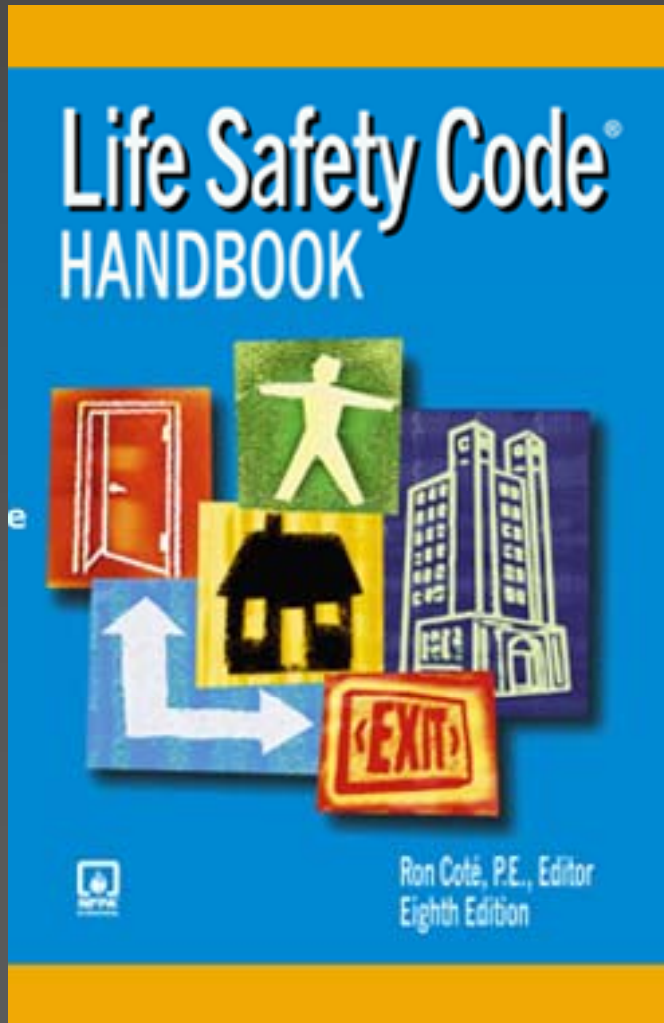


Part 3- Healthcare Codes & Standards - 2000 LSC 101



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Life Safety Code Sections

- Understanding of the 2000 LSC Code 101
 - Inpatient Hospitals
 - Nursing Homes
 - Inpatient Hospice
- 2000 LSC 101 Major Changes
- Ambulatory Surgical Centers
 - Ambulatory Surgery
 - Outpatient Healthcare Occupancies
 - ESRD's – End Stage Renal Dialysis

Administrative and Enforcement Overview





Administrative Overview

- Life Safety Code 101- 2000 edition
- Federal Adoption by CMS through the Federal Register
- Also by Accrediting Agencies



Enforcement Overview

- Life Safety Code 101 - 2000 edition
- Federal
 - Proposed: October 26, 2001
 - Adoption: January 10, 2003
 - Effective: March 11, 2003
 - Enforcement: September 11, 2003
- All federally certified facilities (hospitals, nursing homes)



Administrative Overview

- The *Life Safety Code*® provides code requirements as to when buildings shall be provided with a fire alarm system or sprinkler system.
- NFPA 13 the Standard for the Installation of Sprinkler Systems is an installation standard and it details how sprinkler systems are to be designed and installed. NFPA 13 does not require sprinkler protection in a building.

2000 Life Safety Code 101





2000 Life Safety Code 101

- Reformat from previous NFPA editions
- Mandatory References moved to Chapter 2
- All definitions located in Chapter 3 and numbered
- Decimal point between Chapter and Section instead of a hyphen
- Appendixes renames as Annexes



2000 Life Safety Code 101

- Performance-Based option
 - Section 4.4 and Chapter 5
- Special Structures and High Rise Buildings
 - Chapter 11 (formerly in Chapter 32)
- Interior Finish now in separate Chapter
 - Chapter 10
- Occupancy Chapters
 - Chapters 12-42 with some repositioning
 - Formerly Chapters 8-32



2000 Life Safety Code 101

- New Health Care - Chapter 18
- Existing Health Care - Chapter 19
- New Ambulatory Health Care - Ch. 20
- Existing Ambulatory Health Care - Chapter 21
- New Business - Chapter 38
- Existing Business - Chapter 39



2000 Life Safety Code 101

- Four Major Parts of Code
 1. Chapter 1-4 and 6-11 Fundamental Chapters
 2. Chapter 5: Performance-Based Option
 3. Chapters 12-42: Occupancy Chapters
 4. Annexes A, B: additional explanatory information



Performance Based Design

- **Equivalency Methods**
 - **Waivers**
 - **Fire Safety Equivalency System (FSES)**
 - **NFPA 101 Chapter 5**



2000 Life Safety Code 101

- New exceptions added to 50' common path of travel limitation required by Section 7.12 for Mechanical Equipment Rooms, Boiler Rooms, and Furnace Rooms
- Exception No.2 - 150' for Existing Building if
 - Building protected throughout by ASASS (9.7)
 - No fuel-fired equipment in space, and
 - Egress Path is readily identifiable



2000 Life Safety Code 101

- Section 8.2.1 now requires a 2-hour or greater vertically-aligned fire barrier wall if buildings contain additions or connected structures of different construction types if they are to be considered separate buildings in new construction. Note: ICC – IBC code calls this a “Fire Wall” – Chapter 7



2000 Life Safety Code 101

- Change of occupancy requires compliance with requirements of new constructions (18.1.1.4.4 and 19.1.1.4.4):

The following are NOT changes of occupancy:

- Hospital to nursing home
- Nursing home to hospital
- Hospital/nursing home to limited care facility
- Hospital/nursing home to ambulatory health care



2000 Life Safety Code 101

- Section 18.3.5.1 and 18.3.5.2 require all new health care occupancies to be protected throughout by an approved, supervised automatic sprinkler system per Section 9.7 - to include listed QRS or listed residential sprinklers throughout smoke compartments containing patient sleeping rooms.



2000 Life Safety Code 101

- Smoke Zones and Fire Alarm must coincide
- Note that Section 18.3.7.1 has now been revised to reflect where Smoke Barriers are required one story below a ‘health care’ occupancy
 - Exception No. 3 two or more stories



2000 Life Safety Code 101

- 9.6.3.7: The general fire alarm signal shall operate throughout the entire building.

Exception No. 2: Where occupants are incapable of evacuating due to age, physical, or mental disabilities or physical restraint, the private mode per NFPA 72, shall be permitted to be used. Only the attendants and other personnel required to evacuate occupants from a zone, area, floor, or building shall be required to be notified.



2000 Life Safety Code 101

- **Fire Alarm System** - required (18.3.4.1 / 19.3.4.1) in accordance with 9.6.

- **Smoke Detection Systems:**
 - **Corridors in Nursing Homes**
 - **Spaces open to the corridor**
 - **Hazardous areas**
 - **Control devices (hold-opens, dampers)**



2000 Life Safety Code 101

- **Fire Alarm System - Occupant Notification: Exception:** In lieu of audible alarm signals, visible alarm-indicating appliances permitted in critical care areas.



2000 Life Safety Code 101

- **Fire Alarm System - Exception:**

Manual fire alarm boxes in patient sleeping areas not required at exits if located at nurses' control stations or other continuously attended location, provided boxes are visible, continuously accessible and that <200 ft to box.

Standard for Health Care Facilities NFPA 99





NEPA 99

- **Battery-powered emergency lighting now required in anesthetizing locations (3-3.2.1.2(a)5.e.)**
- **Also Battery lighting required in Critical rooms such as electrical Transfer & Generators**



NEPA 99

- **Generator Testing Criteria**
 - 12 times a year with 20-40 day interval
 - 30 minutes/ Minimum of 30% of nameplate
 - If not meet 30%, Monitor exhaust gas temperature against manufacturer's recommended temperature
 - If not meet = load bank once a year for 2 hours
 - 25% of name plate for 30 minutes
 - 50% of name plate for 30 minutes
 - 75% of name plate for 60 minutes

Performance-Based Design





Performance Based Design

- **Section 5.1.4**
 - **AHJ permitted to require review by independent third party...**



Performance Based Design

- **Section 5.1.7**
 - **Design features shall be maintained for the life of the building . . .**



Performance Based Design

- **Section 5.3.1 and 5.3.2**
 - **Shall be documented per Section 5.8.10**
 - **Fire protection systems shall comply with NFPA Standards**
 - **The design shall comply with most of Chapter 7 -Means of Egress**



Performance Based Design

- **Section 5.8.14**
 - **Design proposals shall include documentation that:**
 - **Building approved for performance based design with specified criteria**
 - **Remodeling, modification, renovation or change of use will require re-evaluation and re-approval**

Ambulatory Surgical Centers & Clinical Functions





Ambulatory Surgical Centers & Clinical Functions

- **Ambulatory Facilities
Occupancies**
- **Ambulatory Surgery Centers**
- **ESRD- End Stage Renal
Dialysis**
- **Clinical with Sedation
(with incapable of
self- preservation)**



Ambulatory Surgical Centers & Clinical Functions

- **Ambulatory Health Care Occupancy**
 - Chapter 20 (New)
 - Chapter 21 (Existing)
- **Business Occupancy**
 - Chapter 38 (New)
 - Chapter 39 (Existing)



Ambulatory Surgical Centers

- **An ASC shall comply with Chapter 20/21 and 38/39 whichever is more restrictive (20.1.1.1.2, 21.1.1.1.2)**
- **ASC's must meet BOTH Chapter 20/21 AND Chapter 38/39.**



Ambulatory Surgical Centers

- **ASC's shall be separated from other tenants and occupancies by walls having not less than a 1-hour rating (20.3.7.1)**
- **Extends from floor slab to floor or roof slab above.**



Ambulatory Surgical Centers

- **Buildings 1 story in height can be any construction type (20.1.6.2)**
- **Buildings 2 or more stories housing an ASC, CAN be any construction type if protected by an approved supervised automatic sprinkler system (20.1.6.3)**



Ambulatory Surgical Centers

- **Fire Alarm Systems shall be provided in ASC's (20.3.4)**
- **Initiation Not Delayed**
- **Occupant Notification**
- **Emergency Forces Notification**
- **Emergency Control**



Ambulatory Surgical Centers

- **Capacity of Means of Egress (20.2.3) per Business (38.2.3) which refers you to Chapter 7 - Table 7.3.1 Occupant Load**
- **Use Business occupant load NOT Health Care occupant load.**



Ambulatory Surgical Centers

- Each ASC shall be divided into at least two smoke compartments:
- Exceptions (20.3.7.2)
 - 5000 ft² or less in area
 - 10,000 ft² (sprinkler protected)
 - 22,500 ft² (1hr to adjoining occupancy, unrestricted access)



Ambulatory Surgical Centers

- **Smoke Barriers (20.3.7.3)**
- **1-HOUR fire resistance rating for New and Existing**
- **Dampers not required in fully ducted system and fully sprinkler protected building**
- **Vision panels REQUIRED in New and Existing**



Clinical Functions

- **End Stage Renal Dialysis are now to meet “Ambulatory Surgery Centers” standards**
- **DHS will conduct inspections periodically for CMS**
- **Not Seen an “Official” ESRD checklist**



Clinical Functions

- **Clinical outpatient facilities utilizing sedation techniques for patient comfort where patients cannot evacuate themselves may need to comply with ASC standards**
- **“No Self-Preservation”**
 - e.g. G.I. or MRI’s or CT’s



Clinical Functions

- **Clinical outpatient facilities are classified in the Building and Life Safety Code 101 as Business Occupancies Classification:**
- **Business Occupancies are “B” in the International Building Code**
- **Chapter 38 in Life Safety Code**



Resource Overview

- Codes, forms, guidelines
 - www.nfpacatalog.com
 - www.cms.hhs.gov/forms
 - www.cms.hhs.gov/manuals



THE END

- Questions ?