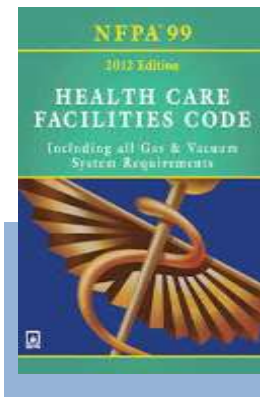
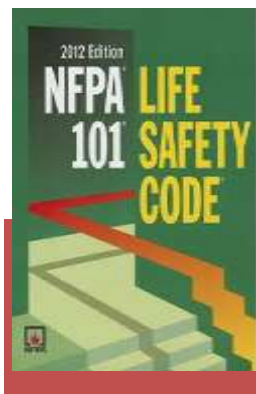


Life Safety Code Activities!

Kenneth Daily, LNHA
kenn@qissurvey.com



CMS

Life Safety Expectations Have Changed!

Facility Maintenance Managers typically are saddled with the responsibilities of many departments:

- Maintenance
- Plant Operations
- Projects
- Environmental Services
- Security
- Laundry
- Life Safety



NFPA 101 - Life Safety Code 2012

- Developed and promulgated by the National Fire Protection Association (NFPA)
- NFPA is not a government agency but frequently referenced by them
- Code editions added since 2000 -2003, 2006, 2009, and 2012
- The newer editions finalized since 2012 include 2015, 2018, 2021 and 2024 editions but are not adopted at this point by CMS





grandfather clause
 Definition of grandfather clause
 a clause creating an exemption based on circumstances previously existing

Grandfathered in refers to conduct that receives the benefit of a grandfather clause, allowing this conduct to receive the treatment of prior laws or rules.

Apply the Code

It does not matter how an earlier AHJ ruled (or not)..... The current AHJ must evaluate the situation and determine whether it is acceptable for continued use

Fundamental Principles

- Multiple safeguards
 - No single feature relied upon
- Safeguards make sense
- Means of egress
 - Egress unobstructed
 - Egress awareness
 - Lighting
- Individual notification
 - Fire alarm
- Vertical openings
 - Protected egress
- System Design and installation
- Testing and maintenance



Main Problem is “Time”

- Many residents cannot self-evacuate
- Delays in resident notification may occur
- Beds and care devices may need to be moved with residents
- People panic and behave differently in fire conditions
- Fire Protection, especially fire doors & smoke doors can buy some time



Fire Danger

- A fire can double in size every 30 seconds causing everything in a room to burn in as little as three minutes. After you have taken two minutes to escape and call 9-1-1 a fire department will probably take 5-9 minutes to arrive.
- It seems that there is an unprecedented level of attention on LSC issues in long term care



Shutting Doors



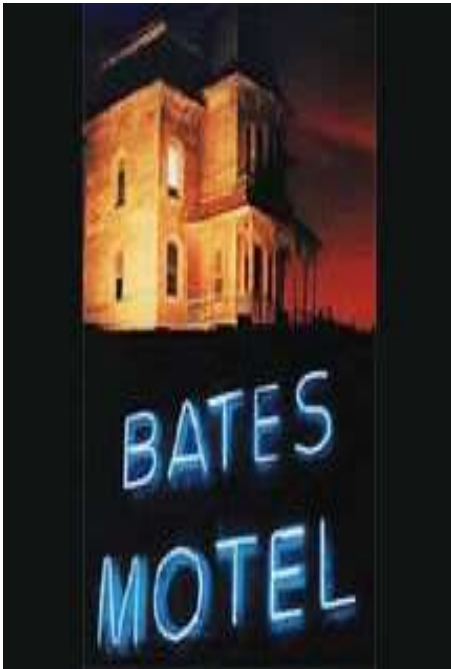
Room Where Door is Shut



Total Concept

- “Constructed, maintained and operated to MINIMIZE the possibility of a fire emergency requiring the EVACUATION of occupants.”
- Design, Construction and Compartmentation
- Detection, alarm and extinguishment
- Training and drills





Leading Life Safety Deficiencies

K Tag	Deficiency
K0353	Sprinkler System - Maintenance and Testing
K0920	Electrical Equipment - Power Cords and Extends
K0222	Egress Doors
K0345	Fire Alarm System - Testing and Maintenance
K0712	Fire Drills
K0761	Maintenance, Inspection and Testing - Doors
K0914	Electrical Systems - Maintenance and Testing
K0321	Hazardous Areas - Enclosure
K0363	Corridor - Doors
K0372	Subdivision of Building Spaces - Smoke Barrie
K0918	Electrical Systems - Essential Electric System



Means of Egress K211

General Aisles, passageways, corridors, exit discharges, exit locations, and accesses are continuously maintained free of all obstructions to full instant use in case of emergency



Corridor Requirements

Section 19.2.3.4 now will allow certain wheeled equipment to project into the required width of the corridor, provided the following is in compliance:

- The clear width of the corridor is never reduced to less than 5 feet (60")
- fire safety plan and training addresses the relocation of the wheeled equipment during a fire



Items in the Corridor

Permitted

- Food service carts in use
- Housekeeping carts in use
- Medication carts in use
- Isolation carts in use
- Crash carts
- Portable lift equipment
- Transport equipment

Not Permitted

- Beds
- Trash containers greater than 32 gals
- Desks
- Chairs
- Tables
- Computers on wheels
- Bird cages

Means of Egress K226



- Exit doors or exit access doors cannot be painted/disguised in a manner that obscures their use as a door
- Horizontal Exits Horizontal exits, if used, are in accordance with 7.2.4 and the provisions of 18.2.2.5.1 through 18.2.2.5.7, or 19.2.2.5.1 through 19.2.2.5.4. 18.2.2.5, 19.2.2.5

Corridor Doors

- Hold open devices that release when the door is pushed or pulled are permitted.
- Nonrated protective plates of unlimited height are permitted.



Windows

- CMS requires windows with the adoption of the life safety code in 2016, however they DO NOT have to operate or open.
- Some fire department do require operating windows for fire safety



NFPA 101 43.7 Change of Use

Healthcare specific for existing, fully-sprinklered facilities:

A Change in Use of a space not exceeding 250 sq. ft. results in a hazardous room (> 50 sq. ft.) the requirements for new construction shall not apply. The room must have a door with a closer and may have a proper protective plate.



No Storage in stair towers





PROBLEM?

Items stored in hall including chairs, medical equipment, linen carts, etc. also on both sides of corridor not providing a minimum of 60"

Problem?

Feature of fire protection is blocked





Space Heaters K 781

- NFPA generally prohibits the use of portable space heaters in healthcare occupancies
- According to the NFPA 101 portable space heaters are not allowed in any resident sleeping room or compartments.



Combustible Decorations

- Requirement
 - Photographs, paintings and 'other art' may not interfere with the operation
- Increases the amount of wall/ceiling space that may be covered:
 - 50% Sprinklered in patient room (less than 4) per wall or ceiling and not aggregated
 - Combustible decorations may not exceed 30 percent of the wall area in a sprinklered smoke compartment





Flammable Decorations

- Decorations of highly flammable character
 - Corn stalks, hay bales, cut pine trees
 - Live potted plants with a root system are permissible

Other ...Cooking Facilities K 324

•Cooking type equipment in the facility such as therapy gym, activities, etc. do not require rangehood type extinguishing system

•When residential cooking equipment is used for food warming or limited cooking (e.g. microwaves, toasters, and hot plates), the Life Safety Code does not automatically classify the area as a hazardous area or require protection per 9.2.3. (Food Warming 19.3.2.5.2)



NO!

Cooking in Resident Rooms



- **K324** – Cooking is not allowed in resident rooms. NFPA 19.3.2.5.3 and 19.3.2.5.4
- **K925** – Cooking appliances cannot be within 15 feet of any area where O2 is administered
- **NFPA 101, 2012 edition:**
18/19.3.2.5.4* Within a smoke compartment, residential or commercial cooking equipment that is used to prepare meals for 30 or fewer persons shall be permitted, provided that the cooking facility complies with all of the following conditions:
 - (1) The space containing the cooking equipment is not a sleeping room.
 - (2) The space containing the cooking equipment shall be separated from the corridor by partitions complying with 19.3.6.2 through 19.3.6.5.

NO!

Sterno may not be used in a nursing home kitchen or buffet because it is an open flame/flammable chemical



Smoking Requirements K

741

- In health care occupancies where smoking is prohibited and signs are prominently placed at all major entrances, secondary signs with language that prohibits smoking shall not be required
- Facility should have a smoking policy that includes:
 - Where prohibited and posting with signs that read NO SMOKING
 - In health care occupancies where smoking is prohibited, and signs are prominently placed at all major entrances
 - Smoking by patients classified as not responsible shall be prohibited unless the patient is under direct supervision.
 - Ashtrays of noncombustible material and safe design shall be provided in all areas where smoking is permitted.
 - Metal containers with self-closing cover devices into which ashtrays can be emptied shall be readily available to all areas where smoking is permitted.
- Smoking by patients classified as not responsible shall be prohibited unless there is direct supervision.



Common Smoking Citations

- Dozens of cigarette butts on the ground
- Smoking by residents on O2
- Use of unacceptable ashtrays such as coffee cans, pop cans, various cups, the ground, etc.
- Smoking in unauthorized areas
- Individuals assessed as unsafe not being supervised
- Ashtrays emptied into trashcans or trash in the ashcan





Space Heaters K 781

- NFPA generally prohibits the use of portable space heaters in healthcare occupancies
- According to the NFPA 101 portable space heaters are not allowed in any resident sleeping room or compartments.



Permitted Candles

- Candles may be lit for religious ceremonies and birthdays.
- Staff present and supervising to ensure resident safety. Also, there should be no residents using oxygen present (within 20')

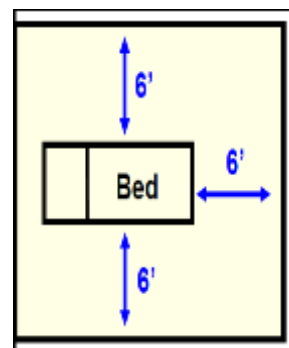
Diffusers and Aroma Devices – No-No!



- The requirements for combustible decorations
 - shall be prohibit 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.
 - The decorations meet the requirements of NFPA 701
 - The decoration exhibits a heat release rate not exceeding 100 kW

Power Taps – Electrical K920

- Power strips in a patient care vicinity are only used for components of movable patient-care-related electrical equipment (PCREE) assemblies
- Power strips in the patient care vicinity may **NOT** be used for non-PCREE (e.g., personal electronics), except in long-term care resident rooms that do not use PCREE.
- Power strips for PCREE meet UL 1363A or UL 60601-1.
- Power strips for non-PCREE in the patient care rooms (outside of vicinity) meet UL 1363.





NO!!



Electrical

- May use in the activities room but must be supervised.
- Items that are Never plugged into a power strip, include: coffee pots, refrigerators, air conditioners, hair driers, etc. (all 'high-draw' equipment)
- No daisy chaining



O2 Storage 300 cu.ft. to 3000 cu.ft.

Door must be secured (locked) with automatic closer

A precautionary sign readable from 5 feet is of a cylinder storage room, wording as a minimum:



- Cylinders are in non-combustible racks or carts
- Empty cylinders are segregated from full cylinders.
- Empty cylinders should be marked to avoid confusion.
- No storage of combustible materials or flammable materials within 5'
- Resident rooms and areas where oxygen is used needs to have oxygen signage when smoking is allowed on property

11.3.1, 11.3.2, 11.3.3, 11.3.4, 11.6.5 (NFPA 99)



Strongly recommend placing sign on or by beauty shop door indicating "NO OXYGEN EQUIP. PERMITTED IN BEAUTY SHOP"



Resident using O2 while under hair dryer in beauty shop which has at times been judged an IJ

Safe Transporting of O2 Cylinders

- Oxygen cylinders always need to be secured when transporting such as wheeled carts designed for cylinder transportation, brackets, or pouches, etc.
- Oxygen cylinders need to be stored in a secure fashion in non-combustible racks or chain methods
- Oxygen cylinders MUST NEVER be left free standing in upright position without being secured
- Never carry a cylinder by the regulator or valve
- Never drag or roll a cylinder
- Do not hold on to the protective caps or guards while transporting cylinders



LSC compliance

- The routine inspection, testing, and maintenance of building systems is an important component of Life Safety Code compliance.
- A significant number of deficiencies occur due to the lack of documentation of this inspection, testing, and maintenance.

Kenneth Daily, LNHA

Elder Care Systems Group

kenn@qissurvey.com



- Consulting and education focusing on quality improvement, survey compliance, and facility management.
- Mock surveys and audits
- FSES
- Policy and procedure development
- Professional development and training