Top Ten Life Safety Code Deficiencies and How to Avoid Them

Presented by:
Thomas W. Jaeger, P.E., President

Jaeger & Associates, LLC

Program Guide

• Current State of Fire Safety For Long Term Care Facilities
• Top Ten Life Safety Code Deficiencies
• Recent CMS Fire/Life Safety Policies and Interpretations
• Current Interpretations & Misinterpretations of Life Safety Code

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# Current State of Fire Safety for Housing for the Elderly

## Nursing Home Multiple Death Fires (1973-2007)

<table>
<thead>
<tr>
<th>Period</th>
<th># of Fires</th>
<th># of Deaths</th>
<th>Average # of Deaths Per Year 5 Year Period</th>
<th>Average # of Deaths Per Year 20 Year Period</th>
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<tbody>
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<td>1978-1982</td>
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<td>3</td>
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<td>0</td>
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<td>2003-2007</td>
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<td>31</td>
<td>6.2</td>
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### Board and Care Multiple Death Fires (1973-2006)

<table>
<thead>
<tr>
<th>Period</th>
<th># of Fires</th>
<th># of Deaths</th>
<th>Average # of Deaths Per Year 5 Year Period</th>
<th>Average # of Deaths Per Year 20 Year Period</th>
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<tbody>
<tr>
<td>1973-1976</td>
<td>1</td>
<td>10</td>
<td>3.3</td>
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<tr>
<td>1977-1981</td>
<td>5</td>
<td>63</td>
<td>12.6</td>
<td>11.2</td>
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<td>1982-1986</td>
<td>8</td>
<td>73</td>
<td>14.6</td>
<td>12.6</td>
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<td>1987-1991</td>
<td>5</td>
<td>29</td>
<td>5.8</td>
<td></td>
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<tr>
<td>1992-1996</td>
<td>12</td>
<td>57</td>
<td>11.4</td>
<td>6.5</td>
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<td>1997-2001</td>
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<td>21</td>
<td>4.2</td>
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</tr>
<tr>
<td>2002-2006</td>
<td>4</td>
<td>23</td>
<td>4.6</td>
<td></td>
</tr>
</tbody>
</table>

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### Common Factors in Nursing Home Multiple Death Fires*

- Building is not sprinklered
- Fire originates in patient sleeping area – primarily patient sleeping room
- Door to room of fire origin is not closed or is reopened during the fire
- Room of fire origin goes to flashover
- Patient known to be outside the danger area during the fire found dead inside the danger zone after the fire

*Probably applies to Assisted Living Facilities

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• Approximately 83% of Existing Nursing Homes are Fully Sprinklered

• $850 Million to Sprinkler All Existing Non-Sprinklered Nursing Homes and going up

<table>
<thead>
<tr>
<th></th>
<th>Number of Facilities</th>
<th>Fully Sprinklered</th>
<th>Partially Sprinklered</th>
<th>Not Sprinklered</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>15,885</td>
<td>82.8%</td>
<td>14.1%</td>
<td>3.1%</td>
</tr>
<tr>
<td>MD</td>
<td>233</td>
<td>88.8%</td>
<td>8.5%</td>
<td>2.7%</td>
</tr>
</tbody>
</table>

Source: CMS Oscar Data
December 2006
CMS to Mandate Sprinklers

• Mandatory sprinklers in all existing nursing homes
  – CMS issued “Notice of Proposed Rule Making” on October 27, 2006
    • CMS asking whether it should include a 5, 7 or 10 year phase in period
    • No waivers or use of the FSES for new systems
    • CMS sunsets smoke detector requirements at the end of the phase in period
    • Comment period for PRM ended December 26, 2006

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CMS to Mandate Sprinklers

• Mandatory sprinklers in all existing nursing homes
  – Probably a 7 year phase in period with a final rule effective date Summer 2008
  – Final date to install sprinklers Summer 2015
  – AHCA comments
    1. Reduce water supply volume requirement where municipal water supply can not comply with NFPA 13, Installation Standard for Sprinklers. This would effectively reduce water supply for a building of combustible construction from 6000 gallons to 2000 gallons.
    2. Sunset the smoke detector requirement when new sprinkler system is approved and not wait for end of phase in period.

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CMS Links

• CMS Guidance to State Survey Agency Directors and CMS Regional Offices
  http://www.cms.hhs.gov/surveycertificationgeninfo/pmsr/list.asp

• State Operations Manual

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Top Ten Life Safety Code Deficiencies

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### Top Ten Cited Deficiencies

Ten Most Frequently Cited Life Safety Deficiencies in the Nation, September 2007

<table>
<thead>
<tr>
<th>Tag</th>
<th>Number of Facilities</th>
<th>Percent of Facilities</th>
<th>Fac. Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>K018</td>
<td>5,055</td>
<td>31.9% Corridor Doors</td>
</tr>
<tr>
<td>2</td>
<td>K029</td>
<td>4,025</td>
<td>25.4% Hazardous Areas Separated By Construction</td>
</tr>
<tr>
<td>3</td>
<td>K062</td>
<td>3,503</td>
<td>22.1% Sprinkler System Maintenance</td>
</tr>
<tr>
<td>4</td>
<td>K147</td>
<td>3,391</td>
<td>21.4% Emergency Plan</td>
</tr>
<tr>
<td>5</td>
<td>K038</td>
<td>2,880</td>
<td>18.2% Exit Accessible At All Times</td>
</tr>
<tr>
<td>6</td>
<td>K056</td>
<td>2,733</td>
<td>17.3% Sprinkler System Installation</td>
</tr>
<tr>
<td>7</td>
<td>K025</td>
<td>2,706</td>
<td>17.1% Smoke Barrier Construction</td>
</tr>
<tr>
<td>8</td>
<td>K050</td>
<td>2,480</td>
<td>15.7% Fire Drills</td>
</tr>
<tr>
<td>9</td>
<td>K144</td>
<td>2,253</td>
<td>14.2% Generators Inspected/Tested</td>
</tr>
<tr>
<td>10</td>
<td>K067</td>
<td>2,050</td>
<td>13.0% Ventilating/Heating Equipment</td>
</tr>
</tbody>
</table>

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### Commonly Cited Deficiencies

Ten Most Frequently Cited Life Safety Deficiencies in Maryland, September 2007

<table>
<thead>
<tr>
<th>Tag</th>
<th>Percent of Facilities</th>
<th>Nation</th>
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<tbody>
<tr>
<td>1</td>
<td>K018</td>
<td>21% Corridor Doors</td>
</tr>
<tr>
<td>2</td>
<td>K130</td>
<td>17.3% Miscellaneous</td>
</tr>
<tr>
<td>3</td>
<td>K021</td>
<td>11.6% Fire Door Hold Open Devices</td>
</tr>
<tr>
<td>4</td>
<td>K050</td>
<td>11.2% Fire Drill</td>
</tr>
<tr>
<td>5</td>
<td>K062</td>
<td>8.6% Sprinkler System Maintenance</td>
</tr>
<tr>
<td>6</td>
<td>K029</td>
<td>7.7% Hazardous Area, Separation by Construction</td>
</tr>
<tr>
<td>7</td>
<td>K056</td>
<td>6.4% Sprinkler System Installation</td>
</tr>
<tr>
<td>8</td>
<td>K147</td>
<td>6.4% Electrical Wiring and Equipment</td>
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<tr>
<td>9</td>
<td>K034</td>
<td>5.2% Exit Stairways</td>
</tr>
<tr>
<td>10</td>
<td>K038</td>
<td>5.2% Exit Accessibility at all Times</td>
</tr>
</tbody>
</table>

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Top Ten Cited Deficiencies

Tag 018  Corridor Doors

Corridor Doors

- Section 19.3.6.3.1 Doors protecting corridor openings in other than required enclosures of vertical openings, exits, or hazardous areas shall be substantial doors, such as those constructed of 1 3/4 in. (4.4 cm) thick, solid-bonded core wood or of construction that resists fire for not less than 20 minutes and shall be constructed to resist the passage of smoke. Compliance with NFPA 80, Standard for Fire Doors and Fire Windows, shall not be required. Clearance between the bottom of the door and the floor covering not exceeding 1 in. (2.5 cm) shall be permitted for corridor doors.
  - Exception No. 2: In smoke compartments protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.2, the door requirements of 19.3.6.3.1 shall not be mandatory, but the door shall be constructed to resist the passage of smoke.
- Section A.19.3.6.3.1 Gasketing of doors should not be necessary to achieve resistance to the passage of smoke if the door is relatively tight-fitting.

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Top Ten Cited Deficiencies

Tag K018 Corridor Doors

Corridor Doors

Section A.19.3.6.3.1 Gasketing of doors should not be necessary to achieve resistance to the passage of smoke if the door is relatively tight-fitting.

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Top Ten Cited Deficiencies

Tag K018 Corridor Doors

- If you can see light between the door and the door stop, the gap is too large.
  Not true – There is no such thing as a “light test”.

- Gap between a corridor door and the door stop can not exceed 1/8 inch.
  Not true – There is no limitation of 1/8 inch in the Life Safety Code for corridor doors.

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Top Ten Cited Deficiencies

CMS Memorandum S & C-07-18, Dated April 29, 2007

This memorandum applies to corridor doors other than those in required enclosures of vertical openings, exits and hazardous areas

Memorandum Summary

- In a smoke compartment that is not fully sprinklered, a gap between the face of a corridor door and the door stop should not exceed \(\frac{1}{4}\)-inch, provided that the door latch mechanism is functional.
- In a smoke compartment that is fully sprinklered, a gap between the face of a corridor door and the door stop should not exceed \(\frac{1}{2}\)-inch, provided that the door latch mechanism is functional.

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Top Ten Cited Deficiencies

Tag K018  Corridor Doors

The gap between the edge of a corridor door and the door frame shall not be greater than the depth of the door stop.

This new CMS policy will save nursing homes $ millions every year

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Top Ten Cited Deficiencies

Tag K018  Corridor Doors

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Life Safety Code

Door Clearances for Smoke Barriers Different than for Corridor Doors

Smoke Barriers

- Section 8.3.4.1 Doors in smoke barriers shall close the opening leaving only the minimum clearance necessary for proper operation and shall be without undercuts, louvers, or grilles.
- Section A.8.3.4.1 The clearance for proper operation of smoke doors is defined as 1/8 in. (0.3 cm). For additional information on the installation of smoke control door assemblies, see NFPA 105, Recommended Practice for the Installation of Smoke-Control Door Assemblies.

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Top Ten Cited Deficiencies

Tag K130 Miscellaneous

- Power Strips
- Use of Extension Cords

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**Tag K130  Miscellaneous**

*CMS Memo*

Extension cords should not be used to take the place of adequate wiring in a facility. If extension cords are used, the cords should be properly secured and not be placed overhead, under carpets or rugs, or anywhere that the cord can cause trips, falls, or overheat. Extension cords should be connected to only one device to prevent overloading of the circuit. The cord itself should be of a size and type for the expected electrical load and made of material that will not fray or cut easily. Electrical cords including extension cords should have proper grounding if required and should not have any grounding devices removed or not used if required.

Power strips may not be used as a substitute for adequate electrical outlets in a facility. Power strips may be used for a computer, monitor, and printer. Power strips are not designed to be used with medical devices in patient care areas. Precautions needed if power strips are used include: installing internal ground fault and over-current protection devices; preventing cords from becoming tripping hazards; and using power strips that are adequate for the number and types of devices used. Overload on any circuit can potentially cause overheating and fire. The use of ground fault circuit interruption (GFCIs) may be required in locations near water sources to prevent electrocution of staff or residents.11

I would add one other item and that is that power strips may not be connected to each other (daisy chained) to extend the length of them as this is also prohibited by UL.

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Top Ten Cited Deficiencies

**Tag K021  Fire Door Hold Open Devices**

- **Remember this general rule**
  - If a door requires an automatic closure, i.e. doors to hazardous areas, vertical openings, exit enclosures, smoke barrier partitions etc. only magnetic hold open devices can be used to hold door open. (optional)
  - If the door does not require an automatic door closure, i.e. resident sleeping room door to corridor, the door can be held open with a friction device.
  - At no time can any door be held open with the infamous wooden fusible link, you call a wooden wedge.

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Top Ten Cited Deficiencies

Tag K021 Fire Door Hold Open Devices

Magnetic Hold Open Devices Must Release the Doors:
• Operation of the Fire Alarm System
• Local Smoke Detector to Detect Smoke going through the opening
• Activation of the Sprinkler System, if provided

Friction Hold Open Device
• One manual motion to close doors
• Kick door stops are not permitted

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Top Ten Cited Deficiencies

Tag K021 Fire Drill

Fire Drills
• Requirements are in Chapters 18 & 19 of 2000 Life Safety Code for nursing homes.

Emergency Procedures
• Requirements are in Chapter 11 of Standard for Health Care Facilities (NFPA 99) for Nursing Homes. This can be used as a guide for ALFs.

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Top Ten Cited Deficiencies

- Increase in evacuation and emergency plan procedures and requirements
- Increase in the enforcement of evacuation and emergency procedures
- Increase in the enforcement of fire drill procedures and Written Documentation
  - Record Keeping
  - Vary Drills
  - Staff Participation
  - 12 Drills per Year/4 per Shift

*Result of hurricanes in Gulf States

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Top Ten Cited Deficiencies

Fire Drills
It is not mandatory that all staff members participate in 4 fire drills per year. Staff may be absent due to vacation, sick leave, outside training, etc. There is actually a benefit if a staff member is absent, it measures how staff present compensates for the absence.

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Top Ten Cited Deficiencies

Tag K062 Sprinkler System Maintenance

- Record Keeping, Record Keeping, Record Keeping
- If cited for deficiency on Contractor’s testing or inspection Report, Get it Fixed before Survey or the surveyor will thank you for paying a third party to do his/her job.
- Providers can do inspections and documentation
- Contractors must do Testing and Maintenance and Reports for Testing and Maintenance

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Requirements for New & Existing Nursing Homes

Testing & Maintaining Fire Sprinkler Systems


<table>
<thead>
<tr>
<th>Item</th>
<th>Activity</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gauges (dry, preaction deluge systems)</td>
<td>Inspection</td>
<td>Weekly/monthly</td>
</tr>
<tr>
<td>General valves</td>
<td>Inspection</td>
<td>Weekly/monthly</td>
</tr>
<tr>
<td>Alarm devices</td>
<td>Inspection</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Gauges (wet pipe systems)</td>
<td>Inspection</td>
<td>Monthly</td>
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<tr>
<td>Hydrant outlets</td>
<td>Inspection</td>
<td>Quarterly</td>
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<td>Buildings</td>
<td>Inspection</td>
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<td>Inspection</td>
<td>Annually</td>
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<td>Annually</td>
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<tr>
<td>Valves (all types)</td>
<td>Inspection</td>
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<tr>
<td>Alarm devices</td>
<td>Test</td>
<td>Quarterly</td>
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<tr>
<td>Mix drain</td>
<td>Test</td>
<td>Quarterly</td>
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<tr>
<td>Automatic wet signal system</td>
<td>Test</td>
<td>Annually</td>
</tr>
<tr>
<td>Gauges</td>
<td>Test</td>
<td>5 years</td>
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<tr>
<td>Sprinkler systems—moon-high temp.</td>
<td>Test</td>
<td>5 years</td>
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<tr>
<td>Sprinkler systems—low response</td>
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<td>As 20 years and every 10 years thereafter</td>
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<td>Test</td>
<td>As 50 years and every 10 years thereafter</td>
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<td>Valves (all types)</td>
<td>Maintenance</td>
<td>Annually or as needed</td>
</tr>
<tr>
<td>Operation investigation</td>
<td>Maintenance</td>
<td>5 years or as needed</td>
</tr>
</tbody>
</table>
Top Ten Cited Deficiencies

Tag K029 Hazardous Area Construction

Separation

- Door to hazardous area requires self closure
- Door can be held open with approved magnetic hold open device
- Ducts that penetrate hazardous area enclosure not required to be dampered unless part of Smoke Barrier or 2 hour rated partition
- Penetrations of enclosure partitions required to be fire stopped.

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Top Ten Cited Deficiencies

19.3.2.1 Hazardous Areas. Any hazardous areas shall be safeguarded by a fire barrier having a 1-hour fire resistance rating or shall be provided with an automatic extinguishing system in accordance with 8.4.1. The automatic extinguishing shall be permitted to be in accordance with 19.3.5.4. Where the sprinkler option is used, the areas shall be separated from other spaces by smoke-retarding partitions and doors. The doors shall be self-closing or automatic-closing. Hazardous areas shall include, but shall not be restricted to, the following:

(1) Boiler and fuel-fired heater rooms
(2) Central/hale laundries larger than 100 ft³ (9.3 m³)
(3) Paint shops
(4) Repair shops
(5) Sealed linens rooms
(6) Trash collection rooms
(7) Rooms or spaces larger than 50 ft² (4.6 m²), including repair shops, used for storage of combustible supplies and equipment in quantities deemed hazardous by the authority having jurisdiction
(8) Laboratories employing flammable or combustible materials in quantities less than those that would be considered a severe hazard.

Exception: Doors in rated enclosures shall be permitted to have non-rated, factory- or field-applied protective plates extending not more than 48 in. (122 cm) above the bottom of the door.

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Top Ten Cited Deficiencies

Tag K056 Sprinkler System Installation

- Combustible Overhangs Greater than 4 feet wide
- Combustible Canopies or Noncombustible Canopies with storage Underneath
- Walk in Freezers or Refrigerators
- Corroded or Dirty Sprinkler Heads
- Misc.?

Requirements for Sprinkler Systems

NFPA 13
Standard for the Installation of Automatic Sprinkler Systems
1999 Edition

1-6 Level of Protection
1-6.1
A building, where protected by an automatic sprinkler system installation, shall be provided with sprinklers in all areas.
Exception: This requirement shall not apply where specific sections of this standard permit the omission of sprinklers
Top Ten Cited Deficiencies

Tag K056  Sprinkler System Installation

Fixes
• Add or replace sprinkler heads
• FSES
• Clean Sprinkler Heads

Requirements for Sprinkler Systems

Center for Medicaid and State Operations/Survey and Certification Group
Ref: S&C-07-29
Life Safety Code – Canopy and Overhang Sprinkler Requirements and the Use of the Fire Safety Evaluation System (FSES)

- This memorandum modifies S&C-05-38 “Clarification of Life Safety Code (LSC) issues in Nursing Homes” in regards to sprinklers in canopies and overhangs.
- The LSC requires that most canopies and large overhangs be sprinklered (in facilities where the regulations require sprinklers).
- The Fire Safety Evaluation System (FSES) may be used when evaluating the level of safety provided for a Health Care occupancy where a canopy or overhang is required to be sprinklered. The FSES affords facilities the opportunity to have stronger safety features in other areas to compensate where the facility does not have sprinklers installed. The FSES can be used for this purpose until the Centers for Medicare & Medicaid Services (CMS) regulations require that the facility become fully sprinklered.
- Facilities with an existing waiver of the requirement for canopies and overhangs to be sprinklered may continue under their existing waiver if the CMS regional office (RO) finds that the waiver continues to meet all other requirements in law or regulation. These waivers are reviewed annually by the CMS RO. CMS will not approve any new waivers.
Top Ten Cited Deficiencies

Tag K147 Electrical Wiring and Equipment

• Open Junction Boxes
• Frayed Wiring
• Broken Switches or Receptacles
• Could included Power Strips and Extension Cords
• K147 is for compliance with NFPA 70, National Electrical Code

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Top Ten Cited Deficiencies

Tag K034 Exit Stairways

Includes Stairways and Stairway Enclosures

• Doors to Stairway Enclosure
  • Latches
  • Self Closures
  • Fit-1/8 inch Gap applies to doors
• Storage not permitted in Stairway Enclosure
• Handrails

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Top Ten Cited Deficiencies

Tag K034 Exit Stairways

- Enclosure of Stairways
- Unprotected Penetrations
- Utilities in Stairway that does not serve Stairway
- Unoccupied spaces open to Stairway
- Lack of Protected Gates and signage where Stairway continues down past level of exit discharge
- Etc.

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Top Ten Cited Deficiencies

Tag K038 Exit Accessibility at all Times

Means of Egress Starts at any point in a building and Ends at a point safely away from the Building. Accessibility must be maintained throughout the entire Means of Egress

- Problem Areas
  - Exit Access corridors (interior)
  - Exit discharge to a safe area away from the building

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Top Ten Cited Deficiencies

Tag  K038  Exit Accessibility at all Times

Exit Access Corridors

- Corridor kept clear of obstructions and storage
- Carts in corridor have to be attended (moved every 30 minutes)
- 2000 Life Safety Code allows storage areas 50 sq. ft. or less open to corridor (alcoves)
- Emergency Carts at nursing station OK if not in corridor clear width
- Going to become more problematic in future with patient lifts and charting carts
- Residents in wheel chairs are **NOT** storage in a corridor

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Top Ten Cited Deficiencies

Tag  K038  Exit Accessibility at all Times

Exit Discharge Routes

- Need only extend safely away from building (CMS policy states 50 feet)
- Hard surface walkways are not always required
- Pathway must:
  - Be maintained clear of obstructions to include snow and ice
  - Slopes greater than 1 in 12 must be provided with ramps or stairs
  - If hard surface is required gravel may be an option

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Tag K038 Exit Accessibility at all Times

Extracts from 2000 Life Safety Code

7.7.1*
Exits shall terminate directly at a public way or at an exterior exit discharge. Yards, courts, open spaces, or other portions of the exit discharge shall be of required width and size to provide all occupants with a safe access to a public way.

A.7.7.1
Exterior walking surfaces within the exit discharge are not required to be paved and often are provided by grass or similar surfaces. Where discharging exits into yards, across lawns, or onto similar surfaces.

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Top Ten Cited Deficiencies

Exit Discharge Routes

- If Pathway is other than hard surface
  - Must have in writing that it will be maintained clear of obstructions
  - Must demonstrate in writing (and on film will help) that you can move residents in wheelchairs during inclement weather

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Typical Nursing Unit

Point safely
Away from
The Building

Life Safety Code

Required versus designated exits

- Convinced nursing home providers own exit sign manufacturing companies
- Many designated exits are not required exits
- Not all doors to outside are required exits
- Put exit sign over door – it’s a required exit
- Next life safety inspection, provider should ask surveyor to assist in identifying required exits. Surveyor is not required to provide this type of service.

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Commonly Cited Deficiencies

• Provide hard surfaced pathway from exit discharge to a public way

In CMS Survey & Certification Letter S & C-07-05, dated December 7, 2006, CMS has rescinded not allowing the use of the FSES for nonconforming outside exit discharge paths to a public way.

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Commonly Cited Deficiencies

• Provide hard surfaced pathway from exit discharge to a public way

Formal Interpretation
NFPA 101A
Guide on Alternative Approaches to Life Safety
2001 Edition
Reference: 4.6.10.3.2
F.I. No. 101A-01-1

BACKGROUND: I am representing the American Health Care Association (AHCA) which is a trade association representing over 12,000 nursing homes. The 2000 Life Safety Code has been adopted by the Federal Government and applies to all existing nursing homes in the U.S. The 2001 NFPA 101A is the applicable edition for the 2000 LSC and is widely used by existing nursing homes as an alternative to determine equivalent compliance with the prescriptive requirements of the Code. CMS has recently issued a memorandum stating that the use of FSES is inappropriate relative to pathways, particularly hard surface pathways as part of the “discharge from exits” as covered in Section 7.7 of the Code. The American Health Care Association disagrees with CMS’s position and had participated in many discussions with CMS on this very issue prior to CMS’s memorandum. (shown below)

“IT is AHCA’s position that the use of the FSES is appropriate for all the requirements for “Discharge of Exits” contained in Section 7.7 to include pathways to public ways. Section 4.6.10.3.2 of NFPA 101A states: “exit routes also shall be considered deficient if they fail to meet the requirements of 18.2.1 through 18.2.7 or 19.2.1 through 19.2.7 (NFPA 101), for the egress routes involved.” Sections 18.2.7 and 19.2.7 refer back to Section 7.7, Discharge of Exits, which contains the requirements for the pathways to a public way.”

QUESTION: Is it the intent to permit NFPA 101A, Chapter 4 – Fire Safety Evaluation System for Health Care Occupancies, to be used to evaluate the level of safety provided for a health care occupancy that does not conform with the provisions of NFPA 101, Section 7.7 – Discharge from Exits, such as that related to the exit discharge path to a public way?

ANSWER: Yes.

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Changes/Requirements for Existing Nursing Homes – con’t.

Chapter 2 MANDATORY REFERENCES

NOTE: (See Annex B for other referenced publications that are advisory and thus do not constitute part of the requirements of this Code.)

2.1 The following documents or portions thereof are referenced within this Code as mandatory requirements and shall be considered part of the requirements of this Code. The edition indicated for each referenced mandatory document is the current edition as of the date of the NFPA issuance of this Code. Some of these mandatory documents might also be referenced in this Code for specific informational purposes and, therefore, are also listed in Annex B.

The numbers in parentheses represent the paragraph numbers from chapters of this Code that reference the given publication in a mandatory way.

The Committee on Safety to Life recognizes that it is sometimes impractical to continually upgrade existing buildings or installations to comply with all the requirements of the following referenced publications. Existing buildings or installations that do not comply with the provisions of the following referenced publications shall be permitted to be continued in service, provided the lack of conformity with these standards does not present a serious hazard to the occupants as determined by the authority having jurisdiction.

Changes/Requirements for New & Existing Nursing Homes

- The one exception in Chapter 2 for new requirements in existing buildings are the Testing and Maintenance Requirements in the reference documents.

- Whenever equipment or systems are provided, whether required or not required, such equipment or systems must be maintained and tested in accordance with applicable NFPA requirements:
  - Sprinkler systems and fire pumps – 1998 NFPA 25
  - Fire alarm and detection systems – 1999 NFPA 72
  - Kitchen range hood & duct systems – 1998 NFPA 96

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Top Ten Cited Deficiencies

Inspection, Testing and Maintenance

• Record Keeping, Record Keeping, Record Keeping
• If cited for deficiency on Contractor’s testing or inspection Report, Get it Fixed before Survey or the surveyor will thank you for paying a third party to do his/her job.

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Inspection, Testing and Maintenance of Fire Protection Systems

• Provider can do inspections and record keeping of inspections in-house
• Qualified contractors should do testing and maintenance unless you have a Licensed? And qualified in-house person.
• Insist that contractors provide detailed and timely Reports

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Recent CMS Fire/Life Safety Policies and Interpretations

Future Fire/Life Safety Issues

- Increase in requirements and enforcement of record keeping to include:
  - Fire drills
  - Testing and maintenance
  - Operation of devices connected to fire alarm systems, e.g. smoke dampers, magnetic locks, etc.
  - Fire watches
Life Safety Code

Locking of Doors in Means of Egress

CMS June 23, 2007 Memo on locking of doors in means of egress

- CMS requires a comprehensive and individualized assessment of each resident’s needs to determine if the resident requires
- K38 will be cited if egress doors on a floor are locked and there is evidence that all cognitively aware residents, staff and visitors do not have access to the method of opening the doors
- If staff can not unlock the doors, it will most likely be considered an immediate jeopardy situation.

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Pending Life Safety Code Issues

Locking of doors for security and safety of patients

- Industry has met with CMS
- Industry will meet with patient rights advocacy groups and Alzheimer’s Association and all will meet with CMS
- Recently several cognitively aware residents have died from going down stairs in wheelchairs

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Changes/Requirements for Existing Nursing Homes

- Doors can be locked if clinical needs of patient required (no limit on the number of locks in means of egress)
- Delayed egress locks permitted in means of egress (only one permitted in a means of egress)

Life Safety Code

- Locking of doors in the means of egress (Nursing Homes)
  - Clinical needs of patient determined by the facility
  - Key locking of doors
    - No limit on the number of locks in the means of egress or which doors in the means of egress
    - Can be manual or electric
    - Can be key or cipher lock
    - Staff must be present 24/7 when doors are locked
- Delayed egress lock (Nursing Homes and ALF’s)
  - Only one in the means of egress
  - Limited time for delay
  - Sounds an alarm
  - Staff is not required to be present
  - Only on exterior doors
  - Not required to unlock by manual activation of Fire Alarm System
Life Safety Code

- Gates in secured outside areas are doors in the Means of Egress and can be locked.
  
- Staff that can unlock gates must be present when area is occupied.

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Health Care Interpretation Task Force – Applies to Health Care facilities and not to ALF’S

**Healthcare Interpretations Task Force:**

1. Is it the intent of the Code to require a minimum number of patients whose clinical needs require the locking of doors be housed in a healthcare facility in order to permit the doors to be locked? **ANSWER: No**

2. Is it the intent of the Code that patients whose clinical needs require the locking of doors be housed in the same smoke compartment or on the same floor? **ANSWER: No**

3. If the answer to Question #2 is no, can the patients whose clinical needs require the locking of doors be distributed throughout the facility based on the health care program of the facility? **ANSWER: Yes**

4. Is it the intent of the Code the the clinical needs of patients relative to the need to require doors to be locked be determined by the appropriate and qualified staff of the health care facility? **ANSWER: Yes**

5. Is the intent of the Code to restrict the type of locking device to time delay locks? **ANSWER: No**

6. If the answer to Question #5 is no, can key locks, cipher locks, magnetic locks and similar locks be used as long as they can readily be unlocked by staff present when the doors are locked? **ANSWER: Yes**

7. Are locks, other than time delay locks, and locks used on doors for stairway re-entry, required to automatically unlock upon operation of the fire alarm system or power failure? **ANSWER: No**

8. Are the number of locked doors in the means of egress limited other than for doors using time delay locks? **ANSWER: No**

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Commonly Cited Deficiencies and Misinterpretations of the Code

No Smoking Signs

**Question:** Are no smoking signs required to be posted in all areas where oxygen is being used in a health care facility that has a no smoking policy?

**Answer:** No, if no smoking signs are prominently posted at all major entrances into the health care facility. Exceptions to Section 8-6.4.2 of NFPA 99 and Section 19.7.4 of NFPA 101 clearly state that no smoking signs are not required. I am not aware that CMS has amended the requirements of NFPA 99 or NFPA 101 to require no smoking signs other than what is currently required in these two documents.
Commonly Cited Deficiencies

Smoking

• Designated smoking areas outside the building are regulated similar to inside smoking areas.

Commonly Cited Deficiencies

• Maintaining 18 inch clear space below sprinkler deflectors

A-5-6.6
The 18-in. (0.46-mm) dimension is not intended to limit the height of shelving on a wall or shelving against a wall in accordance with 5-6.6. Where shelving is installed on a wall and is not directly below sprinklers, the shelves, including storage thereon, can extend above the level of a plane located 18 in. (0.46 mm) below ceiling sprinkler deflectors. Shelving, and any storage thereon, directly below the sprinklers cannot extend above a plane located 18 in. (0.46 mm) below the ceiling sprinkler deflectors.
Commonly Cited Deficiencies

• Fire Alarm System Required to Shutdown HVAC Systems.
  • Not true – Life Safety Code nor NFPA 90A requires activation of the fire alarm system to shutdown the HVAC System

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THANK YOU

Presented by: Thomas W. Jaeger, P.E., President

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