

Documentation for Life Safety Code Compliance

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LSC compliance:

The routine inspection, testing, and maintenance of building systems is an important component of Life Safety Code compliance.

LSC compliance:

A significant number of deficiencies occur due to the lack of documentation of this inspection, testing, and maintenance.

LSC compliance:

This session will discuss why these deficiencies occur and what you can do to prevent them.

Policies

Fire Emergency Plan:

- ① Written plan
- ① Protection of all residents
- ① Evacuation in an emergency

Fire Plan Includes:

- Use of alarm system
- Transmission of alarm to Fire Dept.
- Response to alarm
- Isolation of fire
- Evacuation of area
- Evacuation of smoke compartment
- Preparation for evacuation
- Fire extinguishment

Smoking Policy

Written smoking regulations:

- Smoking is prohibited in any room, ward, or compartment where flammable liquids, combustible gases, or oxygen is used or stored and in any other hazardous location, and such area is posted with signs that read NO SMOKING or with the international symbol for no smoking.
- Smoking by residents classified as not responsible is prohibited, except when under direct supervision.

Smoking Policy

Written smoking regulations:

- ① Ashtrays of noncombustible material and safe design are provided in all areas where smoking is permitted.
- ① Metal containers with self-closing cover devices into which ashtrays can be emptied are readily available to all areas where smoking is permitted.

Smoking Policy

◉ Note:

CMS has approved the use of “outpost” type products to substitute for both the ashtrays and metal containers.

Fire Watch and Notification

- Fire watch required when the fire alarm or sprinkler system is out of service for more than 4 hours in a 24-hour period.
- ND Health Department must be notified.
(701.328.2352)
- The building must be evacuated, or
- An approved fire watch provided for all parties left unprotected by the shutdown until the fire alarm or sprinkler system has been returned to service.

Fire Watch

- ① Dedicated and trained personnel
- ① Personnel cannot be assigned additional duties

Alcohol-based Hand Rub Solutions

- ① Dispensers must be installed to minimize leaks and spills that could lead to falls.
- ① Dispensers must be installed to adequately protect against access by vulnerable populations.

Alcohol-based Hand Rub Solutions

- Where dispensers are installed in a corridor, the corridor must have a minimum width of 6 ft.

Alcohol-based Hand Rub Solutions

- **Maximum individual dispenser fluid capacity:**
 - 0.3 gallons for dispensers in rooms, corridors, and areas open to corridors**
 - 0.5 gallons for dispensers in suites of rooms**

Alcohol-based Hand Rub Solutions

- Dispensers must have a minimum horizontal spacing of 4 ft from each other.

Alcohol-based Hand Rub Solutions

- Not more than 10 gallons of solution may be in use in a single smoke compartment outside of a storage cabinet.

Alcohol-based Hand Rub Solutions

- Storage of more than 5 gallons in a smoke compartment must meet requirements of NFPA 30, *Flammable and Combustible Liquids Code*.

Alcohol-based Hand Rub Solutions

- ① Dispensers cannot be installed over or directly adjacent to an ignition source.
- ① Dispensers installed over carpet are permitted only in sprinklered smoke compartments.

Records

Fire Drills

- Fire drills must include transmission of fire alarm signal and simulation of emergency fire conditions.
- Movement of residents is not required.

Fire Drills

- Conducted quarterly on each shift to familiarize staff with the signals and emergency action required under varied conditions.
- Held at unexpected times and under varying conditions to simulate an actual fire.

Fire Drills

- Coded announcement permitted when drills are conducted between 9:00 p.m. and 6:00 a.m.
- Purpose of drill is to test and evaluate the efficiency, knowledge, and response of staff in implementing the fire emergency plan - not to disturb or excite residents.

Fire Drills

Common Deficiencies:

- Fire drills not conducted quarterly on each shift
- Fire drills not held at unexpected times and under varying conditions

Note: Two main reasons fire drills are missed appear to be due to changes in staff and no quality assurance oversight.

Fire Alarm System

Health care occupancies must be protected with a fire alarm system.

- ⦿ Tested monthly
- ⦿ Serviced annually

Fire Alarm System

Testing:

- May be done with fire drill
- Silent night drill – done separately
- Automatically transmit signal to local fire dept.

Fire Alarm System

Servicing:

- Service performed within one year
- All devices serviced and tested
- Same number each year
- Faulty devices replaced

Fire Alarm System

Common Deficiencies:

- ⦿ Fire alarm circuit breaker not locked
- ⦿ Fire alarm circuit not identified/dedicated
- ⦿ No automatic transmission to fire dept.
- ⦿ Fire alarm system not tested monthly
- ⦿ Fire alarm system not serviced annually
- ⦿ Same number of devices not tested
- ⦿ Inoperable devices not replaced

Smoke Detectors

- Smoke detector functional testing and servicing done with annual fire alarm system service.

Smoke Detectors

- Smoke detector sensitivity testing must be done within the first year after installation and every alternate year thereafter. Can be extended to 5 year intervals.

Smoke Detectors

Common Deficiencies:

- ⦿ **Photoelectric smoke detector or rate-of-rise heat detector not located at fire alarm panel/dialer**
- ⦿ **Sensitivity testing not done**
- ⦿ **Duct smoke detectors not tested**
- ⦿ **Same number of detectors not tested**
- ⦿ **Detectors not replaced/recalibrated**

Automatic Sprinkler Systems

Sprinkler systems must be:

- ① Maintained
- ① Inspected
- ① Tested

Automatic Sprinkler System

- Serviced annually
- Water flow alarm tested quarterly

Automatic Sprinkler System

Common Deficiencies:

- ◉ Flow alarm switch not tested quarterly
- ◉ System not serviced annually
- ◉ Missing escutcheon plates
- ◉ Inadequate number of spare sprinklers
- ◉ Orifice on inspectors test
- ◉ Sprinkler obstructions

Automatic Sprinkler System

Common Deficiencies:

- ◉ Wrong temperature sprinklers
- ◉ Lack of coverage: exterior overhangs, coolers, freezers, generator room, electrical room, concealed spaces
- ◉ 18" clearance to sprinkler
- ◉ No design data name plate
- ◉ Ceiling tiles missing – delay activation

Kitchen Hood System

- Comply with UL 300
- Serviced every at least every 6 months
- K-type portable fire extinguisher

Kitchen Hood System

Common Deficiencies:

- ⦿ Does not meet UL 300
- ⦿ Gas appliances - no automatic shut off
- ⦿ Electrical appliances - no automatic shut off
- ⦿ Not tied to the fire alarm system
- ⦿ Equipment not located under the hood
- ⦿ No K-Extinguisher
- ⦿ K-Extinguisher not properly signed
- ⦿ System not tested every six months
- ⦿ Baffle filters not used
- ⦿ Fusible links not replaced

Portable Fire Extinguishers

- ⦿ Must be inspected monthly
- ⦿ Must be serviced annually

Floor Finish

- Newly installed interior floor finish in corridors and exits - Class I
- Sprinklered smoke compartments - no interior floor finish requirements

Interior Finish

- Interior finish on walls and ceilings:

Existing – Class A or Class B

New – Class A

Interior Finish

**Class A – Flame spread 0-25
Smoke development 0-450**

**Class B – Flame spread 26-75
Smoke development 0-450**

Interior Finish

- New - Class A or B in rooms not exceeding four persons capacity
- New - corridor wall finish less than 4 ft. in height may be Class A or B

Cubicle Curtains and Draperies

- ① Draperies, curtains, decorations, etc. must be flame resistant
- ① Tag or separate documentation
- ① Laundering and retreating documentation

Furnishings and Mattresses

- Newly introduced upholstered furniture must meet:

NFPA 261 or sprinklers, and

ASTM E 1537 or sprinklers

Furnishings and Mattresses

- Newly introduced mattresses must meet:

16 CFR 1632 or sprinklers, and

ASTM E 1590 or sprinklers

Generator

- ① Inspected weekly
- ① Run monthly under load for 30 minutes

Transfer Switch

- Operated monthly

- Maintenance:

 - checking connections

 - inspection for overheating and

 - contact erosion

 - removal of dust and dirt

 - replacement of contacts

Transfer Switch

- Frequency – per manufacturer
 - NFPA 110 suggests:
 - visual inspection and cleaning – annually
 - maintenance – annually (one major maintenance and three quarterly inspections)
- Major maintenance includes thermographic or temperature scan

Battery Pack Exit Signs

- Exit signs must be continuously illuminated
- Both bulbs in the sign must be functional at all times

Battery Pack Signs/Lighting

- Tested monthly for at least 30 seconds
- Tested annually for a continuous time not less than 90 minutes
- Equipment must be functional for duration of test

Battery Pack Emergency Lighting

⦿ Required at:

emergency generator

transfer switch

Fire Dampers

● At least every 4 years:

Fusible links must be removed

Dampers must be operated

Latch must be checked

Moving parts must be lubricated

Battery-Operated Smoke Detectors

- Battery-operated smoke detectors required in resident sleeping rooms and public areas

Battery-Operated Smoke Detectors

● Exceptions:

Hard-wired AC smoke detection system in resident rooms and public areas

Sprinkler system throughout

Battery-Operated Smoke Detectors

- Testing, maintenance, and battery replacement:

Tested weekly

Batteries changed semi-annually