

THE JOINT COMMISSION/NFPA®
LIFE SAFETY BOOK
FOR
**HEALTH CARE
ORGANIZATIONS**

A Guide to the Joint Commission Life Safety Standards and
Related NFPA® *Life Safety Code*® Requirements

*By George Mills, MBA, FASHE, CEM, CHFM, CHSP,
and James K. Lathrop, FSFPE*



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The Joint Commission

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Resources



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Introduction

Fire in a health care organization represents a serious threat to patient, staff, and visitor safety. Most individuals receiving health care are incapable of self-preservation and thus unable to quickly exit the immediate area of the threat—let alone the building—in the event of a fire. Much of the material found in a health care organization (for example, supplemental oxygen, paper drapes, various linens) can support combustion when brought in contact with an ignition source; and sources such as lasers, construction-related equipment, heating units, and other items—even coffee-makers and microwaves—are regularly present in a health care organization. This perfect storm of risk factors makes the potential for disastrous situations that result from health care fires very real.

To ensure fire safety, The Joint Commission requires health care organizations to comply with the *Life Safety Code*®.* This set of standards from the National Fire Protection Association (NFPA) specifies construction and operational conditions to minimize fire hazards and provide a system of safety in case of fire.

To assist organizations with *Life Safety Code* compliance, The Joint Commission has dedicated an entire standards chapter in each *Comprehensive Accreditation Manual*, as applicable, to the topic. This chapter, the “Life Safety” (LS) chapter, is structured to directly reflect the content of the *Life Safety Code* and its requirements. The LS chapter applies to any organization or part of an organization that is deemed to be a health care, ambulatory care, or residential occupancy. (See page vii for information about occupancies.)

Although they are similar in many ways, subtle dif-

ferences exist between the NFPA *Life Safety Code* and The Joint Commission LS chapter. Appreciating these nuances, The Joint Commission and the NFPA have determined the need for a resource that explains exactly how the two sets of requirements relate. *The Joint Commission/NFPA® Life Safety Book for Health Care Organizations* aims to address the interplay between the two sets of requirements, giving specific commentary on what each set requires.

THE RELATIONSHIP BETWEEN THE NFPA AND THE JOINT COMMISSION

The NFPA is a consensus-based code development group that develops and publishes codes such as the *Life Safety Code* (NFPA 101), the *Standard for Emergency and Standby Power Systems* (NFPA 110), and many more. The NFPA does not enforce its codes but develops them for a variety of uses, including adoption by authorities having jurisdiction (AHJs). Two such authorities are The Joint Commission and the Centers for Medicare & Medicaid Services (CMS).

In 2003 CMS and The Joint Commission both adopted the 2000 edition of the *Life Safety Code*. By default, when the *Life Safety Code* is adopted, all codes referenced in that edition are also adopted. The Joint Commission and CMS refer to the same edition of NFPA 101 to be in sync with each other, using the same set of requirements. Both organizations continue to use the 2000 edition, because a formal rule-making process is necessary in order for CMS to use a later edition.

The NFPA revises the *Life Safety Code* every three years. Although the 2003 revision had minimal impact on health care, the 2006 and 2009 editions

* Life Safety Code is a registered trademark of the National Fire Protection Association, Quincy, MA.

did have a significant impact. The 2012 edition includes the 2006 and 2009 enhancements, plus several others that are related to patients and health care. (See Sidebar I-1, below, for more information about enhancements found in the 2012 *Life Safety Code*.)

If the decision to adopt a more current edition of the *Life Safety Code* is made, both CMS and The Joint Commission will need to adopt the same edition. Otherwise, conflicts between CMS and The Joint Commission could occur.

Sidebar I-1. What's New in the 2012 *Life Safety Code*?

There are some important new provisions in the 2012 edition of the *Life Safety Code*. Note that this does not represent an exhaustive list, but merely a smattering of important topics:

- **Kitchens:** Small kitchens, not the central cooking facility, are now allowed to be completely open to a corridor, provided that certain criteria are met for fire detection, that cooking facilities are limited, and that the number of residents served by the cooking facilities is limited.
- **Means of egress for normally unoccupied support areas:** These are areas of a facility where people are not present on a regular basis, such as crawl spaces or steam tunnels. These spaces no longer need to meet specific egress requirements, such as minimum width and head room, exit signage, illumination, and so forth.
- **Sprinklers in patient room closets:** In new construction and retrofits of sprinkler systems, sprinkler protection can be omitted from certain clothes closets in patient sleeping rooms in hospitals only, provided that the closets do not exceed 6 square feet and that the back walls of such closets are within the coverage area of a sprinkler in the room.

- **Waste containers:** Waste containers can now be up to 96 gallons, provided that the containers have been tested to show that they can confine a fire to the container and that they are used solely for recycling clean waste or for storing patient records awaiting destruction.
- **Sleeping suites in new construction:** Sleeping suites can now be sized up to 10,000 square feet with additional protection. These sleeping spaces must have automatic sprinklers, direct visual supervision, and total-coverage automatic smoke detection.
- **Sleeping suites in existing facilities:** Sleeping suites are now limited to 5,000 square feet with no additional special protection; to 7,500 square feet where the smoke compartment has a sprinkler system and complete smoke detection or quick-response sprinklers; and up to 10,000 square feet with direct visual supervision, complete automatic smoke detection, and quick-response sprinkler protection.

Source: Adapted from Koffel W, Frecker J. Tips on using the 2012 *Life Safety Code* for achieving compliance in health care facilities. *NFPA Journal*, Jan–Feb 2012. Used with permission. Portions reprinted from *Environment of Care® News*, August 2012, page 8, “Traditional Equivalencies.”

UNDERSTANDING OCCUPANCY TYPE

Before proceeding with a discussion of the LS chapter and the *Life Safety Code*, it is important to touch on the concept of occupancy type. An organization must determine its occupancy type because different standards and requirements apply depending on the occupancy type.

The NFPA defines *occupancy* as “the purpose for which a building or portion thereof is used or intended to be used.”

This book deals only with organizations that qualify as health care occupancies. The LS standards that apply to health care occupancies generally are those that begin with LS.02 (as shown in Sidebar I-2 on page viii).

Following is a brief description of NFPA health care occupancies as recognized by The Joint Commission:

- **Health care occupancy:** A *health care occupancy* is defined in *Life Safety Code* Section 3.3.134.7 as “an occupancy used for purposes of medical or other treatment or care of four or more persons where such occupants are mostly incapable of self-preservation due to age, physical or mental disability, or because of security measures not under the occupants’ control.” “Incapable of self-preservation” means that the individual would not be able to get out of a building by him- or herself in case of fire. Health care occupancies include, according to the NFPA, “general hospitals, psychiatric hospitals, and specialty hospitals,” as well as “nursing and convalescent homes, skilled nursing facilities, intermediate care facilities, and infirmaries in homes for the aged.”

Please refer to your *Comprehensive Accreditation Manual* for the specific LS standards that apply to your organization and setting of care.

Several other types of occupancies are recognized by the Joint Commission, and they are

presented here by way of information.

This book does NOT cover these types of occupancies.

- **Ambulatory care occupancy:** *Life Safety Code* Section 3.3.134.1 defines an *ambulatory care occupancy* as “a building or portion thereof used to provide services or treatment simultaneously to four or more patients that (1) provides, on an outpatient basis, treatment for patients that renders the patients incapable of taking action for self-preservation under emergency conditions without the assistance of others; or (2) provides, on an outpatient basis, anesthesia that renders the patients incapable of taking action for self-preservation under emergency conditions without the assistance of others.”

Several points deserve special mention here. First, according to the NFPA, for a facility to be classified as an ambulatory care occupancy, four or more individuals at any one time must be rendered incapable of self-preservation. Second, the word *rendered* in this context means that the individuals must be made incapable of self-preservation by the treatment provided at the facility. For example, in an outpatient surgery center, having four or more people under anesthesia and/or recovering from it at one time would result in a classification of ambulatory care occupancy. On the other hand, individuals who arrive in wheelchairs might be considered to be incapable of self-preservation before any treatment is provided. Each organization must carefully evaluate the services and treatment it provides to determine whether the individuals served will be rendered incapable of self-preservation.

In addition to organizations that render four or more patients incapable of self-preservation, the LS standards also apply to all ambulatory surgical centers seeking accreditation for Medicare certification purposes, regardless of the number of patients served.

Sidebar I-2. “Life Safety” Chapter Standards Topics

Health Care Occupancies

This book discusses Life Safety standards for health care occupancies (LS.02), as well as administrative standards (LS.01).

- | | |
|---|---|
| <ul style="list-style-type: none"> • LS.01.01.01 Administrative. Statement of Conditions. Specifics. • LS.01.02.01 Administrative. Protecting the Occupants. Specifics. | <ul style="list-style-type: none"> • LS.02.01.34 Health Care. All Buildings. Protection/Fire Alarm. • LS.02.01.35 Health Care. All Buildings. Protection/Extinguishment. • LS.02.01.40 Health Care. All Buildings. Special Provisions. • LS.02.01.50 Health Care. All Buildings. Building Services. • LS.02.01.70 Health Care. All Buildings. Operating Features. |
|---|---|
- Health Care Occupancy (LS.02)**
- **LS.02.01.10**
Health Care. All Buildings. General Requirements.
 - **LS.02.01.20**
Health Care. All Buildings. Means of Egress.
 - **LS.02.01.30**
Health Care. All Buildings. Protection.

This book does NOT cover these Life Safety standards.

Ambulatory Occupancy (LS.03)

- **LS.03.01.10**
Ambulatory. All Buildings. General Requirements.
- **LS.03.01.20**
Ambulatory. All Buildings. Means of Egress.
- **LS.03.01.30**
Ambulatory. All Buildings. Protection.
- **LS.03.01.34**
Ambulatory. All Buildings. Protection/Fire Alarm.
- **LS.03.01.35**
Ambulatory. All Buildings. Protection/Extinguishment.
- **LS.03.01.40**
Ambulatory. All Buildings. Special Provisions.
- **LS.03.01.50**
Ambulatory. All Buildings. Building Services.
- **LS.03.01.70**
Ambulatory. All Buildings. Operating Features.

Behavioral Health Care (BHC) (LS.04: Residential Treatment)

- **LS.04.01.20**
BHC. Lodging or Rooming Houses. Means of Egress.
- **LS.04.01.30**
BHC. Lodging or Rooming Houses. Protection
- **LS.04.01.50**
BHC. Lodging or Rooming Houses. Building Services.
- **LS.04.02.20**
BHC. Hotels & Dormitories. Means of Egress.
- **LS.04.02.30**
BHC. Hotels & Dormitories. Protection.
- **LS.04.02.50**
BHC. Hotels & Dormitories. Building Services.

Sidebar I-3. Health Care and Other Occupancies at a Glance

Below are the characteristics of all types of occupancies. This book addresses only health care occupancies.

Health Care Occupancy:

- Four or more individuals are incapable of self-preservation
- 24-hour stay (that is, individuals stay overnight)
- Hospitals:
 - General
 - Psychiatric
 - Specialty
- Long term care:
 - Nursing and convalescent homes
 - Skilled nursing facilities
 - Intermediate care facilities

This book does NOT cover these occupancies.

Ambulatory Occupancy:

- Outpatient settings where four or more individuals at any one time are rendered incapable of self-preservation
- Less than 24-hour stay
- Ambulatory surgical centers seeking accreditation for Medicare certification

Residential Occupancy:

- Lodging and rooming house occupancy
- Sleeping accommodations provided for 16 or fewer individuals
- No personal care services provided
- No individual cooking facilities, with or without meals

Hotel and Dormitory Occupancy:

- Sleeping accommodations provided for 17 or more individuals
- Members of the same family are not in the same room
- No individual cooking facilities, with or without meals

Business Occupancy:

- No one stays overnight, and three or fewer individuals are rendered incapable of self-preservation

- **Residential occupancy:** Two other types of occupancies that are addressed by the *Life Safety Code* at first glance appear to have little to do with health care. The Joint Commission classifies both as residential occupancies. A lodging and rooming house occupancy is used for facilities that provide sleeping accommodations for 16 or fewer occupants who are capable of self-preservation, and a hotel and dormitory occupancy provides sleeping accommodations for 17 or more occupants who are capable of self-preservation. Both types of residential occupancies are often used for residential treatment facilities, which are frequently accredited as behavioral health care organizations.
- **Business occupancy:** Per *Life Safety Code* Section 3.3.134.3, a *business occupancy* is “used for account and record keeping or the transaction of business other than mercantile.” This is a very broad definition, but as it applies to health care, the definition refers to a facility where no one stays overnight and where three or fewer individuals are rendered incapable of self-preservation at any given time by virtue of their treatment.

The Joint Commission does not require free-standing business occupancies to comply with the *Life Safety Code*, and therefore, they do not have to comply with the LS standards. However, such facilities must comply with The

Sidebar I-4. NFPA Codes Cited

NFPA code content has been selected from the 2000 edition of the *Life Safety Code* and the *Life Safety Code Handbook*. In addition, portions of the following key NFPA standards have been utilized:

- *NFPA 10: Standard for Portable Fire Extinguishers*, 1998 Edition
- *NFPA 13: Standard for the Installation of Sprinkler Systems*, 1999 Edition
- *NFPA 17A: Standard for Wet Chemical Extinguishing Systems*, 1998 Edition
- *NFPA 25: Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*, 1998 Edition

- *NFPA 72: National Fire Alarm Code*, 1999 Edition
- *NFPA 80: Standard for Fire Doors and Fire Windows*, 1999 Edition
- *NFPA 82: Standard on Incinerators and Waste and Linen Handling Systems and Equipment*, 1999 Edition
- *NFPA 90A: Standard for the Installation of Air-Conditioning and Ventilating Systems*, 1999 Edition
- *NFPA 96: Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations*, 1998 Edition

Please note that this list is in order by code number only, not by importance of the code.

Joint Commission’s Environment of Care (EC) standards that address fire safety, including those that require organizations to maintain free and unobstructed access to all exits.

See Sidebar I-3 on page ix for an at-a-glance summary of occupancy types and their characteristics.

ABOUT THE BOOK

As previously mentioned, *The Joint Commission/NFPA® Life Safety Book for Health Care Organizations* offers detailed analysis of both The Joint Commission’s LS chapter specific to health care occupancies and the NFPA’s *Life Safety Code*. Within the book, the official Joint Commission LS standards and elements of performance (EPs) are paired with their matching NFPA code provisions. A clear discussion of each LS standard and its related *Life Safety Code* regulations is provided by two of the leading fire safety experts in the field.

Each chapter in the book represents a different topic found in the two sets of requirements. The book starts by examining the administrative

standards found in the LS chapter and then moves to topics including general building requirements, means of egress requirements, fire alarm and extinguishment requirements, special provisions, building services, and operating features. *Note that this publication focuses only on standards and regulations that apply to health care occupancies.*

Commentary and code content have been selected from the 2000 edition of the *Life Safety Code*, the *Life Safety Code Handbook*, key NFPA reference standards, and The Joint Commission *Comprehensive Accreditation Manual for Hospitals*. (See Sidebar I-4, above, for a list of the NFPA standards referenced in this work.) This book is not intended to replace those books but rather to expand upon them. Obtaining the appropriate NFPA and Joint Commission Resources (JCR) documents, and using them in conjunction with this book, is therefore a necessity.* These books can be found online at <http://www.jcrinc.com> and <http://www.nfpa.org/101/>, which includes a read-only version of the full NFPA 101 *Life Safety Code* text.

* Please note that in the NFPA codes reprints, you will occasionally find the statement “See the Code.” This indicates a section that concerns a provision that is either extremely rare or does not apply to health care. Readers who want to see that additional information should refer to the applicable code.

HOW THE BOOK IS STRUCTURED

The Joint Commission Life Safety standards form the structural backbone of this book: Each chapter in the book is devoted to one standard. (See [a] in the Typical Book Page Diagram, Figure I-1, on page xii.) Within a chapter, each section is devoted to each EP in that standard [b].

All Joint Commission standards, EPs, and commentary are shown in a gray shaded box [c, d].

From there, all the NFPA codes that apply to each EP are shown under that EP [e]. The book lists the NFPA code references in their entirety, indicating full NFPA code name and edition, chapter title, section title, and subsection title before providing the exact code language and NFPA commentary [f, g].

As previously noted, all Joint Commission standard and NFPA code language in this book is the exact, authoritative language as published in the Joint Commission *Comprehensive Accreditation Manual* most current at time of publication and the NFPA code edition indicated with each code reference. The disclaimers regarding this standard and code language apply (see pages x and xiii of this introduction).

Expert Commentary

Within each chapter, expert commentary by the book's coauthors is provided according to the book structure just explained and further described below.

George Mills, MBA, FASHE, CEM, CHFM, CHSP, director, Department of Engineering, The Joint Commission, first provides authoritative explanation of an EP. This explanation is also shown in the gray shaded box. The beginning of Mr. Mills' commentary is indicated by a vertical black bar [d].

NFPA code pertaining to this EP follows, and James Lathrop, FSPE, vice president at Koffel Associates, Inc., a fire protection engineering and code consulting firm headquartered in Columbia,

Sidebar I-5. Elements on This Book's Pages

Here are the standard and code elements found on the pages of this book. To view these elements as displayed on a typical page, see Figure I-1, page xii.

- [a] One standard per chapter
- [b] EPs discussed section by section in each chapter
- [c] Gray-shaded box contains Joint Commission EPs and commentary
- [d] Expert Joint Commission commentary by George Mills
- [e] NFPA code in unshaded pages
- [f] Complete NFPA code reference
- [g] Expert NFPA commentary by James Lathrop

Maryland, provides expert commentary on each code section as it occurs. All NPFA material is shown without any gray shading. The beginning of Mr. Lathrop's commentary is also indicated by a vertical black bar [g].

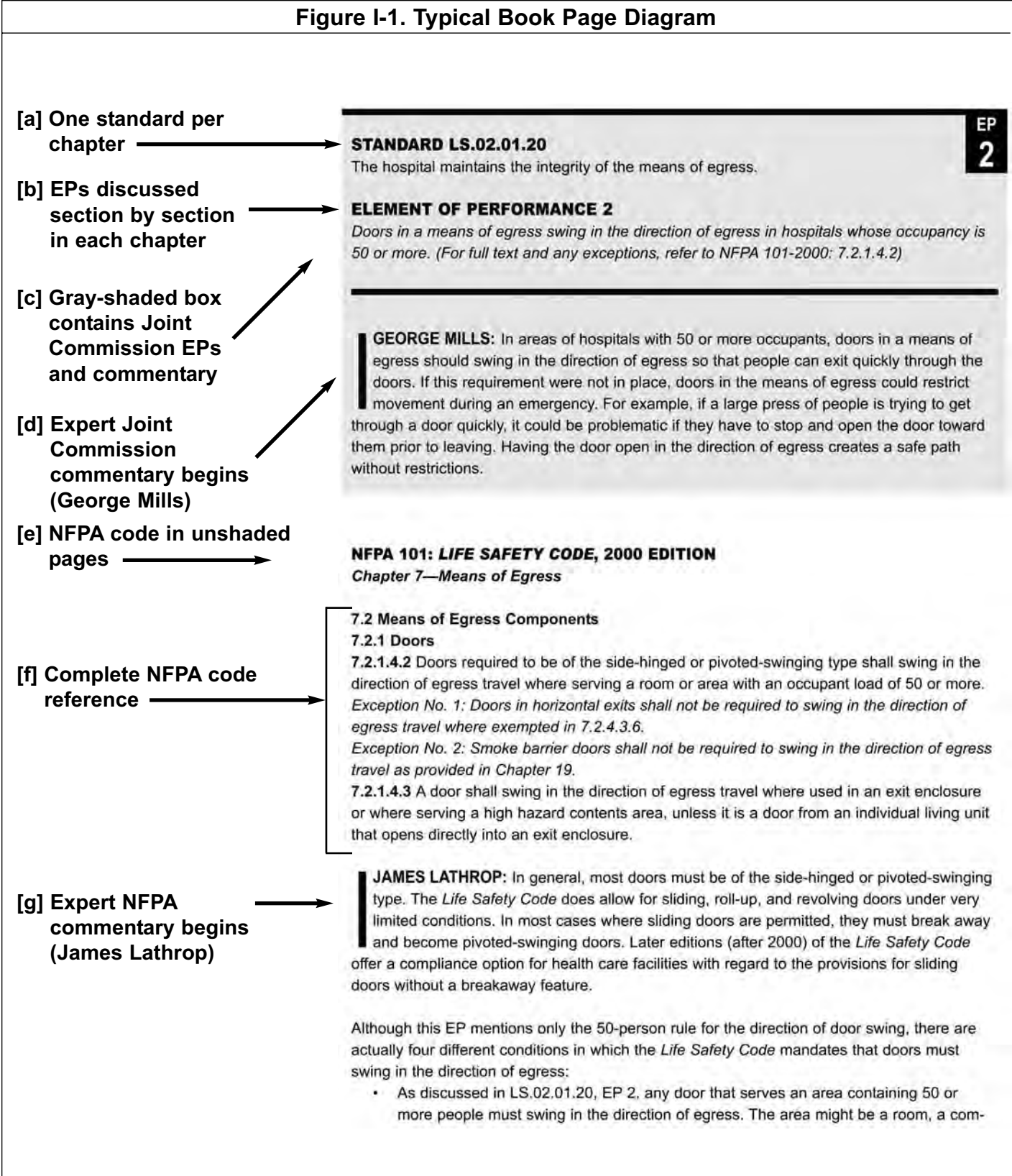
We trust that the graphic layout of the book will make the content easy to use for readers. (See Sidebar I-5, above, for a complete list of the page elements in this book.)

ABOUT THE AUTHORS

George Mills, MBA, FASHE, CEM, CHFM, CHSP, director, Department of Engineering, The Joint Commission, has more than 25 years of experience in health care. Prior to joining The Joint Commission, he served as a director of facilities and consulted on and held national positions related to codes and standards, including serving as director of Codes and Compliance for the American Society for Healthcare Engineering (ASHE).

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Figure I-1. Typical Book Page Diagram



A typical book page showing standard, code, and commentary elements.

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The Joint Commission: John Fishbeck, RA

John Fishbeck is an associate director for The Joint Commission in the Department of Standards and Survey Methods, Division of Healthcare Quality Evaluation. Mr. Fishbeck's principal responsibilities at The Joint Commission include managing the ongoing development of the Environment of Care and Life Safety standards for all of The Joint Commission's accreditation programs. Mr. Fishbeck is a registered architect by the State of Illinois and received his degree in architecture at the University of Illinois. He is a member of the National Fire Protection Association and represents The Joint Commission on the NFPA's *Life Safety Code* Technical Committee on Health Care Occupancies.

Acknowledgments: *Kathleen Vega* is a skilled freelance writer and editor, whose work for The Joint Commission includes writing and editing numerous articles on fire and life safety. We are grateful to Ms. Vega for her attention to detail and her outstanding professionalism.

IMPORTANT NOTICES AND DISCLAIMERS

Publication of *The Joint Commission/NFPA[®] Life Safety Book for Health Care Organizations* is for the purpose of circulating information and opinion among those concerned about fire and life safety and Joint Commission accreditation. Although every effort has been made to achieve a work of high quality, neither the National Fire Protection Association (NFPA), Joint Commission Resources (JCR), nor the authors, editors, or other contributors to this book guarantee the accuracy or completeness of or assume any liability in connection to the information and opinions contained herein. The NFPA, JCR, and the contributors shall in no event be liable for any personal injury, property damage, or other damages of any nature whatsoever, whether special, indirect, consequential, or compensatory, directly or indirectly resulting from the publication, use of, or reliance upon this book.

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INCLUSION AND USE OF JOINT COMMISSION STANDARDS

This book contains selected standards and EPs from the 2013 edition of the *Comprehensive Accreditation Manual for Hospitals (CAMH)*. These extracts, however, are not intended to be a substitute for the full text of the *CAMH*, which should always be consulted for a complete understanding of the provisions of the standards and EPs. The commentary and supplementary materials in this

book are not a part of the *CAMH*. The commentary and supplementary materials, therefore, solely reflect the personal opinions of the authors, editors, or other contributors and do not necessarily represent the official position of The Joint Commission. Again, readers should consult the current version of the *CAMH*.

INCLUSION AND USE OF NFPA CODE

This book contains selected provisions of several NFPA codes and standards, including principally the 2000 edition of NFPA 101®, *Life Safety Code*® (“NFPA 101”), which is the edition adopted by the federal Centers for Medicare & Medicaid Services and referenced by The Joint Commission. The selection of provisions for inclusion in this book was based on their relevance to corresponding provisions of The Joint Commission Life Safety standards and elements of performance. These extracts, however, are not intended to be a substitute for the full text of the corresponding NFPA codes and standards, which should always be consulted for a full understanding of the provisions of those codes and standards. In addition, readers should be aware that although the 2000 edition of NFPA 101 is the edition referenced by CMS and The Joint Commission, it is not the latest edition of NFPA 101. To view full-text versions of the 2000 edition and the latest edition of NFPA 101, visit <http://www.nfpa.org/101>. Other NFPA codes and standards extracted in this book are, for the same reason, not from the latest editions. To view full text versions of all NFPA codes and standards, visit http://www.nfpa.org/aboutthecodes/list_of_codes_and_standards.asp.

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LS.01.01.01
and
LS.01.02.01

CHAPTER ONE

Administrative
Requirements

Chapter One

LS.01.01.01 and LS.01.02.01 Administrative Requirements

One of the primary goals of The Joint Commission’s “Life Safety” (LS) chapter is to offer a simplified and straightforward way for organizations to navigate the National Fire Protection Association’s (NFPA) *Life Safety Code*®,* NFPA 101-2000. To this end, the LS chapter includes an overview that discusses how to resolve *Life Safety Code* deficiencies, as well as two standards that address administrative topics such as completing the Statement of Conditions™ (SOC) and implementing interim life safety measures (ILSM).

The overview and administrative standards are designed to establish parameters for the field on how to manage *Life Safety Code* compliance and protect patients and staff from the risks of fire. They require organizations to assess buildings for *Life Safety Code* compliance, identify deficiencies, resolve deficiencies, implement measures to protect patients while deficiencies are resolved, and document fire safety efforts. The following sections take a brief look at the overview and two administrative standards (LS.01.01.01 and LS.01.02.01) and their elements of performance (EPs), providing explanations of the EPs as well as tips for compliance.

LS CHAPTER OVERVIEW

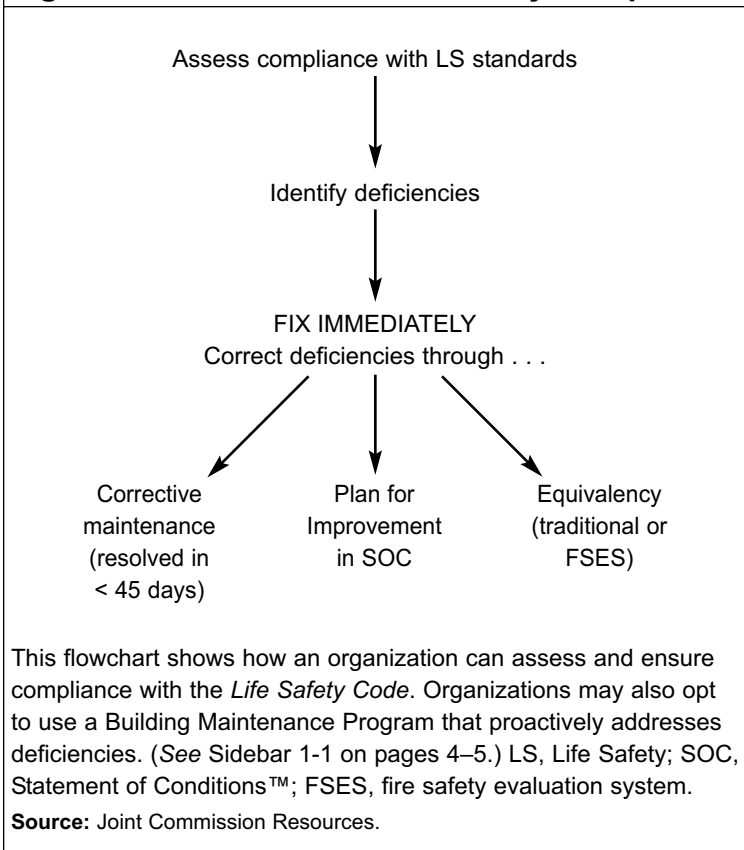
George Mills: As an organization assesses its compliance with the LS standards, it may identify deficiencies in *Life Safety Code* compliance. Such deficiencies should be addressed immediately when possible. Otherwise, organizations can take one of the following three actions (see Figure 1-1, right, for a visual representation of the compliance process):

1. Use a management process or corrective maintenance program that documents the deficiency and actions to resolve the situation within 45

days. A corrective maintenance approach is viable as long as the problem can be resolved within 45 days and the organization documents the deficiency and corrective actions. Otherwise, an organization must create a Plan for Improvement (PFI) to address the issue.

2. Create a PFI in the SOC (see below).
3. Obtain a *Life Safety Code* equivalency approved by The Joint Commission. This could include a traditional equivalency—which requires input from a local fire official, an architect, or a fire protection engineer—or a fire safety evaluation system (FSES).

Figure 1-1. Flowchart of Life Safety Compliance



* Life Safety Code is a registered trademark of the National Fire Protection Association, Quincy, MA.

Sidebar 1-1. The Building Maintenance Program

A Building Maintenance Program (BMP) is a scheduled process that proactively evaluates certain *Life Safety Code* features.

Creating and using a BMP is an optional, proactive, planned way to appropriately and effectively manage certain features of fire protection in a health care facility. An effective BMP includes the following:

- Written strategies to manage the items covered in the program
- A documented schedule for the frequency of maintenance
- Processes for evaluating the effectiveness of the program

Although the standards do not require this type of program, The Joint Commission recommends creating such a program as a best practice to help proactively address potential repair and maintenance issues and prevent compliance problems.

It is important to note that although organizations are encouraged to use this type of program, it does not provide a scoring advantage for organizations during the on-site survey.

Not every aspect of *Life Safety Code* compliance can be managed in a BMP.

However, an organization can proactively resolve certain types of deficiencies by using such a program, including those addressed by the following questions:

- Do doors, including occupancy separation doors, stair doors, horizontal exit doors, and hazardous area room doors, which have a 1-hour or 1½-hour fire protection rating, include the following:
 - Properly functioning positive-latching devices?
 - Properly functioning self-closing or automatic-closing devices?
 - < 1/8-inch gap between meeting edges

of door pairs?

– < 3/4-inch clearance under the door (sometimes referred to as “undercuts”)?

- Do linen/trash chute inlet and outlet doors have properly functioning
 - Positive-latching devices?
 - Self-closing or automatic-closing devices?
- Are doors in smoke barriers
 - Equipped with properly functioning self-closing or automatic-closing devices?
 - Maintained to prevent the spread of smoke?
- Are corridor doors
 - Equipped with properly functioning latching devices?
 - Maintained to prevent the spread of smoke?
- Are smoke barrier wall penetrations properly sealed?
- Are corridor wall penetrations properly sealed?
- Are means of egress illumination devices properly functioning?
- Are exit signs properly functioning?
- Are means of egress maintained to be free from the accumulation of ice and snow?
- Are the following grease-producing devices clean and maintained:
 - Exhaust hoods?
 - Exhaust duct system?
 - Grease-removal devices?

Other areas to consider for the BMP include the following:

- Management of fireproofing materials
- Management of penetrations in fire barriers
- Linen/waste discharge rooms that are not used for storage
- Management of penetrations in the floor

(Continued on page 5)

Sidebar 1-1. The Building Maintenance Program (continued)

assembly

- Means of egress locking
- Clear space > 18 inches below sprinkler deflectors to the top of storage
- Portable space heaters prohibited in patient treatment and sleeping areas
- Combustible decorations
- Obstruction of access, egress, or visibility of exits

Any items in a BMP that are found to be out of compliance must be promptly repaired or corrected, usually through a work order system. Note that the BMP does not apply to items that are lacking at a required location but rather to those that are out of repair or compliance. Documentation of these routine inspections and associated corrective maintenance is used to demonstrate the effectiveness of a BMP.

An effective BMP allows an organization to have up to 5% of the items in each category out of compliance at the time of survey. To measure 95% compliance of the items in a BMP, in most cases, an organization needs to determine the total number of devices, such as exit lights, present in the building. This becomes the denominator of the proportion, and the number of noncompliant devices is the numerator. So if an organization has 50 devices, and 5 of them do not work, 5/50—or 10%—are out of compliance. Therefore, this would not be acceptable

under the BMP. (Note: Large denominators, such as square feet of a barrier or number of exit signs, are better evaluated by sampling, as described later in this sidebar.)

For penetrations, the measurement is not as straightforward because measuring against the total surface area of the wall almost certainly results in compliance. Therefore, it may be more effective to sample 20 random locations, based on the results of those inspections, in order to determine effectiveness. For example, 20 inspections finding 2 unprotected penetrations would show 90% compliance ($2/20 = 10\%$).

In small organizations with fewer items to be included in a BMP, this process is still acceptable, but there needs to be an alternative approach for measuring compliance. For example, if there are only 10 exit signs and 1 is not functioning, using the preceding calculations, the organization would be non-compliant because it has more than 5% malfunctioning signs.

However, if the 10 signs were inspected weekly, at the end of the month there would have been 40 inspections (10 signs x 4 weeks). If 2 signs were malfunctioning, the percentage of compliance would be 95%—a passing score.

Standards and EPs, Codes, and Expert Comments

EP
1

STANDARD LS.01.01.01

The organization designs and manages the physical environment to comply with the *Life Safety Code*.

ELEMENT OF PERFORMANCE 1

The organization assigns an individual(s) to assess compliance with the Life Safety Code, complete the electronic Statement of Conditions (E-SOC), and manage the resolution of deficiencies.

GEORGE MILLS: In LS.01.01.01, EP 1, The Joint Commission requires an organization to assign an individual or individuals to manage the *Life Safety Code* compliance process. The standard outlines the following three main areas of life safety management that an organization must assign a competent individual or individuals to manage:

1. Assessing the building for *Life Safety Code* compliance
2. Creating and maintaining the SOC (see the discussion of the SOC under LS.01.01.01, EP 2, below)
3. Managing the resolution of *Life Safety Code* deficiencies

In some organizations, these three areas may be managed by three different people. For example, an organization might determine that a building engineer should be in charge of assessing the building for *Life Safety Code* compliance; an administrative professional should be in charge of creating, updating, and maintaining the SOC; and the maintenance manager should be in charge of managing the resolution of any PFIs. Other organizations might choose to place one individual in charge of all three areas. The Joint Commission does not require a licensed architect or life safety engineer to maintain the SOC.

No matter how an organization chooses to designate responsibility, the individual or individuals selected must be qualified for the task. For example, a thorough understanding of the NFPA *Life Safety Code* (NFPA 101-2000) is required to effectively complete the building assessment. Although there are no specific credentials required for the individual responsible for the building assessment, The Joint Commission expects the assessment to accurately identify building issues and features of fire protection.

An organization should carefully consider who is qualified and able to be in charge of the various aspects of life safety management and formally designate these individuals.

JAMES LATHROP: There is no NFPA text specifically cited here, but there are some very important issues from the *Life Safety Code* point of view. Many people evaluate a building by using the EPs of the LS standards, without using the actual *Life Safety Code*. However, Standard LS.01.01.01 requires compliance with the complete *Life Safety Code*, as does the federal law governing Medicare and Medicaid reimbursement. Not referencing the actual *Life Safety Code* when evaluating buildings leads to some critical aspects of *Life Safety Code* compliance being missed. One of the most common issues here is overlooking Chapter 4 of the *Life Safety Code*, which includes critical information on renovations, alterations, and modifications. Chapter 4 prohibits an organization from taking a provision that meets the requirements for new construction and downgrading it to existing because it is an existing building. Chapter 18 requires that, in general, corridors in health care facilities must be 8 feet wide. If the facility has 6-, 7-, or 8-foot corridors, they cannot be narrowed down to 4 feet in an existing facility even though Chapter 19 allows 4 feet for existing. If the corridors are 4 feet, that is okay, but they cannot be narrowed down to 4 feet. You can't take a provision that meets the requirements for new and downgrade it to existing because you have an existing building.

Another example deals with smoke barriers. Chapter 18 is very stringent on having smoke barriers wherever there are any patients and even on some stories with no patients. Chapter 19 requires smoke barriers only on stories where there are at least 30 sleeping patients. However, if the barriers are there and are required by Chapter 18, they must stay. You can eliminate smoke barriers but only based on the requirements of Chapter 18. Also, whenever eliminating a life safety feature, it is important to determine if any other codes or standards or previously agreed-upon equivalencies require that feature.

STANDARD LS.01.01.01

The organization designs and manages the physical environment to comply with the *Life Safety Code*.

ELEMENT OF PERFORMANCE 2

The organization maintains a current electronic Statement of Conditions (E-SOC). Note: The E-SOC is available to each organization through The Joint Commission Connect™ extranet site.

GEORGE MILLS: To help organizations design and manage the physical environment to comply with the *Life Safety Code*, The Joint Commission created the SOC, a tool that helps organizations assess their compliance with all the standards found in the LS chapter and develop PFIs to correct deficiencies and maintain compliance. (See Sidebar 1-2 on page 10 for a brief history of the SOC.)

The SOC is made up of two parts:

1. **Basic Building Information (BBI):** This section enables an organization to clearly declare building occupancies, features of fire protection (such as sprinklers and fire alarm systems), and other related information, such as bed count and number of stories. (See Sidebar 1-3 on pages 11–12 for more information on the BBI.) Completing information for business occupancies is optional, as the LS chapter does not address these occupancies. (Note: A *business occupancy* is an occupancy where three or fewer patients are rendered incapable of self-preservation at the same time and where patients do not sleep overnight.)

Accurate life safety drawings must also be maintained. The SOC, including the BBI, will not be considered current without accurate, current life safety drawings. Current life safety drawings must include the following:

- A legend that clearly identifies features of fire safety
- Areas of the building that are fully sprinklered (if the building is partially sprinklered)
- Locations of all hazardous storage areas
- Locations of all rated barriers
- Locations of all smoke barriers
- Suite boundaries, including the sizes of the identified suites—both sleeping (maximum 5,000 square feet) and non-sleeping (maximum 10,000 square feet)
- Locations of designated smoke compartments
- Locations of chutes and shafts
- Any approved equivalencies or waivers

Although The Joint Commission does not specify where life safety drawings should be located, the engineering department is a logical place to keep such documents. To assist in

the management of life safety drawings, some organizations have brought in engineering students to collate and index drawings as part of an internship. Other organizations have contracted with engineering firms to verify drawings and convert to a Web-based system. Either process supports efforts to maintain current drawings. One word of caution: If the work is contracted out or done by someone else in the organization, be sure staff members are familiar with the life safety drawings and can articulate what they represent.

2. Plan for Improvement (PFI): This section allows an organization to outline its action plans to correct any identified *Life Safety Code* deficiencies as well as set completion dates and track progress. Essentially, the PFI is an organization's commitment to proceed with whatever corrections are necessary to bring the organization's building(s) into compliance with the *Life Safety Code*. (See Sidebar 1-4 on page 12 for specific features of the PFI.)

The PFI process is designed to address deficiencies that involve longer time frames and special funding sources due to the nature and complexity of the required corrections. Minor deficiencies discovered in the course of a building inspection, such as burned-out exit sign bulbs or damaged hardware, are typically corrected by an organization via a work order system.

The SOC provides a management structure for identifying and correcting deficiencies. Rather than wait for an authority having jurisdiction (AHJ) to identify deficiencies, health care organizations can self-assess and manage the resolution of deficiencies as an ongoing process.

During a Joint Commission survey, the surveyor conducts a building tour and looks for deficiencies in *Life Safety Code* compliance. When a deficiency is identified, the health care organization has the opportunity to show existing PFIs and projected completion dates as a method of documenting compliance issues. Rather than restate the compliance problem, the Joint Commission surveyor "accepts" the resolution and associated corrective action time frame.

The advantage of the PFI is the proactive involvement of the organization in the assessment process, with a review performed by the Joint Commission surveyor. If a surveyor discovers a deficiency that is not on the SOC, the surveyor will document it as a finding and require the organization to respond accordingly.

Maintaining the SOC is not a one-time activity but a dynamic process that requires competent professionals committed to identifying and resolving threats to patient and staff safety posed by fire. Minimally, an organization should update the SOC at least annually and whenever construction or renovation changes are made in the facility.

Sidebar 1-2. A Brief History of the SOC

Since 1995 The Joint Commission has used a Statement of Conditions™ (SOC) process to assess organization compliance with the *Life Safety Code*. Prior to 1995, The Joint Commission evaluated buildings by having clinical or administrative surveyors inspect for compliance with the *Life Safety Code*. Health care organizations also had to supply a Statement of Construction. This was completed not by the organization but by an architect. The Statement of Construction was not a building condition assessment but a statement regarding building type and configuration. Following the survey, the organization took the findings and then corrected any deficiencies that had been identified.

In the mid-1990s, the decision was made to have accredited organizations participate actively in their building assessment process, and in 1995 the Statement of Conditions™ was introduced, replacing the Statement of Construction. The SOC had four parts: the introduction and instructions, the Basic Building Information (BBI), the optional Life Safety Assessment, and the Plan for Improvement (PFI).^{*} The SOC was designed to assess the building using the 1991 *Life Safety Code* (NFPA 101-1991), which The Joint Commission adopted on January 1, 1993.

The SOC was developed to allow organizations to assess their compliance with the *Life Safety Code* prior to survey. A hard copy that included instructions and Parts 2 through 4 was provided well before survey.

In 2006 The Joint Commission introduced the electronic version of the SOC, and full implementation was achieved in 2007. Since 2010 all SOC information has been stored electronically. The final phase of this transition has been the tracking of equivalencies and extension requests. All communication related to a building is now captured in the History/Audit Trail report, which is a read-only document created by the user.

Since the SOC's inception, each organization has been required to make sure its SOC accurately reflects the current life safety status of its buildings. This allows the survey activity to be a "snapshot in time," in which the organization has declared known deficiencies in PFIs. Surveyors then confirm the accuracy of the process, accepting PFIs and associated projected completion dates.

^{*} Today, the SOC has two parts: the BBI and the PFI. The change was made when the SOC went electronic.

Sidebar 1-3. The Basic Building Information (BBI)

To identify and track Plans for Improvement (PFIs), an organization must complete the Basic Building Information (BBI)* portion of the Statement of Conditions™ (SOC). The BBI requires health care organizations to provide key information pertaining to features of each building being surveyed by The Joint Commission, such as building occupancy type, features of fire protection (such as sprinklers and fire alarm systems), and other related information. (See page vii for a brief definition of occupancy types.)

A separate BBI should be completed for each building where patients/residents/clients are housed or receive care, treatment, or other services, regardless of the building's ownership, unless the building is classified as a business occupancy. If any housing, care, or treatment is provided in leased or rented space, a BBI must also be completed for the portion of the facility occupied by the health care organization. However, the organization is not required to complete BBI documents for buildings owned, leased, or rented where no care or treatment is provided to individuals served or if the occupancy is a business occupancy (for example, space used solely for counseling).

Information Required for the BBI

As previously mentioned, the BBI requires an organization to provide key information pertaining to features of each building being surveyed by The Joint Commission. For

* When creating a BBI for a mixed occupancy, it is important to note that each occupancy requires its own BBI, using the same building address. The organization will need to adjust the square footage to reflect each occupancy and make a note in the "Additional Comments and Notes" field on the second page of the BBI to explain the overall building configuration of the mixed occupancy.

example, the BBI asks the organization to identify its primary occupancy type. Six possible selections are available, in four categories:

1. Health care occupancy:
 - Hospital, nursing home, limited care facility
2. Outpatient occupancy:
 - Business
 - Ambulatory health care occupancy
Note: Provision is made to accommodate ambulatory surgical centers seeking Centers for Medicare & Medicaid Services deemed status, regardless of the number of patients rendered incapable of self-preservation (see LS.03.01.10, Note 2).
3. Residential occupancy:
 - Lodging or rooming house
 - Hotel and dormitory
4. Hospice

Only one of these six selections may be chosen, and the one chosen should represent the principal use of the building. An organization should be sure that the occupancy selection is based on the *Life Safety Code* definitions, as previously outlined, rather than the clinical use of the space or the organization's name for a service. For example, an organization may designate a building as an ambulatory care clinic, meaning that it is a space where outpatients are treated. But if three or fewer patients are rendered incapable of self-preservation at the same time and do not have a 24-hour stay, this facility would be classified as a business occupancy by the *Life Safety Code*.

Setting Up the BBI

To get the most flexibility out of the SOC process, an organization should strategize when setting up its BBI. In the BBI, an

(Continued on page 12)

Sidebar 1-3. The Basic Building Information (BBI) (continued)

organization can identify multiple locations at which to measure *Life Safety Code* compliance. The site name found in the BBI is automatically pulled from an organization's E-App for accreditation, and then the organization can create different building names within that site. For example, if Acme Hospital was built in 1936 and had an addition put on in 1955 and another one in 1973, the hospital's site name would be Acme Hospital, per its E-App, and then the hospital could create separate locations in the BBI for the 1936, 1955, and 1973 buildings.

If an organization is complex—having an ambulatory surgical center, physician's office, and hospital, for example—each site can have its own designation in the BBI, and within each site, further locations can be delineated. By using the BBI to identify different locations within an accreditation site, an organization can easily manage its PFIs in various locations; this provides flexibility in the way facilities staff check the status of *Life Safety Code* compliance.

Sidebar 1-4. Features of a PFI

A Plan for Improvement (PFI) should include the following features:

- Identification of deficiency:
 - Unique identifier
 - Location specifics (building name, floor, room, use/location)
- Resolution of deficiency:
 - Funding (available, cost estimate, source, and commitment)
 - Time line:
 - Projected start date
 - Projected completion date
 - Actual completion date
- For deficiencies that would require substantial capital expenses and significant resolution time, a long form is available with the above information plus major project milestones, including the following:
 - A/E selection
 - Design phase
 - Construction document preparation phase
 - Contractor bidding/negotiation phase
 - Construction contract award date
 - Construction phase
 - Owner occupancy phase

NFPA 101: LIFE SAFETY CODE, 2000 EDITION
Chapter 8—Features of Fire Protection

8.2 Construction and Compartmentation

8.2.1 Construction. Buildings or structures occupied or used in accordance with the individual occupancy chapters (Chapters 12 through 42) shall meet the minimum construction requirements of those chapters. NFPA 220, *Standard on Types of Building Construction*, shall be used to determine the requirements for the construction classification. Where the building or facility includes additions or connected structures of different construction types, the rating and classification of the structure shall be based on either of the following:

- (1) Separate buildings if a 2-hour or greater vertically-aligned fire barrier wall in accordance with NFPA 221, *Standard for Fire Walls and Fire Barrier Walls*, exists between the portions of the building
Exception: The requirement of 8.2.1(1) shall not apply to previously approved separations between buildings.
- (2) The least fire-resistive type of construction of the connected portions, if no such separation is provided

NFPA 101: LIFE SAFETY CODE, 2000 EDITION
Chapters 18 and 19—New and Existing Health Care Occupancies

18/19.1.2.4 All means of egress from health care occupancies that traverse non-health care spaces shall conform to the requirements of this *Code* for health care occupancies.

Exception: Exit through a horizontal exit into other contiguous occupancies that do not conform with health care egress provisions, but that do comply with requirements set forth in the appropriate occupancy chapter of this Code, shall be permitted, provided that the occupancy does not contain high hazard contents. The horizontal exit shall comply with the requirements of 18/19.2.2.5.

JAMES LATHROP: The first question that might come up here is why we picked the *Life Safety Code* paragraphs above when the EP does not reference the *Life Safety Code*. Reviewing the Joint Commission commentary on LS.01.01.01, EP 2, brings up three common questions: (1) How do you know if you have one big building or a series of interconnected buildings? (2) Can you exit from a health care occupancy through a business occupancy? (3) How long do you have to complete a PFI? (This is addressed in LS.01.01.01, EP 3, below.)

In new construction, the *Life Safety Code* is very clear: For adjacent structures to be considered as separate buildings, there must be at least a 2-hour fire protection-rated, vertically aligned wall. In many existing situations, the walls are not totally aligned vertically; thus, the *Life Safety Code* provides exceptions for previously approved separations. Slight deviations from vertical alignment should be allowed.

To determine whether your buildings are separate, you could turn to the local building depart-

ment. It should be able to tell you if the buildings were approved as separate buildings at the time of construction.

Note that if the separations are there, the buildings can be considered separate buildings but do not have to be. This is particularly true if they are all of the same construction type or if the lesser type of construction is acceptable for the entire building. An example: For years hospital XYZ was established as eight separate buildings. The reason for this was that some buildings were sprinkler protected and some were not (a good reason to consider them separate buildings). Over the years, all the buildings were retrofitted with automatic sprinklers so there was no longer a reason to consider the buildings as separate. Although the “buildings” still have separate names, as far as the BBI is concerned, it is all one building.

Note: Although this approach does not force you to consider the buildings as separate, the 2-hour walls should be maintained unless the building and fire departments approve eliminating them.

It should be noted that this vertical alignment rule is used only to determine separate buildings; it does not apply to the requirement for 2-hour occupancy separations discussed on page 00. Floors can serve as occupancy separations. Because this has been an issue in the past, newer editions of the *Life Safety Code* have clarified that point.

With regard to Question 2, paragraph 18/19.1.2.4, cited above, does have an exception that allows occupants within a health care occupancy to exit through another occupancy (typically a medical office building, but not restricted to such). There are two options to permit such egress:

1. A 2-hour fire resistance-rated wall providing occupancy separation, and the egress path from the occupancy separation to the exit(s) must meet the egress requirements for health care occupancies (such as corridor width, door width, egress elements, emergency lighting, and similar items).
2. The 2-hour fire resistance-rated wall used to provide the required occupancy separation must also qualify as a horizontal exit and meet all the requirements for such in Chapters 7 and 18 or 19 of the *Life Safety Code*. Not all 2-hour walls are horizontal exits, so that must be verified. With this option, the egress path in the other occupancy only has to meet the requirements for that occupancy, not for health care. For example, occupants of a hospital can egress through a medical office building that meets only business requirements, provided that they egress through a horizontal exit to get from the health care occupancy into the business occupancy. Not all 2-hour walls are horizontal exits, so that must be verified.

STANDARD LS.01.01.01

The organization designs and manages the physical environment to comply with the *Life Safety Code*.

ELEMENT OF PERFORMANCE 3

When the organization plans to resolve a deficiency through a Plan for Improvement (PFI), the organization meets the time frames identified in the PFI accepted by The Joint Commission. (See also LS.01.02.01, EPs 1–14)

GEORGE MILLS: A critical component of the PFI process is establishing projected start and completion dates for each PFI. An organization cannot merely create a PFI and leave it to chance. Although there is no specific formula for determining completion dates, they should be chosen judiciously so that they can be reasonably met but are not so far in the future as to suggest a less-than-serious commitment.

After the PFI is established, users can modify completion dates as necessary until a survey event occurs. Open access prior to Joint Commission survey allows the data to be edited, revised, or updated by the organization. This is permissible because the organization is simply using the SOC to identify, budget, track, and document the building conditions. If the organization makes a mistake and needs to modify the data (for example, if parts are not as readily available as assumed and a longer completion date is required), the projected completion date could be modified. Note that during survey, open PFIs that exceed the projected completion date by more than six months are likely to be scored at LS.01.01.01, EP 2, for an SOC that is not current.

At the beginning of the on-site survey, the *Life Safety Code* Specialist opens the organization's SOC and evaluates the BBI and PFI entries. Next, the surveyor "locks down" the open fields on the SOC so no modifications can be made. At this time, the organization and The Joint Commission are both aware of the identified deficiencies in the building, and by accepting the projected completion dates in the SOC, they are in agreement about the anticipated corrective actions and dates. Failure of the organization to achieve the projected completion date on an accepted PFI is a very serious condition, as the organization is essentially breaching an agreement to resolve the deficiency within the agreed-upon time period.

During the building tour, the surveyor evaluates the building for compliance. If a deficiency is discovered, and the organization has not already documented the deficiency in the SOC as an active PFI, the surveyor writes a finding. After the survey, the organization has an opportunity to create a PFI as a method to resolve the deficiency.

Despite an organization's best intentions, meeting the projected completion date for a PFI may not be possible. Therefore, The Joint Commission automatically allows a six-month grace

period beyond the projected completion date and considers an organization to be in compliance if the work is done within that span. Beyond that, however, the organization must request an extension on any accepted PFI, or it is considered to have made insubstantial progress on the PFI and could receive an adverse accreditation decision.

When requesting an extension, a health care organization must complete a PFI Change Request, found in the SOC in the PFI menu. After opening the PFI menu, the user should select PFI Change Request and follow all the instructions. This page will redirect the user to The Joint Commission Standard Outline Submission Form. The user should complete the form and click the Submit Question button at the bottom of the page.

A complete extension request requires the following specific information:

- Original and proposed projected completion dates. The proposed date is expected to be firm; an additional six-month grace period will not be granted.
- Brief description of the deficiency, including its unique identifier
- Reasons the original target dates were not met and what has been done to correct the situation
- Any interim life safety measures (ILSM) the organization is initiating while the deficiency is being addressed (see pages 22–23 for more information on ILSM)
- Confirmation that the extended PFI will be given a high priority for completion

After reviewing an organization's request, an engineer from The Joint Commission's Department of Engineering will post an acceptance or denial on the organization's SOC, under the PFI menu item History/Audit Trail. An organization must therefore give the engineers access to its SOC as part of the request.

If the extension is granted, the engineers will also enter the PFI and modify the projected completion date to reflect the extended action. A courtesy e-mail will be sent at the same time to the contact person identified in the SOC.

To assist in the management of PFIs, the SOC has a color-coded "view all" section. When the PFI is created and on time, the "view all" is a normal screen view, without highlight colors. As the PFI matures and reaches four months past the projected completion date, the individual PFI turns yellow. If the PFI exceeds the six-month grace period, the individual PFI is highlighted in bright orange. The highlighted color feature helps the person responsible for managing the SOC review the status every three months in order to have time to react to a late PFI, either by adjusting the corrective date based on more recent information/dates for completion or seeking an extension from The Joint Commission for open PFIs that have been accepted during survey.

NFPA 101: LIFE SAFETY CODE, 2000 EDITION
Chapter 4—General

4.6.4 Time Allowed for Compliance. A limited but reasonable time, commensurate with the magnitude of expenditure, disruption of services, and degree of hazard, shall be allowed for compliance with any part of this *Code* for existing buildings.

JAMES LATHROP: LS.01.01.01, EP 3, often generates a common question: How long do you have to fix the problem? Paragraph 4.6.4 of the *Life Safety Code* provides some broad guidance. It requires that a limited but reasonable time be provided, based on three considerations:

- Magnitude of expenditure
- Disruption of services
- Degree of hazard

Although money and disruption of services should be considered when setting time frames, the degree of hazard (such as imminent threat to fire or life safety) must always be a top consideration. One bulb burned out in an exit sign is nowhere near as much of a hazard as a locked or blocked exit.

STANDARD LS.01.01.01

The organization designs and manages the physical environment to comply with the *Life Safety Code*.

EP
4

ELEMENT OF PERFORMANCE 4

For organizations that use Joint Commission accreditation for deemed status purposes: The organization maintains documentation of any inspections and approvals made by state or local fire control agencies.

GEORGE MILLS: The Joint Commission requires all documented inspections to be kept on file, along with any approvals granted. These documents should be readily available to any and all who conduct *Life Safety Code* surveys or inspections. For example, if your local AHJ is the fire marshal, and he or she conducts an annual fire safety inspection, the subsequent fire safety inspection report should be on file and readily available to other AHJs that may request it. The purpose of this is to ensure that all those concerned about fire safety have access to information to verify that timely and appropriate corrective actions occur and that at no time are the building occupants at risk.

STANDARD LS.01.02.01

The organization protects occupants during periods when the *Life Safety Code* is not met or during periods of construction.

ELEMENT OF PERFORMANCE 1

The organization notifies the fire department (or other emergency response group) and initiates a fire watch when a fire alarm or sprinkler system is out of service more than 4 hours in a 24-hour period in an occupied building. Notification and fire watch times are documented. (For full text and any exceptions, refer to NFPA 101-2000: 9.6.1.8 and 9.7.6.1) (See also LS.01.01.01, EP 3)

GEORGE MILLS: ILSM are the activities in which an organization can engage to protect patients, staff, visitors, and others in the organization during periods when the *Life Safety Code* is not met. According to Standard LS.01.02.01, there are certain activities that organizations *must* do when there are specific lapses in the *Life Safety Code*. First, an organization must respond to a situation in which the alarms or sprinklers are out of service for more than 4 hours in a 24-hour period. An organization must notify the fire department, fire marshal, or other appropriate emergency response group and document when that notification occurs.

In addition, an organization must conduct a fire watch. A typical fire watch involves conducting rounds of the area(s) affected by the outage and documenting those rounds. The Joint Commission calls out this activity as separate from other ILSM because of the critical importance of maintaining vigilance during a sprinkler or alarm outage and the potential harm to occupants if organizations do not maintain such vigilance.

NFPA 101: LIFE SAFETY CODE, 2000 EDITION

Chapter 9—Building Service and Fire Protection Equipment

9.6 Fire Detection, Alarm, and Communications Systems

9.6.1 General.

9.6.1.8 Where a required fire alarm system is out of service for more than 4 hours in a 24-hour period, the authority having jurisdiction shall be notified, and the building shall be evacuated or an approved fire watch shall be provided for all parties left unprotected by the shutdown until the fire alarm system has been returned to service.

A.9.6.1.8 A fire watch should at least involve some special action beyond normal staffing, such as assigning an additional security guard(s) to walk the areas affected. These individuals should be specially trained in fire prevention and in occupant and fire department notification techniques, and they should understand the particular fire safety situation for public education purposes. (Also see NFPA 601, *Standard for Security Services in Fire Loss Prevention*.)

9.7 Automatic Sprinklers and Other Extinguishing Equipment

9.7.6 Sprinkler System Shutdown

9.7.6.1 Where a required automatic sprinkler system is out of service for more than 4 hours in a 24-hour period, the authority having jurisdiction shall be notified, and the building shall be evacuated or an approved fire watch shall be provided for all parties left unprotected by the shutdown until the sprinkler system has been returned to service.

9.7.6.2 Sprinkler impairment procedures shall comply with NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*.

A.9.7.6 A fire watch should at least involve some special action beyond normal staffing, such as assigning an additional security guard(s) to walk the areas affected. These individuals should be specially trained in fire prevention and in the use of fire extinguishers and occupant hose lines, in notifying the fire department, in sounding the building fire alarm, and in understanding the particular fire safety situation for public education purposes. Some authorities having jurisdiction require fire fighters to be assigned to the area, with direct radio communication to the local fire department. (*Also see NFPA 601, Standard for Security Services in Fire Loss Prevention.*)

For the benefit of the reader, all of Chapter 11 of NFPA 25 has been included below.

NFPA 25: STANDARD FOR THE INSPECTION, TESTING, AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS, 1998 EDITION

Chapter 11: Impairments

11-1 General. This chapter provides the minimum requirements for a water-based fire protection system impairment program. Adequate measures shall be taken during the impairment to ensure that increased risks are minimized and the duration of the impairment is limited.

11-2 Impairment Coordinator. The building owner shall assign an impairment coordinator to comply with the requirements of this chapter. In the absence of a specific designee, the owner shall be considered the impairment coordinator.

Exception: Where the lease, written use agreement, or management contract specifically grants the authority for inspection, testing, and maintenance of the fire protection system(s) to the tenant, management firm, or managing individual, the tenant, management firm, or managing individual shall assign a person as impairment coordinator.

11-3 Tag Impairment System.

11-3.1 A tag shall be used to indicate that a system, or part thereof, has been removed from service.

11-3.2 The tag shall be posted at each fire department connection and system control valve indicating which system, or part thereof, has been removed from service. The authority having jurisdiction shall specify where the tag is to be placed.

11-4 Impaired Equipment. The impaired equipment shall be considered to be the water-based fire protection system, or part thereof, that is removed from service. This shall include, but shall not be limited to, the following:

- (a) Sprinkler systems

- (b) Standpipe systems
- (c) Fire hose systems
- (d) Underground fire service mains
- (e) Fire pumps
- (f) Water storage tanks
- (g) Water spray fixed systems
- (h) Foam-water systems
- (i) Fire service control valves

11-5 Preplanned Impairment Programs. All preplanned impairments shall be authorized by the impairment coordinator. Before authorization is given, the impairment coordinator shall be responsible for verifying that the following procedures have been implemented:

- (a) The extent and expected duration of the impairment have been determined.
- (b) The areas or buildings involved have been inspected and the increased risks determined.
- (c) Recommendations have been submitted to management or building owner/manager. Where a required fire protection system is out of service for more than 4 hours in a 24-hour period, the impairment coordinator shall arrange for one of the following:
 1. Evacuation of the building or portion of the building affected by the system out of service
 2. An approved fire watch
 3. Establishment of a temporary water supply
 4. Establishment and implementation of an approved program to eliminate potential ignition sources and limit the amount of fuel available to the fire
- (d) The fire department has been notified.
- (e) The insurance carrier, the alarm company, building owner/manager, and other authorities having jurisdiction have been notified.
- (f) The supervisors in the areas to be affected have been notified.
- (g) A tag impairment system has been implemented. (See Section 11-3.)
- (h) All necessary tools and materials have been assembled on the impairment site.

11-6 Emergency Impairments. Emergency impairments include but are not limited to system leakage, interruption of water supply, frozen or ruptured piping, and equipment failure. When this occurs, appropriate emergency action shall be taken to minimize potential injury and damage. The coordinator shall implement the steps outlined in Section 11-5.

11-7 Restoring Systems to Service. When all impaired equipment is restored to normal working order, the impairment coordinator shall verify that the following procedures have been implemented:

- (a) Any necessary inspections and tests have been conducted to verify that affected systems are operational. The appropriate chapter of this standard shall be consulted for guidance on the type of inspection and test required.
- (b) Supervisors have been advised that protection is restored.
- (c) The fire department has been advised that protection is restored.

- (d) The building owner/manager, insurance carrier, alarm company, and other authorities having jurisdiction have been advised that protection is restored.
- (e) The impairment tag has been removed.

A-11-5(c)2 A fire watch should consist of trained personnel who continuously patrol the affected area. Ready access to fire extinguishers and the ability to promptly notify the fire department are important items to consider. During the patrol of the area, the person should not only be looking for fire, but making sure that the other fire protection features of the building such as egress routes and alarm systems are available and functioning properly.

JAMES LATHROP: There are usually two big questions that come up with regard to this subject: (1) How much of the system must be down before the “fire watch” is required? (2) What is needed for the “fire watch”? Both questions are neither easy nor straightforward to answer.

As to the first question, most AHJs will probably be looking for some action to be taken when a whole zone is out on a fire alarm system and when a valve has to be closed on a sprinkler system. But there is no definitive “yes” or “no” answer.

With regard to the “fire watch,” both NFPA 101 and NFPA 25 provide some guidance in annex notes. Because of this, the annex notes have been included in the preceding excerpts. Note that common themes regarding staffing a fire watch are the need for trained individuals and the need for staffing above and beyond normal.

In later editions of the *Code*, the fire alarm requirements have remained fairly similar, but the sprinkler system requirements now just reference NFPA 25. This has changed the time frame in which a fire watch is required. A sprinkler system can now be down for 10 hours (as opposed to 4) before a fire watch is required. Remember, this is based on later editions of NFPA 101 which a local AHJ might be using, but not the 2000 edition required by the Centers for Medicare & Medicaid Services and The Joint Commission.

STANDARD LS.01.02.01

The organization protects occupants during periods when the *Life Safety Code* is not met or during periods of construction.

ELEMENT OF PERFORMANCE 2

The organization posts signage identifying the location of alternative exits to everyone affected. (See also LS.01.01.01, EP 3)

GEORGE MILLS: The second mandatory response to a lapse in life safety involves the topic of compromised exits. Whenever an exit is comprised, because of blockage, construction, housekeeping activities, and so forth, an organization must post signs about alternative exits from the building. This helps inform people who would normally use the affected exit about how to quickly navigate their way out of the building in case of an emergency.

Organizations are required to comply with the actions described in EPs 1 and 2, regardless of their ILSM policy. The Joint Commission considers these direct impact requirements, meaning failure to comply with them will have a direct impact on patient safety and will be scored accordingly. Direct impact requirements aggregate to an organization's final accreditation decision and illustrate the severity of noncompliance with Joint Commission standards. More information on direct impact requirements and their scoring can be found in an organization's *Comprehensive Accreditation Manual*.

STANDARD LS.01.02.01

The organization protects occupants during periods when the *Life Safety Code* is not met or during periods of construction.

ELEMENT OF PERFORMANCE 3

The organization has a written interim life safety measure (ILSM) policy that covers situations when Life Safety Code deficiencies cannot be immediately corrected or during periods of construction. The policy includes criteria for evaluating when and to what extent the organization follows special measures to compensate for increased life safety risk. (See also LS.01.01.01, EP 3)

GEORGE MILLS: LS.01.02.01, EP 3, discusses the need for and nature of a written ILSM policy. This policy would be in force during any situation in which a *Life Safety Code* violation cannot be immediately corrected, such as when a computer equipment installer compromises a fire-rated barrier with a through penetration or when part of the organiza-

tion is under construction. Although organizations must use ILSM during times of construction and renovation, organizations must also use them any time there is a deficiency in the *Life Safety Code* that cannot be immediately addressed.

Tip: There are many times in a health care facility when maintenance and repair procedures are likely to temporarily compromise life safety features of the building. Make sure that maintenance staff are aware of and practice ILSM procedures when appropriate.

If an organization does not have an ILSM policy, it can receive an adverse accreditation decision during survey. It is important that an organization spend time creating, enforcing, and reviewing its ILSM policy. This ensures that building occupants—patients, staff, visitors, and so forth—are protected from the threats posed by fire.

An ILSM policy does not have to outline exactly which measures will be used in every situation, but it should describe options to preserve life safety and be broad enough to respond to any deficiencies and construction-related activities. The policy should be written and accessible to all individuals responsible for implementing ILSM during *Life Safety Code* deficiency situations.

When implementing the ILSM policy, designated staff members—such as the safety officer—should have the freedom to choose what activities will address and reduce the level of risk. Such activities do not have to apply to the entire floor or building, unless the entire floor or building is affected by the *Life Safety Code* deficiency. In most cases, the deficiency applies to one or two areas in an organization, and that is where the ILSM must be in force.

STANDARD LS.01.02.01

The organization protects occupants during periods when the *Life Safety Code* is not met or during periods of construction.

ELEMENT OF PERFORMANCE 4

When the organization identifies Life Safety Code deficiencies that cannot be immediately corrected or during periods of construction, the organization does the following: Inspects exits in affected areas on a daily basis. The need for these inspections is based on criteria in the organization's interim life safety measure (ILSM) policy. (See also LS.01.01.01, EP 3)

ELEMENT OF PERFORMANCE 5

When the organization identifies Life Safety Code deficiencies that cannot be immediately corrected or during periods of construction, the organization does the following: Provides temporary but equivalent fire alarm and detection systems for use when a fire system is impaired. The need for equivalent systems is based on criteria in the organization's interim life safety measure (ILSM) policy. (See also LS.01.01.01, EP 3)

EPs

4

through

12

ELEMENT OF PERFORMANCE 6

When the organization identifies Life Safety Code deficiencies that cannot be immediately corrected or during periods of construction, the organization does the following: Provides additional firefighting equipment. The need for this equipment is based on criteria in the organization's interim life safety measure (ILSM) policy. (See also LS.01.01.01, EP 3)

ELEMENT OF PERFORMANCE 7

When the organization identifies Life Safety Code deficiencies that cannot be immediately corrected or during periods of construction, the organization does the following: Uses temporary construction partitions that are smoke-tight, or made of noncombustible or limited-combustible material that will not contribute to the development or spread of fire. The need for these partitions is based on criteria in the organization's interim life safety measure (ILSM) policy. (See also LS.01.01.01, EP 3)

ELEMENT OF PERFORMANCE 8

When the organization identifies Life Safety Code deficiencies that cannot be immediately corrected or during periods of construction, the organization does the following: Increases surveillance of buildings, grounds, and equipment, giving special attention to construction areas and storage, excavation, and field offices. The need for increased surveillance is based on criteria in the organization's interim life safety measure (ILSM) policy. (See also LS.01.01.01, EP 3)

ELEMENT OF PERFORMANCE 9

When the organization identifies Life Safety Code deficiencies that cannot be immediately corrected or during periods of construction, the organization does the following: Enforces storage, housekeeping, and debris-removal practices that reduce the building's flammable and combustible fire load to the lowest feasible level. The need for these practices is based on criteria in the organization's interim life safety measure (ILSM) policy. (See also LS.01.01.01, EP 3)

ELEMENT OF PERFORMANCE 10

When the organization identifies Life Safety Code deficiencies that cannot be immediately corrected or during periods of construction, the organization does the following: Provides additional training to those who work in the organization on the use of firefighting equipment. The need for additional training is based on criteria in the organization's interim life safety measure (ILSM) policy. (See also LS.01.01.01, EP 3)

ELEMENT OF PERFORMANCE 11

When the organization identifies Life Safety Code deficiencies that cannot be immediately corrected or during periods of construction, the organization does the following: Conducts one additional fire drill per shift per quarter. The need for additional drills is based on criteria in the organization's interim life safety measure (ILSM) policy. (See also EC.02.03.03, EP 1; LS.01.01.01, EP 3)

ELEMENT OF PERFORMANCE 12

When the organization identifies Life Safety Code deficiencies that cannot be immediately corrected or during periods of construction, the organization does the following: Inspects and tests temporary systems monthly. The completion date of the tests is documented. The need for these inspections and tests is based on criteria in the organization's interim life safety measure (ILSM) policy. (See also LS.01.01.01, EP 3)

GEORGE MILLS: LS.01.02.01, EPs 4–12, outline the different ILSM activities that organizations can use to preserve life safety during times of deficiency. They describe the following possible activities:

- Inspect exits in affected areas on a daily basis.
- Provide temporary but equivalent fire alarm and detection systems for use when a fire system is impaired.
- Provide additional firefighting equipment. Organizations should make sure this equipment is properly and safely stored in the affected area so that the equipment itself does not present a life safety hazard.
- Use temporary construction partitions that are smoke-tight, or made of noncombustible material or made of limited-combustible material that will not contribute to the development or spread of fire.
- Increase surveillance of buildings, groups, and equipment, giving special attention to construction areas and storage, excavation, and field offices. This surveillance must be maintained even during off hours and on weekends. Engaging in surveillance activities during normal business hours only will not meet the intent of the LS standards.
- Encourage storage, housekeeping, and debris-removal practices that reduce the building's flammable and combustible fire load to the lowest feasible level. Basically, this means that organizations must work to minimize accumulation of storage and debris and to ensure that they do not block safe passage through the building.
- Provide additional training to those who work in the organization on the use of firefighting equipment. In other words, those who use the equipment must be qualified and trained to do so.
- Conduct additional fire drills. These do not need to be organizationwide but must apply to the affected areas. For critical access hospital, hospital, long term care, and home care programs, the standards require an additional fire drill per shift per quarter.
- Inspect and test temporary systems monthly. Organizations must document the dates when tests are completed.

As previously mentioned, an organization does not have to implement all these ILSM when a *Life Safety Code* deficiency or construction project is present. An organization should, however, consider the specifics of the deficient situation and implement the appropriate and applicable ILSM.

When implementing any of these ILSM, an organization may want to consider documenting when and how it implements the measures. Documenting implementation efforts can illustrate compliance during an internal review or a Joint Commission survey.

To help ensure appropriate and consistent use of ILSM, an organization may want to conduct regular and routine rounds. These can reveal whether designated ILSM are in place, such as whether daily inspections occur as expected, whether construction partitions remain standing and intact, whether fire safety equipment is stored safely, and so forth.

ILSM are not meant to be merely tasks that an organization completes to achieve compliance with the LS standards. These measures, when implemented appropriately, can mean the difference between a safe environment amid life safety risks and an environment where risks could significantly impact the safety of organization occupants. An organization should work to develop and implement an ILSM policy that ensures that appropriate and targeted actions are applied during situations when lapses in *Life Safety Code* compliance exist.

NFPA 101: LIFE SAFETY CODE, 2000 EDITION

Chapter 4—General

4.6 General Requirements

4.6.10 Construction, Repair, and Improvement Operations.

4.6.10.1 Buildings or portions of buildings shall be permitted to be occupied during construction, repair, alterations, or additions only where required means of egress and required fire protection features are in place and continuously maintained for the portion occupied or where alternative life safety measures acceptable to the authority having jurisdiction are in place.

4.6.10.2 In buildings under construction, adequate escape facilities shall be maintained at all times for the use of construction workers. Escape facilities shall consist of doors, walkways, stairs, ramps, fire escapes, ladders, or other approved means or devices arranged in accordance with the general principles of the *Code* insofar as they can reasonably be applied to buildings under construction.

4.6.10.3 Flammable or explosive substances or equipment for repairs or alterations shall be permitted in a building while the building is occupied if the condition of use and safeguards provided do not create any additional danger or impediment to egress beyond the normally permissible conditions in the building.

NFPA 101: LIFE SAFETY CODE, 2000 EDITION

Chapter 7: Means of Egress

7.1 General

7.1.10 Means of Egress Reliability.

7.1.10.1 Means of egress shall be continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency.

Chapters 18 and 19: New and Existing Health Care Occupancies

18/19.7.9 Construction, Repair, and Improvement Operations.

18/19.7.9.1 Construction, repair, and improvement operations shall comply with 4.6.10.

18/19.7.9.2 The means of egress in any area undergoing construction, repair, or improvements shall be inspected daily for compliance with 7.1.10.1 and shall also comply with NFPA 241, *Standard for Safeguarding Construction, Alteration, and Demolition Operations*.

JAMES LATHROP: Note that both Chapters 18 and 19 reference 4.6.10, 7.1.10.1, and NFPA 241. The references to 4.6.10 and 7.1.10.1 are really user-friendly references as they are mandatory anyway. However, the reference to NFPA 241 is quite unusual. This is one of the very few occupancies that reference NFPA 241 via NFPA 101. There is a general reference to NFPA 241 in NFPA 1, *Fire Code*, but neither NFPA 101 nor The Joint Commission references NFPA 1; however, the local AHJ might.

STANDARD LS.01.02.01

The organization protects occupants during periods when the *Life Safety Code* is not met or during periods of construction.

EP
13

ELEMENT OF PERFORMANCE 13

The organization conducts education to promote awareness of building deficiencies, construction hazards, and temporary measures implemented to maintain fire safety. The need for education is based on criteria in the organization's interim life safety measure (ILSM) policy. (See also LS.01.01.01, EP 3)

GEORGE MILLS: Consistent with Environment of Care (EC) Standard EC.03.01.01, staff must be aware of a life safety deficiency if one exists and know what to do to reduce the risk. The ILSM plan must define clearly when and to what degree staff education occurs. This may vary based on actual deficiency and potential risk.

STANDARD LS.01.02.01

The organization protects occupants during periods when the *Life Safety Code* is not met or during periods of construction.

ELEMENT OF PERFORMANCE 14

The organization trains those who work in the organization to compensate for impaired structural or compartmental fire safety features. The need for training is based on criteria in the organization’s interim life safety measure (ILSM) policy. (See also LS.01.01.01, EP 3)

Note: Compartmentalization is the concept of using various building components (for example, fire-rated walls and doors, smoke barriers, fire-rated floor slabs) to prevent the spread of fire and the products of combustion so as to provide a safe means of egress to an approved exit. The presence of these features varies, depending on the building occupancy classification.

GEORGE MILLS: Standard EC.02.03.01, EP 10, requires that “the written fire response plan describes the specific roles of staff and licensed independent practitioners at and away from a fire’s point of origin, including when and how to sound fire alarms, how to contain smoke and fire, how to use a fire extinguisher, and how to evacuate to areas of refuge.” This is consistent with LS.01.02.01, EP 14. Often, the ILSM require staff to respond to the affected area with appropriate fire response equipment, such as fire extinguishers. For conditions that have a unique fire risk, additional training and equipment may be necessary.

NFPA 101: LIFE SAFETY CODE, 2000 EDITION

Chapter 4—General

4.6 General Requirements

4.6.12 Maintenance and Testing.

4.6.12.1 Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, or any other feature is required for compliance with the provisions of this *Code*, such device, equipment, system, condition, arrangement, level of protection, or other feature shall thereafter be continuously maintained in accordance with applicable NFPA requirements or as directed by the authority having jurisdiction.

4.6.12.2 Existing life safety features obvious to the public, if not required by the *Code*, shall be either maintained or removed.

4.6.12.3 Equipment requiring periodic testing or operation to ensure its maintenance shall be tested or operated as specified elsewhere in this *Code* or as directed by the authority having jurisdiction.

4.6.12.4 Maintenance and testing shall be under the supervision of a responsible person who shall ensure that testing and maintenance are made at specified intervals in accordance with applicable NFPA standards or as directed by the authority having jurisdiction.

A.4.6.12.2 Examples of such features include automatic sprinklers, fire alarm systems, standpipes, and portable fire extinguishers. The presence of a life safety feature, such as sprinklers or fire alarm devices, creates a reasonable expectation by the public that these safety features are functional. When systems are inoperable or taken out of service but the devices remain, they present a false sense of safety. Also, before taking any life safety features out of service, extreme care needs to be exercised to ensure that the feature is not required, was not originally provided as an alternative or equivalency, or is no longer required due to other new requirements in the current *Code*. It is not intended that the entire system or protection feature be removed. Instead, components such as sprinklers, initiating devices, notification appliances, standpipe hose, and exit systems should be removed to reduce the likelihood of relying on inoperable systems or features.

JAMES LATHROP: Although not referenced by LS.01.02.01, EP 14, Section 4.6.12 of the *Life Safety Code* is relevant to the discussion. 4.6.12.1 requires that anything required by the *Code* shall be maintained in accordance with the applicable NFPA standard. Because many items required do not have an NFPA inspection, testing, and maintenance standard, the paragraph continues on to say “or as directed by the authorities having jurisdiction.” Because the paragraph says “any,” it is not limited to fire alarms, sprinklers, fire extinguishers, and exit signs. Other systems, components, and features, such as fire resistance ratings, doors, locks, latches, lights and numerous other items required by the *Life Safety Code*, are also governed by this provision.

4.6.12.2 applies only to items that are not required but that are obvious to the public. As the annex notes, this clearly applies to such items as sprinklers, fire alarm systems, and portable fire extinguishers. It would not apply to fire and smoke dampers, which are not seen by the public, or any item that the typical person in public would not recognize and, more importantly, would not count on for their fire safety.

Two very critical points here:

1. If the *Life Safety Code* requires a fire protection item for new construction, but not for an existing building, it must be maintained. This is a very important concept of the *Life Safety Code*.
2. If a fire protection item is required by any other code, such as a building code or fire code, it must be maintained. There are some fire codes that require a fire protection item to be maintained, regardless of whether it is required.

If it is finally determined that the item can be removed, then only the visible portions must be removed.

