

Life Safety Code® Handbook

FOURTEENTH EDITION

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With the complete text of the 2018 edition of NFPA 101®, *Life Safety Code*®



NATIONAL FIRE PROTECTION ASSOCIATION

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Preface

Since 1927, the National Fire Protection Association has been the developer and publisher of the *Life Safety Code*®. Formerly known as the *Building Exits Code*, the *Code* is prepared by the NFPA Committees on Safety to Life — 14 of the nearly 300 technical committees operating within the framework of NFPA's consensus standards-development system. The members of the Committees on Safety to Life bring to the committee deliberations their knowledge and competence in the design and construction of buildings and structures, in the manufacture and testing of building components and accessories, in the life safety-related abilities and needs of occupants of all occupancy types, and in the enforcement of regulations pertaining to life safety from fire and other related hazards encountered in buildings and structures. The committee members also participate in the development of *NFPA 5000*®, *Building Construction and Safety Code*®, which is processed in the same revision cycle as *NFPA 101*®. There are many similarities between the two codes, especially within the occupancy chapters.

The *Life Safety Code* is a unique document; its contents address specific requirements that have a direct influence on safety to life in both new construction and existing buildings — not new construction alone. Moreover, although the *Code*'s paramount concern is life safety and not protection of property per se, there are also — by observance of the *Code*'s requirements — ancillary benefits to mission continuity and property protection.

The impact that application of the *Code* can have on saving lives is difficult to measure; however, it is reasonable to assume that its influence is extremely significant. For example, of the many fatal public building fires investigated by NFPA, invariably one or more of the building features contributing to loss of life from fire were in violation of the requirements of the *Code*.

NFPA recognizes that a code suitable for enforcement must, by the nature of its purpose, be concise and without explanatory text. In addition, a code cannot be written to cover every situation that will be encountered; thus, it must be applied with judgment and used with good sense and with an awareness of the rationale for the requirements to be enforced. A little help and counsel along the way can make the job a lot easier; hence, NFPA has also developed this *Life Safety Code Handbook*.

This handbook gives users of the *Life Safety Code* background information on the reasons for certain *Code* provisions. It also provides some suggestions, through its text, illustrations, and photos, on how some *Code* requirements can be implemented effectively. This kind of information is intended to provide users of the *Code* with a better understanding of, and appreciation for, the requirements contained in the *Code*. The net result should be the better design, operation, and evaluation of buildings and structures that are increasingly more fire safe.

The reader is cautioned, however, to look upon the commentary that appears in the handbook as the views of the editors and — where commentary reads relatively the same as in earlier editions — the contributors to earlier editions of the handbook. The commentary does not necessarily reflect the official position of NFPA.

Where a pair of occupancy chapters addresses a given occupancy (for example, Chapter 12 for new assembly occupancies and Chapter 13 for existing assembly occupancies), the *Code* text for both chapters is presented in side-by-side columns to permit easy comparison. Further, the accompanying commentary points out differences between the provisions applicable to new construction and to existing buildings.

For this edition of the handbook, Gregory Harrington revised the commentary for Chapters 1 through 6, 9 through 13, 22 through 35, 43, and Annexes A through D; Kristin Bigda revised the commentary for Chapters 8, 14 through 17, and 36 through 42; Ron Coté revised the commentary for Chapters 7 and 18 through 21, and prepared the summary of technical changes.

Acknowledgments

Midway through the development of the 2018 edition of the *Life Safety Code*, Ron Coté, P.E., transitioned from the role of principal life safety engineer at NFPA to that of life safety technical lead, a new position created by NFPA to enhance stakeholder engagement and bridge the gap between NFPA's engineering and business groups. Ron previously served as a staff liaison and secretary to the Technical Committees on Safety to Life since the 1985 edition of *NFPA 101* and as editor of the *Life Safety Code Handbook* since the sixth (1994) edition. In addition to taking on the new responsibilities associated with his new position, Ron graciously offered to revise *Handbook* commentary for this edition relating to those subjects with which he had the most familiarity, namely, means of egress and health care occupancies. In addition, he prepared the summary of technical changes. The editors thank Ron for his contributions to this edition of the *Life Safety Code Handbook*.

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NFPA 101 Summary of Technical Changes: 2015 to 2018

This table provides an overview of major code changes from the 2015 to the 2018 edition of NFPA 101®, *Life Safety Code*®. Purely editorial and formatting changes are not included. For more information about the reasons for each change, visit www.nfpa.org/101. The first revision (FR), first correlating revision (FCR), second revision (SR), and second correlating revision (SCR) numbers are given in the third column of this table for reference to the official documentation of the fourteen technical committees' actions.

Section Number	Comments	FR/FCR/SR/SCR Reference
Chapter 1 Administration		
1.1.5 Hazardous materials emergencies	Scope expanded to include hazardous materials emergencies	FR 3007
1.1.6 Injuries from falls	Scope expanded to include injuries from falls	FR 3022
1.1.7 Emergency communications	Scope expanded to include emergency communications	FR 3034
1.1.9(4) Areas not addressed	"Areas not addressed" item added to make clear that, with withdrawal of NFPA 1126, the retail sale and associated storage of consumer fireworks are not addressed anywhere in the <i>Code</i>	FR 3008
Chapter 2 Referenced Publications		
2.2 NFPA Publications	NFPA publications added to Chapter 2 because documents are newly referenced mandatorily somewhere in Chapters 3 through 43	FR 3009
NFPA 4		
NFPA 20		
NFPA 55		
NFPA 150		
NFPA 495		
NFPA 1221		
NFPA 1126	NFPA 1126 deleted from Chapter 2 because it has been withdrawn and, therefore, is no longer referenced mandatorily	FR 3009
2.3.2 ANSI Publications	BHMA publications added to Chapter 2 because documents are newly referenced in Chapter 7	FR 3011
ANSI/BHMA A.156.10		
ANSI/BHMA A.156.19		
ANSI/BHMA A156.27		
ANSI/BHMA A156.38		
2.3.6 ASTM Publications	ASTM publications added to Chapter 2 because documents are newly referenced mandatorily somewhere in Chapters 3 through 43	FR 3019 SR 3012
ASTM D3201		
ASTM D5516		
ASTM D5664		

Section Number	Comments	FR/FCR/SR/SCR Reference
ASTM D6305		
ASTM D6841		
ASTM E2073		
ASTM E2579		
ASTM E2837		
ASTM E2965		
ASTM F1085		
Chapter 3 Definitions		
3.3.19 Animal Housing Facility	New definition added to support the term’s use elsewhere in Chapters 4 through 43	FR 3020
3.3.56 Delayed Action Closer	New definition added to support the term’s use in Chapter 7	FR 5029 SR 5006
3.3.74 Emergency Control Functions	Definition (replacing “fire safety functions”) added to support the term’s use elsewhere in Chapters 4 through 43	FR 3005
3.3.175 Mall Concourse	New definitions added to support change in terminology from use of “mall building” to “mall structure” throughout the Code	FR 5535 FR 5536 FR 5513
3.3.175.1 Open Mall Concourse		
3.3.175.2 Enclosed Mall Concourse		
3.3.177.2 Hazard Material	New definitions added to support new requirements (dispersed throughout Code) for protection from hazardous materials	FR 3032 FR 3033
3.3.177.2.1 Health Hazard Material		
3.3.177.2.2 Physical Hazard Material		
3.3.177.3 Hazardous Material		
3.3.177.7 Toxic Material		
3.3.177.7.1 Highly Toxic Material		
3.3.196.1 Ambulatory Health Care Occupancy	Subpart (3) of definition revised to change “emergency or urgent care” to “treatment”	SR 4004
3.3.222 Power Doors	New definitions added to support new requirements for power doors in Chapter 7	FR 5028
3.3.222.1 Low-Energy Power-Operated Door		
3.3.222.2 Power-Assisted Door		
3.3.222.3 Power-Operated Door		
3.3.239 Renovation	Definition, as taken from Chapter 43, reinserted after having been inadvertently dropped in the 2015 edition	FR 3045
3.3.251 Self-Preservation Capability (Health Care and Ambulatory Health Care Occupancies)	New definitions added (separate from the existing definition in 3.3.252) to support use of term in health care occupancies as addressed in Chapters 18–21	FR 3551
3.3.282.4 Mall Structure	Former definition of “mall building” revised to create new definition for correlation with changes made to the mall provisions in Chapters 36 and 37, on mercantile occupancies	FR 5515
3.3.282.12 Underground Structure	Definition revised to quantify the distance below lowest level of exit discharge (LED) as being 30 ft (9.1 m)	FR 4016