



Loss Control Department  
*Technical Information Paper Series*

# Understanding the Life Safety Code

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# Understanding the Life Safety Code

## *Origin and Development of The Life Safety Code (NFPA 101)*

The *Life Safety Code* exists today primarily because a number of devastating, catastrophic fires focused national attention on the fire problem and the inadequacies of life safety features in buildings. In each of the fires listed below, a lack of consideration for life safety features in building construction, especially exit facilities, was a major factor in the magnitude of fire deaths.

- \* Coconut Grove Night Club Fire, Boston, MA, November 19, 1942: 492 dead
- \* La Salle Hotel Fire, Chicago, IL, June 5, 1946: 61 dead
- \* Winecoff Hotel Fire, Atlanta, GA, December 7, 1946: 119 dead
- \* Canfield Hotel Fire, Dubuque, IA, June 9, 1946: 19 dead

Although improvements in life safety that resulted from these and other devastating fires formed the basis of the *Code*, the *Code* also addresses life safety for similar emergencies (e.g., bomb threats).

The *Life Safety Code* is published as NFPA 101. The tables and other information in this article were taken from the 1994 edition of the *Life Safety Code*.

## *Application of the Life Safety Code*

To apply the *Code*, it is important to understand its layout and content. The *Code* is comprised of six major parts, as outlined in Table 1, below.

In reading the *Code*, pay careful attention to the numbering system used for the individual sections. The first digit indicates the chapter; the second digit indicates the section number; the third digit indicates the subsection, etc. Note that some of the section numbers include an asterisk at the end of the number. This asterisk indicates that additional information is available in Appendix A. Finally, a thin black vertical line in the margin identifies changes from the previous edition. NFPA publishes a new edition of the *Life Safety Code* every three years.

*Legal Authority.* It is important to understand that the *Code* has no legal authority, unless it has been adopted as law within the jurisdiction of the governing body where construction is to take place. A majority of states have adopted the *Code* as law; however, the effectiveness of any law depends upon aggressive enforcement. Unfortunately, inconsistent or lax enforcement of the *Code* is at times the weak-link of the entire process.

**Table 1. Code Organization and Content.**

<b>PART</b>	<b>CHAPTERS</b>	<b>CONTENT</b>
1	1 through 7	Core or Fundamental Information
2	8 through 29	Occupancy
3	30	Special Structures and High Rise Buildings
4	31	Operating Features
5	32	Mandatory Referenced Publications
6	Appendices A and B	Useful additional information*

*\*Note that the appendixes are not part of the requirements of the Code, but are included for information purposes only.*

### ***Organization of the Life Safety Code***

*Administration and Fundamental Requirements.* Chapters 1 and 2 of the *Life Safety Code* specify the intended goals of meeting the *Code's* requirements:

- 1) To provide for adequate safety without dependence on any single safeguard
- 2) To ensure that construction is sufficient to provide structural integrity during a fire while occupants seek safe refuge within the building or egress to the building exterior
- 3) To provide an appropriate degree of life safety considering the size, shape, and nature of the occupancy
- 4) To ensure that the egress paths are clear, unobstructed, and unlocked
- 5) To ensure that the exits and egress routes are clearly marked to provide the necessary cues and avoid confusion
- 6) To provide adequate lighting
- 7) To ensure prompt occupant response by providing warning of fire
- 8) To provide for back-up or redundant egress arrangements
- 9) To ensure suitable enclosure of vertical openings
- 10) To allow for design criteria that exceed the scope of the *Code*.

*Definitions.* Chapter 3 provides definitions of terms commonly used in the *Code*. For example, the term *shall* indicates a mandatory requirement, while the term *should* indicates a recommended practice.

*Classification of Occupancy and Hazard of Contents.* Chapter 4 introduces some basic terminology in the classification of occupancies and contents hazards. An ability to properly classify occupancies and hazards is essential to correct application of the *Code*.

*Means of Egress.* Chapter 5 establishes minimum requirements for the means of egress for application to all occupancy classifications. It specifically covers the components, number, size, arrangement, lighting, and identification of means of egress.

*Features of Fire Protection.* Chapter 6 establishes basic requirements for features of fire protection, which include construction, compartmentation through use of fire barriers, protection of vertical openings, subdivision of building space through use of smoke barriers, protection from hazards, and interior finish. This chapter specifies a menu of protection options, which are mandated to varying degrees by specific occupancy chapters. However, some provisions of this chapter apply as requirements to all occupancies.

*Building Service and Fire Protection Equipment.* Chapter 7 provides cross-references to other codes and standards that provide design guidance for building service equipment. The provisions of these various codes and standards must be followed to comply with the *Code*. Referencing these codes and standards within the body of the *Code* reinforces the fact that compliance with these codes is mandatory. Sections 7-6 and 7-7, which provide menus of the various options for detection, alarm, and communications systems or automatic extinguishing systems, are mandated only where referenced by another section of the *Code*.

*Occupancy Chapters.* All of the chapters dealing with the individual occupancy types (Chapters 8 through 29) follow the same general pattern. That is, they address the topics of occupant load, types of exits, capacity of exits, number of exits, etc. Many of the specifications for different occupancies are the same, but many variations also exist. Proper study of previous chapters will have made you aware of the areas where the variations and similarities in specifications are most likely to exist, thus allowing a comprehensive study of several chapters at once.

*Special Structures and High Rise Buildings.* The requirements of Chapter 30 apply to occupancies regulated by Chapters 8-29 that are in special structures or high-rise buildings. This section of the *Code* deals with types of *buildings* rather than types of *occupancies*. The requirements of this chapter are special because the structures under consideration are unique (for example, man-made caves that have been converted into storage buildings, mercantile, or offices). Requirements for high-rise buildings are also covered in this chapter.

*Operating Features.* The provisions in Chapter 31 complement the features mandated by the earlier chapters of the *Code*. These complete the package of requirements that ensure a minimum, acceptable level of safety to life. As a rule, codes and standards are confined to the subject of proper building arrangements, without emphasis or advice on issues such as maintenance, inspection, drills, or the regulation of building contents. This chapter focuses on how individuals (e.g., occupants, owners, maintenance personnel, etc.) can augment the fixed, active life safety systems and other passive building features required by the *Code*.

*Navigating Through the Code.* Table 2 (below) presents a suggested procedure for determining the *Code* requirements for a building or structure.

**Table 2. Navigating Through the Code**

<b>STEP</b>	<b>REFERENCES</b>
1. Determine the occupancy classification.	Refer to the occupancy definitions in Chapter 4 and the occupancy Chapters 8 through 29.
2. Determine if the building or structure is new or existing.	Refer to the definitions in Chapter 3.
3. Determine the occupant load.	Refer to 5-3.1 and the -1.7 section of occupancy Chapters 8 through 29.
4. Determine the hazard of contents.	Refer to Section 4-2.
5. Refer to the applicable occupancy chapter of the <i>Code</i> .	Chapters 8 through 29. Also refer as necessary to Chapters 1 through 7 for general information, or as directed by the occupancy chapter.
6. Determine the occupancy subclassification or special use condition, if applicable.	The following new and existing occupancy chapters contain subclassifications or special use definitions: Assembly, Health Care, Detention and Correctional, Hotels and Dormitories, Residential Board and Care, and Mercantile Occupancies.
7. Proceed through the applicable occupancy chapter verifying compliance with each referenced section, subsection, paragraph, subparagraph, and referenced codes, standards, and other documents.	
8. Where two or more requirements apply, the occupancy chapter generally takes precedence over the base Chapters 1 through 7.	
9. Where two or more occupancy chapters apply, such as in a mixed use building, the most stringent requirements apply.	
10. Operating feature requirements	Refer to Chapter 31

***Conclusion***

The purpose of the *Life Safety Code* is to establish minimum requirements that will provide a reasonable degree of safety from fire and similar emergencies in buildings and structures. To apply the *Code* effectively, one must understand the legal authority of the *Code* in various jurisdictions; be familiar with the layout and content of the *Code*; understand how to navigate through the *Code*; and have a thorough understanding of how proper application of the *Code* can minimize the effects of a devastating fire or other emergency.

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