

Cabinet for Health and Family Services
Office of the Inspector General
Division of Health Care

Presents

Life Safety Code (LSC) Training
KAHCF Annual Conference
November 21, 2024



1

Objectives

Upon completion of this session, participants will be able to:

- List the top 10 most commonly cited life safety code deficiencies;
- Describe the LSC regulation requirements related to the top 10 commonly cited deficiencies; and
- Explain the LSC survey process.

Cabinet for Health and Family Services



2

CMS Region IV-Atlanta

8 – States in Region IV

- Alabama
- Florida
- Georgia
- Kentucky
- Mississippi
- North Carolina
- South Carolina
- Tennessee



Cabinet for Health and Family Services



5

Life Safety Code Overview

- Defines the Minimum Requirements for a Fire-Safe Building
 - Life Safety from Fire
- Fundamental Requirements
 - Allow for Proper Exits and/or the Ability to Defend in Place
 - Multiple Safeguards
 - Appropriate Safeguards
 - Means of Egress
 - Number of Means of Egress
 - Unobstructed Egress
 - Awareness of Egress System

Cabinet for Health and Family Services



6

Life Safety Code Overview (cont.)

- Fundamental Requirements (Cont.)
 - Lighting
 - Occupant Notification
 - Vertical Openings
 - System Design / Installation
 - Maintenance

Cabinet for Health and Family Services



7

LSC Reference Resources

- State Operations Manual Appendix I – Survey Process
(Rev. 209, 12-09-2022)
- State Operations Manual Appendix Q – IJ Protocol
- State Operations Manual Chapter 5 – Complaint Protocol
- State Operations Manual Chapter 7 – Enforcement Protocol
- **NFPA 101 Life Safety Code, 2012 Edition and NFPA 99 – HCFC 2012 Edition**



Cabinet for Health and Family Services



8

Life Safety Code Updated

- S&C: 16-29-LSC dated June 20, 2016
 - Final rule published in the Federal Register (Vol.81, No. 86) Medicare and Medicaid Programs; Fire Safety Requirements for Certain Health Care Facilities effective July 5, 2016
 - Adoption of the 2012 edition of the National Fire Protection Association (NFPA) 101 – Life Safety Code (LSC) and 2012 edition of the NFPA 99 – Health Care Facilities Code (HCFC)
 - New LSC survey process effective November 1, 2016

Cabinet for Health and Family Services



9

LSC Final Rule

- Eliminates all references to the previously adopted 2000 edition of the LSC.
- Buildings constructed before July 5, 2016 can meet Existing Occupancy requirements. Buildings that receive design approval or building permits for construction before July 5, 2016 can meet Existing Occupancy requirements. All others must meet new occupancy requirements.
- CMS can continue to waive, for periods deemed appropriate, specific provisions of the LSC, which would result in an unreasonable hardship upon a facility, providing the waiver will not adversely affect the health and safety of the patients.


Cabinet for Health and Family Services



10

KY 10 Most Frequently Cited LSC Deficiencies in Certified Nursing Facilities (10/01/2023 - 09/30/2024)			
01	K-920	Electrical Equipment - Power Cords and Extension Cords	51
02	K-372	Subdivision of Building Spaces - Smoke Barrier Construction	41
03	K-918	Electrical Systems - Essential Electrical System (Generator Testing)	37
04	K-321	Hazardous Areas – Enclosure	36
05	K-921	Electrical Equipment – Testing (PCREE) Patient-Care Related Electrical Equipment	29
06	K-351	Sprinkler System – Installation	29
07	K-353	Sprinkler Systems – Maintenance and Testing	28
08	K-363	Corridor – Doors	26
09	K-914	Electrical Systems – Maintenance and Testing (Receptacle Testing)	22
10	K-324	Cooking Facilities	22

Cabinet for Health and Family Services




11

K-920 Electrical Equipment

Electrical Equipment – Power Cords and Extension Cords Power strips in a patient care vicinity are only used for components of movable patient-care-related electrical equipment (PCREE) assemblies that have been assembled by qualified personnel and meet the conditions of 10.2.3.6. Power strips in the patient care vicinity may not be used for nonPCREE (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. In non-patient care rooms, power strips meet other UL standards. All power strips are used with general precautions. Extension cords are not used as a substitute for fixed wiring of a structure. Extension cords used temporarily are removed immediately upon completion of the purpose for which it was installed and meets the conditions of 10.2.4. 10.2.3.6 (NFPA 99), 10.2.4 (NFPA 99), 400-8 (NFPA 70), 590.3(D) (NFPA 70), TIA 12-5

Cabinet for Health and Family Services



12

K-372 Subdivision of Building Spaces – Smoke Barrier Construction

2012 EXISTING Smoke barriers shall be constructed to a ½ hour fire resistance rating per 8.5. Smoke barriers shall be permitted to terminate at an atrium wall. Smoke dampers are not required in duct penetrations in fully ducted HVAC systems where an approved sprinkler system is installed for smoke compartments adjacent to the smoke barrier. 19.3.7.3, 8.6.7.1(1)

2012 NEW Smoke barriers shall be constructed to provide at least a 1-hour fire resistance rating and constructed in accordance with 8.5. Smoke barriers shall be permitted to terminate at an atrium wall. Smoke dampers are not required in duct penetrations of fully ducted HVAC systems. 18.3.7.3, 18.3.7.4, 18.3.7.5, 8.3

Cabinet for Health and Family Services



13

K-918 Electrical Systems – Essential Electrical System

The generator or other alternate power source and associated equipment is capable of supplying service within 10 seconds. If the 10-second criterion is not met during the monthly test, a process shall be provided to annually confirm this capability for the life safety and critical branches. Maintenance and testing of the generator and transfer switches are performed in accordance with NFPA 110.

Generator sets are inspected weekly, exercised under load 30 minutes 12 times a year in 20-40 day intervals, and exercised once every 36 months for 4 continuous hours. Scheduled test under load conditions include a complete simulated cold start and automatic or manual transfer of all EES loads, and are conducted by competent personnel. Maintenance and testing of stored energy power sources (Type 3 EES) are in accordance with NFPA 111. Main and feeder circuit breakers are inspected annually, and a program for periodically exercising the components is established according to manufacturer requirements. Written records of maintenance and testing are maintained and readily available. EES electrical panels and circuits are marked, readily identifiable, and separate from normal power

Cabinet for Health and Family Services



14

K-321 Hazardous Areas - Enclosure

2012-EXISTING Hazardous Areas – Enclosure Hazardous areas are protected by a fire barrier having 1-hour fire resistance rating (with 3/4-hour fire rated doors) or an automatic fire extinguishing system in accordance with 8.7.1. When the approved automatic fire extinguishing system option is used, the areas shall be separated from other spaces by smoke resisting partitions and doors in accordance with 8.4. Doors shall be self-closing or automatic-closing and permitted to have nonrated or field-applied protective plates that do not exceed 48 inches from the bottom of the door. 19.3.2.1 Area, Automatic Sprinkler, Separation, N/A a. Boiler and Fuel-Fired Heater Rooms b. Laundries (larger than 100 square feet) c. Repair, Maintenance, and Paint Shops d. Soiled Linen Rooms (exceeding 64 gallons) e. Trash Collection Rooms (exceeding 64 gallons) f. Combustible Storage Rooms/Spaces (over 50 square feet) g. Laboratories (if classified as Severe Hazard - see 0322)

Cabinet for Health and Family Services



15

K-921 Electrical Equipment – Testing and Maintenance (PCREE)

The physical integrity, resistance, leakage current, and touch current tests for fixed and portable patient-care related electrical equipment (PCREE) is performed as required in 10.3. Testing intervals are established with policies and protocols. All PCREE used in patient care rooms is tested in accordance with 10.3.5.4 or 10.3.6 before being put into service and after any repair or modification. Any system consisting of several electrical appliances demonstrates compliance with NFPA 99 as a complete system

Service manuals, instructions, and procedures provided by the manufacturer include information as required by 10.5.3.1.1 and are considered in the development of a program for electrical equipment maintenance. Electrical equipment instructions and maintenance manuals are readily available, and safety labels and condensed operating instructions on the appliance are legible. A record of electrical equipment tests, repairs, and modifications is maintained for a period of time to demonstrate compliance in accordance with the facility's policy. Personnel responsible for the testing, maintenance and use of electrical appliances receive continuing training. 10.3, 10.5.2.1, 10.5.2.1.2, 10.5.2.5, 10.5.3, 10.5.6, 10.5.8

Cabinet for Health and Family Services



16

K-351 Sprinkler System - Installation

2012 EXISTING Nursing homes, and hospitals where required by construction type, are protected throughout by an approved automatic sprinkler system in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems. In Type I and II construction, alternative protection measures are permitted to be substituted for sprinkler protection in specific areas where state or local regulations prohibit sprinklers. In hospitals, sprinklers are not required in clothes closets of patient sleeping rooms where the area of the closet does not exceed 6 ft² and sprinkler coverage covers the closet footprint as required by NFPA 13, Standard for Installation of Sprinkler Systems. 19.3.5.1, 19.3.5.2, 19.3.5.3, 19.3.5.4, 19.3.5.5, 19.4.2, 19.3.5.10, 9.7, 9.7.1.1(1)

2012 NEW Buildings are to be protected throughout by an approved automatic sprinkler system in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems. In Type I and II construction, alternative protection measures are permitted to be substituted for sprinkler protection in specific areas where State and local regulations prohibit sprinklers. Listed quick-response or listed residential sprinklers are used throughout smoke compartments with patient sleeping rooms. In hospitals, sprinklers are not required in clothes closets of patient sleeping rooms where the area of the closet does not exceed 6 ft² and sprinkler coverage covers the closet footprint as required by NFPA 13, Standard for Installation of Sprinkler Systems. 18.3.5.1, 18.3.5.4, 18.3.5.5, 18.3.5.6, 9.7, 9.7.1.1(1), 18.3.5.10

Cabinet for Health and Family Services



17

K-353 Sprinkler System – Maintenance and Testing

Automatic sprinkler and standpipe systems are inspected, tested, and maintained in accordance with NFPA 25, Standard for the Inspection, Testing, and Maintaining of Water-based Fire Protection Systems. Records of system design, maintenance, inspection and testing are maintained in a secure location and readily available. 9.7.5, 9.7.7, 9.7.8, and NFPA 25

Cabinet for Health and Family Services



18

K-363 Corridor - Doors

2012 Existing

Doors protecting corridor openings in other than required enclosures of vertical openings, exits, or hazardous areas resist the passage of smoke and are made of 1¾ inch solid-bonded core wood or other material capable of resisting fire for at least 20 minutes. Doors in fully sprinklered smoke compartments are only required to resist the passage of smoke. Corridor doors and doors to rooms containing flammable or combustible materials have positive latching hardware. Roller latches are prohibited by CMS regulation. These requirements do not apply to auxiliary spaces that do not contain flammable or combustible material. Powered doors complying with 7.2.1.9 are permissible if provided with a device capable of keeping the door closed when a force of 5lbf is applied, whether or not power is applied. Clearance between bottom of door and floor covering is not exceeding 1 inch. There is no impediment to the closing of the doors. Hold open devices that release when the door is pushed or pulled are permitted. Nonrated protective plates of unlimited height are permitted. Dutch doors meeting 19.3.6.3.6 are permitted. Door frames shall be labeled and made of steel or other materials in compliance with 8.3, unless the smoke compartment is sprinklered. Fixed fire window assemblies are allowed per 8.3. In sprinklered compartments there are no restrictions in area or fire resistance of glass or frames in window assemblies. 19.3.6.3, 42 CFR Parts 403, 418, 460, 482, 483, and 485

Cabinet for Health and Family Services



19

K-363 Corridor – Doors Cont.

2012 NEW Doors protecting corridor openings shall be constructed to resist the passage of smoke. Corridor doors and doors to rooms containing flammable or combustible materials have self-latching and positive latching hardware. Roller latches are prohibited by CMS regulation. These requirements do not apply to auxiliary spaces that do not contain flammable or combustible material. Powered doors complying with 7.2.1.9 are permissible if provided with a device capable of keeping the door closed when a force of 5lbf is applied, whether or not power is applied. Clearance between bottom of door and floor covering is not exceeding 1 inch. There is no impediment to the closing of the doors. Hold open devices that release when the door is pushed or pulled are permitted. Nonrated protective plates of unlimited height are permitted. Dutch doors meeting 18.3.6.3.6 are permitted. 18.3.6.3, 42 CFR Parts 403, 418, 460, 482, 483, and 485

Cabinet for Health and Family Services



20

K-914 Electrical Systems – Maintenance and Testing (Receptacle Testing)

Electrical Systems – Maintenance and Testing Hospital-grade receptacles at patient bed locations and where deep sedation or general anesthesia is administered, are tested after initial installation, replacement or servicing. Additional testing is performed at intervals defined by documented performance data. Receptacles not listed as hospital-grade at these locations are tested at intervals not exceeding 12 months. Line isolation monitors (LIM), if installed, are tested at intervals of ≤ 1 month by actuating the LIM test switch per 6.3.2.6.3.6, which activates both visual and audible alarm. For LIM circuits with automated self-testing, this manual test is performed at intervals ≤ 12 months. LIM circuits are tested per 6.3.3.3.2 after any repair or renovation to the electric distribution system. Records are maintained of required tests and associated repairs or modifications, containing date, room or area tested, and results. 6.3.4 (NFPA99)

Cabinet for Health and Family Services



21

K-324 Cooking Facilities

Cooking equipment is protected in accordance with NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, unless: residential cooking equipment (i.e., small appliances such as microwaves, hot plates, toasters) are used for food warming or limited cooking in accordance with 18.3.2.5.2, 19.3.2.5.2. cooking facilities open to the corridor in smoke compartments with 30 or fewer patients comply with the conditions under 18.3.2.5.3, 19.3.2.5.3, or cooking facilities in smoke compartments with 30 or fewer patients comply with conditions under 18.3.2.5.4, 19.3.2.5.4. Cooking facilities protected according to NFPA 96 per 9.2.3 are not required to be enclosed as hazardous areas, but shall not be open to the corridor. 18.3.2.5.1 through 18.3.2.5.4, 19.3.2.5.1 through 19.3.2.5.5, 9.2.3, TIA 12-2

Cabinet for Health and Family Services



22

LSC Survey Process Time Frames

- Unannounced
- Conducted and completed on consecutive days
- Conducted anytime 24/7
- Not to exceed 15 months previous standard survey
- Special focus facilities
 - Surveyed every six months
- Normally conducted during or within 7 days of health survey visit

Cabinet for Health and Family Services



23

Overview of LSC Survey Process

- Offsite Survey Preparation
 - Previous Statements of Deficiencies / Plan of Corrections
 - Facility survey history
 - Facility profile
 - Previously investigated complaints or complaints to be investigated
 - Floor plan
 - CMS approved waivers, if applicable

Cabinet for Health and Family Services



24

Overview of LSC Survey Process (cont.)

- Confer
 - State health survey team
- Contact
 - Local / State fire authorities and/or building code inspectors, if applicable
 - OIG Central Office Architects, if applicable

Cabinet for Health and Family Services



25

Overview of LSC Survey Process (cont.)

- Entrance Conference
 - Brief meeting with facility management
 - Introduction and explanation of visit
 - Explanation of survey process
 - Requested Information
 - Building Layout
 - Maintenance Documents
 - Special Facility Features

Cabinet for Health and Family Services



26

Overview of LSC Survey Process (cont.)

- Information Gathering
 - Observation / Building Inspection
 - Tour (s)
 - Interviews
 - Smoking Policy
 - Fire drills
 - Preventative maintenance and testing program
 - Records review
 - Smoking Policy
 - Fire drills
 - Maintenance and testing records
 - Construction work
 - Others as appropriate

Cabinet for Health and Family Services



27

Overview of LSC Survey Process (cont.)

- Information Analysis/Decision Making
 - The LSC surveyor will:
 - Review and analyze all information collected during survey
 - Determine whether or not the facility has failed to meet one or more of the regulatory requirements
 - Immediate correction prior to exit does not eliminate a deficient practice
 - Use Appendix Q to determine if deficiencies constitute immediate jeopardy (IJ)

Cabinet for Health and Family Services



28

Overview of LSC Survey Process (cont.)

- Measuring the seriousness of deficiencies
 - The seriousness of a deficiency is measured for determining the enforcement response most appropriate for the degree of noncompliance
 - Severity level
 - Scope level

Cabinet for Health and Family Services



29

Overview of LSC Survey Process (cont.)

CMS Life Safety Code Scope and Severity Grid

Severity Level	Severity Definition	Scope		
4	Immediate jeopardy to resident health and safety	J	K	L
3	Actual harm that is not immediate jeopardy	G	H	I
2	No actual harm with potential for more than minimal harm that is not immediate jeopardy	D	E	F
1	No actual harm with potential for minimal harm	A	B	C
		→		
		Isolated	Pattern	Widespread

Cabinet for Health and Family Services



30

Overview of LSC Survey Process (cont.)

- CMS Life Safety Code **Scope** and Severity Grid
 - Isolated
 - When one or a very limited number of occupants are affected and a very limited area (compartment) within the facility is also affected
 - Pattern
 - When more than a very limited number of occupants are affected and more than a limited area is also affected, but the problem is not dispersed throughout the facility
 - Widespread
 - When the problem affects many locations throughout the facility and also affects a large number of occupants

Cabinet for Health and Family Services



31

Overview of LSC Survey Process (cont.)

Exit Conference

- To communicate preliminary findings to facility management
 - Including
 - Deficiencies
 - Other related LSC issues observed
- Opportunity for facility management to discuss and supply additional information, if necessary
- Statement of Deficiency (SOD)
 - 10 working days to provider
- Plan of Correction (POC)
 - 10 calendar days to State Agency
- Informal Dispute Resolution/Independent Informal Dispute Resolution (IDR/IIDR)

Cabinet for Health and Family Services



32

Overview of LSC Survey Process(cont.)

- Statement of Deficiency (SOD)

- For each deficiency cited, SOD must include:

- Identify section(s) in the LSC and mandatory references upon which the deficiency is based
 - Specifically reflect the content of each requirement that is not met
 - Clearly identify how / why the requirement was not met

Cabinet for Health and Family Services



33

Overview of LSC Survey Process (cont.)

- Plan of Correction (POC)

- For each deficiency cited, POC must include:

- A specific corrective action
 - An explanation of steps
 - A description of the measures implemented
 - A description of how changes will be monitored
 - Date it will be corrected

Cabinet for Health and Family Services



34

Overview of LSC Survey Process (cont.)

- Conclusion
 - Desk review
 - Evaluate the information provided by the facility to determine the status of the corrective action(s)
 - Follow-up survey or revisit
 - Re-evaluate the specific deficient areas
 - Determine the status of corrective action(s)
 - Adverse action procedures, if applicable
 - Deficiencies were not corrected as indicated in the facilities approved plan of correction

Cabinet for Health and Family Services



35

QUESTIONS?



36



2024 Annual Meeting
Session #22: Top Ten Cited Life Safety Tags in Kentucky
November 21, 2024

Scan this code with your phone to access the training's evaluation form!

How to scan QR Code:

- Open camera app
- Point the camera at the QR Code center and focus on code until link pops up
- Tap the notification to open the link (Internet connection required)
- Follow the instructions on the link to complete the training evaluation
- Samsung/Android users: Hold down the "Home" button and swipe up to reveal the options at the bottom. Select "What's on my screen?"** The short URL connected to the QR Code's information will then appear.

To receive full credit for attending today's session you are required to complete within 24 hours of this session.
Please note that you will be required to enter your KBN license number.

Cabinet for Health and Family Services

