



# 2021 Life Safety Code Changes

# Codes Surveyed Under

- NFPA 1 (2021 Edition)
- NFPA 101 (2021 Edition) Life Safety Code
- Florida Fire Prevention Code (FLFP)
- Florida Building Code (FBC)
- Florida Administrative Code (FAC)
- Florida Statutes



# Door Unlatching and Leaf Operating Forces.

- **7.2.1.4.5.1** The forces required to fully unlock and unlatch any door leaf manually in a means of egress shall not exceed 15 lbf (67 N) where the door hardware operates by push, pull, or slide, or 28 in.-lbf (3.16 N-m) where the door hardware operates by rotation.



# Latch-Release Devices

- **7.2.1.5.3.3** The releasing mechanism for new installations shall be capable of being operated with one hand and shall not require tight grasping, tight pinching, or twisting of the wrist to operate.



# Discharge from Exits

- **7.7.1.2** New exit discharge paths to a public way shall have a width of not less than 36 in. (915 mm) and existing exit discharge paths to a public way shall have a width of not less than 28 in. (710 mm).



# Building Service, Fire Protection, and Life Safety Equipment

## 9.1.5 Energy Storage Systems.

- Energy storage systems shall be in accordance with NFPA 855.
- NFPA 855 – Standard for the Installation of Stationary Energy Storage Systems.



# Smoke Alarms in Sleeping Rooms.

- **9.6.2.10.3.1** In new construction, where required by Chapters 11 through 43, the alarm notification signal in sleeping rooms resulting from activation of smoke alarms shall be a 520 Hz low-frequency signal complying with NFPA 72.



# Smoke Alarms in Sleeping Rooms.

- Where audible appliances are installed to provide signals for sleeping areas, they shall have a sound level of at least 15 dB above the average ambient sound level or 5 dB above the maximum sound level having a duration of at least 60 seconds or a sound level of at least 75 dBA, whichever is greater, measured at the pillow level in the area required to be served by the system using the A-weighted scale (dBA).

[NFPA 72 (2019) 18.4.6.1]



# Smoke Alarms in Sleeping Rooms.

- If any barrier, such as a door, curtain, or retractable partition, is located between the notification appliance and the pillow, the sound pressure level shall be measured with the barrier placed between the appliance and the pillow. [NFPA 72 (2019) 18.4.6.2]



# Smoke Alarms in Sleeping Rooms.

- Audible appliances provided for the sleeping areas to awaken occupants shall produce a low frequency alarm signal that complies with the following:
  - (1) The waveform shall have a fundamental frequency of 520 Hz  $\pm$  10 percent.
  - (2) The notification equipment shall be listed for producing the low frequency waveform.  
[NFPA 72 (2019) 18.4.6.3]



# Two-Way Radio Communication Enhancement Systems.

- **9.15.1** Where provided, two-way radio communication enhancement systems shall be in accordance with NFPA 1221.
- **9.15.2** In new buildings, minimum radio strength for fire department communications shall be in accordance with NFPA 1221.
- **9.15.3\*** In existing buildings, radio strength for fire department communications shall be as required by the authority having jurisdiction (AHJ).



# Patient Mobility

- **19.1.6.9 through 19.1.6.9.3** Patient Mobility status shall be classified as Mobile, Limited Mobility, or Not Mobile.
- Patients classified as mobile shall meet all of the following:
  - (1) Capable of readily rising from bed and taking self-protecting actions at approximately the same rate as a healthy adult
  - (2) Capable of getting out of bed without assistance
  - (3) Capable of opening a closed or locked door
  - (4) Not restrained or in any other way limited in response capabilities so that the type of arousal mechanism that normally would awaken an adult is effective



# Patient Mobility cont'd

- Patients classified as having limited mobility shall meet the requirements of 19.1.6.9.1 except that their rate of travel is significantly slower than a patient classified as mobile.
- Patients classified as not mobile shall be incapable of removing themselves from danger exclusively by their own efforts.



# NFPA 99

- Medical-Surgical Vacuum Exhaust
- **5.1.3.7.7.4** Vacuum exhaust shall be labeled in accordance with 5.1.11.1 with any method that would distinguish it as a vacuum exhaust.
- Piping shall be labeled by stenciling or adhesive markers that identify the patient medical gas, the medical support g.as, or the vacuum system



# NFPA 99

- Use for Essential Electrical System (EES)
  - **6.7.1.2.2\*** An essential electrical system(s) shall be designed to meet the maximum demand likely to be produced by the connected load and be consistent with the facility's emergency operations plan with any single power source of the system out of service.



# NFPA 99

- **6.7.1.2.3.2** Outdoor EPS Installations
  - (A) The EPS shall either be installed in a suitable enclosure located outside the building and capable of resisting the entrance of snow or rain at a maximum wind velocity as required by local building codes or be constructed such that it is capable of resisting the impacts of snow or rain.



# NFPA 99

- **6.7.1.2.3.3** Level 1 EPSS equipment shall not be installed in the same room with the normal service equipment, where the service equipment is rated over 150 volts to ground and equal to or greater than 1000 amperes.  
[110:7.2.3]



# NFPA 99

- **6.7.1.2.3.4** The rooms, enclosures, or separate buildings housing Level 1 or Level 2 EPSS equipment shall be designed and located to minimize damage from flooding, including that caused by the following:
  - (1) Flooding resulting from fire fighting.
  - (2) Sewer water backup.
  - (3) Other disasters or occurrences.

[110.7.2.4]



# NFPA 99

- Site Acceptance Testing
  - **6.8.1.1** Acceptance testing is required after initial installation or major renovation prior to the system being placed into service.
  - **6.8.3.1** A record of all site acceptance testing procedures required in 6.8.1 and testing results shall be maintained.
  - **6.8.3.2** Site acceptance testing records shall be retained for 5 years.



# NFPA 99

- Electrical Preventive Maintenance (EPM)
  - 6.9.1.1 All electrical components which are part of an electrical system serving a Category 1 and Category 2 space shall be part of an electrical preventive maintenance (EPM) program.



# NFPA 99

- Electrical Preventive Maintenance (EPM) cont'd
  - 6.9.1.2 The EPM program shall include the following elements:
    - (1) Listing of all equipment and systems included as part of the program.
    - (2) Schedule of inspection, testing, and servicing (maintenance) of equipment.
    - (3) Survey and analysis of electrical equipment and systems to determine maintenance requirements and priorities.
    - (4) Scheduled routine inspections and tests.



# NFPA 99

- Electrical Preventive Maintenance (EPM) cont'd
  - 6.9.1.2 The EPM program shall include the following elements:
    - (5) Review of inspection and test reports so that proper corrective measures can be prescribed.
    - (6) Performance of necessary work.
    - (7) Complete records.



# NFPA 99

- Health Care Microgrids
  - Section 6.10 is new to the 2021 edition of NFPA 99. It not only permits the use of microgrids as part of the electrical system for health care facilities, but more importantly permits microgrid systems to be utilized as all or as a portion of the emergency power supply (EPS) system.
  - The health care microgrid system shall be inspected, tested, and maintained by qualified personnel.



# NFPA 99

- 11.3.6.8 Ventilation for indoor medical gas storage rooms shall comply with 9.3.6.
- As of the 2021 edition, either natural or mechanical ventilation is required to be provided where volumes of gas greater than 8.5 m<sup>3</sup> (300 ft<sup>3</sup>) are stored.



# NFPA 99

- 16.8\* Heliports
- NFPA 418, Standard for Heliports, covers ground level landing facilities, rooftop landing facilities, and rooftop hangars.
- 16.8.1 New heliports shall be designed and constructed in accordance with the requirements of NFPA 418.
- 16.8.2 Heliports shall be maintained in accordance with NFPA 418.



# NFPA 99

- Manual Extinguishing Equipment.
- 16.10.1 Fire extinguishers shall be provided in MRI rooms and associated spaces.
- 16.10.1.4 Clean agent– or water mist–type fire extinguishers shall be provided **in** operating rooms.
- 16.10.1.5 Clean agent–type fire extinguishers shall be provided in telecommunication entrance facilities and telecommunication equipment rooms.







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