



NFPA 101 and 99 Update to the 2021 Edition - What are the Major Changes

37th Annual AHCA Seminar & Expo

Sunday, Oct. 17 - Tuesday, Oct. 19, 2021 | *Disney's Coronado Springs Resort*



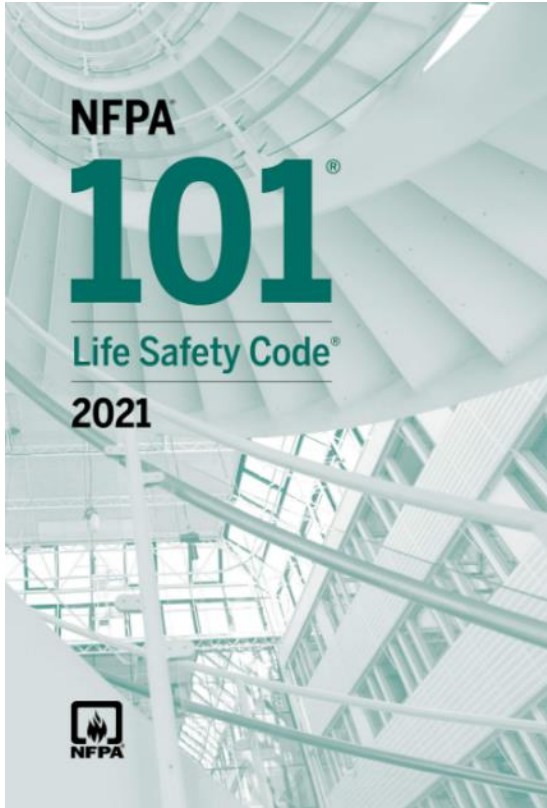
Speaker



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NFPA 101®[®], Life Safety Code®



- New edition = 2021
- Issue by NFPA's Standards Council August 11, 2020
- All documentation of changes made to the Code can be found at www.nfpa.org/101
- Core Chapters (1 - 11, 43)
- Occupancy Chapters (12 - 42)



Suite Definitions (Chapter 3)



- Revised definitions for suites:
 - Health Care Suite
 - Non-Patient Care Suite
 - Patient Care Non-Sleeping Suite
 - Patient Care Sleeping Suite



Gross Floor Area (Chapter 3)



- Provides a new definition of 'gross floor area' specific to health care and ambulatory health care occupancies;
- For determining the area of smoke compartments and determining the area of suites;
- Stairs, elevator, atrium, communicating spaces and building services shafts are not included in this area (see A.3.3.22.2.3)
- For example:
 - ...22,500 ft² (2100 m²) gross floor area in hospital smoke compartments...
 - The stairs and elevator shaft areas are NOT included



Fire Door ITM (Chapter 4)

- Non-required Fire doors and frames are not required to be maintained.
- If you use a fire rated a door in a non-rated wall, annual inspection not required.



Means of Egress (Chapter 7)

Separated the requirements for door unlatching and unlocking forces (15 lbf) from door operating forces (30 lbf)

Releasing operation now referred to as releasing motion

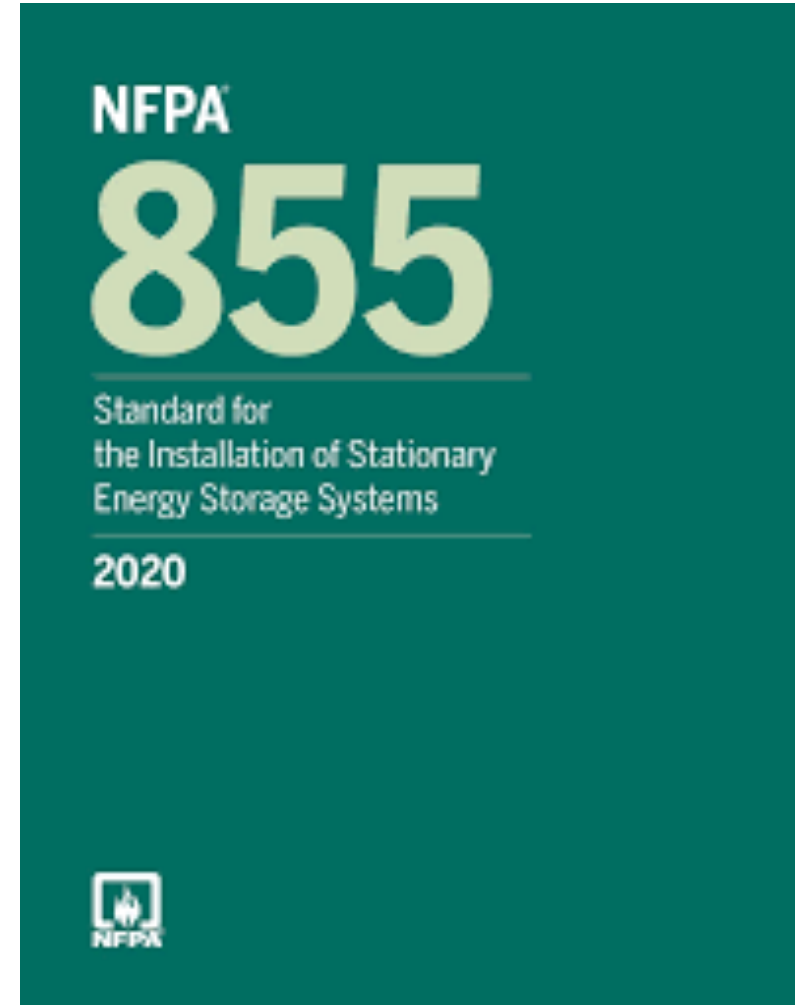
Exit signs - Deleted 30-day exit sign visual inspection requirement

Newly installed emergency stair travel devices are required to comply with ANSI/RESNA ED-1



Energy Storage Systems (Chapter 9)

- Energy storage systems must comply with NFPA 855, *Standard for the Installation of Stationary Energy Storage Systems*



Two-Way Radio Communications Enhancement Systems (Chapter 9)



- Section 9.15: Where provided, two-way radio communication enhancement systems must comply with NFPA 1221, *Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems*.
- In new buildings, minimum radio signal strength for fire department communications must comply with NFPA 1221.
- In existing buildings, radio signal strength for fire department communications must be as required by the AHJ.



High-Rise Building Generator Protection (Chapter 11)



- New provisions for protection of fuel lines supplying generators in high-rise buildings.
- Fuel lines supplying a generator set inside a high-rise building must be separated from areas of the building other than the room in which the generator is located.
 - Fire resistant pipe protection system
 - 2-hour fire-resistance rated assembly (1 hour if building is sprinklered)



Change of Occupancy



- Requirement for special occupancy change from health care to ambulatory care are deleted.
- Use Chapter 43 to evaluate the change (Section 18.1.1.4.2(2)).



New Vertical Opening Allowance



- 18.3.1.3 will allow a two-story convenience stair to be protected by a draft stop and sprinkler curtain per 8.6.9.2.



Occupant Notification Omission



- 18.3.4.3.1(2) Fire Alarm systems using Private Operating Mode.
- Have a new allowance to permit the omission of notification appliances in patient care spaces.



Corridor Door Closers



- 18.3.6.3.7(3) Requires the power operated door devices to cease function upon operation of approved smoke detectors.
- ***This will require input from a detection and alarm system.***



Utilities



- 18.5.1.4 has been revised to clarify the design and installation must comply with NFPA 99.
- Testing and maintenance was clearly required by NFPA 99.



Soiled Linen & Trash Receptacles

- There had been a density requirement of gallons per square foot of material. The density limitation is deleted. The container size limits remain. 18.7.5.7.1 and 18.7.5.7.2.



Construction Type Changes

- Type IV mass timber will be allowed for new and existing construction. 18/19.1.6.1
- **New provision that reflect the pre 2004 FSES for nursing homes has been approved for Chapter 19 only. (19.1.6.7)**



Non-Patient Care Smoke Zones

- 19.3.7.1(1)(c) is a correction added to allow 40,000 sq ft smoke zones in existing facilities.

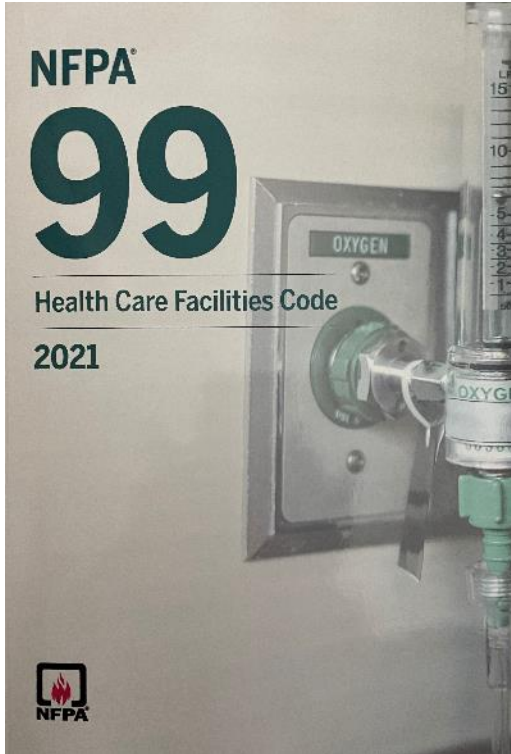


Ambulatory Care Changes

- Trash and Soiled Linen density has been deleted similar to Chapters 18/19
- 21.1.1.4.3.1 and 20/21.1.1.4.3.2 allow the use of flame-resistant plastic for some separation of rehabilitation work.
- Existing high rise have 12 years to be sprinkler protected 21.4.3.1



NFPA 99[®], Health Care Facilities Code[®]



- New edition = 2021
- Issue by NFPA's Standards Council August 11, 2020
- All documentation of changes made to the Code can be found at www.nfpa.org/99
- Core Chapters (1-4, 16)
- Equipment and Program Chapters (6-15)



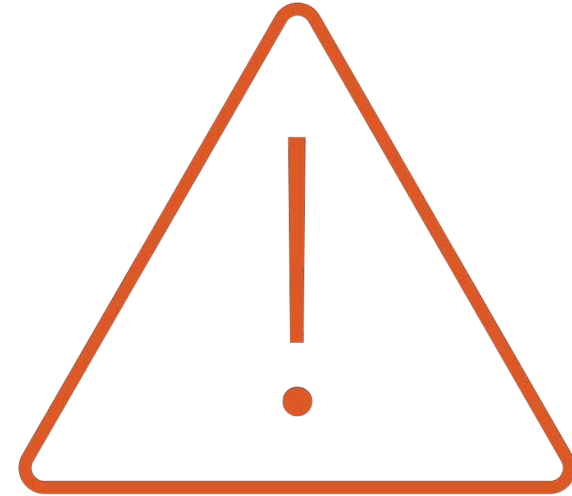
Home Care

- **3.3.77 Home Care.** Medical services or equipment provided in residential occupancies settings that purposely facilitate the provision of medical or custodial care; excludes commercial facilities
- **A.3.3.77** ...home care should not include commercially-operated facilities housing of four or more occupants not related by blood or marriage receiving personal care or medical services.



Signage

- 5.1.3.1.8.1 & 5.1.3.1.9.1
- Existing signage that is not in strict compliance with the provisions of this code shall be permitted to be continued in use as long as the authority having jurisdiction has determined that such use does not constitute a distinct hazard to life.



CAUTION MEDICAL GASES
No Smoking or Open Flame

Cryogenic

5.1.3.3.1.7-10

**Cryogenic needs to comply with NFPA 55
& appropriate CGA Standard**

- Oxygen
- Nitrous oxide
- Carbon dioxide
- Inert gases



Outdoor Sources

5.1.3.3.2.1

- If outdoors, they shall be well drained and provided with an enclosure constructed of noncombustible materials.
- If outdoors, cylinders and containers shall be protected from prolonged contact with soil.
- ~~If outdoors and greater than 18.6 m^2 (200 ft^2), they shall be provided with a minimum of two entry/exits.~~
- ~~If outdoors, bulk cryogenic liquid systems shall be provided with a minimum of two entry/exits.~~



Emergency Oxygen Supply Connection

5.1.3.5.13.2 (8)

- Four alarm connection points installed to both master alarm panels to allow the temporary supply to be monitored while in use



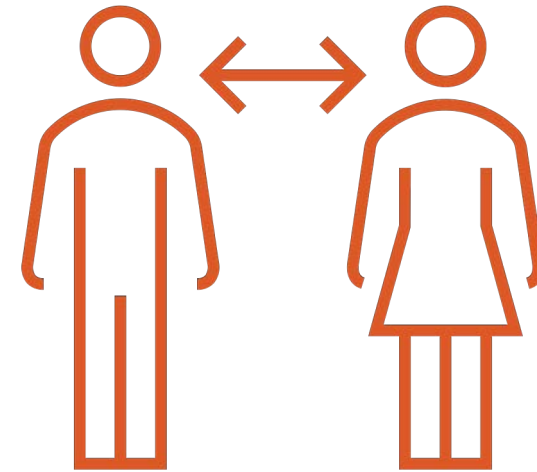
Responsible Facility Authority

- **Responsibilities**

- Advise risk assessment and the interpretations of Chapter 5
- Involvement in development of facility's emergency plan
- Developing and enforcing permit-to-work rules
- Evaluation and acceptance of the test reports
- Maintenance of the MGV records

- **Qualifications**

- ASSE 6010, 6020, 6030, 6040 or another approved program



Permit to Work System

- Communication prior to any work on MGV system
- Alternative supply or adjustments in patient care in place prior to system interruption,
- All work is performed by competent, qualified individuals
- Procedures are in place and communicated for the shutdown and restoration of medical gases
- Safety procedures are in place
- This code is followed
- The affected portions of the systems are tested



Medical Gas Space Change

5.1.14.3.5*

- When clinical spaces are converted to nonclinical spaces, medical gas inlets and outlets that are not accessible for maintenance and testing shall be either removed or decommissioned.



Cylinder Storage > 3000 ft³

- Requirements for design and construction of gas storage location for gas greater than 3000ft³ were duplicated in Chapter 11 (11.3.5) for ease of use, instead of just referring to chapter 5.

- Access to move cylinders
- Securable Doors
- Interior finish noncombustible
- 1-hour fire rating
- Comply with NFPA 70
- No fuel fired equipment in room
- Max temp 130°F
- Secure cylinders from falling
- Electrical supplied by EES
- Limited combustible shelving.
- Electrical devices protected
- Allow delivery vehicle access
- Ventilation



Cylinder Storage 300 ft³ – 3000 ft³

11.3.6.8

Ventilation for indoor medical gas storage rooms shall comply with 9.3.6.

9.3.6.5.2 Natural Ventilation

9.3.6.5.3 Mechanical Ventilation



Cylinder Storage Signage (Ch. 11)

2018 (smoking)

CAUTION
OXIDIZING GAS(ES)
STORED WITHIN
NO SMOKING

CHANGE

2021 (non-smoking & oxidizing)

CAUTION
NO OPEN FLAME
OXIDIZING GAS(ES) STORED
WITHIN

2021 (smoking & inert)

CAUTION
NO Smoking or Open Flame
Positive Pressure Gases
Room May Have Insufficient Oxygen
Open Door and Allow Room to
Ventilate Before Entering



Electrical Systems and Components



- Chapters 6 and 10
- The term “equipment” is being changed to “electrical systems and components.” This avoids confusion with NFPA 70 (NEC) terms.



Chapter 6 and 10 Terminology

- “Alternate source of power” is now “alternate power source”
- Healthcare Micro Grid and Healthcare Microgrid Control System are new terms added. New section of 6.10 on Microgrids



Chapter 6 Electrical System Upgrades

- Half of the Cat 1 and Cat 2 receptacles on separate power sources
- Clarification for Type 1 and Type 2 EES was added
- Generator sizing clarification added to 6.7.1.2.4 and A6.7.1.2.4



Chapter 7 IT Upgrades



7.3.1.2.3.2 Cable length is the limiting factor when measure the 295 feet maximum pathway.



Telecommunication Rooms can only serve the floor it is located
7.3.1.2.3.4(E)



FGI Guidelines references are removed from Chapter 7



Chapter 8 Plumbing Updates

- 8.1.3 - An existing system that is not in strict compliance with the provisions of this code shall be permitted to be continued in use, unless the authority having jurisdiction has determined that such use does not constitutes a distinct hazard to life. This clarifies the intent of the TC for existing conditions
- FGI Guidelines references were expanded to cover all guidelines



Chapter 9 HVAC Updates

- 9.1.3 An existing system that is not in strict compliance with the provisions of this code shall be permitted to be continued in use, unless the authority having jurisdiction has determined that such use does not constitutes a distinct hazard to life. This clarifies the intent of the TC for existing conditions.



Chapter 10 Electrical Components Updates

- The RPT attachment plug must not be connected to another RPT or extension cord 10.2.3.6(4)





Chapter 14 Hyperbaric Updates

- Mostly clarifications of Chamber types and allowance for use.
- No major technical changes. Updates to reflect current chamber operations.



Chapter 16 Fire Protection Features Updates

- 16.7.1.2 and 16.7.1.3 clarifies existing fire alarm systems must be tested and maintained.
- NFPA 418 Standard for Heliports was an added reference for health care facilities.
- MRI fire extinguishers must be listed “MR Conditional” or “MR Safe” for use in less than 11.7 Tesla area



THANK YOU!



Questions?

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