The Centers of Medicare and Medicaid (CMS) require participating Skilled Nursing Facilities (SNF) to comply with the requirements of the National Fire Protection Association (NFPA) 101-2012 edition (The Life Safety Code®) as well as NFPA 99 – 2012 edition (The Health Care Facilities Code). These codes are a comprehensive set of requirements, which provide residents a high level of safety and security due to their nature of illness, impairment, and the inability to self-evacuate in an emergency.

There are specific occupancy chapters of the Life Safety Code® (LSC) which apply to all health care facilities including nursing homes. Facilities certified before July 5, 2016 are typically considered “existing” and LSC Chapter 19 applies. Facilities that have been constructed and/or certified after July 5, 2016 are considered “new” and Chapter 18 applies. NFPA 101 and NFPA 99 both reference more than 40 additional codes and standards which include various other requirements that also apply.

NFPA 99 specifically establishes criteria for systems in health care facilities such as gas, vacuum, electrical, etc. These requirements are generally applied and applicable to new construction and new equipment. Several chapters begin with specifying which criteria are applicable to “existing” facilities and/or installations. Generally, existing facility systems are permitted to remain, even if they are not in strict compliance with the code, unless the authority having jurisdiction determines that their continued use constitutes a distinct hazard to life. If facilities consider altering, modernizing, or replacing equipment, the ‘new’ system / component / installation are required to meet the installation and equipment requirements outlined in NFPA 99 and based upon a facility risk assessment.

The following tips provide information and guidance for individual deficiencies (K-tags) which have been frequently cited across the U.S. The tips provided are intended for reference only. If you have further questions, refer to the applicable NFPA Code/Standard. You can also reach out to AHCA at lifesafety@ahca.org for assistance.

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| --- | --- | --- | --- | --- |
| **Rank** | **K Tag** | **Description**  | **Citations** | **% of Providers**  |
| 1 | K 353 | Sprinkler System - Maintenance and Testing | 4,188 | 25.70% |
| 2 | K 918 | Electrical Systems - Essential Electric System | 3,209 | 19.50% |
| 3 | K 345 | Fire Alarm System - Testing and Maintenance | 2,461 | 15.00% |
| 4 | K 321 | Hazardous Areas - Enclosure | 2,366 | 15.00% |
| 5 | K 712 | Fire Drills | 2,339 | 14.20% |
| 6 | K 363 | Corridor - Doors | 2,245 | 14.40% |
| 7 | K 324 | Cooking Facilities | 2,033 | 13.20% |
| 8 | K 920 | Electrical Equipment - Power Cords and Extension | 1,922 | 12.30% |
| 9 | K 372 | Subdivision of Building Spaces - Smoke Barrie | 1,592 | 10.30% |
| 10 | K 211 | Means of Egress - General | 1,412 | 9.00% |
| 11 | K 222 | Egress Doors | 1,397 | 9.00% |
| 12 | K 511 | Utilities - Gas and Electric | 1,396 | 9.00% |
| 13 | K 521 | HVAC | 1,314 | 8.20% |
| 14 | K 761 | Maintenance, Inspection and Testing - Doors | 1,312 | 8.10% |
| 15 | K 355 | Portable Fire Extinguishers | 1,215 | 7.70% |
| 16 | K 923 | Gas Equipment - Cylinder and Container Storage | 1,214 | 7.90% |
| 17 | K 291 | Emergency Lighting | 1,181 | 7.40% |
| 18 | K 741 | Smoking Regulations | 976 | 6.30% |
| 19 | K 914 | Electrical Systems - Maintenance and Testing | 946 | 5.80% |
| 20 | K 374 | Subdivision of Building Spaces - Smoke Barrier | 907 | 5.90% |

\*QCOR FY 2023 (October 2022-September 2023)

**Life Safety Tips**

The following tips relate specific Life Safety Code® requirements and industry best practices:

1. **K353 Sprinkler System Maintenance and Testing:**
* Ensure that facility conducts quarterly inspections and annual testing.
* Complete a visual inspection of all sprinkler heads annually. This can be conducted from the floor. Sprinklers that are found to be dirty, grimy, rusted or have paint on them should be cleaned utilizing compressed air, vacuum, or if necessary, replaced.
* Confirm that there is a supply of spare sprinklers – based on the facility sprinkler inventory and normally no less than six plus an installation wrench.
* Confirm that the automatic sprinkler and standpipe systems are inspected, tested, and maintained in accordance with NFPA 25, 2011 edition.
* Confirm that the facility has conducted an internal pipe inspection every 5 years. NFPA 25 (2011 edition) 14.2.1 states: “An inspection of piping and branch line conditions shall be conducted every five years by opening a flushing connection at the end of one main and by removing a sprinkler toward the end of one branch line for the purpose of investigating for the presence of foreign organic and inorganic material.”
* Confirm that facilities with dry pipe sprinkler systems have conducted system pressure testing every three years as defined in NFPA 25 13.4.4.2.9.
* Confirm the main drain tests are completed and compared to previous tests.

Reference: NFPA 101, 9.7.5, 9.7.7, 9.7.8, and NFPA 25

1. K918 Electrical Systems:
* Ensure that the generator is maintained according to the manufacturer and/or NFPA requirements for weekly visual inspection and monthly exercising.
* Ensure that the generator monthly exercise documentation includes the time that is took to transfer from pole power to generator power (10 sec maximum).
* Ensure that there is a remote emergency stop button available outside of the generator enclosure.
* Ensure for diesel generator which do not minimally run 30% or greater of its nameplate rating, that the facility has had an annual load bank test which is at least 90 minutes.
* For Natural Gas generators – obtain a letter from natural gas supplier confirming the reliability of gas including the following elements:
	+ A statement of reasonable reliability of the natural gas delivery
	+ A brief description that supports the statement regarding the reliability
	+ A statement that there is a low probability of interruption of the natural gas
	+ A brief description that supports the statement regarding the low probability of interruption
	+ The signature of technical personnel from the natural gas vendor.

Reference: NFPA 99, 6.4.4, 6.5.4; NFPA 110, 8.4; NEC 700.12(B)(3)

1. **K345 Fire Alarm Testing and Maintenance:**
* Ensure that facility completes the required semi-annual and annual function inspections
* Confirm monthly that the fire alarm transmits a signal to the monitoring company or fire station within 90 seconds.
* Ensure that all records for the inspection, testing and maintenance of the fire alarm system and all related components are readily available
* Ensure that all smoke detectors and alarms (hard wired and battery operated) receive sensitivity testing every two-years
* Check the inventory list of tested devices to ensure they match from year to year.

NFPA 70, NFPA 72, and NFPA 25

1. **K321 Hazardous Areas:**
* Hazardous areas shall be enclosed by a fire barrier having a 1-hour fire resistance rating or shall be provided with an automatic extinguishing system in accordance with 8.7.1. The door to a hazardous space is required to be closed and latch and have automatic closer. Note: NFPA 101, §19.3.2 (existing healthcare occupancy) permits smoke partitions in conjunction with automatic fire suppression system protection in lieu of 1-hour fire barriers. Existing 1-hour fire barriers may not be reduced to smoke partitions.
* Confirm that there is an automatic door closer on all doors to hazardous areas.
* Hazardous areas shall include, but shall not be restricted to, the following:
	+ Boiler and fuel-fired heater rooms
	+ Central/bulk laundries larger than 100 ft2.
	+ Paint shops
	+ Repair shops
	+ Rooms with soiled linen in volume exceeding 64 gal
	+ Rooms with collected trash in volume exceeding 64 gal
	+ 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

Reference: NFPA 101, 18/19.3.2.1, 7.2.1.8, 8.4, 8.7, 9.7

1. **K712 Fire Drills:**
* Facility should conduct, at a minimum, one fire drill per month, per shift, per quarter
* Confirm that fire drills conducted are at varying times and conditions (i.e. vary by more than an hour apart, held on different days of the week, different weeks in the month).
* A fire drill conducted at shift change only counts as one drill on one shift.
* When fire drills are conducted between 9:00 PM and 6:00 AM, a coded announcement may be used instead of audible alarms and the fire alarm must be tested at a separate time.

Reference: NFPA 101, 18.7.1.4 through 18.7.1.7, 19.7.1.4 through 19.7.1.7

1. **K363 Corridor Doors:**

Substantial construction to resist smoke

* 1¾ inch solid-bonded core wood or like and similar door such as a 20-min FRR.
* 20-minute fire rated, or capable of resisting fire for at least 20 minutes.
* CMS S&C Letter 07-18
	+ In a smoke compartment that is fully sprinklered, a gap between the face of a corridor door and the doorstop should not exceed 1⁄2-inch, provided that the door latch mechanism is functioning.
* Confirm that no non-approved hold-open devices are being used (e.g., wedges, copy paper boxes, fire extinguishers).
* Facility should establish a periodic schedule for inspection, testing and maintenance of all smoke resisting doors in the facility according to S&C Letter 17-38-LSC.

Reference: NFPA 101, 18.3.6.3, 19.3.6.3

1. **K324 Cooking Facilities:**
* The cooktop or range is protected with a fire suppression system listed in accordance with UL 300
* Ensure that the cooktop and/or range is secured/tethered to the wall or floor to make certain that it does not move and thereby damaging the gas line.
* Ensure that all wheeled equipment under the rangehood has the wheels caulked or outlined to ensure that after moving the equipment can be returned to exact location.
* Ensure that the fire suppression system in inspected, testing, and maintained semi-annually according to NFPA standards (NFPA 96)
* Moving appliances without manufacturer guidance and building authority approval is not permitted
* Ensure that the kitchen always has one or more K type extinguishers (within 30 ft of employees).
* Ensure that the fire suppression system manual activation is set between 42” and 48” off the floor.
* Ensure that K-type extinguisher has appropriate notice signage
* Ensure that there is appropriate heat detection in kitchen as required.
* Ensure staff know that in the event of a fire under the range hood, they should first engage the cooktop fire suppression system.
* Ensure staff do not use unapproved door hold open devices such as wedges, boxes, etc.

Reference: NFPA 101, 18/19.3.2.5.2 through 18/19.3.2.5.5, 9.2.3

1. **K920 Electrical Equipment - Power Strips**
* Power strips (relocatable power tapes (RPT)) used within 6’ of patient bed must be certified UL 1363A or UL 10601-1 and may only be used of patient care related electrical equipment (PCREE)
* No non-PCREE may be plugged into a power strip within 6’ of patient bed.
* Power strips for non-PCREE in the patient care rooms (outside of vicinity of patient bed) must meet UL 1363.
* Power strips cannot be interconnected “daisy-chained” to increase length.
* Equipment that is high-draw such as cooling and heating devices cannot be plugged in to any type of power strip.
* No type of multi-receptable adapter is permitted in a health care setting.
* Confirm that the power strip is not attached to the wall or furniture as it cannot be used as permanent wiring.

Reference: NFPA 99 10.2.4. 10.2.3.6, 10.2.4; NEC 517

1. **K372 Subdivision of Building Spaces:**
* Confirm that all penetrations in the smoke or fire barrier have been appropriately filled to resist the passage of smoke or fire.
* Use firestop systems or devices that have passed the ASTM E 814 or UL 1479 fire tests or are permitted by LSC 8.3.5.1.1.
* Do not use spray foam sealants

Reference: NFPA 101, 18.3.7.3, 19.3.7.3, 8.5.6, and 8.3.5

1. **K 211 Means of Egress – General**
* Aisles, passageways, corridors, exit discharges, exit locations, and accesses are in accordance with NFPA 101, Chapter 7
* Means of egress is continuously maintained free of all obstructions to full use in case of emergency
* Corridors, at all times, serving as exit access are always available for instant use.
* Cracks or gaps in sidewalks cannot create more than a ¼” change in elevation or must be repaired.

Reference: NFPA 101, 18.2.2 through 18.2.11, 19.2.2 through 19.2.11, 18.2.1, 19.2.1, 7.1.10.1

1. **K222 Egress Doors:**
* Confirm that doors to the corridor do not require more than one action to open and exit door.
* Confirm delayed egress locking doors have signage above the hardware on the door stating, “PUSH UNTIL ALARM SOUNDS DOOR CAN BE OPENED IN 15 SECONDS.”
* Confirm that any delayed egress locking system properly releases within 15 seconds.
* Confirm that once the door alarm sounds (within 3 seconds of applying pressure on panic bac) that the door unlocking system cannot be reset by the door’s keypad code. The unlocking system is required to be an irreversible process.
* Remember that disguising the function of any egress door is not permitted.

Reference: NFPA 101, 7.2.4, 18/19.2.2.5.1 through 18/19.2.2.5.7

1. **K511 Utilities Gas and Electric:**
* Ensure that all junction boxes have appropriate covers installed.
* All electrical equipment must be securely installed
* No lose or uncapped wires should project from a wall.
* Ensure that all electrical devices are installed and maintained according to NFPA 70 – the National Electrical Code
* Ensure that no extension cords are used in the facility
* Ensure that all generators, fuel tanks and other utility systems are protected when adjacent to parking lots or driveways with protective bollards.

Reference: NFPA 54; LSC 18/19.5.1.1, 9.1.1, 9.1.2

1. **K521 HVAC:**
* Confirm that all smoke dampers have been inspected, tested and documented every 4 years. If the damper is equipped with a fusible link, the link shall be removed for testing and/or replacement. All inspections and testing shall be documented indicating the location of the fire damper or combination fire/smoke damper, date of inspection, name of inspector, and deficiencies discovered.
* Ensure HVAC system design does not include a corridor plenum.
* Heating, ventilation, and air conditioning shall comply with NFPA requirements and shall be installed in accordance with the manufacturer’s specifications.

Reference: NFPA 101, 9.2, 18/19.5.2.1; NFPA 80, 19.4

1. **K761 Fire Doors**
* Ensure all fire door assemblies are annually inspected and tested
* Doors tested include:
	+ Fire rated labeled doors located in fire resistance rated wall assemblies
	+ Fire rated labeled doors in exit enclosures - typically stairwells
	+ Fire rated labeled doors in other fire resistance rated walls such as hazardous areas and fire pump enclosures

Reference: NFPA 101, 18/19.2.2.1; NFPA 80, 8.3.3.2

1. **K355 Portable Fire Extinguishers**
* Ensure that each fire extinguisher in the facility is visually inspected every month. Staff person responsible for inspection shall sign and date inspection tag.
* Ensure fire extinguishers are mounted correctly. Normally, fire extinguishers shall not be mounted more than 5 feet above the floor and at least 4 in. above the floor (also check for ADA reach range compliance).
* Annual inspection, testing and maintenance shall be completed and documented.
* Dry chemical agent extinguishers are required to have an internal examination on a 5 to 6-year interval (refer to NFPA 10, 7.3.1.1.2)
* Conduct the 12-year hydrostatic vessel testing

Reference: NFPA 10, 7.3.1, 8.3

1. **K923 Gas and Cylinder Storage:**
* Ensure the proper amount is stored and that all gas tanks are fully supported in metal racks or carts.
* Ensure that Empty and Full tanks are kept separated (even in same storage room).
* Confirm mechanical ventilation is provided where the room contains more than 3,000 cubic feet and natural ventilation cannot be provided.
* Ensure that the door to the gas storage room closes and latches and has the ability to be locked.
* Ensure that the oxygen storage room as appropriate signage stating, “Medical Gases Stored Within, No Smoking”

Reference: NFPA 99, 5.1.3.3.3, 9.3.7

1. **K291 Emergency Lighting**
* Emergency lighting of at least 1.5-hours (90-minutes) duration is provided automatically
* Emergency exit lighting is equipped with two sources of light either by having two fixtures or one light fixture with two light bulbs. T
* Each exit discharge must have a functional emergency light that lasts at least 1.5-hours.
* Exit discharges outside of the building to ensure they are illuminated along the path to the public way. (Minimum of one-foot candle power of illumination at floor level).
* Documentation that emergency lighting is functioning should be tested monthly
* Conduct a functional test on all battery-operated emergency lighting systems at 30-day intervals for not less than 30-seconds. Conduct the annual test on every required battery powered emergency lighting system for not less than 1.5-hours.

Reference: NFPA 101, 18.2.8, 19.2.8, 7.9, 18.2.9.1, 19.2.9.1

1. **K741 Smoking Regulations:**
* Ensure there are no discarded cigarette butts on the ground outside the facility.
* Ensure that the proper smoking equipment is being used including non-combustible self-closing ashtrays and designed ash can.

Reference: NFPA 101, 18/19.7.4

1. **K914 Receptacle Testing (non-Hospital grade):**

Ensure that receptacles not listed as hospital-grade, at patient bed locations are tested every 12 months, NFPA 99, 6.3.4.1, 6.3.3.2. The inspection must include:

* Visual inspection must confirm the physical integrity of each receptacle.
* The continuity of the grounding circuit in each electrical receptacle must be verified.
* The correct polarity of the hot and neutral connections in each electrical receptacle must be confirmed.
* The retention force of the grounding blade of each electrical receptacle (except locking-type receptacles), must be not less than 4 oz.

Reference: NFPA 99

1. **K374 Smoke Barriers - Subdivision of Building Spaces – Smoke Compartments**
* Smoke barriers shall be provided to form at least “two” smoke compartments on every sleeping room floor for more than 30 patients.
* Smoke compartments shall not exceed 22,500 square feet and the travel distance to and from any point to reach a door in the required barrier shall not exceed 200-feet.
* Openings in smoke barrier doors shall be fire-rated glazing or wired glass panels in steel frames.
* Seal all penetrations with approved fire rated materials. CMS advises to verify that you have the technical data sheets on the products prior to determining if it would be compliant. Follow all instructions for application use and installation for fire rated materials
* Replace damaged fire rated ceiling tiles with the same or equivalent fire rated ceiling tiles.

Reference: NFPA 101, 18/19.3.7.6, 3.7.8, 3.7