The New Life Safety Code &
Texas Responds with New Small
House Nursing Design Standards

Fred Worley, Architect
Architectural Unit Manager, TDADS

Wes Wells, Administrator
Buckner Westminster Place
<table>
<thead>
<tr>
<th>Service</th>
<th>Count</th>
</tr>
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<tbody>
<tr>
<td>Adult Day Care</td>
<td>467</td>
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<tr>
<td>Assisted Living</td>
<td>1,880</td>
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<td>ICF-IID/RC</td>
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<td>Nursing</td>
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<td>Total Facilities</td>
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<td>HCSSA agencies</td>
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Codes for Everyone and Everything

- Municipal Codes: Zoning, Drainage, Water, Sewage
- Local Codes: Building and Fire Regulations
- State Codes: Building, Fire and Design Codes for Licensure
- Federal Codes: Fire Codes for Certification
Some Major Codes that Influence Construction

State/City Building Codes
• International Code Council

ADAAG - ADA Accessibility Guidelines
ADA - Americans with Disabilities Act
• Texas Standards for Accessibility
Some Major Codes that Influence Construction

Nursing Facility Requirements for Licensure and Medicaid Certification

• State Licensing Standards

CMS - Center for Medicare and Medicaid Services

• State Operations Manual
Some Major Codes that Influence Construction

NFPA - National Fire Protection Association
  • Life Safety Code (LSC)

State & Local Health Department Regulations
  • Texas Food Establishment Rules
Codes Enforced by Many Authorities Having Jurisdiction (AHJ)

- Local Building Official
- Local Fire Inspector
- State Licensing Surveyor
- Federal Certification Surveyor
- Design and Building Professionals
- Insurance Carrier
- Certifying Agencies
- Manufacturers and Suppliers
LIFE SAFETY CODE (LSC)

• The LSC’s purpose is to provide minimum requirements for the design, operation, and maintenance of buildings and structures for safety to life from fire.
LIFE SAFETY CODE (LSC)

Protection of occupants is achieved by a combination of:

• Prevention of ignition
• Detection of fire
• Control of fire development
Protection of occupants is achieved by a combination of:

- Extinguishment of fire
- Provision of refuge or evacuation
- Staff reaction
- Provision of fire safety information
LIFE SAFETY CODE (LSC)

• Key Features Related to Health Care Facilities

• Protection Against Fire
  • Passive Protection (Building Construction)
  • Active Protection (Sprinklers, Fire Alarm)

• Evacuation
  • Staged Evacuation
  • Defend-in-Place
Fire Safety Codes Often Lead Designers to Predictable Designs

Requirement:
- Bedrooms must exit through a corridor
- Minimum 8 feet clear corridor width
- Cooking facilities considered as hazardous
- Eliminate combustible materials

Result:
- Double-loaded corridors lined by bedrooms
- Straight undifferentiated 8’-0” wide corridors
- Hide the residential center of “home” from daily experience
- Limits decoration and individual character
History of Health Care Design
History of Health Care Design
History of Health Care Design
How/why are Codes Changed?

Bad things happen (people die in a fire) or improvements in technology

Culture Change (less institutional design)

• Educate the enforcers in charge
• Learn the code revision cycles
• Work with state officials to change standards
• Work with state provider associations
• Develop talking points
• Make the economic case
How/why are Codes Changed?

1987

- Nursing Home Reform Act (OBRA)

2009

- Pioneer Network with Coalition of Associations supported by the Rothschild Foundation created a National Life Safety Task Force to Change the Code
- Task Force met and identified 4 major revisions to the 2012 Edition of the LSC
How/why are Codes Changed?

2011
2012 NFPA Life Safety Code Revised with all Revisions Accepted

2012
CMS Published Culture Change S&C Letter

2013
Task Force Working With All States to Adopt the 2012 Edition or to Accept Equivalencies
How/why are Codes Changed?

2013
Task Force working on 2015 Edition of LSC and on IBC and IFC to accept same revisions

2014
2015 NFPA Life Safety Code Revised with disguising lockable doors accepted
2015 NFPA Life Safety Code Revised with disguising lockable doors acceptable
Code Effective Dates

For Certification by CMS:
• Effective Date: July 5, 2016
• Compliance Date: November 1, 2016

For Licensure:
• State NFR/LMC revisions in process
Some Hints on How to Use the NFPA Codes and Standards

National Fire Codes® (NFC): A softbound, multi-volume annual compilation of all NFPA Technical Committee documents (300+) with the 17 volumes consisting of codes and standards and a supplemental volume with revisions, as well as an additional volume containing a Master Index of the code set.
Some Hints on How to Use the NFPA Codes and Standards
Some Hints on How to Use the NFPA Codes and Standards

• Start with the Correct Occupancy Chapter

• Connect the dots to the Referenced Code or Standard

• Difference between “New” and “Existing” Occupancy
Some Hints on How to Use the NFPA Codes and Standards

- **Existing**: A building erected or officially authorized prior to the effective date of the adoption of this (current) edition of the Code by the agency or jurisdiction. (From NFPA Glossary of Terms)
Some Hints on How to Use the NFPA Codes and Standards

**CMS S & C : 16-29-LSC**

- Buildings constructed before July 5, 2016 can meet Existing Occupancy requirements
- Buildings that receive design approval or building permits before July 5, 2016 can meet Existing Occupancy requirements
Some Hints on How to Use the NFPA Codes and Standards

NFR/LMC §19.301(a)
The New Health Care Occupancies chapter of the Life Safety Code is applicable to new construction, conversions of existing unlicensed buildings, remodeling, and additions.

NFPA 101 Chapter 18 New Health Care
Some Hints on How to Use the NFPA Codes and Standards

NFR/LMC §19.301(a)
The Existing Health Care Occupancies chapter of the Life Safety Code is applicable to existing nursing homes.

NFPA 101 Chap. 19 Existing Health Care
Subchapter D
§19.300 General Requirements

NFR/LMC §19.301(b)
The requirements of this subchapter are applicable to existing nursing facilities unless otherwise stated.
Subchapter D
§19.300 General Requirements

Refer to §§19.330-19.343 of this title (relating to Facility Construction) for additional requirements for new construction, conversions of existing unlicensed buildings, remodeling, and additions.
Subchapter D
§19.300  General Requirements

An existing unlicensed building is defined as any building (or portion thereof) which is not presently licensed as a nursing home.
Chapter §19 Subchapter D Construction

• Division 1. General Provisions
• Division 2. Licensed before September 11, 2003
• Division 3. Provisions Applicable to All NFs
• Division 4. Construction and Initial Survey
NFR/LMC

Nursing Facility Requirements for Licensure and Medicaid Certification

• Division 5. Licensed after 9/11/03 and before January 18, 2018
• Division 6. Plan Review
• Division 7. Small House and Household NFs
• Division 8. Building Rehabilitation
• Division 9. Licensed on or after January 18, 2018
&
CMS Cultural Changes
(formerly Categorical Waivers)
Changes to 2012 Life Safety Code

• Kitchens serving 30 or less residents can be open to the corridor.

• Fixed seating allowed in corridors 8 feet or greater in clear width.

• Wheeled equipment in corridors permitted.
Changes to 2012 Life Safety Code

- Projections up to 6 inches permitted in corridors.
- Gas fireplaces allowed except in resident sleeping areas.
- More combustible decorations permitted on walls, ceilings and doors
Changes to 2012 Life Safety Code

Kitchens serving 30 or less residents can be open to the corridor.
18.3.2.5.3

- Kitchens can be open to the corridor
  - Limited to 30 persons/meals in that smoke compartment
  - Range hood 500 cfm and UL 300 or 300A with manual release and interlock fuel control
  - Deep-fat frying prohibited
  - Portable fire extinguisher in area
18.3.2.5.3

- Kitchens can be open to the corridor
- Switch in restricted location to deactivate range, and on a timer
- ITM in accordance with NFPA 96
- Minimum two AC powered smoke alarms 20-25 feet away or system smoke detector that does not initiate general alarm or notify central station
18.3.2.5.5
Cooking equipment protected by a NFPA 96 may be open to other spaces, like dining rooms, but must be separated from the corridor.
Changes to 2012 Life Safety Code

Fixed seating allowed in corridors 8 feet or greater in clear width.
18.2.3.4 (5)
Aisles and corridors not less than 8 feet
- **Fixed furniture** permitted
  - Attached to floor or wall
  - Leaves 6 feet clear
  - Located on one side of corridor
  - Less than 50 sf and 10 feet apart
  - Doesn’t obstruct access to building service or fire protection equipment
Changes to 2012 Life Safety Code

Wheeled equipment in corridors permitted.
NFPA 101, LSC 2012 Edition

Edition 18.2.3.4 (1-4)

Aisles and corridors not less than 8 feet

- 44” for non-patient use

- **Wheeled equipment** leaving 5 feet clear
  - Removal in fire-safety plan
  - Limited to equipment in use and carts in use
  - Medical emergency equipment not in use
  - Patients lifts and transportation equipment
Changes to 2012 Life Safety Code

Gas fireplaces allowed except in resident sleeping areas.
18.5.2.3(2)

- **Direct-vent gas fireplaces**, as defined in NFPA 54, National Fuel Gas Code, shall be permitted inside of smoke compartments containing patient sleeping areas, provided that all of the following criteria are met:
NFPA 101, LSC 2012 Edition

- Comply with NFPA standards for chimneys, fireplaces, fuel gas, and electrical code
- Not in patient sleeping room
- QR sprinklers throughout smoke compartment
- Sealed glass front with wire mesh panel or screen
- Locked or restricted location for controls
- Carbon monoxide detector in room with fireplace
18.5.2.3(3)

- **Solid fuel fireplaces**, as defined in NFPA 54, National Fuel Gas Code, shall be permitted only in areas other than patient sleeping areas, provided that all of the following criteria are met:
NFPA 101, LSC 2012 Edition

- Separated from patient sleeping space with one-hour fire-rated construction
- Comply with NFPA standards for chimneys, fireplaces, fuel gas, and electrical code
  - Hearth raised not less than 4 inches
  - 650 degree heat tempered glass
- Carbon monoxide detector in room with fireplace
Changes to 2012 Life Safety Code

More combustible decorations permitted on walls, ceilings and doors
18.7.5 Furnishings, Bedding, and Decorations.

18.7.5.1*
- Draperies, curtains, etc. per 10.3.1

2012 Edition
- (3) Such draperies and curtains shall not include draperies and curtains at windows in patient sleeping rooms.
(4) Such draperies and curtains shall not include draperies and curtains in other rooms or areas where the draperies and curtains comply with both of the following:

(a) Individual drapery or curtain panel area does not exceed 48 sf (4.5 m²)

(b) Total area of drapery and curtain panels per room or area does not exceed 20 percent of the aggregate area of the wall on which they are located
Combustible decorations shall be prohibited in any health care occupancy unless they are flame-retardant.

Exception: Combustible decorations, such as photographs and paintings, in such limited quantities that a hazard of fire development or spread is not present.
Combustible decorations shall be prohibited in any health care occupancy, unless one of the following criteria is met:
They are flame-retardant or are treated with approved fire-retardant coating that is listed and labeled for application to the material to which it is applied.
The decorations meet the requirements of NFPA 701, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.
The decorations exhibit a heat release rate not exceeding 100 kW when tested in accordance with NFPA 289, Standard Method of Fire Test for Individual Fuel Packages, using the 20 kW ignition source.
The decorations, such as photographs, paintings, and other art, are attached directly to the walls, ceiling, and non-fire-rated doors in accordance with the following:
Decorations on non-fire-rated doors do not interfere with the operation or any required latching of the door and do not exceed the area limitations of 18.7.5.6(b), (c), or (d).
Decorations do not exceed 20 percent of the wall, ceiling, and door areas inside any room or space of a smoke compartment that is not protected throughout by an approved automatic sprinkler system in accordance with Section 9.7.
Decorations do not exceed 30 percent of the wall, ceiling, and door areas inside any room or space of a smoke compartment that is protected throughout by an approved supervised automatic sprinkler system in accordance with Section 9.7.
Decorations do not exceed 50 percent of the wall, ceiling, and door areas inside patient sleeping rooms having a capacity not exceeding four persons, in a smoke compartment that is protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.
Texas Small House or Household Licensing Standards
Texas Small House or Household Licensing Standards

- Maximum 16 persons per Household or SH
- All rooms are private with full bath
- Small kitchen (staff station)
- Living/dining within household or SH
- Public, kitchen, and staff bathrooms can be combined with toilet adjoining spa
Small House or Household Licensing Standards

- Porch with suitable furniture required
- Barn doors, or sliding doors, permitted at bathrooms

- Sill heights of windows in Living and Dining Room maximum sill height 36” AFF
Small House Nursing Homes

§19.345
Small House and Household Facilities

• (d) A small house or household facility must be designed and equipped to provide a homelike environment that promotes resident-centered care.
Small House Nursing Homes

a bedroom must be occupied:
- by only one resident; or
- (ii) by two residents, if they are members of the same family and the bedroom size, furniture, and headboard wall requirements for double occupancy are met;
Small House Nursing Homes

the toilet requirements in §19.334(a)(8) of this subchapter must be met, except a bathroom must serve no more than one resident room and must include a lavatory, toilet, and a shower or bathing unit;
Small House or Household examples
Small House or Household examples
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Small House or Household examples
Small House or Household examples
Small House or Household examples
18.2.2.2.10.2

- Horizontal-sliding doors serving an occupant load of fewer than 10 shall be permitted, provided:
96 gallon recycling containers excluded from the requirements of 18.7.5.7.1 when the following conditions are met:
NFPA 101, LSC 2012 Edition

2012 Edition

18.7.5.7.2*

(1) Limited to 96 gallons

(2) Larger containers must be stored in hazardous areas

(3) Container size limited in hazardous areas.

(4) Labeled and listed w/ FM Approval Standard 6921
NFPA 99
National Health Care Facilities Code
2012 Edition

• Does not have occupancy chapters
• CMS is not adopting certain chapters of NFPA 99, including Information Technology and Communications Systems for Health Care Facilities, Plumbing, Emergency Management and Security Management
Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers final rule effective November 15, 2016 and compliance by November 15, 2017.
NFPA 99
National Health Care Facilities Code

4.1* Building System Categories.

- Building systems in health care facilities shall be designed to meet system Category 1 through Category 4 requirements as detailed in this code.
NFPA 99
National Health Care Facilities Code

4.1.1* Category 1.

- Facility systems in which failure of such equipment or system is likely to cause major injury or death of patients or caregivers shall be designed to meet system Category 1 requirements as defined in this code.
NFPA 99
National Health Care Facilities Code

4.1.2* Category 2.

- Facility systems in which failure of such equipment is likely to cause minor injury to patients or caregivers shall be designed to meet system Category 2 requirements as defined in this code.
4.1.3 Category 3.

- Facility systems in which failure of such equipment is not likely to cause injury to patients or caregivers, but can cause patient discomfort, shall be designed to meet system Category 3 requirements as defined in this code.
NFPA 99
National Health Care Facilities Code

4.1.4 Category 4.

• Facility systems in which failure of such equipment would have no impact on patient care shall be designed to meet system Category 4 requirements as defined in this code.
4.2* Risk Assessment.

- Categories shall be determined by following and documenting a defined risk assessment procedure. The risk assessment must be conducted by qualified personnel.
The risk assessment must be conducted by qualified personnel. **Who is qualified?**

NFPA 99 permits different parts of a facility to have different risk levels.
NFPA 99
National Health Care Facilities Code

6.3.2.2.6.2 Minimum Number of Receptacles. The number of receptacles shall be determined by the intended use of the patient care rooms in accordance with 6.3.2.2.6.2(A) through 6.3.2.2.6.2(E).
NFPA 99
National Health Care Facilities Code

(A) Receptacles for Patient Bed Locations in General Care Areas (Category 2). Each patient bed location shall be provided with a minimum of eight receptacles.

(Patient bed location includes wall plugs within six feet of bed)
NFR/LMC§19.305(7) for existing nursing facilities
Two duplex or a fourplex grounding type receptacles must be provided beside the head of each bed.

NFR/LMC§19.334(a)(7) for new nursing facilities
Two duplex or a fourplex grounding type receptacles must be provided beside the head of each bed. Other walls must have duplex receptacles as needed for TV, radio, razors, hairdryers, clocks, and/or as required by the National Electrical Code, National Fire Protection Association (NFPA 70), which is a registered trademark of the National Fire Protection Association, Inc., Quincy, Massachusetts 02269.
(B) Receptacles for Patient Bed Locations in Critical Care Areas (Category 1). Each patient bed location shall be provided with a minimum of 14 receptacles.
10.2.3.6 Multiple Outlet Connection. Two or more power receptacles supplied by a flexible cord shall be permitted to be used to supply power to plug-connected components of a movable equipment assembly that is rack-, table-, pedestal-, or cart-mounted, provided that all of the following conditions are met:
(1) The receptacles are permanently attached to the equipment assembly.
(2)*The sum of the ampacity of all appliances connected to the outlets does not exceed 75 percent of the ampacity of the flexible cord supplying the outlets.
(3) The ampacity of the flexible cord is in accordance with NFPA 70, National Electrical Code.
NFPA 99
National Health Care Facilities Code

(4)*The electrical and mechanical integrity of the assembly is regularly verified and documented.

(5)*Means are employed to ensure that additional devices or nonmedical equipment cannot be connected to the multiple outlet extension cord after leakage currents have been verified as safe.
(r) A facility must not use electrical extension cords or multi-receptacle plug-in adaptors as a substitute for approved wiring methods in the facility.

(s) A facility may use a listed and approved surge-protection device for equipment for which the manufacturer recommends surge protection, but in no case may the facility use a surge-protection device to increase the number of existing electrical outlets in a room.

- Chapter numbers in NFPA 25 have changed.

- The frequencies of some inspections and tests have changed.

- NFPA 72 also follows this format.
The standard is renamed National Fire Alarm and Signaling Code.

NFPA 72 is now organized similarly to NFPA 25, with tables that indicate the frequency of inspection, test, and maintenance activities.
8.3.7

• Storage batteries, including electrolyte levels or battery voltage, used in connection with systems shall be inspected weekly and maintained in full compliance with manufacturer’s specifications.
8.3.7.1

- Maintenance of lead-acid batteries shall include the monthly testing and recording of electrolyte specific gravity. Battery conductance testing shall be permitted in lieu of the testing of specific gravity when applicable or warranted.
Cubicle curtains must meet NFPA 13, 2010 ed.

NFPA 101 18/19.3.5.11 cubicle curtains must meet NFPA 13 for new construction and replacement after 11/01/2016.

NFPA 13, 2010 edition
8.7.5.2.2.1
• 70% open fabric mesh to extend 22 inches down from the ceiling.
• (Other obstructions are 18" in Table 8.7.5.2.2 and LSC annex)
229 Windows

229.1 General. Where glazed openings are provided in accessible rooms or spaces for operation by occupants, at least one opening shall comply with 309. Each glazed opening required by an administrative authority to be operable shall comply with 309.
Texas Accessibility Standards

EXCEPTION:

• 1. Glazed openings in residential dwelling units required to comply with 809 shall not be required to comply with 229.
Texas Accessibility Standards

106.5.54 Residential Dwelling Unit. A unit intended to be used as a residence that is primarily long-term in nature. Residential dwelling units do not include transient lodging, inpatient medical care, licensed long-term care, and detention or correctional facilities.
Texas Accessibility Standards

309.4 Operation. Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds maximum.
Texas Accessibility Standards

The 5 lb. force requirement in 309.4 applies to the operating parts (sash lock, crank handle) and to the force of opening the window, including the initial force needed to overcome the inertia of the closed window. This information has been verified by the U.S. Access Board and is consistent with the federal requirements.
Texas Accessibility Standards

TDL&R has postponed compliance for drop down grab bars
NFPA 101 2012 EDITION

CODE BOOK COST $98.00 + S&H

http://catalog.nfpa.org
1-800-344-3555
http://www.nfpa.org/

Free access to all NFPA Codes and Standards

Texas Department of Aging and Disability Services
Any questions?

THANK YOU!