2000 to 2012 Life Safety Code SFPE Great Plains Chapter September 21, 2016

Nebraska State Fire Marshal Agency

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- It's long overdue
- We are tied to CMS and they have recently made the change from 2000 to 2012
- Must get approval from Governor and Attorney General
- Must meet Secretary of State guidelines
- Must provide justification to the legislature
- Must hold public hearings
- Support Appreciated

Why? How?

- **Intent** to limit adoption to 60-70 NFPA codes
 - All new codes will be versions current with the 2012 LSC
 - Working with NFPA to have 'Nebraska' LSC available on NFPA website
 - Can view all codes at www.nfpa.org for free
 - There will be Nebraska amendments
 - Official Interpretations going away. Replaced by 'Guidance Documents'; being implemented into code; or being deleted

What? Where?

CODES & STANDARDS

Codes & Standards / All codes & standards / List of NFPA codes & standards / NFPA 101

NFPA 101: Life Safety Code®

Free access to the 2012 edition of NFPA 101

Alerts: R

About

Current & Prior Editions Next Edition Technical Committee Technical Questions

CMS issues additional requirements on the 2012 edition - see Additional information section below.

Edition to display: 2012

101-22

LIFE SAFETY CODE

NFPA 101® Life Safety Code®

2012 Edition

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

A reference in brackets [] following a section or paragraph indicates material that has been extracted from another NFPA document. As an aid to the user, the complete title and edition of the source documents for extracts in mandatory sections of the document are given in Chapter 2 and those for extracts in informational sections are given in Annex C. Extracted text may be edited for consistency and style and may include the revision of internal paragraph references and other references as appropriate. Requests for interpretations or revisions of extracted text shall be sent to the technical committee re-

- 1.1.50 Considerations Not Related to Fire. The Code also addresses other considerations that, while important in fire conditions, provide an ongoing benefit in other conditions of use, including non-fire emergencies.
- 1.1.6 Areas Not Addressed. The Code does not address the following:
- (1) *General fire prevention or building construction features that are normally a function of fire prevention codes and building codes
- (2) Prevention of injury incurred by an individual due to that individual's failure to use reasonable care
- (3) Preservation of property from loss by fire
- 1.2º Purpose. The purpose of this Code is to provide minimum requirements, with due regard to function, for the design, operation, and maintenance of buildings and structures for safety to life from fire. Its provisions will also aid life safety in similar emergencies.

1.3 Application.

- 1.3.16 New and Existing Buildings and Structures. The Code shall apply to both new construction and existing buildings and existing structures.
- 1.3.2 Vehicles and Vessels. The Codeshall apply to vehicles, vessels, or other similar conveyances, as specified in Section 11.6, in which case such vehicles and vessels shall be treated as buildings.
- 1.4° Equivalency. Nothing in this Code is intended to prevent the use of systems, methods, or devices of equivalent or superior quality, strength, fire resistance, effectiveness, durability, and safety over those prescribed by this Code.

1.4.1 Taskeigal Dominantation Taskeigal documentation

Important Notices and Disclaimers

Additional Notices and Disclaimers

Chapter 1 Administration

Chapter 2 Referenced Publications

Chapter 3 Definitions

Chapter 4 General

Chapter 5 Performance-Based Option

Chapter 6 Classification of Occupancy and Hazard of Contents

Chapter 7 Means of Egress

Chapter 8 Features of Fire Protection

Chapter 9 Building Service and Fire Protection Equipment

Chapter 10 Interior Finish, Contents, and Furnishings

Chapter 11 Special Structures and High-Rise Buildings

Chapter 12 New Assembly Occupancies

Chapter 13 Existing Assembly Occupancies

Chapter 14 New Educational

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- Multiple Occupancies
- Mixed/Separated Occupancies
- Previously, applied the most restrictive occupancy requirements
- Can now choose Mixed or Separated
 - Table listing separation requirements
 - No change for incidental use

Hazard Contents

- Registered Design Professional or Owner designates hazard of contents (low, ordinary, high)
- Submit to authority having jurisdiction for review and approval

- Fire-retardant-treated wood is acceptable for use in Type III, IV and V construction
 - Must be enclosed in noncombustible or limited-combustible construction
- Existing openings into a stair enclosure for mechanical rooms now acceptable when:
 - Non-fuel-fired equipment
 - No combustible storage
 - 100% fire sprinkler protection

- New Section for Electrically Controlled Egress Door Assemblies
 - 6 criteria
 - Considered similar to a typical lock or latch
 - NOT considered a Special Locking Arrangement

- New Section requiring annual inspection of doors in a means of egress...Applies To:
 - Doors with panic hardware
 - Doors to exit enclosures (stairs)
 - Electrically controlled egress doors and doors having special locking arrangements (delayed-egress/access-controlled egress)
 - Assembly, Educational, Day-care,
 Residential Board & Care Occupancies
 - NFPA 80 has separate requirements for inspection of fire rated doors

Areas of Refuge (AOR)

Brief Overview...

• WHAT IS AN AREA OF REFUGE?

(by definition)

Either...

- (1) a story in a building where the building is protected throughout by a supervised automatic sprinkler system and has not less than 2 accessible rooms or spaces separated from each other by smoke-resisting partitions; OR
- (2) a protected space located in a path of travel leading to a public way.

no change from 2000 edition to 2012 edition

Areas of Refuge

• WHAT IS AN AREA OF REFUGE?

- Temporary / Staging Areas
- Different Types
 - adjacent buildings connected by a bridge or balcony
 - compartment of a subdivided story
 - elevator lobby
 - enlarged story-level exit stair landing
 - floors in a building protected throughout by an approved, supervised automatic sprinkler system

no change from 2000 edition to 2012 edition

Areas of Refuge

Automatic Sprinkler System - PROVIDED

LSC 2000

- 2-Way Communication
 - NOT Required

LSC 2012

- 2-Way Communication (LSC 7.2.12.1.1)
 - Required
- (1) Required at elevator landings
- (2) Communicates b/w the elevator landing & the fire command center or central control point
- (3) POSTED: Directions for use
- (4) POSTED: Instructions for summoning assistance
- (5) POSTED: Written identification of the location
- (6) Provide both audible & visible signals

Changes - Areas of Refuge

Stair Decent Devices

Where exit access from an AOR is via stairs, Stair Descent Devices provide a safer more effective evacuation option than carrying an occupied wheel chair.

LSC 2000

• Does NOT provide recommendations and general guidance information.

LSC 2012 (LSC 7.2.12.2.3)

• Provides 23 recommendations and general guidance information.



Changes - Areas of Refuge

- Normally Unoccupied Building Service
 Equipment Support Areas
 - Up to 45,000 SF non-sprinkled, 90,000 SF sprinkled
 - Reduced requirements for:
 - Number of means of egress
 - Width
 - Height
 - Lighting
 - Will still require Fire Alarm coverage when provided

- Glazing materials permitted in fire rated walls when tested as a wall (ASTM E 119)
 - Not limited to 25% of wall
 - 25% rule still applies to fire windows

New Table for Opening Protectives in fire rated assemblies

			Door Vision	Fire-Rated Glazing	Minimum Side Light/Transom Assembly Rating (hr)		Fire-Rated Glazing Marking Side Light/Transom Panel		Fire Window Assemblies	
	Walls	E. D	Panel	Marking					,	Fire-Rated
	and Partitions	Fire Door Assemblies	Maximum Size	Door Vision	Fire	Fire	Fire	Fire		Glazing Marking
Component	(hr)	(hr)	(in ²) ^a	Panel	Protection Resistance		Protection Resistance		(hr)	Window
Elevator hoistways	3 2	1½	155 in. ^{2 d}	D-H-90	NP	2	NP	D-H-W-120	NP	W-120

- Convenience stair openings (open stair)
 - Permitted in Assembly occupancies when:
 - Not a required means of egress
 - Sprinkler protected similar to an escalator
 - Permitted in Large open areas such as atriums and shopping malls
 - Must be protected per atrium requirements

- New generator controllers must be monitored by the fire alarm system for the following:
 - Generator running
 - Generator fault
 - Generator switch in nonautomatic position

• Smoke detection shall be provided at the fire alarm control panel, notification appliance power extenders and supervising station transmitting equipment for new fire alarm systems or buildings only. Can use heat detection when conditions warrant.

Carbon Monoxide Detection

- Required in NEW residential occupancies
 - Day-care homes
 - Health Care with fireplaces
 - 1 & 2 Family Dwellings
 - Lodging and Rooming
 - Hotels and Dorms
 - Apartments
 - Per NFPA 720

- Egress capacity of main exit shall accommodate 2/3 of occupant load in:
 - (a) Dance halls
 - (b) Discotheques
 - (c) Nightclubs
 - (d) Assembly occupancies with festival seating

- Lockups
 - Permitted in most occupancies (except health care)

- Alcohol-based hand rubs
 - Permitted in educational, day-care, health care (including ambulatory health care)

Changes - General

6 Categories

- Repair
- Renovation
- Modification
- Reconstruction
- Change of Use or Occupancy Classification
- Addition
- The *building* undergoing rehabilitation must meet the applicable existing occupancy chapter

- **43.1.2.1** Any building undergoing repair, renovation, modification, or reconstruction shall comply with <u>both</u> of the following:
 - (1) Requirements of the applicable existing occupancy chapters (13, 15, 17, 19, 21, 23, 24, 26, 29, 31, 33,37, 39, 40, 42)
 - (2) Requirements of the applicable section of this chapter
- Building changes are not automatically required to meet the requirements of New Construction, but the requirements of existing must be met throughout

- The more extensive the work, the more the requirements for new construction must be met.
 - There are many variable and unique features

• 43.10.1 (Historic Bldgs.) General Requirements

- Historic buildings undergoing rehabilitation shall comply with the requirements of one of the following:
 - (1) Section 43.10
 - (2) Sections 43.3, 43.4, 43.5, 43.6, and 43.7
 - (3) NFPA 914, Code for Fire Protection of Historic Structures

• 43.10.2

- A written evaluation shall be submitted to the AHJ for a Historic Building undergoing Modification, Reconstruction, or Change of Occupancy. The report must list code deficiencies and how/if bringing the Historic Building into compliance might damage the historic features. Any equivalencies must be listed in the report
- Other variable requirements listed



QUESTIONS