THE 2012 EDITION OF THE LIFE SAFETY CODE®

NURSING HOME EDITION

SESSION #3

WELCOME

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THE 2012 EDITION OF THE LIFE SAFETY CODE®

NURSING HOME EDITION

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PROTECTION REQUIREMENTS
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- Protection of Vertical Openings
- Protection from Hazards
  - Laboratories
  - Anesthetizing Locations
  - Medical Gas
  - Cooking Facilities
  - Alcohol-Based Hand-Rub Dispensers
- Interior Finish
- Detection, Alarm & Communication Systems
- Extinguishment Requirements
- Corridor Requirements
- Subdivision of Building Spaces (Smoke Compartments)
- Special Provisions

PROTECTION OF VERTICAL OPENINGS

Complying with 19.3.1

![Examples of Vertical Openings in a Building](image-url)

PROTECTION REQUIREMENTS

PROTECTION OF VERTICAL OPENINGS & FIRE BARRIERS

Figure 8.4 Protection of Penetrations and Openings in Fire Barriers


PROTECTION REQUIREMENTS

PENETRATIONS IN VERTICAL PROTECTION & FIRE BARRIERS

Complying with 8.3.5.1 (New Text In Chpt. 8)

- All penetrations must be properly sealed
- **Note:** 8.3.5.1 Firestop Systems & Devices has new and detailed requirements for systems and devices used.
PROTECTION REQUIREMENTS

PROTECTION FROM HAZARDS complying with
19.3.2.1 (New & Revised Text)
3.3.21.4 (Revised Text)

“Hazardous areas” are those locations in a building that pose a degree of hazard greater than that normal to the general occupancy of the building or structure.”

HAZARDOUS AREAS include, but are not limited to:
19.3.2.1.5 (New & Revised Text)

- Boiler rooms
- Central laundries larger than 100 square feet
- Paint shops
- Repair shops
- Rooms with soiled linen in volume > 64 Gallon
- Rooms with collected trash in volume > 64 Gallon
- Labs using flammable or combustible materials (less than a severe hazard)
HAZARDOUS AREAS include, but are not limited to:

19.3.2.1.5 (New & Revised Text)

- Rooms or spaces larger than 50 ft², including repair shops, used for storage of combustible supplies and equipment in quantities deemed hazardous by the Authority Having Jurisdiction.

PROTECTION REQUIREMENTS

HAZARDOUS AREAS:

19.3.2.1.5 (New & Revised Text)

- Safe-guarded by a fire barrier having a 1-hour fire resistance rating
  - OR
- An automatic sprinkler system

19.3.2.1.2 (New & Revised Text)

- Where the sprinkler option of 19.3.2.1 is used, the area shall be separated by smoke-resisting partitions
- smoke partitions in accordance with 8.4
**PROTECTION REQUIREMENTS**

- Protection of Vertical Openings
- Protection from Hazards
  - Laboratories
  - Anesthetizing Locations
  - Medical Gas
  - Cooking Facilities
  - Alcohol-Based Hand-Rub Dispensers
- Interior Finish
- Detection, Alarm & Communication Systems
- Extinguishment requirements
- Corridors
- Subdivision of Building Spaces (Smoke Compartments)

**COOKING FACILITIES**

Complying with 19.3.2.5  
(New & Revised Text)

- Must be protected by a stove hood and suppression system complying with NFPA 96
- Exception for “residential cooking equipment used for food warming or limited cooking”
  - Need not have a hood, but can’t be in a corridor

Hint: No change here from 2000 LSC
PROTECTION REQUIREMENTS

COOKING FACILITIES
Complying with 19.3.2.5.5 (New Text)

- The room is not permitted to be open to the corridor.
- Where cooking facilities are protected per 9.2.3 (which points to NFPA 96 Hood & Suppression), the area is not required to be classified as a “hazardous area”. But…..

HINT: BE CAREFUL!!! SOME AHJS LOOK AT KITCHEN STORAGE AND MAY CONSIDER IT A “HAZARDOUS AREA” ANYWAY!

PROTECTION REQUIREMENTS

COOKING FACILITIES OPEN TO THE CORRIDOR
Complying with 19.3.2.5.3 (New Text)
Fifteen (15) Specific Requirements, including:
- Limited to serving 30 beds
- Stove hood and suppression system (automatic and manual)
- Stove has off switch that can be locked, and deactivates when not in use and is on a timer
- Smoke detection near (but not too near!! 20 – 25 ft)
- Fully sprinklered
PROTECTION REQUIREMENTS

ALCOHOL BASED HAND RUBS (ABHR)
Complying with 19.3.2.6 (New Text)

- Corridors must be 6 ft in width if installed here
- Dispensers separated from each other horizontally of not less than 48”
- Installed no less than 1” to ignition source (360)
- Over carpet only in sprinklered compartments
- Specific Criteria for the operation of the dispenser
- CMS Final Rule added: taking “all appropriate precautions to secure the ABHR dispensers from inappropriate access” - clarified limiting access to those who may try to harm themselves or others

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PROTECTION REQUIREMENTS

ALCOHOL BASED HAND RUBS (ABHR)
Complying with 19.3.2.6 (New Text)

- Max. individual dispenser for fluid dispensers:
  - .32 gal in rooms, corridors and areas open to corridors
  - .53 gal in suites of rooms
- **One (1) dispenser per / in room not included in total above**
- Cannot exceed 95% alcohol by volume
- Max. individual dispenser for aerosol dispensers:
  - 18 oz and limited to Level I aerosols (NFPA 30B)
  - 10 gal (Gel) or **1135 oz (Aerosol) Max.** in smoke compartment
INTERIOR FINISH

Complying with 19.3.3.3 (Not much new here)

“Interior finish” refers to the coverings over exposed interior surfaces of walls, ceilings, and floors. Common examples of interior finishes include:

- Paint
- Wallpaper
- Paneling
- Carpeting
- Tile

DETECTION, ALARM & COMMUNICATION SYSTEMS

FIRE ALARM SYSTEMS

Complying with 19.3.4 (Not much new here)

Diagram of fire alarm systems:

- Fire safety features
  - elevator recall/shunt
  - smoke dampers
  - door closers
  - HVAC/smoke management fans

- Initiating devices
  - pull stations
  - smoke detectors
  - heat detectors
  - water flow switch

- FACP

- Notification appliances
  - speakers
  - horns
  - bells
  - strobes

Primary power supply
(120 VAC)

Secondary power supply
(24 VDC batteries)
DETECTION, ALARM & COMMUNICATION SYSTEMS

FIRE ALARM SYSTEM “POSITIVE ALARM SEQUENCE”
Complying with 19.3.4.3 (New Text)

- Permits the use of a “positive alarm sequence” in accordance with NFPA 72 if the health care occupancy is sprinklered
- Positive Alarm Sequence:
  - Ack < 15 sec
  - 180 sec for trained personnel to respond
  - 2nd device activation triggers alarm
  - Manual device activation triggers alarm
  - Capability to bypass positive alarm sequence

EXTINGUISHMENT REQUIREMENTS

AUTOMATIC SPRINKLER SYSTEMS
Sprinkler Protection in High Rise Buildings
Complying with 19.4.2 (New Text)

- Required in 2012 Life Safety Code
- Includes a 12 year phase-in period from time of code adoption
- Required by July 2028
**EXTINGUISHMENT REQUIREMENTS**

**AUTOMATIC SPRINKLER SYSTEMS**
Sprinkler Protection in clothes closets of patient sleeping rooms in hospitals if complying with 19.3.5.10 *(New Text)*

- **HOSPITALS ONLY!**
  - Area of closet does not exceed 6 ft²
  - Distance from sprinkler head in the room to back of the closet meets NFPA 13 requirements (typically 7 ½ ft from wall)

**EXTINGUISHMENT REQUIREMENTS**

**AUTOMATIC SPRINKLER SYSTEMS SHUT DOWN**
Complying with 19.3.5 sends to NFPA 25 *(New Text)*

- If the system is down more than ten *(10) hours* over a 24-hour period:
  - Notify the AHJ (and some Insurance Companies)
  - Evacuate the building or post a Fire Watch

*HINT: REMEMBER IT IS STILL 4 HRS FOR FIRE ALARMS!*
CORRIDOR REQUIREMENTS

CORRIDOR SEPARATION complying with 19.3.6.1

Numerous situations where use areas are permitted to be open to the corridor.

CORRIDOR REQUIREMENTS

CORRIDOR SEPARATION

- Waiting Areas
  - AS in the smoke compartment
  - 600SF or less
  - Detection in the space or direct observation

- Nurses’ Stations

- Gift Shops
  - 500 SF or less
  - Building AS or Gift Shop AS with storage separately protected
CORRIDOR REQUIREMENTS

CORRIDOR SEPARATION

Cooking Facilities
  – Meeting the new “cultural change” requirements

Limited Care Facility Meeting / Therapy Spaces
  – AS plus detection / supervision

Group Meeting or Therapy Spaces
  – 1500 SF or less
  – Continuously supervised
  – One space per smoke compartment
  – Smoke detection in the space

CORRIDOR REQUIREMENTS

CORRIDOR SEPARATION

Other Non-sleeping / Treatment Areas
  – Sprinklered smoke compartment
  – Corridor smoke detection or quick response sprinklers
  – Detection in the space or direct supervision
CORRIDOR REQUIREMENTS

CORRIDOR WALLS IN SPRINKLERED COMPARTMENTS
Complying with 19.3.6.2 (Revised Text)
Separated from all other areas by walls & doors

- Walls shall form a barrier to limit the transfer of smoke
- Annex Clarifies: Purpose is to provide a barrier not required to be a smoke barrier or smoke partition as defined by LSC

CORRIDOR REQUIREMENTS

CORRIDOR DOORS IN SPRINKLERED COMPARTMENTS
Complying with 19.3.6.3 (Revised Text)

- Constructed to limit the passage of smoke
- Compliance with NFPA 80 not required
- 1/8” between meeting edges of drs
- 1” max undercut
- 1/2 “ gap door face to door stop
- Protective plates unlimited in height are allowed
CORRIDOR REQUIREMENTS

CORRIDOR DOORS IN SPRINKLERED COMPARTMENTS
Complying with 19.3.6.3 (Revised Text)

- Hold-open wedges or drop-down “feet” are prohibited, must be easy to close

CORRIDOR REQUIREMENTS

CORRIDOR DOORS IN SPRINKLERED COMPARTMENTS
Complying with 19.3.6.3 (Revised Text)

- Provided with a means for keeping the door closed that is acceptable to the Authority Having Jurisdiction (MUST be positive latch for NEW)
- Keeps door closed w/ 5 ft lb force
- LSC allows, but CMS Final Rule limits roller latches for toilet rooms, bathrooms and similar spaces
CORRIDOR REQUIREMENTS

CORRIDOR DOORS IN SPRINKLERED COMPARTMENTS

POWER DOORS complying with 19.3.6.3.7 (New Text)

- Powered doors meet latching requirements of 19.3.6.5 if
  - The door is equipped with a means for keeping the door closed that is acceptable to the AHJ
  - The device used is capable of keeping door fully closed if a 5 lbf force is applied at latch edge of a swinging door and applied in any direction of a sliding door, whether or not power is applied

SUBDIVISION OF BUILDING SPACES

SMOKE BARRIERS SHALL BE PROVIDED

Complying with 19.3.7 (Not much new here)
For every story used for sleeping rooms for > 30 patients

- Smoke compartments cannot exceed 22,500 square feet in size
- The travel distance to a smoke barrier door from any point in a smoke compartment cannot exceed 200 ft.

*Exception: Travel distance isn’t limited if length and width of the smoke compartment are each 150 ft. or less*
SMOKE BARRIERS WALLS
Complying with 19.3.7.3 (Not much new here)

- Barrier must go from outside wall to outside wall
- Barrier wall penetrations properly sealed on both sides of the wall
- Barrier has at least one layer of drywall on both sides of metal stud
- Smoke dampers NOT REQUIRED in sprinklered building

SMOKE BARRIERS WALL PENETRATIONS
Complying with 19.3.7.3 /8.5.6 (Not much new here)

- All penetrations must be properly sealed to limit the transfer of smoke & equal to its fire resistance rating
SMOKE BARRIERS DOORS
Complying with 19.3.7.8 (New Text)

- Doors such as 1 ¾” thick solid-bonded wood-core doors
- Doors constructed that resist fire for 20 min (not required to be labeled)
- Doors must self or automatic close

Latching hardware NOT required
Not required to swing in direction of exit travel
**Protective plates, unlimited in height shall be permitted**
Gap between meeting edges / between door and frame <= 1/8”
Door undercuts <= 3/4”
SPECIAL PROVISIONS

OUTSIDE WINDOW OR DOORS FOR SLEEPING ROOMS
Department of Health and Human Services

Centers for Medicare & Medicaid Services
42 CFR Parts 483, 484, 485, et al.
Medicare and Medicaid Programs; Fire Safety Requirements for Certain Health Care Facilities; Proposed Rule

- 2012 LSC removed requirement for outside windows and minimum sill heights in new construction
- CMS Final Rule clarifies they have retained the outside window or door requirements for all buildings
- CMS Final Rule clarified they have retained the 36” maximum window sill height in NEW Construction only
QUESTIONS

Next Session

Building Services
&
Operating Features
THANK YOU

Dave Hood  
President

Nick Gabriele  
Vice President