
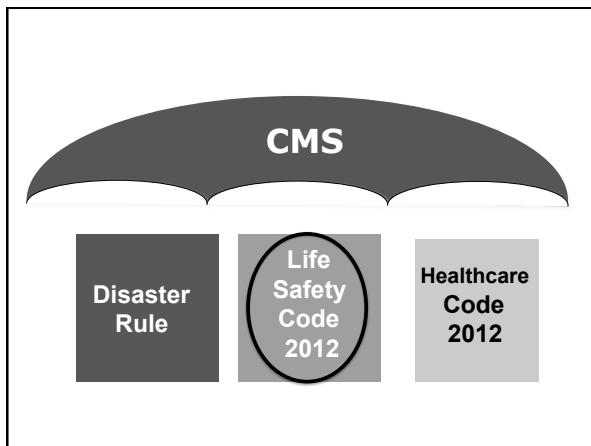


Nursing Facility Life Safety Code Today and Tomorrow

Kenneth Daily, LNHA
kenn@lifesafetycode.healthcare
Spring 2015







Scope of the Code

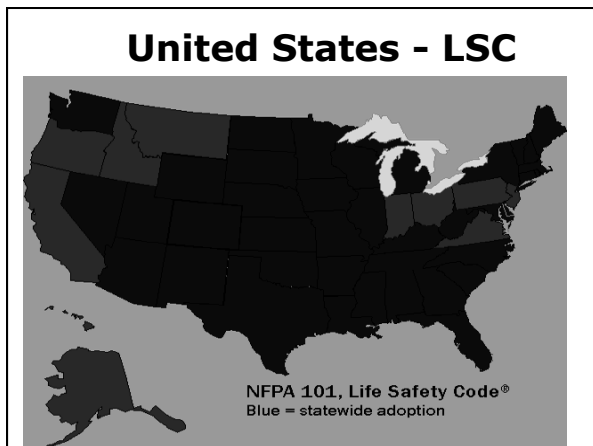
- Life Safety and similar emergencies
- Construction issues and protections based on building use
- Egress from buildings and/or safe areas within buildings
- Additional protections
- Remember
 - LSC is not a building code or a fire prevention code



Who do I follow?

- Normally each facility has a number of AHJs (Authority Having Jurisdiction) that must either approve of or remain compliant too which can be confusing
 - State Fire Marshal’s Office
 - Local Fire Department or City Code Officials
 - Other Designated AHJ



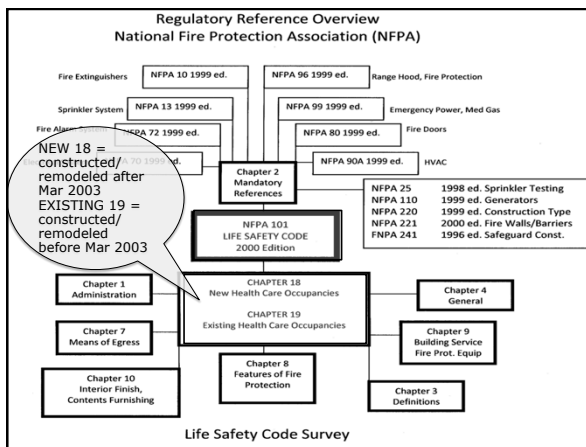


NFPA 101 - Life Safety Code®

- Promulgated by the National Fire Protection Association (NFPA) (not a government agency)
 - Code Versions 2000, 2003, 2006, 2009, 2012, 2015
- Life Safety Code is not the only code facilities must meet but one of many i.e. International Building Code (IBC), Ohio Fire Code, Ohio Building Code, Uniform Building Code), Local Codes and ordinances etc.

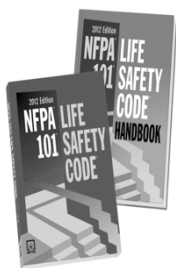
"You're not allowed to use the sprinkler system to keep your audience awake."

- ### Goal of the LSC
- Protect individuals who are not at the origin of the fire
 - Improve survivability
 - Provide for safety consistent with public interest
 - Avoid unreasonable hardships
 - Buildings designed, built and maintained with integrity
 - Systems work



Life Safety Code

- Chapter 1 – Administration
- Chapter 2 – Mandatory References
- Chapter 3 - Definitions
- Chapter 4 - General
- Chapter 5 – Performance-based
- Chapter 6 – Classification/Hazards
- Chapter 7 - Egress
- Chapter 8 – Fire Protection Features
- Chapter 9 – Service/ Fire Protection
- Chapter 10 – Interior Finish, Contents and Furnishings
- Chapter 11 – Special Structures/ High Rises
- Chapters 11-42 Occupancies (Healthcare 18-19)



Fundamental Principles of the Codes

- Multiple safeguards
 - No single feature relied upon
- Safeguards make sense
 - Based on occupancy and the ability of occupants
- Egress numbers
 - 2 means of egress unless to do so doesn't make sense
- Egress unobstructed
- Egress awareness
- Lighting
- Individual notification
 - Fire alarm
- Vertical openings
 - Protected egress
- System Design and installation
 - standards
- Testing and maintenance
 - Standards maintained

Move to LCS 2012

- CMS has made several significant moves in adopting the 2012 edition of NFPA 101 Life Safety Code
- Essentially partial adoption of specific items
- Survey and Certification letters
 - March 9, 2012 (12-21-LSC)
 - August 30, 2013 (13-58-LSC)
 - October 31, 2014 (14-46-LSC)

Culture Change

- Allows for facilities that have enhanced their environments to obtain a waiver until CMS accepts the 2012 Life Safety Code
- Facility must comply with ALL the requirements of the 2012 LSC for each waiver
 - You do not have to document financial hardship
 - You do not have to document alternative protection
 - The waived requirements apply to both new and existing buildings



CMS Categorical Waivers

S&C-12-21-LSC

- Means of Egress/ Corridor storage
- Cooking Facilities
- Fireplaces
- Decorations

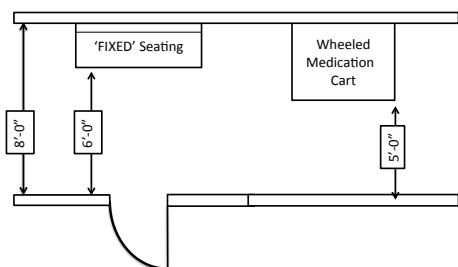
S&C-13-58-LSC

- Openings in Exit Enclosures
- Emergency Generators
- Doors
- Clean Waste/ Recycling

Means of Egress

- Wheeled equipment parked ("in use") in corridor, provided there is 5 feet of clearance (patient lifts & transport equipment)
- Fixed Furniture - bench seating (limited to 2 feet deep)
- Fixed seating in the corridors permitted where corridor is at least 8 ft. in width
 - Fixed furniture does not reduce the clear width of the corridor to less than 6 ft.
 - On same side, not more than 50 sq. ft area, 10 feet between benches

Corridors



Cooking Facilities

- One per smoke zone
- No deep fat fryers
- Shut off device for fuel supply
- Grease baffles
- No solid fuel (i.e. charcoal)
- Nursing unit containing the open kitchen must be separated from all other areas by a smoke barrier.
- Commercial hood system
- Smoke detectors in the kitchen located no closer than 20 ft. from the cook top or range.



Fireplaces

- Direct vent gas fireplaces allowed in smoke compartments containing patient sleeping rooms
 - Not allowed inside a patient room
 - Carbon monoxide monitors are required
 - Solid fuel burning fireplaces in areas other than patient sleeping areas, with one hour rated barrier between fireplace and sleeping rooms
 - The smoke compartment the fireplace is located must be protected with quick response sprinklers
 - The fireplace shall have a sealed glass front with wire mesh panel or screen



Decorations

- Decorations such as photographs, paintings and other art are attached to the walls, ceilings and non required fire rated doors
- Increases the amount of wall space that may be covered by combustible decorations
 - 50% Sprinklered in patient room (less than 4)



Openings in Exit Enclosures

- Permits existing openings in exit enclosures to mechanical equipment spaces if they are protected by fire-rated door assemblies.



Emergency Generators and Standby Power Systems

- Reduces the annual diesel-powered generator exercising requirement from two (2) continuous hours to one hour and 30 minutes.



Doors

- Door locking is permitted for clinical or security needs provided staff can readily unlock doors.
- Provisions must exist for rapid removal
- Remote control locks
- Keys carried by staff
- Other reliable means
- (2000 code) Only one lock per door
- (2012) More than one delayed egress lock is permitted in the egress path if permitted by AHJ



Exit Access Doors

- Allows more than one delayed-egress lock in the egress path where the clinical needs require specialized security measures or when a patient requires specialized protective measures for safety.



Clean Waste & Record Recycling Containers

- Allows the increase in size of containers used solely for recycling clean waste or for patient records awaiting destruction outside of a hazardous storage area to be a maximum of 96-gallons



S&C Memo 14-46 Power Strips

- CMS announced categorical waiver to allow for use of power strips in resident care areas that use line-operated, patient-care-related electrical.
- These provisions, however, rarely apply to long-term care facilities because most do not have "line-operated, patient-care related electrical equipment" except for possibly life support equipment



SURVEY PROCESS

Inspection, Testing and Maintenance and Record Keeping

- A majority of the citations of the TOP 10 deficiencies are a result of inspection, testing or maintenance issues, with many involving just record keeping
- Record Keeping and Documentation of everything you do and your contractor does is key to success
- If deficient issues are discovered by Contractor's testing or inspection report, you must fix it immediately



Inspection, Testing and Maintenance and Record Keeping

- A minimum of 2 staff members must know where all Inspection, Testing and
- Maintenance Records are located and have access to these records 24/7



Ohio Life Safety Code Survey



- Ohio average facility receives 3.3 LSC deficiencies US 3.6
- Deficiency free – 19.1%
- 11% of NFs report fires

State Operations Manual Appendix I

Part I - Survey Procedures – LSC Surveys

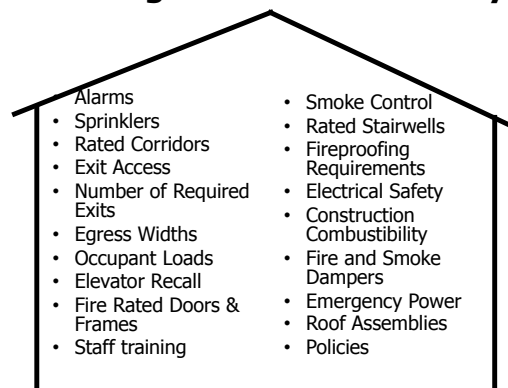
II. Survey Tasks

- Task 1 - Offsite Survey Preparation
- Task 2 - Entrance Conference/Onsite Preparatory Activities
- Task 3 - Orientation Tour
- Task 4 - Information Gathering
- Task 5 - Information Analysis and Decision Making
- Task 6 - Exit Conference

III. Complaint Investigations

IV. Post Survey Revisits

Building Fire and Life Safety



Survey Prep

- LSC Note book – everything in one place
- Current survey cycle only
 - Archive older records
- Review past surveys and ensure that prior deficiencies are corrected
- Evacuation plans – correct, posted and staff familiar
- Audit vendor record keeping
 - Remind them that we must follow 2000 code (not subsequent ones yet)
 - Complete any recommended repairs or updates
- Ladders available surveyor use?
- Flashlights ready surveyors use?

Prepare For Survey - Notebook

Facility diagram showing layout, current room designation and exits.

Copy of any waivers that are in effect.

Emergency Lighting

- Monthly 30 second test
- Annual 90 minute test

Fire Alarm

- All documents from vendor-Monthly, Quarterly, semi-annual and annual testing
- Batteries every 4 years

Sprinkler System

- Pressure gauges - weekly (dry)
- Pressure gauges monthly (wet)
- Vendor inspections
 - Quarterly
 - Annual
 - 5yr. internal inspection
 - 5yr. standpipe hydro test

Notebook con't

Fire Dampers

- Test and lube every 4 years
- 8 years of records

Smoke detectors

- Test sensitivity when installed
- Test sensitivity one year after installation
- Test sensitivity every two years afterwards
- Keep records for 4 years

Generator

- Weekly
- Monthly
- Annual Load (if necessary)

Facility Policies

- Evacuation (K-48)
- Fire Alarm
- Fire Drill
- Fire Procedures
- Fire Watch
- Smoking
- *Generator use, maintenance and malfunction
- * Power strips use
- * Portable space heaters

LSC Notebook con't

Fire Drills

- Monthly (one/month, per shift, per quarter)
- Varied times, days, etc.

Fire Pump

- Weekly
- Monthly
- Annual

Flame Retardant

Treatments

- Items that could be reviewed at survey include:
 - Drapes
 - Carpet
 - Privacy curtain
 - Valances

Hood Suppression

- Semi-annual (surveyors will need to see at least last two)

Misc. Items (if necessary)

- Elevator maintenance, state certificate and state inspection
- Medical gas certificate
- Boiler certificate (annual)

- **Remember to follow up and complete any work vendors 'recommend'**

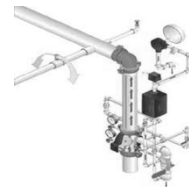
So What Are They Finding?

- K-62 Sprinkler system
- K-29 Hazardous areas
- K-18 Corridor doors
- K-147 Temporary electric
- K-52 Fire panel
- K-38 Emergency egress
- K-144 Generator
- K-50 Fire drills
- K-25 Smoke barrier
- K-54 Smoke Detectors



K62: Sprinkler System

- Inspect and maintain sprinkler system in accordance with NFPA 25.
- Maintain a supply extra sprinkle heads in facility with "special wrench"
- Retain maintenance records of the sprinkler system for the preceding 12 months
- Ensure there is nothing interfering with sprinkler such as curtains and storage
- Ensure that the same type of sprinkler head is used throughout each compartment. (Note there are exceptions for special areas such as boiler rooms which may have higher than normal temperatures.)



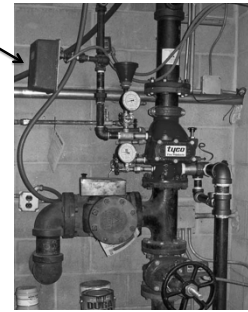
Spare Sprinkler Cabinet

- At least six spare sprinklers, a sprinkler wrench, and list of sprinklers installed shall be maintained on the premises
- NFPA 13 2007 6.2.9



Sprinkler Tamper Switch

Sprinkler system must have one or more of these devices to ensure water is always available

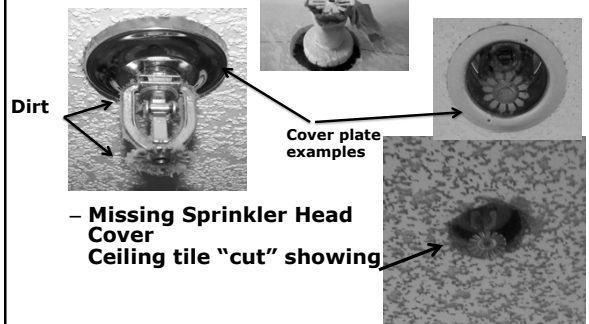


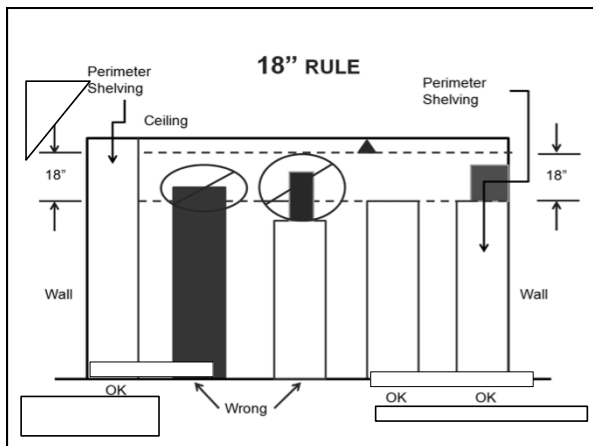
Sprinkler Pressure Gauge



- Record the pressure weekly (dry system)
- Record pressure monthly (wet system)
- Test or replace gauges every 5 years
- Gauge should be dated (install)

Tape and Paint





K29 – Hazardous Areas

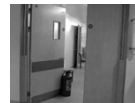
- Hazardous areas are required to be separated from other areas by a smoke resisting enclosure
 - If ceiling is not smoke resisting, the walls must extend to the roof
 - Doors are required to be smoke resisting (No louvers)
 - Doors must self-close, latch, and can only be held open with a device that is compliant with K21

Hazardous Areas K-29

- Hazardous areas include:
 - Boiler and Fuel-Fired Heater Rooms
 - Laundries greater than 100 square feet
 - Repair Shops and Paint Shops
 - Laboratories if classified as a severe hazard
 - Combustible storage Rooms/Spaces (over 50 square feet)
 - Trash Collection Rooms
 - Soiled Linen Rooms
 - Smoking Rooms
 - Rooms larger than 50 sf. used for storage of combustible supplies and equipment in quantities deemed hazardous by the AHJ

K 29 –HAZARDOUS AREAS

- Deficient practices
 - Door does not have automatic closer
 - The door does not close to the latched position.
 - The door is held open with a wood wedge.
 - The door is not a 45-minute fire-rated door.



K 18 Corridor Doors

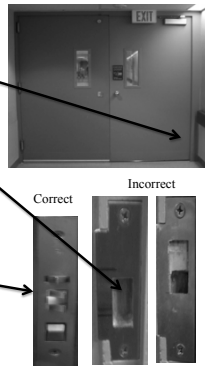
- Corridor doors must have at least a 20min FRR
 - 1.75in solid core wood door
 - Door frames must also be FRR or metal (labeled door)
- Corridor doors must resist the passage of smoke
 - CMS S&C Memo 07-18
 - Fully sprinklered–No more than .5in gap between the door jamb and face of door
- Door jamb acts as an astragal, so the door cannot sag below the jamb
- Common deficiencies with corridor doors
 - Doors held open by devices that do not release with a push or pull of the door.
 - Kick-stop, wedge, furniture, etc.
 - Doors do not latch or lack a latching device
 - Doors don't unlock with a single action

Door Tweaker



Fire Doors

- With the Fire Door closed, the door must remain closed
- Beware of items such as paper or tape placed in the mortise plate hole so the door latch will not engage the frame
- Monitor to ensure mortise plates are not removed and placed upside down so the door would not latch



Magnetic Locks or Delayed Egress Locks

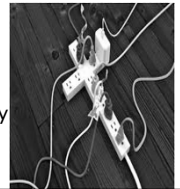
- Doors release appropriately
- No more than one delayed egress or locked door in the path of travel (2000 LSC)
- Doors with magnetic locking devices without the delayed egress function shall unlock upon activation of the complete fire alarm system
- Doors cannot reset by simply putting in silent mode. Reset must be done manually.
- Check systems after maintenance and/or repair to assure systems are returned to working order
- Notify the local or state fire marshal and obtain any required permits before any changes are made to the system

K22 – Exit Signs

- Access to exits must be indicated by appropriate exit signs
- Directional arrows must correctly direct
- When a door that is not an emergency exit but it is obvious that it leads outside the door must be marked with a “NO EXIT” sign.
 - LSC Section 7.10.8.1 specifies the dimensions of the letters on the signs and the language

K 147 Electrical

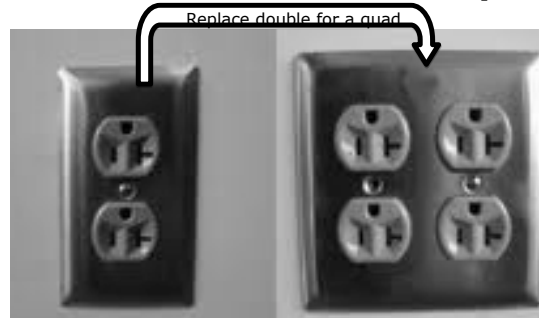
- Power Strips - inspect and to ensure that power strips has surge protection
- Equipment such as televisions, DVD players, and clocks, may be plugged into a power strip with surge protection.
- Power strips cannot be used for the following:
 - Medical equipment including suction machine, tube feeding pump, concentrator, low-air loss mattress, hospital bed, ventilator
 - Hair dryer
 - Refrigerator
 - Microwave
 - Air conditioner
- Power strips no daisy chaining
- Power strips should not be permanently attached to the wall or furniture



Electrical K 147



Good Fix for Power Strips



K-52 Fire Alarm System

- Fire alarm system
 - Tested monthly
 - May be done with fire drill
 - Silent night drill –done separately
 - Automatically transmit signal to local fire dept.
 - Serviced annually
- Common Deficiencies:
 - Fire alarm circuit breaker not locked nor identified/dedicated
 - Smoke detector at location of main fire panel
 - Two numbers to dial monitoring station
 - Pull station not within 5' of exit



Transmission to Monitoring Station



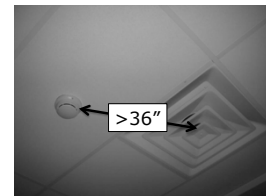
Fire Alarm System Interfaces

- Heating Ventilation and Air Conditioning
 - Duct detectors
 - HV/AC shut-down
- Sprinkler water flow alarms
- Magnetic lock release mechanisms
- Door unlocking devices
- Elevator recall



Smoke Detector Spacing

- Smoke detectors next to air diffusers
- Smoke detectors should not be located in a direct airflow or closer than 36 inches from an air supply diffuser or return air opening.



K 54 Smoke Detectors

- Smoke detector functional testing and servicing done with annual fire alarm system service
- Common Deficiencies:
 - Sensitivity testing done upon install, then within the first year after installation and every alternate year thereafter
 - Must specify individual detector, expected sensitivity, actual sensitivity and whether or not passed
 - Smoke detector not located at fire alarm panel/dialer
 - Not all smoke detectors are tested i.e. duct detectors
 - Same number of detectors not tested as there are in facility
 - Detectors not replaced/recalibrated when recommended to do so or they 'fail'

K38 – Means of Egress (Locked Doors)

- Special locking arrangements are permitted under certain circumstances in health care facilities
 - Locks are permitted on doors in a means of egress if residents have a clinical need for the extra security measures
 - Door lock regulations also pertain to gates in the means of egress
 - Magnetic locks must release upon activation of fire alarm or loss of power
 - Doors can be locked from the outside to prevent unauthorized entry without obstructing egress

K38 – Means of Egress

- Special units – All residents have clinical needs
 - All egress doors can be locked
 - All staff members that work in that unit must have the knowledge and ability to unlock doors
 - All staff must have keys (A single key at a nurses station is not acceptable), or
 - All staff must know code and know how to use keypad

K 38 Means of Egress

- Delayed-egress locks - Permitted on all doors regardless of clinical needs of residents
- Delay of 15 seconds permitted after pressure applied to door for no more than 3 seconds
- Doors must have signs that read:
 - PUSH UNTIL ALARM SOUNDS DOOR CAN BE OPENED IN 15 SECONDS
- No more than one delayed-egress lock in means of egress – Including gates

Exit Access - K 39

- Deadbolt locks are not permitted unless the deadbolt releases with the same action of the door handle
- Exits must terminate directly at a public way or at an exterior exit discharge (that must then provide access to public way).
- Exit discharge must be usable at all times
- Exit doors or exit access doors cannot be painted/disguised in a manner that obscures their use as a door



K 39 - Exits

- Exit signs are served by emergency lighting
 - There should be either two exits signs or one sign with two bulbs
 - High contrast
- Check the operation of the doors leading to the exits. They should fully close once released from the magnet hold opens.
- Test EXIT panic hardware (15 or 30 second delay) for accuracy.



K 39 Exits

- Corridors
 - Don't 'park' utility carts, medication carts, wheelchairs and lifts in corridor more than 30 minutes (impedes evacuation)
- Don't not place furniture, plants or tables in halls



K 144 Generator

- Type I and Type II EES (essential electrical system) must use a Level I generator in accordance with NFPA 110
- Generators must be visually inspected weekly and exercised under load monthly
- Weekly inspections including visual inspection
 - Specified by manufacturer or can use NFPA 110 Appendix as guide



K 144 Generator



- Monthly testing under load
 - Know your equipment's max load
 - If you have a 3 phase generator then you need to record the A-B, B-A and C-A phases separately
 - Should run at a minimum of 30% of name plate rating
 - If run at less than 30% must have annual load bank test (diesel)
 - Run at load that maintains the exhaust temperature as recommended by manufacturer
 - Ensure that the startup and or cool down times are not included in the 30 minute load test.
 - Ensure that electrical power is transferred within 10 seconds of interruption when using a generator

K 145 Generator & Enunciator



- Enunciator panel is located in an attended area
- Emergency generator sets are required to have a minimum of a 90 minute fuel supply.
- Facility must have a contingency plan and a written agreement for the re-supplying of fuel in an emergency situation.



K-146 Generator Fuel Reliability

The letter of reliability from the vendor regarding the fuel supply must contain all of the following:

- 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.

K50 - Fire Drills

- Fire drills are held at unexpected time under varying conditions, at least quarterly on each shift.
 - One drill per shift per quarter.
 - Differing time of drills on each shift.
 - Differing days of the week including weekends.
 - All departments are involved.
 - Documented observations of staff response.
 - Equipment functioning, doors released, alarms sounding, etc.
 - Residents do not need to be moved during the drill.
 - Transmission to fire station
- Drills conducted between 9 PM and 6 AM a coded announcement may be used instead of audible alarms.



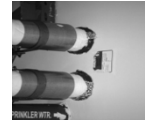
Smoke Barrier K25

- Unsealed holes in electrical conduit, metal pipe, PVC pipe, and low-voltage wiring penetrations
- Suspended ceiling systems not one-hour fire resistive rated assemblies and/or missing
- Unprotected ventilation grills
- Recessed light fixtures and speakers not protected with UL fire rated enclosures



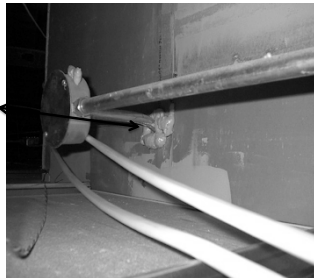
Fire Stopping

- Through penetrations of fire/smoke resistance rated construction shall be protected by a fire stop system
- Polyurethane expanding foam NOT acceptable

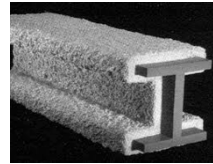


Compartmentation Deficiencies

What's wrong with this seal?



Intumescent Materials



Other LSC Concerns

- ## K12 Construction Type
- Defined BY NFPA 220
 - 5 types
 - Non-Combustible (protected or unprotected)
 - Combustible (protected or unprotected) ranging from concrete –metal – wood
 - Addresses three basic elements:
 - Exterior walls, columns, beams
 - Floor assemblies
 - Roof/Ceiling assemblies

Construction Types Fire Resistance Rating

Noncombustible Combustible

	Type I		Type II		Type III		Type IV		Type V	
	443	332	222	111	000	211	200	24H	111	000
Exterior Bearing Walls										
Supporting more than one floor, column, or other bearing walls	4	3	2	1	0 ¹	2	2	2	1	0 ¹
Supporting one floor only	4	3	1	0 ¹	0 ¹	2	2	2	1	0 ¹
Supporting a roof only	4	3	1	0 ¹	0 ¹	2	2	2	1	0 ¹
Interior Bearing Walls										
Supporting more than one floor, column, or other bearing walls	4	3	1	0	1	0	2	1	0	
Supporting one floor only	3	2	1	0	1	0	1	1	0	
Supporting a roof only	3	2	1	0	1	0	1	1	0	
Columns										
Supporting more than one floor, column, or other bearing walls	4	3	1	0	1	0	1 ¹	1	0	
Supporting one floor only	3	2	1	0	1	0	1 ¹	1	0	
Supporting a roof only	3	2	1	0	1	0	1 ¹	1	0	
Beams, Girders, Trusses, and Arches										
Supporting more than one floor, column, or other bearing walls	4	3	1	0	1	0	1 ¹	1	0	
Supporting one floor only	3	2	1	0	1	0	1 ¹	1	0	
Supporting a roof only	3	2	1	0	1	0	1 ¹	1	0	
Floor Construction	3	2	1	0	1	0	1 ¹	1	0	
Roof Construction	2	1 ¹	1	0	1	0	1 ¹	1	0	
0 ¹ 0 ¹	0 ¹	0 ¹	0 ¹	0 ¹	0 ¹	0 ¹	0 ¹	0 ¹	0 ¹	0 ¹

Those members that shall be permitted to be of noncombustible material.

Hours of protection

NFPA Tables 18/19.1.6.2

Table 18.1.6.2 Construction Type Limitations

Construction Type	Stories			
	1	2	3	4 or More
I(443)	X	X	X	X
I(332)	X	X	X	X
II(222)	X	X	X	X
II(111)	X	X	X	NP
II(000)	X	NP	NP	NP
III(211)	X	NP	NP	NP
III(200)	NP	NP	NP	NP
IV(2HH)	X	NP	NP	NP
V(111)	X	NP	NP	NP
V(000)	NP	NP	NP	NP

Table 19.1.6.2 Construction Type Limitations

Construction Type	Stories			
	1	2	3	4 or More
I(443)	X	X	X	X
I(332)	X	X	X	X
II(222)	X	X	X	X
II(111)	X	X*	X*	NP
II(000)	X*	X*	NP	NP
III(211)	X*	X*	NP	NP
III(200)	X*	NP	NP	NP
IV(2HH)	X*	X*	NP	NP
V(111)	X*	X*	NP	NP
V(000)	X*	NP	NP	NP

X: Permitted type of construction.
 NP: Not permitted.
 *Building requires automatic sprinkler protection (See 19.3.3.1.)

K 12 Construction



K – 11 Fire Barrier

- Fire barriers are the fire resistance rated (FRR) walls that separate the nursing home from a nonconforming space
- The walls must be at least 2hr FRR
- A fire barrier could also be a rated wall that separates two portions of the nursing home
- The wall will be inspected for proper construction/ensure that all penetrations are properly firestopped.

K11 – Fire Barriers Con't

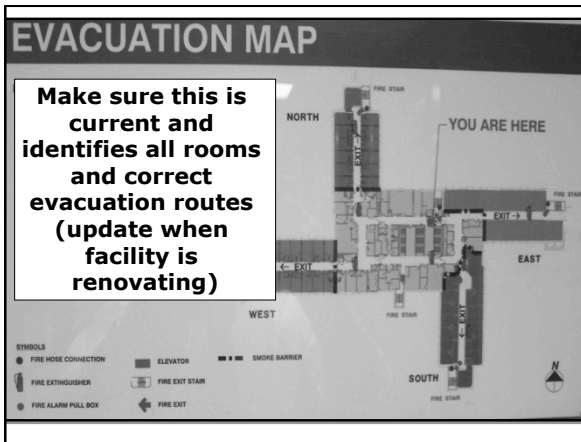
- All doors in the fire barrier will also be inspected.
- Doors must have labels to show they are at least 90min FRR.
- Doors must self-close and latch into the frame.
- Hold open devices must release upon activation of the fire alarm system.

K64 –Fire Extinguishers

- Portable fire extinguishers must be installed, tested, maintained in accordance with NFPA 10
- Installation normally between 4" and 60"
- Select appropriate extinguisher for area
 - Class A, B, C, D, and K
- Maximum travel distance to Extinguisher
 - Class A (Combustible materials) –75ft
 - Class C (Live electrical equipment) –75ft
 - Class K (Kitchen fires) –30ft
- Inspections approximately every 30 days
 - Conducted in accordance with NFPA 10 Section 4-3.2
 - Documented monthly for each extinguisher



Renovations



K17 – Corridor Walls

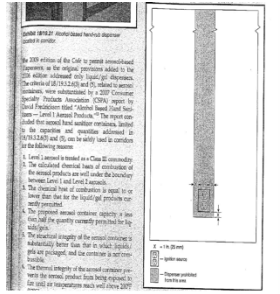
- Corridor walls can terminate at a smoke resisting ceiling in a fully sprinklered area
- Kitchen to dining room pass through windows are acceptable if the dining room is separated from the corridor by acceptable walls.
- These pass through windows may not be acceptable if the dining room is open to the exit access corridor.
 - To keep the pass through, the opening must be protected in a manner that would automatically close the opening upon the local detection of smoke or activation of the fire alarm system.

Alcohol Based Hand Rubs

- 2012 LSC allows ABHRs
- Accepts 2012 LSC requirements but adds "if installed **to prohibit inappropriate access**"
 - Interpretive guidance is needed to determine what this means.

Alcohol-based Hand Rub Solutions

- Dispensers cannot be installed over or directly adjacent to an ignition source.
- Dispensers installed over carpet are permitted only in sprinklered smoke compartments.



K46 –Emergency Illumination

- All portions of the means of egress must have emergency illumination that:
 - Cannot be controlled by manual switches
 - Motion sensors are permitted if they are equipped with fail-safe and are set to at least 15min interval
 - Provides required illumination for 90min
 - Is at least on average 1ft-candle measured at the floor
- Battery-operated emergency lights must be tested:
 - Monthly for 30sec
 - Annually for 90min
- Individual results for all lights must be on the records

S & C: 13-22-NH Short Form Survey

- Reduce survey costs (sequestration) and solely at the option of the States (Ohio began 4/1/14)
- To be eligible for the short form process a facility must:
 - Be fully sprinklered
 - Have no significant waivers
 - Not certified by the use of the Fire Safety Evaluation System (FSES)
 - Have not been cited in the past 2 years for:
 - K062 Sprinkler Maintenance
 - K054 Smoke Detector Maintenance
 - K050 Fire Drills
 - K104 Smoke Barriers
 - K051 Fire Alarm

Surveyors will Only Look @

- K038-Exit access
- K039-Exit corridor width
- K047-Exit sign operational
- K50-Fire drills
- K052-Fire alarm system properly maintained
- K062-Sprinkler system properly maintained
- K072-Means of egress unobstructed by furnishings & decorations
- K144-Emergency generator properly maintained
- K211 Alcohol based hand rubs properly used

LSC Survey is Over and...

- Three options for non-compliance:
 - Correct the alleged deficiency
 - Fire Safety Evaluation System (FSES)
 - Waiver (temporary or Annual)
- Path you choose will depend on cost, feasibility and the CMS Regional Office.

Fire Safety Evaluation System

- FSES provides alternative approach to compliance with the 2000 *Life Safety Code*.
- Section 1.5 of the *Life Safety Code* *permits* alternative compliance with the *Code* under equivalency concepts where such equivalency is approved by the authority having jurisdiction
- Numerical value derived from four basic equivalency functions:
 - Containment safety
 - Extinguishment safety
 - People movement
 - General safety

Waivers

- **Annual**
 - Must reapply for a waiver after the next survey or after a change
 - Does not require corrective action
- **Temporary (construction)**
 - Time limited (extended plan or correction date)
 - ‘Stays’ penalties while corrective action is being completed
 - Interim measures
 - Watch your expiration date

Temporary (Construction) Waivers

- Interim measures during the additional time for correction above and beyond existing requirements of LSC
- Specific to the LSC deficiency
- Develop a phased construction plan for correction of deficiency?
- Multi-year plan if reasonable and required

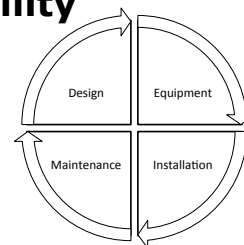
Annual Waivers

- The provider must demonstrate that:
 - The waiver can not adversely affect resident health and safety
 - It will impose an unreasonable hardship on the facility to meet a specific LSC requirement.
- CMS looks for facility to implement *measures above and beyond* requirements – equalivancies

System Reliability

- Based on Four Elements

- Design
 - Underwriters Laboratories
 - Factory Mutual Global
- Equipment
- Installation
- Maintenance
 - Inspection, Testing, and Maintenance are crucial
 - Unfortunately, some problems may be identified after the previous three have been completed



Kenneth Daily, LNHA

Elder Care Systems Group

kenn@lifesafetycode.healthcare

- Consulting and education focusing on quality improvement, survey compliance, and facility management
 - Complete Fire Safety Evaluation System
- Comprehensive Life Safety Audits and facility reviews
 - Plan of Correction development and implementation
 - Waiver and variances