



MISSOURI DEPARTMENT OF  
**HEALTH &  
 SENIOR SERVICES**

# Life Safety Code Updates

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## Reg - Emergency Preparedness Drills

### E-0039

The [LTC facility] must conduct exercises to test the emergency plan at least twice per year, including unannounced staff drills using the emergency procedures. The [LTC facility, ICF/IID] must do the following:

- (i) Participate in an annual full-scale exercise that is community-based; or
  - (A) When a community-based exercise is not accessible, conduct an annual individual, facility-based functional exercise.
  - (B) If the [LTC facility] facility experiences an actual natural or man-made emergency that requires activation of the emergency plan, the LTC facility is exempt from engaging its next required a full-scale community-based or individual, facility-based functional exercise following the onset of the emergency event.
- (ii) Conduct an additional annual exercise that may include, but is not limited to the following:
  - (A) A second full-scale exercise that is community-based or an individual, facility based functional exercise; or
  - (B) A mock disaster drill; or
  - (C) A tabletop exercise or workshop that is led by a facilitator includes a group discussion, using a narrated, clinically-relevant emergency scenario, and a set of problem statements, directed messages, or prepared questions designed to challenge an emergency plan.
- (iii) Analyze the [LTC facility] facility's response to and maintain documentation of all drills, tabletop exercises, and emergency events, and revise the [LTC facility] facility's emergency plan, as needed.

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## Emergency Preparedness Drill

- A LTC facility must have two drills every year
  - One must be a full-scale community-based all hazards approach drill
  - Or a facility drill if attempts had been made and a full community drill could not be completed
  - Many levels of healthcare now only need a full drill every two years, so it may be harder to get the community to participate every year
  - If an actual emergency exist, this may be used as a full drill if significant enough to activate your emergency plan

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## Emergency Drill - Continued

- The second drill may be:
  - A full-scale community-based all-hazard approach drill
  - An actual emergency that activated the emergency preparedness plan
  - A tabletop drill
- All types of drills need the following components:
  - What type of drill
  - Who participated
  - Date/time of drill
  - What was covered
  - What went right and what went wrong
  - How the drill impacted changes to the emergency plan

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## Emergency Drills Continued

- Drills need to be varied
- LTC facilities are required by Missouri regulations to do an annual evacuation
  - The full-scale drill cannot always be a fire
    - This would be in addition to the full-scale drill
- Tabletops needed to vary as well
- These drills need to vary from the other drills performed and from year-to-year

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## Generator Regulations

National Fire Protection Association (NFPA) 99, 2012 edition, 6.4.4.1.2, Maintenance and Testing of Circuitry, showed:

-6.4.4.1.2.1 Circuit Breakers. Main and feeder circuit breakers shall be inspected annually, and a program for periodically exercising the components shall be established according to manufacturer's recommendations.

-6.4.4.2 Record Keeping. A written record of inspection, performance, exercising period, and repairs shall be regularly maintained and available for inspection by the authority having jurisdiction.

NFPA 110, 2010 edition, 8.4.9 Level 1 EPSS shall be tested at least once within every 36 months.

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## **Generators – Load Test Vs. Load Bank**

- Facilities must have a load test every 36 months (three years)
- The load test must last at least four continuous hours
- The load test can be conducted during a power outage that lasts four hours or longer
- A load bank test is completed by a contractor

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## **Load Bank**

- Every month the facility must run the generator under normal load for 30 minutes and document the amperage or exhaust temperature
- The load must reach at least 30% of load and/or meet the exhaust temperature per manufacturer's manual
- The load must include all three legs (if it is a three-phase system)
- A load bank may be done only if the monthly test cannot reach the thresholds.
- A load bank must be 1.5 hours (not including warm up and cool down)
  - Typically around 2-hours

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## Generator Inspections

- A generator inspection needs to be completed annually
  - This includes a fuel-test
- (Interior) Electrical inspections are required annually for anything the generator touches
  - All breakers, mains, and feeders must be manually tested (and documented)
- Any component that fails must be corrected as the generator is part of the Life Safety system

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## Kitchen Grease Fires - Regulation

The National Fire Protection Association (NFPA) 96, 2011 edition:

10.2 Types of Equipment.

10.2.1 Fire-extinguishing equipment shall include both automatic fire-extinguishing systems as primary protection and portable fire extinguishers as secondary backup.

10.2.2 A placard shall be conspicuously placed near each extinguisher that states that the fire protection system shall be activated prior to using the fire extinguisher.

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## Grease Fires in the Kitchen

- All foods with grease laden vapors must be cooked under a range hood suppression system
- If a grease fire occurs:
  - The range hood suppression system must be activated first
  - The silver (K-type) fire extinguisher must be used only after the range hood system has activated
  - An evacuation would start of the zone if the fire could not be extinguished

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## Facility Assessment Regulation (NFPA 99)

**The National Fire Protection Association (NFPA) 99, 2012 edition:**

**4.1 Building System Categories.** Building systems in health care facilities shall be designed to meet system Category 1 through Category 4 requirements as detailed in this code.

**4.1.1 Category 1.** Facility systems in which failure of such equipment or system is likely to cause major injury or death of patients or caregivers shall be designed to meet system Category 1 requirements as defined in this code.

**4.1.2 Category 2.** Facility systems in which failure of such equipment is likely to cause minor injury to patients or caregivers shall be designed to meet system Category 2 requirements as defined in this code.

**4.1.3 Category 3.** Facility systems in which failure of such equipment is not likely to cause injury to patients or caregivers, but can cause patient discomfort, shall be designed to meet system Category 3 requirements as defined in this code.

**4.1.4 Category 4.** Facility systems in which failure of such equipment would have no impact on patient care shall be designed to meet system Category 4 requirements as defined in this code.

**4.2 Risk Assessment.** Categories shall be determined by following and documenting a defined risk assessment procedure.

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## Facility Assessment – Things to Consider

- Think beyond LSC required components
  - Electrical system
  - HVAC system
  - Electrical equipment
  - Medical (gas) equipment

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## Fire Alarm Regulation

The National Fire Protection Association (NFPA) 72, 2010 edition:

**14.2 General.**

**14.2.1 Performance.**

**14.2.1.1 Performance Verification.** To ensure operational integrity, the system shall have an inspection, testing, and maintenance program.

**14.2.1.1.1** Inspection, testing, and maintenance programs shall satisfy the requirements of this Code and conform to the equipment manufacturer's published instructions.

**14.2.1.1.2** Inspection, testing, and maintenance programs shall verify correct operation of the system.

Table 14.3.1-Testing frequency, fire alarm test annually and semi annually

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## Fire Alarm Testing – Qualified Person Twice a Year

- The fire alarm needs to be tested at least twice a year by a qualified person:
    - Annual and semiannual inspection
    - National Fire Protection Association (NFPA) 72, 2010 edition:
- 10.4.1.2 State or local licensure regulations shall be followed to determine qualified personnel. Depending on state or local licensure regulations, qualified personnel shall include, but not be limited to, one or more of the following:
- (1) Personnel who are registered, licensed, or certified by a state or local authority
  - (2) Personnel who are certified by a nationally recognized certification organization acceptable to the authority having jurisdiction
  - (3) Personnel who are factory trained and certified for fire alarm system design and emergency communications system design of the specific type and brand of system and who are acceptable to the authority having jurisdiction

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## Fire Alarm Testing - Inspection

- The fire alarm report needs to include all components tied to the fire alarm system
- This includes a detailed list (including but not limited to):
  - Alarms
  - Detectors
  - Dampers
  - Magnets
  - Electronically supervised (sensors)
  - Gas shut offs

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## Reporting an Actual Fire

If an actual fire event occurs, the facility is required to contact the regional office

A fire event is anything that involves a flame and/or smoke

Common examples:

- Electrical outlets with electrical burnt smell, with or without an electrical pop

- Food burnt while cooking (with or without a visible flame)


- Smoke in the laundry room

- A PTAC unit smells of smoke




- A trashcan has visible flames and/or smoke

The regional office will have the facility staff complete a fire report

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**QUESTIONS?**

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