

NFPA 101

Life Safety Code

2000 to 2012

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What & Why?

- The Life Safety Code is produced by volunteer committees following guidelines set by the National Fire Protection Association – NFPA
 - The Code is published every 3 years
 - The Code can be purchased or viewed for free at www.nfpa.org
- CMS has been working on a code update for several years
- Enforcement will begin on November 1st, 2016



How Does It Work?

- The Nebraska State Fire Marshal's Office works with HHSS and CMS to survey (inspect) health care facilities across the state
 - Hospitals, Nursing Homes, Ambulatory Surgical Centers, etc.
- All nursing homes are surveyed annually by State Fire Marshal staff following CMS procedures
- Hospitals are inspected for a state license by the State Fire Marshal's Office or Delegated Authority
 - The State Fire Marshal's Office will survey a hospital when mandated by CMS
 - Example: Allegation Survey

When?

- State approval involves:
 - Governor
 - Attorney General
 - Secretary of State
 - Legislature
 - Public Hearing
- Spring/Summer 2017?



Renovations, Modernizations, etc.

- Under 2000 Code, most construction was required to meet the requirements of New Construction
- The 2012 Code includes Chapter 43, 'Building Rehabilitation'
 - Work is placed in one of six categories
 - Repair, Renovation, Modification, Reconstruction
 - Change of Use or Occupancy Classification, Addition
 - Major Renovation = >50% or more 4,500 sq. ft. of smoke compartment
 - Fire sprinkler protection required throughout Major Renovation
 - New Section for Historic Buildings

Clinics

- Medical Clinics, Ambulatory Care Facilities and similar occupancies connected to a health care occupancy can be used for diagnostic and treatment of health care inpatients who are capable of self-preservation
 - Inpatients can receive care at an attached clinic and the clinic is NOT required to meet the requirements of a health care occupancy when:
 - The clinic is separated from the health care occupancy by two-hour fire rated construction and;
 - The inpatients are capable of self-preservation

Sliding Doors

- The Code now specifically allows sliding doors in a means of egress



Corridor Projections

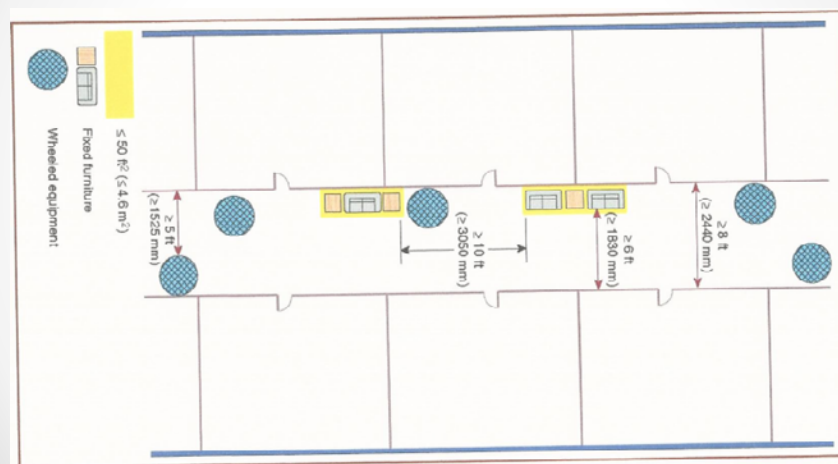
- 6-inch, non-continuous projections above handrail height are permitted (screens, ABHR)
- Wheeled Equipment permitted in corridors:
 - Does not reduce corridor width below 5 feet
 - The facility fire safety and training plans address the relocation of carts in an emergency
 - Wheeled equipment is limited to:
 - Equipment and carts in use
 - Medical emergency equipment not in use (isolation, crash)
 - Patient lift and transport equipment
- NAG (ADA) limits to 4" – CMS will Provide guidance



Fixed Furniture

- Furniture, securely attached to the wall or floor is permitted in a corridor:
 - The corridor must be at least 8 feet in width
 - The furniture does not reduce the corridor width to less than 6 feet
 - Fixed furniture is limited to one side of the corridor
 - Each 'group' of furniture does not exceed 50 sq. ft.
 - Furniture groupings are separated by at least 10 feet
 - Fixed furniture shall not obstruct access to building service and fire protection equipment
 - Corridors must have smoke detection, OR direct staff supervision of fixed furniture from a nurse station

Projections Illustrated



Suites

- Suites shall be separated from other spaces by construction that will limit the passage of smoke and latching doors (corridor construction)
 - Doors within suites are not required to latch



Sleeping Suites

- Shall have direct supervision of beds (cubicle curtains permitted) OR
 - Total smoke detection
- Two exits if >1,000 sq. ft.
 - One exit can be through an adjacent suite
- Suite size cannot exceed 7,500 sq. ft. Unless
 - Direct supervision is provided and
 - Total smoke detection is provided
- When both are provided, suite size can be up to 10,000 sq. ft.

Patient Care Non-Sleeping Suites

- Two exits if >2,500 sq. ft.
 - One exit is permitted through an adjacent suite
 - Travel distance to an exit access door cannot exceed 100 feet
 - Total travel distance to an exit cannot exceed 200 feet
- Suite cannot exceed 10,000 sq. ft.

Non-Patient-Care Suites

- Must meet the primary use and occupancy of the suite (business, storage)



Alcohol-Based Hand Rub

- Allows aerosol containers (up to 18 oz. ea.)
- Must be installed at least 1 inch horizontally from an ignition source (electrical receptacle) when installed above an ignition source
- Touch-free activation permitted



Cooking Facilities

- Four Options
 - Option 1: Residential Cooking equipment used for food warming or limited cooking
 - Not required to be protected with an exhaust hood or fire suppression system
 - Not required to be separated from the corridor
 - Nutrition station in a hospital



Cooking Facilities

- Option 2:
 - Can be open to corridor
 - Cooking equipment serves up to 30 residents in one smoke compartment
 - An exhaust hood with a fire suppression system meeting UL 300 or UL 300A
 - A manual release for the fire suppression system
 - An interlock to shut off all fuel sources when system activates
 - Deep-frying is prohibited
 - Portable fire extinguishers (Class K) provided
 - A switch and timer are provided to shut off cooking equipment when not supervised (120 minutes)
 - At least 2 smoke alarms are provided spaced at least 20 feet from the cooking equipment
- Allows 'home' type of kitchen design

Cooking Facilities

- Option 3:
 - Cooking equipment is separated from the corridor by construction that limits the transfer of smoke
 - Meet all of the requirements of Option 2 except for the smoke alarms
- Option 4:
 - Full preparation kitchen with commercial exhaust hood and fire suppression system
 - Must be separated from the corridor by construction that will resist the passage of smoke

Fire Sprinklers

- Not required in clothes closets in patient sleeping rooms in hospitals:
 - The area of the closet does not exceed 6 Sq. Ft.
 - Spacing of sprinkler heads includes area of closet(s)
- Cubicle Curtains
 - 18 inches down from ceiling
 - ½ inch diagonal mesh that provides 70% open area



Roller Latches

- LSC permits them; CMS does not



Delayed-Egress

- The requirement to limit doors having delayed-egress locking to a single door in a means of egress has been removed
 - Multiple doors having delayed-egress locks are now permitted



Corridor Doors

- A pair of doors utilizing an inactive leaf shall have automatic flush bolts on the inactive leaf to provide positive latching



Exterior Windows

- LSC has removed the requirement for exterior windows from patient rooms
- CMS has put the requirement back in the Code
 - Exemptions for newborn nurseries and rooms occupied for less than 24 hours



Firewatch

- Extended time of fire sprinkler out of service to 10 hours in a 24-hour period
- CMS will retain 4 hour out of service requirement for fire alarm systems

**Sprinkler System
Out of Service**

IFC 2012 edition Section 901.7.3 Compliant



Door Inspection

- Fire rated doors are now required to be inspected annually
- Functional testing of fire door and window assemblies shall be performed by individuals with knowledge and understanding of the operating components of the type of door being subject to testing
 - Inspections include door closers, latching, damage, obstructions (wedges, snow, door swelling etc.)
- Documentation must be kept and provided for authority having jurisdiction upon request

Fireplaces

- Direct-Vent gas fireplaces permitted:
 - Not in patient room
 - Must have a sealed glass front
 - Controls must be locked or in a restricted location
 - CO detection required in the same room as the fireplace
- Wood-burner permitted:
 - Separated from patient rooms by one hour fire rated construction
 - 4 inch hearth
 - Tempered glass front can withstand 650 degrees
 - CO detection required in the same room as the fireplace

Curtains

- Must meet test requirements of NFPA 701
- Does NOT apply to:
 - Curtains at showers and baths
 - Patient room windows
 - Other rooms where the curtains meet both:
 - Individual curtain panel does not exceed 48 sq. ft.
 - Total area of curtain panels per room or area does not exceed 20% of the aggregate wall area

Combustible Decorations

- Labeled as Flame Retardant or treated with an approved fire retardant coating
- Meet NFPA 701 fire test
- Meet 100kW test of NFPA 289
- Applies to corridors, spaces exposed to corridors



Combustible Decorations

- Photographs, paintings and art attached directly to walls, ceilings and non-fire rated doors (not required to be flame retardant):
 - Does not interfere with operation of a door
 - Does not exceed 20% of wall, ceiling and door inside a room that is NOT fire sprinkler protected
 - Does not exceed 30% of wall, ceiling and door inside a room that IS fire sprinkler protected
 - Does not exceed 50% of wall, ceiling and door inside a patient sleeping room (up to 4 patients) that is fire sprinkler protected
 - Applies to walls where items are affixed, not all walls in the room

Recycling Containers

- Applies to clean waste, patient records only
 - 'Clean Waste' defined as bottles, cans, paper and similar items that do not contain grease, oil, flammable liquids or significant plastic materials
 - Limited to 96 gallons per container
 - No limit to the number of containers
 - Container labeled and listed per FM Approved Standard 6921 or equivalent testing



Power Strips

- Definitions:
 - Patient Bed Location
 - Location of the patient sleeping bed or the bed or procedure table of a critical care area
 - Patient-Care-Related Electrical Equipment
 - Electrical equipment that is intended to be used for diagnostic, therapeutic, or monitoring purposes in the patient care vicinity
 - Patient Care Room
 - Any room wherein patients are intended to be examined or treated. Replaces term 'patient care area'
 - Patient Care Vicinity
 - A space, within a location intended for the examination and treatment of patients (i.e., patient care room) extending 6 ft. beyond the normal location of the bed, chair, table, treadmill, or other device that supports the patient during examination and treatment and extends vertically 7 ft, 6 inches above the floor

Power Strips

- **Power strips providing power to patient care-related electrical equipment must be listed per UL 1363A or UL 60601-1 (SPRPT)**
- Approved in long-term care that do not use line-operated electrical appliances
- New or renovated patient bed locations must have the minimum number of receptacles
- May NOT be used in patient care vicinity to power non-patient care-related electrical equipment
- MAY be used outside of the patient care vicinity for both patient care-related electrical equipment and non-patient-care-related electrical equipment

Power Strips

- Power strips can be used in patient care vicinity to power rack, table, pedestal or cart-mounted patient care-related electrical equipment assemblies provided:
 - The receptacles are permanently attached to the equipment assembly
 - The sum of the ampacity of all appliances connected to the receptacles shall not exceed 75% of the supplying cord
 - The integrity of the assembly is verified and documented through an ongoing maintenance program
 - Means shall be employed to ensure nonmedical equipment cannot be connected to the assembly



NFPA 99

- Requirements now centered on risk-based methodology.
 - 4 Categories with #1 having the highest risk to life.
- New, altered, renovated or modernized HVAC systems must comply with 2008 ASHRAE 170
- New requirements for HVAC commissioning
- CMS will require dedicated supply and exhaust systems for windowless anesthetizing location to automatically vent smoke
- Chapters 7(IT), 8 (Plumbing), 12 (Emergency Management) and 13 (Security) removed by CMS
- FSES kept (not part of NFPA 99)

Questions

