edition.

NFPA 51, *Standard for the Design and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting, and Allied Processes*, 2007 edition.

NFPA 51B, *Standard for Fire Prevention During Welding, Cutting, and Other Hot Work*, 2003 edition.

NFPA 58, *Liquefied Petroleum Gas Code*, 2008 edition.

NFPA 70™, *National Electrical Code*®, 2008 edition.

NFPA 101®, *Life Safety Code*®, 2006 edition.

NFPA 160, *Standard for the Use of Flame Effects Before an Audience*, 2006 edition.

NFPA 1126, *Standard for the Use of Pyrotechnics Before a Proximate Audience*, 2006 edition.

### 2.3 Other Publications.

**2.3.1 UL Publications.** Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

UL 1573, *Standard for Stage and Studio Luminaires and Connector Strips*, 2003.

UL 1640, *Standard for Portable Power-Distribution Equipment*, 2004.

UL 1975, *Standard for Fire Tests for Foamed Plastics Used for Decorative Purposes*, 1996.

### 2.3.2 Other Publications.

*Merriam-Webster's Collegiate Dictionary*, 11th edition, Merriam-Webster, Inc., Springfield, MA, 2003.

### 2.4 References for Extracts in Mandatory Sections.

NFPA 70™, *National Electrical Code*®, 2008 edition.

NFPA 101®, *Life Safety Code*®, 2006 edition.

## Chapter 3 Definitions

**3.1 General.** The definitions contained in this chapter shall apply to the terms used in this standard. Where terms are not defined in this chapter or within another chapter, they shall be defined using their ordinarily accepted meanings within the context in which they are used. *Merriam-Webster's Collegiate Dictionary*, 11th edition, shall be the source for the ordinarily accepted meaning.

### 3.2 NFPA Official Definitions.

**3.2.1\* Approved.** Acceptable to the authority having jurisdiction.

**3.2.2\* Authority Having Jurisdiction (AHJ).** An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

**3.2.3 Labeled.** Equipment or materials to which has been attached a label, symbol, or other identifying mark of an organization that is acceptable to the authority having jurisdiction and concerned with product evaluation, that maintains periodic inspection of production of labeled equipment or materials, and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

**3.2.4\* Listed.** Equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction and concerned with evaluation of

products or services, that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services, and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose.

**3.2.5 Shall.** Indicates a mandatory requirement.

**3.2.6 Should.** Indicates a recommendation or that which is advised but not required.

**3.2.7 Standard.** A document, the main text of which contains only mandatory provisions using the word “shall” to indicate requirements and which is in a form generally suitable for mandatory reference by another standard or code or for adoption into law. Nonmandatory provisions shall be located in an appendix or annex, footnote, or fine-print note and are not to be considered a part of the requirements of a standard.

### 3.3 General Definitions.

**3.3.1 Approved Production Facility.** An existing building, portion of a building, or group of buildings renovated, modified, or reconstructed for use by the entertainment industry and approved by the authority having jurisdiction for the purposes of motion picture, television, or commercial production.

**3.3.2 Motion Picture Production Studio.** See 3.3.5, Production Studio.

**3.3.3 Platform.** The raised area within a building used for the presentation of music, plays, or other entertainment. [101,2006]

**3.3.4 Production Location.** Any site other than a soundstage or approved production facility used for the purpose of motion picture, television, or commercial production.

**3.3.5 Production Studio.** A building, a portion of a building, or a group of buildings designed and constructed for use by the entertainment industry for the purpose of motion picture, television, or commercial productions, or broadcasting television programs utilizing a soundstage.

**3.3.6 Set.** A structure built or assembled for the purpose of motion picture, television, or commercial productions.

**3.3.7 Soundstage.** A building or a portion of a building, usually insulated from outside noise and natural light, used by the entertainment industry for the purpose of motion picture, television, or commercial productions.

**3.3.8 TV Production Studio.** See 3.3.5, Production Studio.

## Chapter 4 Soundstages and Approved Production Facilities

**4.1 General.** This chapter shall apply to new and existing motion picture and television soundstages and approved production facilities.

**4.2 Permits.** Where required by the AHJ, a permit shall be obtained for any of the activities that follow:

- (1) Use of pyrotechnic special effects
- (2) Use of open flames
- (3) Welding
- (4) Use of flammable or combustible liquids or gases
- (5) Use of aircraft

- (6) Presence of motor vehicles within a building
- (7) Productions with live audiences
- (8)\*Change of use or change of occupancy classification

#### 4.3 Pyrotechnic Special Effects and Open Flames.

**4.3.1\*** The use of pyrotechnic special effects and open flames shall be subject to the approval of the AHJ.

**4.3.2** When an audience is present, NFPA 1126, *Standard for the Use of Pyrotechnics Before a Proximate Audience*, shall be used to regulate any pyrotechnic use.

**4.3.3** When an audience is present, NFPA 160, *Standard for the Use of Flame Effects Before an Audience*, shall be used to regulate any flame effects use.

#### 4.4 Standby Fire Personnel.

**4.4.1** Where required by the AHJ standby fire personnel shall be provided for soundstages and approved production facilities where pyrotechnic special effects are used.

**4.4.2 Other Hazards.** Standby fire personnel shall be provided for hazardous operations, other than pyrotechnic special effects, as required by the AHJ on a case-by-case basis.

#### 4.5 Decorative Materials.

**4.5.1** Foamed plastic materials used for decorative purposes, scenery, sets, or props shall have a maximum heat release rate of 100 kW where tested in accordance with UL 1975, *Standard for Fire Tests for Foamed Plastics Used for Decorative Purposes*.

**4.5.2** Combustible drapes, drops, and any other similar combustible hanging or vertically placed material shall be maintained in a flame-retardant condition.

**4.5.3** Cut greens shall be treated with an approved or listed fire retardant, and the process shall be repeated as often as necessary to maintain its effectiveness.

#### 4.6 Smoking.

**4.6.1** Smoking shall be prohibited on soundstages and in approved production facilities unless otherwise provided in 4.6.2 or 4.6.3.

**4.6.2** Smoking shall be permitted when it is a necessary part of a performance, and only when the smoker is a member of the cast.

**4.6.3** Except where prohibited by the AHJ, smoking shall be permitted where all of the following conditions are met:

- (1) The smoking area is outdoors.
- (2) Hazardous materials are not present.
- (3) Approved ash trays or receivers are provided.

#### 4.7 Structural Loads.

**4.7.1** Approved production facilities and soundstages shall be designed, constructed, or altered to sustain all collateral dead loads and other loads specified in the local building code.

**4.7.2** Where the anticipated loads exceed those specified in the local building code for the purpose of suspending sets, ceilings, backings, and other heavy production set pieces, the building shall be designed and constructed for the additional loads.

#### 4.8 Electrical Requirements.

**4.8.1** Electrical equipment shall be in accordance with NFPA 70, *National Electrical Code*.

**4.8.2\*** Soundstages and approved production facilities shall be provided with a minimum of 35 W/ft<sup>2</sup> (377 W/m<sup>2</sup>) dedicated for production lighting and power.

**4.8.3** The electrical distribution equipment used shall comply with UL 1640, *Standard for Portable Power-Distribution Equipment*, and the provisions of Article 530 of NFPA 70, *National Electrical Code*.

**4.8.4** The wiring method to electrical distribution equipment shall comply with the provisions of Article 530 of NFPA 70, *National Electrical Code*.

**4.8.5** The location of portable, mobile, or stationary power-generating equipment shall be subject to the approval of the AHJ.

**4.8.6** Exterior penetrations shall be located near the predesignated location for portable and mobile power-generating equipment.

**4.8.7** Auxiliary power cables supplied from mobile generators or adjacent buildings shall not be routed through fire-rated windows and doors.

**4.8.8** Portable feeder cables shall be permitted to temporarily penetrate fire-rated walls, floors, or ceilings provided that all of the following apply:

- (1) The opening is of noncombustible material.
- (2) When in use, the penetration is sealed with a temporary seal of a listed firestop material.
- (3) When not in use, the opening shall be capped with a material of equivalent fire rating. [70:530.18(C)]

**4.8.9** Where the penetration utilizes a conduit, metal-threaded caps shall be attached to the pipe by means of chain or cable and shall effectively cap the conduit when not in use.

**4.8.10** The lighting equipment used shall comply with UL 1573, *Standard for Stage and Studio Luminaires and Connector Strips*, and the provisions of Article 530 of NFPA 70, *National Electrical Code*.

**4.9 Fire Department Access.** Fire department access shall be maintained as required by the AHJ.

#### 4.10 Means of Egress.

**4.10.1** Means of egress shall be in accordance with NFPA 101, *Life Safety Code*, unless otherwise modified by 4.10.2 through 4.10.6.

**4.10.2** The maximum travel distance to an exit within the soundstage shall be 150 ft (45 m).

**4.10.3** Soundstages and approved production facilities shall have an aisle along the perimeter of the soundstage or facility as approved by the AHJ unless otherwise provided in 4.10.3.2.

**4.10.3.1** A clear unobstructed aisle height of 7 ft (2.1 m) shall be maintained.

**4.10.3.2** A soundstage or approved production facility with a gross area not exceeding 1500 ft<sup>2</sup> (139 m<sup>2</sup>) shall be exempt from the perimeter aisle requirement of 4.10.3 provided there is a minimum of two means of egress.

**4.10.4** Emergency lighting shall be provided for the means of egress in accordance with NFPA 101, *Life Safety Code*.

**4.10.5** Any door in a required means of egress from an area having an occupant load of 100 or more persons shall be permitted to be provided with a latch or lock only if it is panic hardware or fire exit hardware.

**4.10.6** Means of egress shall be kept clear of obstructions and tripping hazards.

#### 4.11 Fire Protection.

##### 4.11.1 Extinguishment Requirements.

**4.11.1.1** Existing soundstages and existing approved production facilities equipped with automatic sprinkler systems shall maintain those systems in accordance with NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*.

**4.11.1.2** A new soundstage or new approved production facility shall be equipped with an approved, supervised automatic sprinkler system.

**4.11.1.3** The automatic sprinkler system required by 4.11.1.2 shall be installed in accordance with NFPA 13, *Standard for the Installation of Sprinkler Systems*, unless otherwise provided in 4.11.1.3.1 or 4.11.1.3.2.

**4.11.1.3.1\*** The requirements of NFPA 13 prohibiting obstructions to sprinkler discharge shall not be applicable if approved mitigation is employed.

**4.11.1.3.2\*** The requirements of NFPA 13 prohibiting obstructions to sprinkler discharge shall not be applicable if the building sprinkler system meets the design criteria for Extra Hazard, Group 2.

**4.11.1.4** The automatic sprinkler system required by 4.11.1.2 shall be maintained in accordance with NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*.

**4.11.1.5** Portable fire extinguishers shall be installed and maintained in accordance with NFPA 10, *Standard for Portable Fire Extinguishers*.

**4.11.2 Fire Alarm System.** Fire alarm system notification appliances within soundstages and approved production facilities shall be permitted to be deactivated with the approval of the AHJ during videotaping, filming, or broadcasting of programs provided the following conditions exist:

- (1) In the event of alarm system activation, notification appliances shall activate at a location that is constantly attended during the videotaping, filming, or broadcasting of programs.
- (2) The attendants of the location identified in 4.11.2(1) shall be provided with a means of communicating with the fire command center for the building, where one is provided, and with the occupants of the soundstage to initiate emergency action.
- (3) Deactivation of notification appliances shall cause activation of a visual signal at an approved location, which shall remain illuminated while notification appliances on the soundstage are deactivated.
- (4) The visual signal shall be identified by a sign that shall read, "When Illuminated, Soundstage Fire Alarm System Notification Appliances Are Deactivated."

**4.12 Air Conditioning, Heating, and Ventilating.** Air-conditioning, heating, and ventilating ductwork and related equipment shall be in good working order and in compliance with the requirements of the AHJ.

## Chapter 5 Production Locations

**5.1 General.** This chapter shall apply to production locations.

**5.2 Permits.** A permit shall be obtained, unless waived by the AHJ, for any of the following activities:

- (1)\*Use of the site as a production location
- (2) Use of pyrotechnic special effects
- (3) Use of open flames
- (4) Welding
- (5) Use of flammable or combustible liquids or gases
- (6) Use of aircraft
- (7) Presence of motor vehicles within a building

##### 5.3 Pyrotechnic Special Effects and Open Flames.

**5.3.1** The use of pyrotechnic special effects and open flames shall be subject to the approval of the AHJ.

**5.3.2** When an audience is present, NFPA 1126, *Standard for the Use of Pyrotechnics Before a Proximate Audience*, shall be used to regulate any pyrotechnic use.

**5.3.3** When an audience is present, NFPA 160, *Standard for the Use of Flame Effects Before an Audience*, shall be used to regulate any flame effects use.

##### 5.4 Standby Fire Personnel.

**5.4.1 Pyrotechnics.** Standby fire personnel shall be required for production locations where pyrotechnic special effects are used, unless otherwise waived by the AHJ.

**5.4.2 Other Hazards.** Standby fire personnel shall be provided for hazardous operations, other than pyrotechnic special effects, as required by the AHJ on a case-by-case basis.

**5.5 Foamed Plastic Materials.** Foamed plastic materials used for decorative purposes, scenery, sets, or props shall have a maximum heat release rate of 100 kW where tested in accordance with UL 1975, *Standard for Fire Tests for Foamed Plastics Used for Decorative Purposes*.

##### 5.6 Smoking.

**5.6.1** Smoking shall be prohibited in production location buildings unless otherwise provided in 5.6.2 or 5.6.3.

**5.6.2** Smoking shall be permitted when it is a necessary part of a performance, and only when the smoker is a member of the cast.

**5.6.3** Except where prohibited by the AHJ, smoking shall be permitted where all of the following conditions are met:

- (1) The smoking area is outdoors.
- (2) Hazardous materials are not present.
- (3) Approved ash trays or receivers are provided.

##### 5.7 Structural Loads.

**5.7.1** Sets, scenery, and other equipment shall not impact the structural integrity of existing buildings.

**5.7.2** Additional loads applied onto the building shall require the approval of the AHJ.

##### 5.8 Electrical Requirements.

**5.8.1** Electrical power connections made to the site electrical service shall be made by an approved electrician under permit from the AHJ.

**5.8.2** Portable cables shall be positioned to allow for emergency egress as approved by the AHJ.

**5.8.3\*** Auxiliary power cables supplied from mobile generators or adjacent buildings shall be permitted to be routed through fire-rated windows and doors with the approval of the AHJ.

**5.9\*** **Fire Department Access.** Fire department access shall be maintained as required by the AHJ.

**5.10\*** **Means of Egress.** The production location shall be provided with means of egress appropriate for the intended use as approved by the AHJ.

### 5.11 Fire Protection.

**5.11.1\*** Building areas used as production locations shall be designed, constructed, and maintained to protect the occupants not intimate with the initial fire development for the time needed to evacuate, relocate, or defend in place.

**5.11.2** Where an automatic sprinkler system is provided for compliance with 5.11.1, the automatic sprinkler system shall be installed in accordance with NFPA 13, *Standard for the Installation of Sprinkler Systems*, unless otherwise provided in 5.11.4 or 5.11.5.

**5.11.3** In any production location building protected by an existing automatic sprinkler system, where solid- or hard-ceiling sets or platforms are introduced and create an obstruction to sprinkler discharge, the provisions of 5.11.4 or 5.11.5 shall be met.

**5.11.4\*** The requirements of NFPA 13, *Standard for the Installation of Sprinkler Systems*, prohibiting obstructions to sprinkler discharge shall not be applicable if approved mitigation is employed.

**5.11.5\*** The requirements of NFPA 13, *Standard for the Installation of Sprinkler Systems*, prohibiting obstructions to sprinkler discharge shall not be applicable if the building sprinkler system meets the design criteria for Extra Hazard, Group 2.

**5.11.6** Automatic sprinkler systems, where provided, shall be maintained in accordance with NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*.

**5.11.7** Portable fire extinguishers shall be provided as required by the AHJ.

## Chapter 6 Operating Features

**6.1 Waste or Refuse.** Waste or refuse shall not be allowed to accumulate in any area or in any manner that creates a fire hazard.

### 6.2 Flammable or Combustible Liquids.

**6.2.1** Use of flammable or combustible liquids shall be in accordance with one of the following codes, unless otherwise permitted by 6.2.2:

- (1) NFPA 30, *Flammable and Combustible Liquids Code*
- (2) NFPA 58, *Liquefied Petroleum Gas Code*

**6.2.2** Approved flammable or combustible liquids and liquefied petroleum gases used for special effects shall be permitted.

**6.3 Welding.** Welding shall be in accordance with NFPA 51, *Standard for the Design and Installation of Oxygen-Fuel Gas Systems*

*for Welding, Cutting, and Allied Processes*, and NFPA 51B, *Standard for Fire Prevention During Welding, Cutting, and Other Hot Work*.

**6.4\*** **Audience Life Safety.** When an audience is present during productions, provisions for life safety and means of egress shall be subject to the approval of the AHJ.

**6.5 Emergency Services Notification.** The production company shall provide a procedure acceptable to the AHJ for notifying the public emergency services of emergency incidents.

## Annex A Explanatory Material

*Annex A is not a part of the requirements of this NFPA document but is included for informational purposes only. This annex contains explanatory material, numbered to correspond with the applicable text paragraphs.*

**A.1.1.1** The entertainment industry occasionally depicts actions, situations, equipment installations, or construction that are violations of recommended standards and codes but do not reflect actual entertainment industry safety practices.

**A.2.1** The Motion Picture and Television Industry Committee recognizes that it is sometimes not practical to continually upgrade existing buildings or installations to comply with all the requirements of the referenced publications.

**A.3.2.1 Approved.** The National Fire Protection Association does not approve, inspect, or certify any installations, procedures, equipment, or materials; nor does it approve or evaluate testing laboratories. In determining the acceptability of installations, procedures, equipment, or materials, the authority having jurisdiction may base acceptance on compliance with NFPA or other appropriate standards. In the absence of such standards, said authority may require evidence of proper installation, procedure, or use. The authority having jurisdiction may also refer to the listings or labeling practices of an organization that is concerned with product evaluations and is thus in a position to determine compliance with appropriate standards for the current production of listed items.

**A.3.2.2 Authority Having Jurisdiction (AHJ).** The phrase "authority having jurisdiction," or its acronym AHJ, is used in NFPA documents in a broad manner, since jurisdictions and approval agencies vary, as do their responsibilities. Where public safety is primary, the authority having jurisdiction may be a federal, state, local, or other regional department or individual such as a fire chief; fire marshal; chief of a fire prevention bureau, labor department, or health department; building official; electrical inspector; or others having statutory authority. For insurance purposes, an insurance inspection department, rating bureau, or other insurance company representative may be the authority having jurisdiction. In many circumstances, the property owner or his or her designated agent assumes the role of the authority having jurisdiction; at government installations, the commanding officer or departmental official may be the authority having jurisdiction.

**A.3.2.4 Listed.** The means for identifying listed equipment may vary for each organization concerned with product evaluation; some organizations do not recognize equipment as listed unless it is also labeled. The authority having jurisdiction should utilize the system employed by the listing organization to identify a listed product.

**A.4.2(8)** An example of a *change of use* would be a soundstage with audience facilities for 50 persons being used for a preview

party for 500 persons. An example of a *change of occupancy classification* would be a soundstage without audience facilities being used for a preview party for 500 persons.

**A.4.3.1** Particular attention needs to be given to combustible materials used in close proximity to pyrotechnic and open-flame special effects. On-site verification of the fire retardant properties of set components, furnishings, props, and other combustible materials is essential to ensure the safety of pyrotechnic and open-flame special effects. The provisions of Section 4.5 address the need to render drapes, greens, foamed plastics, and other combustible materials fire retardant.

A comprehensive safety meeting should be conducted to define the intended scope of a special effect and establish appropriate safe areas. The safe areas need to be sized in consideration of the variable predictability of the materials used in the special effect. The safety meeting should include the participation of all persons who will be present during the special effect. The meeting discussion should also include consideration of the following:

- (1) Conducting a test in an approved location of all devices and materials intended to be used in the special effect
- (2) Excluding nonessential persons from the area of the effect until special effects personnel and a representative of the AHJ declare the area to be safe
- (3) Evaluating the potential impact of the special effect on the uninvolved public
- (4) Establishing an emergency plan that includes initial actions to take if the special effect exceeds its intended size, intensity, or duration
- (5) Maintaining safe escape routes from the special effects area
- (6) Developing methods of communication to be used during the special effect
- (7) Identifying the individuals authorized to require that emergency actions be taken
- (8) Specifying the licensing requirements for the individuals initiating the special effect
- (9) Specifying the clothing to be worn by all special effects and safety personnel
- (10) Evaluating the assignments and required abilities of all special effects and safety personnel
- (11) Assigning the appropriate number of safety personnel to implement the plan
- (12) Determining adequate and appropriate fire protection tailored to the materials used
- (13) Establishing primary and backup methods of requesting additional fire suppression resources
- (14) Identifying a definitive point when the special effect is complete

**A.4.8.2** This requirement does not prohibit the use of mobile generators for auxiliary power.

**A.4.11.1.3.1** Paragraphs 4.11.1.3.1 and 4.11.1.3.2 recognize motion picture and television industry practices that require sets to change constantly and that sets are “temporary” construction not subject to building codes or standards. Solid ceilings that obstruct the stage sprinklers are “flown” (moved) in or out to permit special shooting angles or lighting requirements, often on a scene-by-scene basis. With temporary walls and ceilings, it would be impractical to install a sprinkler system in a constantly changing structure. Therefore, one or more of the following mitigation techniques should be used to compensate for the areas shielded from sprinkler spray by solid or hard ceilings or platforms:

- (1) Approved and listed heat detectors or smoke detectors can be installed beneath such solid or hard ceilings in excess of 600 ft<sup>2</sup> (55.7 m<sup>2</sup>) in area and platforms in excess of 600 ft<sup>2</sup> (55.7 m<sup>2</sup>) in area and 3 ft (0.9 m) in height. Detectors should be connected to an approved and listed central, proprietary, or remote station service or to a local alarm that will provide an audible signal (i.e., a bell or horn) at a constantly attended location. The detector system, including the alarm panel, is defined as a portable system because it is intended to be reinstalled when platforms or sets are changed. The detectors that are secured to standard outlet boxes and the listed fire alarm panels can be temporarily supported by sets, platforms, or pedestals. Spacing of detectors should be per manufacturers’ requirements.
- (2) The ceiling can be positioned to allow for the operation of the building’s automatic fire sprinkler system after videotaping, filming, or broadcasting of programs has been completed for the day.
- (3) A fire watch should be provided when the set is not in use.
- (4) No combustible materials should be stored under any platforms. Consideration should be given to secure such covered areas with screen wire or other materials that will permit visual inspection and emergency access.
- (5) Approved/listed fire retardants can be applied beneath combustible platforms.
- (6) Approved/listed fire retardants can be applied to scenery, props, framework and deck of combustible platforms, and the hard-ceilings of combustible sets.

**A.4.11.1.3.2** See A.4.11.1.3.1.

**A.5.2(1)** The AHJ might waive the production location permit provided the AHJ is notified that the site is to be used as a production location.

**A.5.8.3** The AHJ might approve the routing of power cables through fire-rated windows or doors if standby fire personnel or other approved safeguards are provided during such periods.

**A.5.9** The AHJ, when granting a permit to a production company to film on location should consider the placement of the support equipment. Typically, the production support vehicles are numerous, and unregulated placement of these vehicles could impede emergency access or egress. Additionally, the types of support vehicles need to be arranged so that a hazardous operation (e.g., fueling or special effects) is distant from sources of ignition and crew gathering areas (e.g., catering locations). The location permit should include a plot plan so the AHJ can adequately assess potential problems.

**A.5.10** Where a production company films *on location*, such activity might interfere with, or prevent, the normal use of the facility or area. As such, the facility being occupied as a production location is often used for a purpose different from that of its normal use. Where the production company filming causes the facility or area to curtail normal operations, the facility should not be required to meet the life safety provisions applicable to the normal occupancy. Rather, life safety features should be maintained consistent with provisions required for the temporary use. For example, consider a single story assembly occupancy building with occupant load of 600 persons that has three exits for compliance with the provision of NFPA 101, *Life Safety Code*, that requires a minimum of three exits where the occupant load of a floor exceeds 500 persons. The assembly occupancy building is used as a production location for a total of 200 persons. The production crew presents,

for approval of the AHJ, a plan to block off one of the three exits while maintaining compliance with the requirements for egress width, travel distance, common path of travel, and dead-end corridors. The AHJ approves the proposed means of egress as appropriate for the intended use as required by 5.10.

**A.5.11.1** The phrase “intimate with the initial fire development” refers to the person(s) at the ignition source or first materials burning, not to all persons within the same room or area.

The occupant protection requirement of 5.11.1 is the same as that required for all occupancies by NFPA 101, *Life Safety Code*. The activities associated with filming at a production location without an audience are characteristic of the occupancy classification of industrial occupancy. Industrial occupancies are not required by NFPA 101 to be sprinklered. The objective of protecting occupants not intimate with the initial fire development for the time needed to evacuate, relocate, or defend in place is accomplished for industrial occupancies by prescriptive provisions not dependent on sprinkler protection.

Where production location filming occurs in a building area not provided with the life safety systems required for industrial occupancies (e.g., in a tower with a single means of egress provided by an unenclosed stair), sprinklers, a fire alarm system, or other mitigation techniques acceptable to the AHJ will need to be employed for compliance with 5.11.1. Where sprinklers are provided, see 5.11.2 and 5.11.6.

**A.5.11.4** See A.4.11.1.3.1.

**A.5.11.5** See A.4.11.1.3.1.

**A.6.4** Special attention should be focused on any possible obstructions to the means of egress. The means of egress and the marking of it might be confusing to the audience due to the numerous bright lights, scenery, video and film cameras, and other equipment in and around the soundstage.

## Annex B Informational References

**B.1 Referenced Publications.** The documents or portions thereof listed in this annex are referenced within the informational sections of this standard and are not part of the requirements of this document unless also listed in Chapter 2 for other reasons.

**B.1.1 NFPA Publications.** National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 101<sup>®</sup>, *Life Safety Code*<sup>®</sup>, 2006 edition.

**B.2 Informational References. (Reserved)**

**B.3 References for Extracts in Informational Sections. (Reserved)**



## Index

Copyright © 2008 National Fire Protection Association. All Rights Reserved.

The copyright in this index is separate and distinct from the copyright in the document that it indexes. The licensing provisions set forth for the document are not applicable to this index. This index may not be reproduced in whole or in part by any means without the express written permission of NFPA.

- A-**
- Air-conditioning ductwork** ..... 4.12
- Alarm systems**
- Deactivation of ..... 4.11.2
  - Visual signals ..... 4.11.2(4)
- Application of standards** ..... 1.3
- Approved (definition)** ..... 3.2.1, A.3.2.1; *see also* Authority having jurisdiction (AHJ)
- Approved production facility** ..... Chap. 4
- Definition ..... 3.3.1
- Audience life safety** ..... 6.4, A.6.4
- Authority having jurisdiction (AHJ)**
- Approvals required ..... 4.8.5, 5.3.1, 5.8, 6.4, 6.5, A.5.8.3, A.6.4
  - Definition ..... 3.2.2, A.3.2.2
  - Fire department access maintenance required by ..... 4.9
  - Permits required by ..... 4.2, 5.2, 5.8.1, A.4.2(8), A.5.2(1)
  - Smoking prohibition by ..... 5.6.3
  - Standby fire personnel required by ..... 4.4.1, 4.4.2, 5.4.1, 5.4.2
- C-**
- Cables, routing of** ..... 4.8.7, 4.8.8, 5.8.2, 5.8.3, A.5.8.3
- D-**
- Dead loads** ..... 4.7.1
- Decorative materials** ..... 4.5
- Definitions** ..... Chap. 3
- Drapes and drops, combustible** ..... 4.5.2, A.4.3.1
- Ductwork** ..... 4.12
- E-**
- Electrical requirements**
- Production locations ..... 5.8, A.5.8.3
  - Soundstages and approved production facilities ..... 4.8, A.4.8.2
- Emergency lighting** ..... 4.10.4
- Emergency services notification** ..... 6.5
- Equivalency to standard** ..... 1.4
- Extinguishers, portable fire** ..... 4.11.1.5, 5.11.7
- Extinguishment requirements** ..... 4.11.1, A.4.11.1.3.1
- F-**
- Fire department access** ..... 4.9, 5.9, A.5.9
- Fire protection**
- Production locations ..... 5.11, A.4.11.1.3.1, A.5.11.1
  - Soundstages and approved production facilities ..... 4.11, A.4.11.1.3.1
- Fire retardants, use of** ..... 4.5.2, 4.5.3, A.4.3.1
- Flammable or combustible liquids** ..... 6.2
- Foamed plastic materials, use of** ..... 4.5.1, 5.5, A.4.3.1
- G-**
- Generators**
- Auxiliary power cables supplied from ..... 4.8.7, 5.8.3, A.5.8.3
  - Location of ..... 4.8.5
- Greens, cut, fire retardant treatment of** ..... 4.5.3, A.4.3.1
- H-**
- Heating ductwork** ..... 4.12
- L-**
- Labeled (definition)** ..... 3.2.3
- Listed (definition)** ..... 3.2.4, A.3.2.4
- Loads, structural** ..... 4.7
- LP-Gas** ..... 6.2.1, 6.2.2
- M-**
- Means of egress** ..... 6.4, A.6.4
- Production locations ..... 5.10, A.5.10
  - Soundstages and approved production facilities ..... 4.10
- Mobile generators**
- Auxiliary power cables supplied from ..... 4.8.7, 5.8.3, A.4.8.2, A.5.8.3
  - Location of ..... 4.8.5
- Motion picture production studio** ..... *see* Production studio
- O-**
- Open flames** ..... 4.3, 5.3, A.4.3.1
- Operating features** ..... Chap. 6
- P-**
- Permits** ..... 4.2, 5.2, A.4.2(8), A.5.2(1)
- Plastic materials, foamed, use of** ..... 4.5.1, 5.5, A.4.3.1
- Platforms (definition)** ..... 3.3.3
- Portable generators, location of** ..... 4.8.5
- Production facility** ..... *see* Approved production facility
- Production location** ..... Chap. 5
- Definition ..... 3.3.4
- Production studio (definition)** ..... 3.3.5
- Purpose of standard** ..... 1.2
- Pyrotechnic special effects** ..... 4.3, 4.4.1, 5.3, 5.4.1, A.4.3.1
- R-**
- References** ..... Chap. 2, Annex B
- Refuse, accumulation of** ..... 6.1
- S-**
- Scope of standard** ..... 1.1, A.1.1.1
- Sets**
- Definition ..... 3.3.6
  - Foamed plastic materials used for ..... 4.5.1, 5.5, A.4.3.1
  - Suspension of ..... 4.7.2
- Shall (definition)** ..... 3.2.5
- Should (definition)** ..... 3.2.6
- Smoking** ..... 4.6, 5.6
- Soundstage** ..... Chap. 4
- Definition ..... 3.3.7
- Sprinkler systems**
- Production locations ..... 5.11.2 to 5.11.6, A.4.11.1.3.1
  - Soundstages and approved production facilities ..... 4.11.1.1 to 4.11.1.4, A.4.11.1.3.1
- Standard (definition)** ..... 3.2.7
- Standby fire personnel** ..... 4.4, 5.4, A.5.8.3
- Structural loads** ..... 4.7, 5.7
- T-**
- TV production studio** ..... *see* Production studio
- V-**
- Ventilating ductwork** ..... 4.12
- W-**
- Waste, accumulation of** ..... 6.1
- Welding** ..... 6.3