



**Indiana State  
Department of Health**

**Katy Jane, K-Tags and Keeping Up-  
What Happens When, Problem  
Avoidance, Trends**

Robert Solomon, PE



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**Agenda**

**Introductory Remarks**

**Nursing Home Fires-Case Studies**

**K-tag Violations and the Code**

**NFPA Codes and CMS-The Last 10  
Years and Next Steps**



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**NFPA 101 Background**

- NFPA founded in 1896
  - Automatic sprinkler systems, fire pumps, water storage tanks, electricity
  - Property loss focus
- NFPA 101
  - ASCH fire, NYC March 1911 (Triangle Shirtwaist Fire)
  - 142 fatalities
  - 1913 (first edition)- Predecessor to NFPA 101 accepted by NFPA Board and membership
- Continuous updates to NFPA 101 as a result of new technology, new concepts, building loss investigations



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### NFPA 101 and CMS

- NFPA 101 2000 ed. serves as the base enforcement tool for CMS
- CMS authority permits:
  - Exception
  - Modification
  - Interpretationto NFPA 101 (AHC thresholds, roller latches, Performance Based Design Option, ABHR placement, *sprinkler requirements*)
- NFPA 101 adoption/modification by CMS via NPRM



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### NFPA 101 and CMS

- Department of Health, Education and Welfare
  - 1970-Social Security Act
    - Mandatory compliance with NFPA 101-1967
    - Equally applicable to new and existing
    - COP includes compliance with NFPA 101
      - Non-Compliance = Non-Reimbursement
- HEW/HHS/HCFA/CMS
  - Updated code compliance for 1976, 1985, 2000 editions of NFPA 101



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### ...set the WABAC Machine



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## Going Full Circle



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## The Triangle Fire: March 25, 1911



March 25, 1911: Firefighters battle the blaze at the Triangle Waist Co., which was housed on the eighth, ninth, and tenth floors of the Asch Building in New York's Greenwich Village. Note the ladder, which extended only as far as the sixth floor.  
(Photo: International Ladies Garment Workers Union Archives, Ighal Center, Cornell University)



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## "The Social and Human Cost of Fire"



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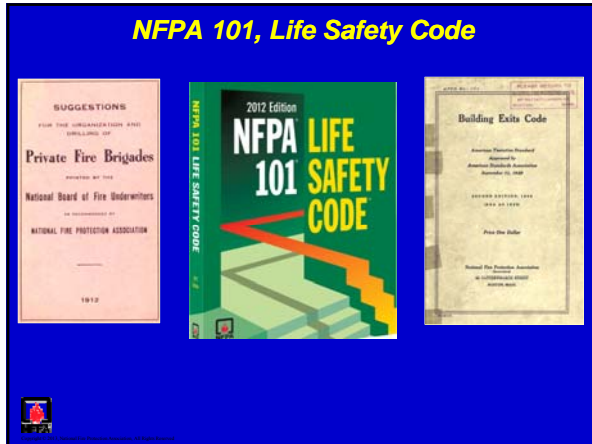
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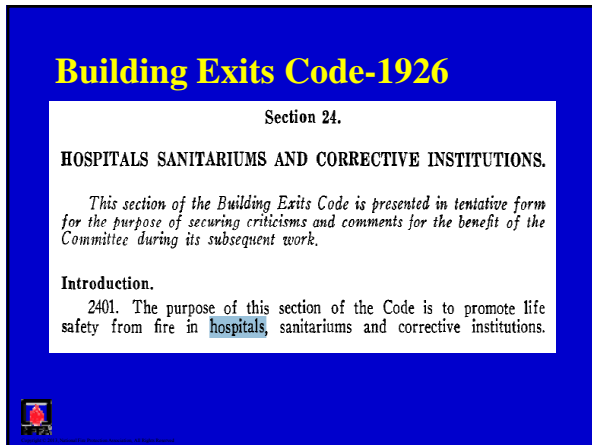
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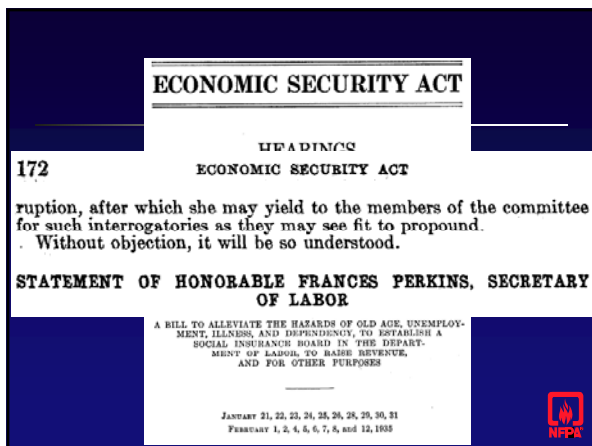
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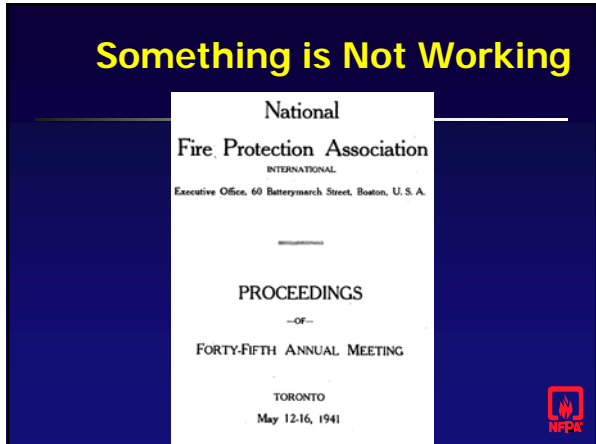
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### Long Term Care

LOCATION	DATE	OUTCOME
Warrenton, MO	FEB 17, 1957	72 Fatalities
Fitchville, OH	NOV 23, 1963	63 Fatalities
Largo, FL	MAR 29, 1952	32 Fatalities
Marietta, OH	JAN 9, 1970	31 Fatalities
Hoquiam, WA	JAN 30, 1951	21 Fatalities

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### October 31, 1952

- Cedar Grove Nursing Home
- Hillsboro, MO
- Census ~ 70 residents
- 20 deaths
- 37 injuries

The image shows the cover of a report titled "Cedar Grove Nursing Home Fire". It specifies the location as "Hillsboro, Mo., October 31, 1952". It includes the NFPA logo and mentions it was reprinted from the "NFPA Quarterly" in January 1953. The price is listed as "Price: 25 cents". At the bottom, it says "NATIONAL FIRE PROTECTION ASSOCIATION INTERNATIONAL" and "60 Battery March Street, Boston, Mass."

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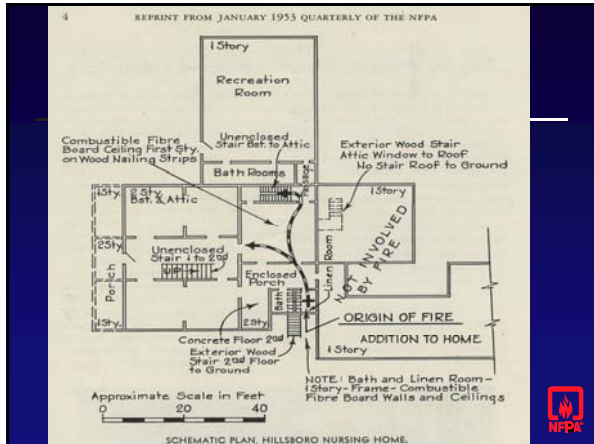
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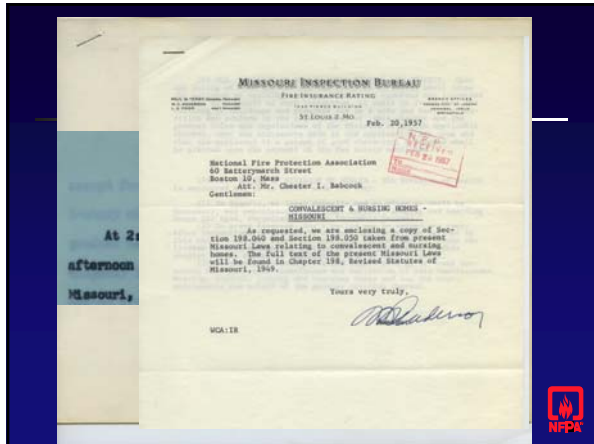
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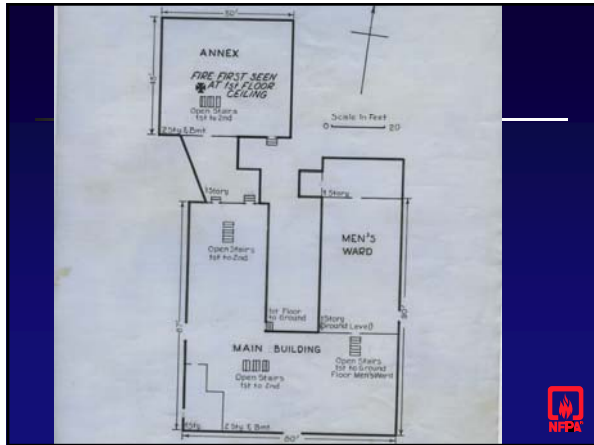
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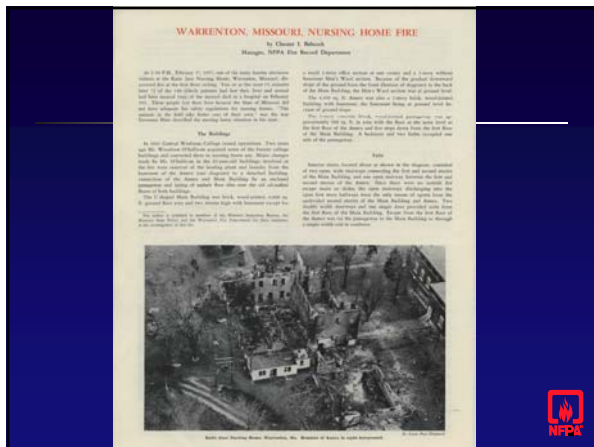
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Katie Jane Nursing Home, Warrenton, Mo. Remains of Annex in right foreground. St. Louis Post Dispatch

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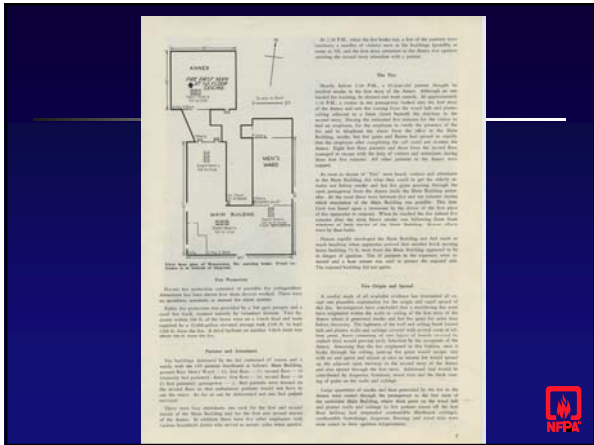
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At 1:30 P.M., when the fire broke out, a line of the patients were...  
The fire...  
The cause...  
The escape...  
The investigation...



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Grim inadequacy of the state inspection and safety program for nursing homes was thrust into ghastly highlight by Sunday's holocaust in the Katie Jane Memorial Home at Warrenton.

The reason? The State Division of Health hasn't nearly enough staff to inspect and to enforce even sketchy provisions of present laws.

The director, Dr. James R. Amos, said the statute requires inspection once a year, but he has only 17 employees to supervise conditions in more than 600 nursing homes, caring for in excess of 13,000 old and ill persons. These 17 include 12 inspectors and five nurses; usually a nurse and inspector must go on each investigative trip. These 17 also have the duty to inspect all hotels, motels and similar establishments in the state!

Missouri is one of only seven states that have no fire marshal and staff to inspect and enforce fire-hazard regulations!



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## The animals in the field...



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## Legacy

A champion of the elderly citizens of Missouri, Blair set up an agency to investigate the needs of the aged and to make recommendations to the legislature. He wanted to transfer a number of senile people out of state mental institutions into homes for the aged or to family care. Blair supported the Nursing Home Licensing Law that tightened the regulations on safety in nursing homes and provided for inspections and tougher penalties for homes that did not comply.



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## December 18, 1964

- Maples Convalescent Home
- Fountaintown, IN
- Census-34 Residents
- 20 deaths



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## The Investigation

*More evidence that unsprinklered nursing homes are not safe places to live.*

### MAPLES CONVALESCENT HOME FIRE

ROBERT F. HAMM  
Director, Public Relations  
Indiana Rating Bureau



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## The 60's

### NURSING HOMES AND RELATED LONG-TERM CARE SERVICES

HEARINGS  
BEFORE THE  
JOINT SUBCOMMITTEE ON LONG-TERM CARE  
OF THE  
SPECIAL COMMITTEE ON AGING  
UNITED STATES SENATE  
EIGHTY-EIGHTH CONGRESS  
SECOND SESSION

PART 1

WASHINGTON, D.C.—MAY 5, 1964

Printed for the use of the Special Committee on Aging



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## 1971

The facility shall not make available under clause (i) identifying information about complainants or residents.


(2) LICENSING AND LIFE SAFETY CODE.—

(A) LICENSING.—A skilled nursing facility must be licensed under applicable State and local law.

(B) LIFE SAFETY CODE.—A skilled nursing facility must meet such provisions of such edition (as specified by the Secretary in regulation) of the Life Safety Code of the National Fire Protection Association as are applicable to nursing homes, except that—

(i) the Secretary may waive, for such periods as he deems appropriate, specific provisions of such Code which if rigidly applied would result in unreasonable hardship upon a facility, but only if such waiver would not adversely affect the health and safety of residents or personnel; and

(ii) the provisions of such Code shall not apply in any State if the Secretary finds that in such State there is in effect a fire and safety code, imposed by State law, which adequately protects residents of and personnel in skilled nursing facilities.




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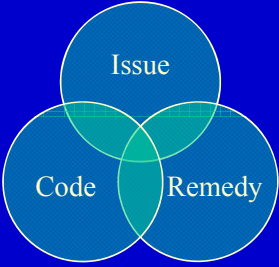
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## K-Tag Violations



Issue  
Code      Remedy



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### Citation Frequency Report

**Selection Criteria**  
**Provider and Supplier Type(s):** Dually Certified SNF/NFs - Medicare and Medicaid, Distinct Part SNF/NFs - Medicare and Medicaid, Skilled Nursing Facilities (SNFs) - Medicare Only, Nursing Facilities - Medicaid Only

**National**

**Deficiency Tags:** ; Any K Codes;  
**Survey Type(s):** Standard  
**Survey Focus:** Life Safety  
**Year Type:** Calendar Year  
**Year:** 2008  
**Month:** Full Year

Tag #	Tag Description	# Citations	% Providers Cited	% Surveys Cited
<b>Totals represent the # of providers and surveys that meet the selection criteria specified above.</b>				
		4,420	19.7%	34.5%
K0018	CORRIDOR DOORS	4,399	26.2%	34.7%
K0029	HAZARDOUS AREAS - SEPARATION	4,167	24.6%	32.5%
K0062	SPRINKLER SYSTEM MAINTENANCE	4,058	24.0%	32.0%
K0147	ELECTRICAL WIRING AND EQUIPMENT	3,219	19.2%	25.4%
K0038	EXIT ACCESS	2,929	17.8%	23.1%
K0025	SMOKE PARTITION CONSTRUCTION	2,746	15.8%	21.7%
K0050	FIRE DRILLS	2,597	15.3%	20.3%
K0056	AUTOMATIC SPRINKLER SYSTEM	2,407	14.0%	19.0%
K0144	GENERATORS INSPECTED/TESTED	2,097	12.4%	16.5%
K0052	TESTING OF FIRE ALARM	1,935	11.5%	15.1%
K0012	CONSTRUCTION TYPE	1,912	11.4%	15.1%
K0076	MEDICAL GAS SYSTEM	1,909	11.5%	15.1%
K0067	VENTILATING EQUIPMENT	1,868	11.3%	14.7%
K0069	COOKING EQUIPMENT			



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### K-Tag Citations 2012 Summary

- 0018 Corridor Door
- 0029 Hazardous Area Separation
- 0062 Sprinkler System Maintenance
- 0147 Electrical Wiring and Equipment
- 0038 Exit Access



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### 0018 Corridor Door

- Operation
- Allowable clearances
- Closing
- Latching
- Locking
  - More on this later



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### 0029 Hazardous Area Separation



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### 0062 Sprinkler System Maintenance

- Frequency of ITM program
- Record keeping
- Coverage
  - Wardrobes
  - Walk-in coolers



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### 0147 Electrical Wiring

- Modifications
- RPTs-
  - Relocateable Power Taps
- Maintenance



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### Egress Issues

- Exit Access-
- Emergency Lighting-
- Exit Lighting-
- Exit Signs-



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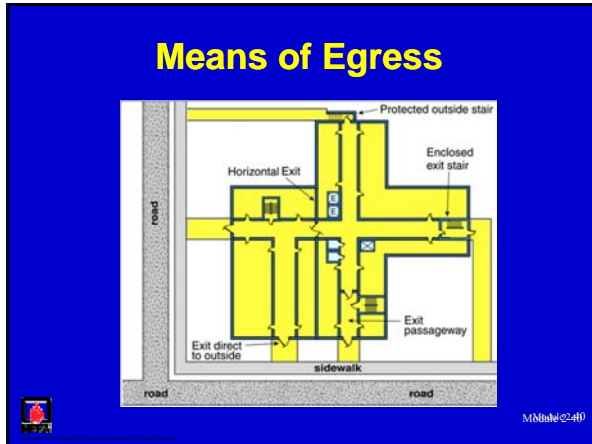
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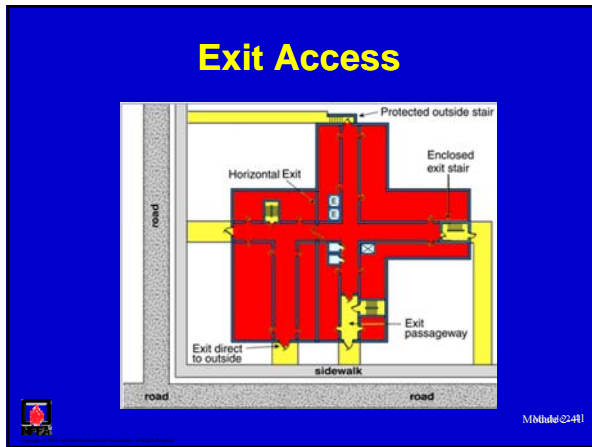
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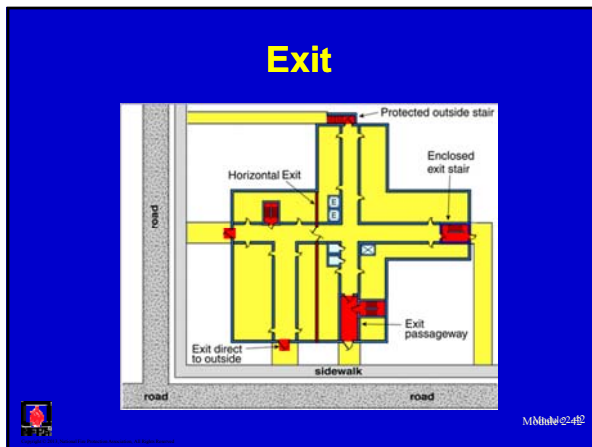
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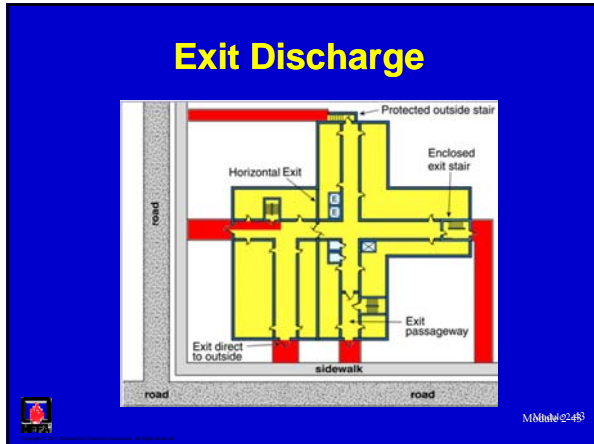
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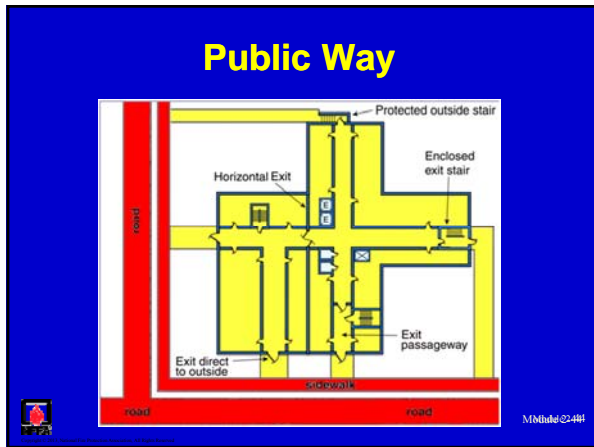
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### 0144 Generator Inspection/Testing

- Extent of NFPA 110 Application
  - ITM
  - Performance criteria
  - Requirements

A photograph showing a large industrial generator room with several yellow generators arranged in rows. The room has high ceilings and metal structures.

NFPA logo in the bottom left corner. 45 in the bottom right corner.

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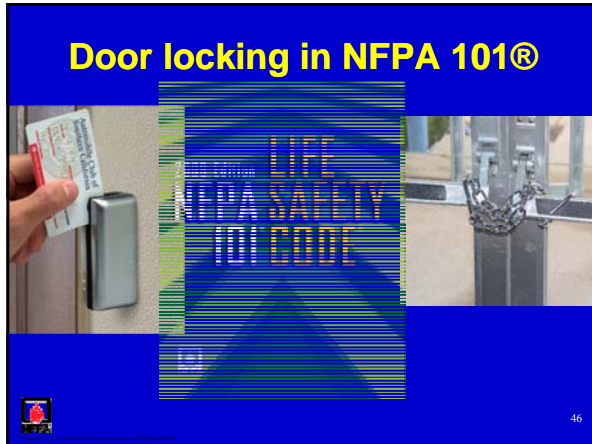
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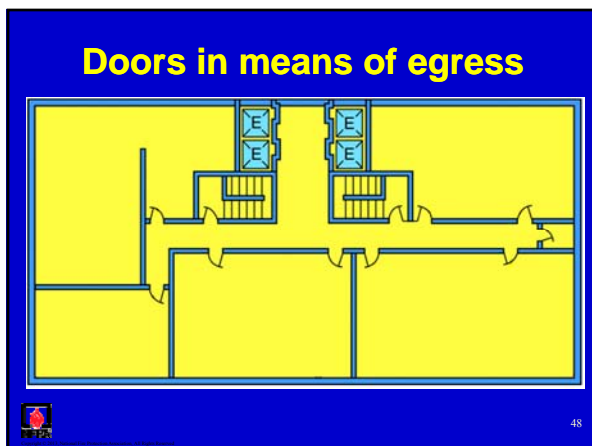
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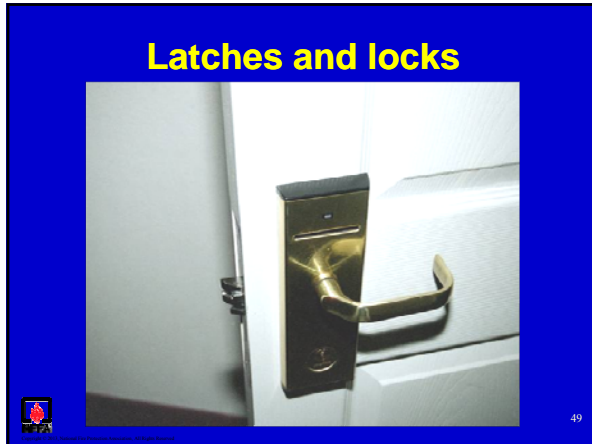
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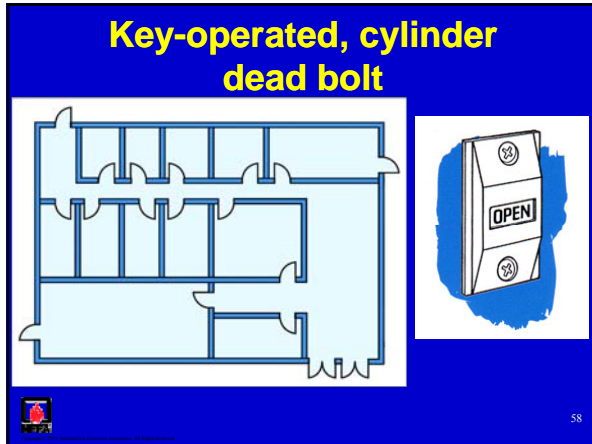
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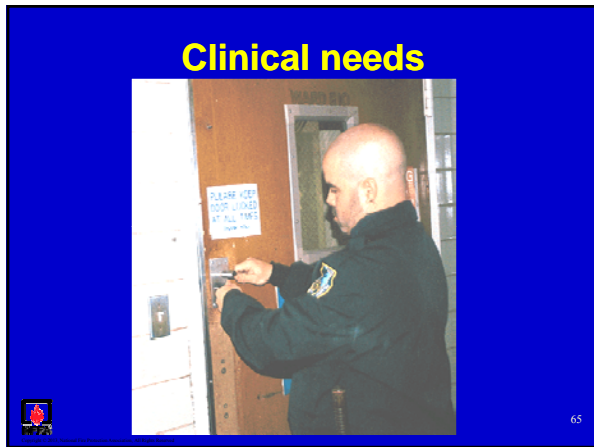
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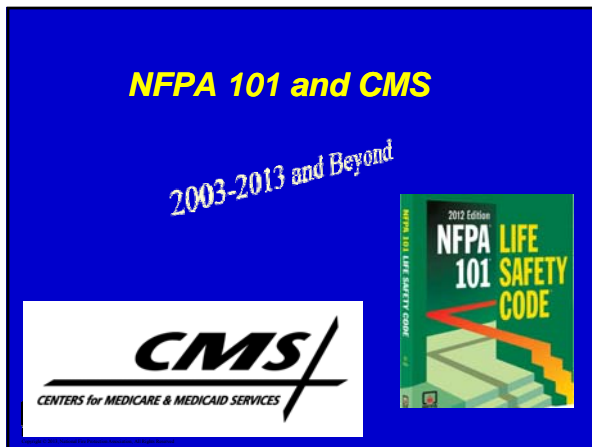
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### Health Care Occupancy Fires – 2003

Hartford, CT 2/26/03 – 16 fatalities (Nursing Home)



Nashville, TN 9/25/03 – 15 fatalities (Nursing Home)





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### Hartford Nursing Home Fire

Greenwood Health Center  
 Hartford, Connecticut  
 February 26, 2003






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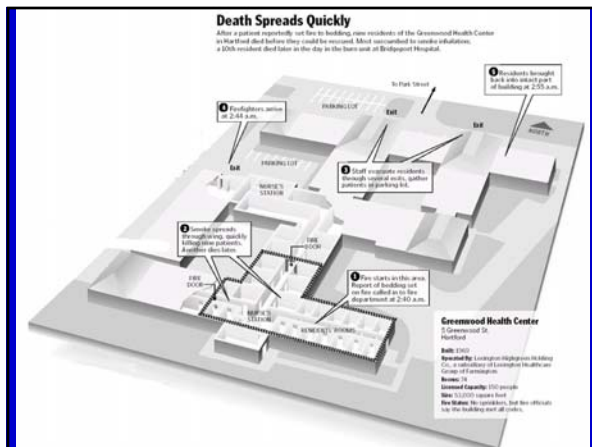
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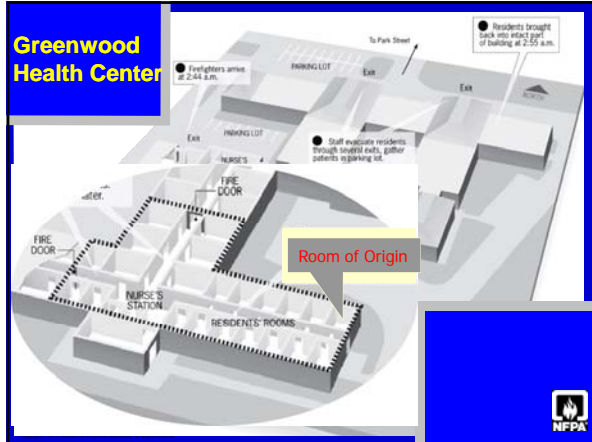
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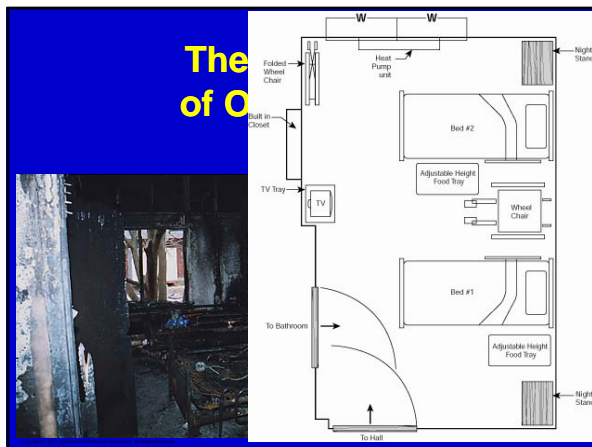
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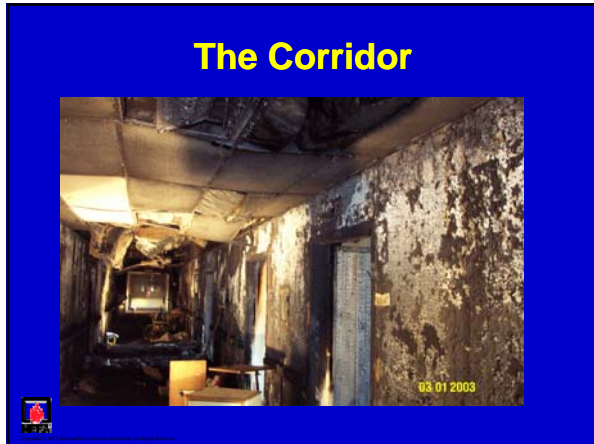
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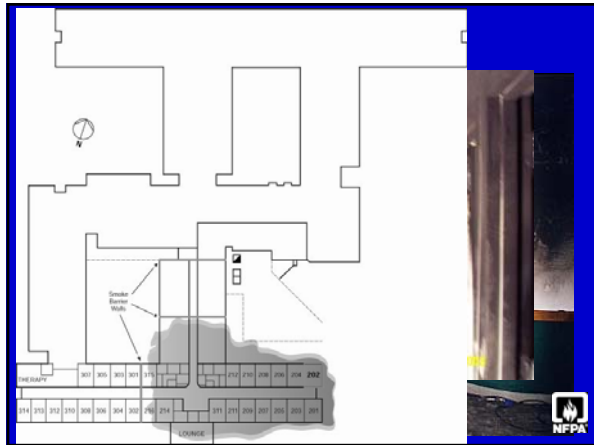
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**GAO Report July 2004**

**Recommendations for Executive Action**

GAO  
United States Government Accountability Office  
Report to Congressional Requesters

June 2004  
**NURSING HOME  
FIRE SAFETY**  
Recent Fires Highlight  
Weaknesses in  
Federal Standards and  
Oversight

- Work with NFPA to strengthen fire safety standards for unsprinklered nursing homes, such as requiring smoke detectors in resident rooms, exploring the feasibility of requiring sprinklers in all nursing homes, and developing a strategy for financing such requirements.
- Ensure that thorough investigations are conducted following multiple death nursing home fires so that fire safety standards can be reevaluated and modified where appropriate.



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**CMS Survey & Certification (S&C) Letters**

- Clarify a policy
- Provide direction or instruction
- Explicitly permits or outlines a waiver process



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**March 9, 2012**

- CMS Issued a Survey & Certification (S&C) Letter concerning portions of the 2012 code.
- How did we get here?
- Where to next?



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**S&C-12-21-LSC**

DEPARTMENT OF HEALTH & HUMAN SERVICES  
Centers for Medicare & Medicaid Services  
7500 Security Boulevard, Mail Stop C2-21-16  
Baltimore, Maryland 21244-1850

**CMS**  
CENTERS FOR MEDICARE & MEDICAID SERVICES

Office of Clinical Standards and Quality/Survey & C


Ref: S&C-12-21-LSC

**DATE:** March 9, 2012

**TO:** State Survey Agency Directors  
State Fire Authorities

**FROM:** Director  
Survey and Certification Group

**SUBJECT:** Instructions Concerning Waivers of Specific Requirements of the 2012 Edition of the National Fire Protection Association (NFPA) 101, the Life Safety Code (LSC), in Health Care Facilities – Clarification Effective Immediately



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**S&C-12-21-LSC:  
Affected Sections**

- LSC sections 18/19.2.3 Capacity of Means of Egress and more specifically the requirements at 18/19.2.3.4 which allow, under certain circumstances, projections into the means of egress corridor width for wheeled equipment and fixed furniture;



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**Corridor Width – Health Care**



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### Health Care Corridor Projections – 18/19.2.3.4(2)



- Noncontinuous projections
  - Corridor  $\geq$  6 ft width
  - $\leq$  6 in. from wall
  - $\geq$  38 in. above floor
- Deleted:
  - 36 in. length limit
  - 48 in. separation between projections

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### Health Care Corridor Projections – 18/19.2.3.4(4)



- Wheeled equipment
  - $\geq$  60 in. clear maintained
  - Relocated during emergency
  - Equipment/carts in use
  - Medical emergency equipment not in use
  - Patient lift/transport equipment

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### Stored or Parked?



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## Health Care Corridor Projections – 18/19.2.3.4(5)



- Fixed furnishings
  - Corridor  $\geq$  8 ft width
  - $\geq$  6 ft clear maintained
  - 1 side of corridor
- Groupings
  - $\leq$  50 sq ft
  - Separation  $\geq$  10 ft
- Smoke detection or direct supervision
- Sprinklered smoke compartment

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## Corridors



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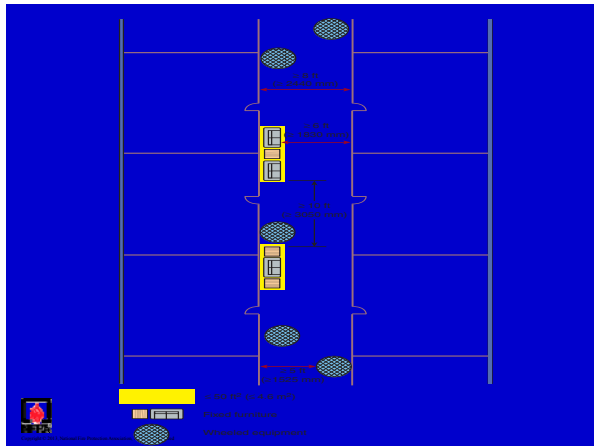
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**Corridors**

**Operational Reality**



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**S&C-12-21-LSC:  
Affected Sections**

- LSC section 18/19.3.2.5 Cooking Facilities, more specifically the requirements at 18/19.3.2.5.2, 18/19.3.2.5.3, 18/19.3.2.5.4 and sections 18/19.3.2.5.5 which allow certain types of alternative type kitchen cooking arrangements;



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**Health Care Cooking Facilities  
– 18/19.3.2.5**



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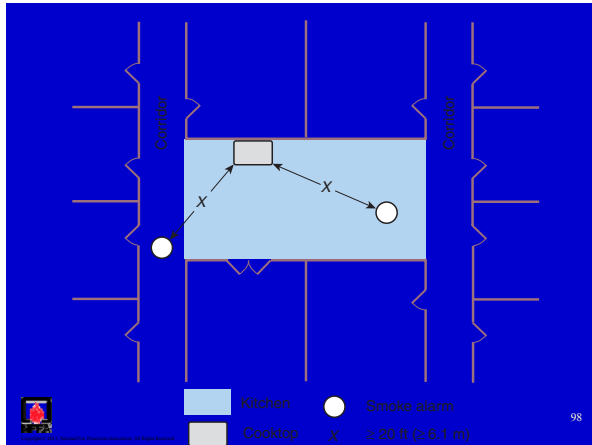
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**S&C-12-21-LSC:  
Affected Sections**

- LSC section 18/19.5.2 Heating, Ventilating, and Air Conditioning, more specifically the requirements at 18/19.5.2.3(2), (3) and (4) which allow the installation of direct vent gas fireplaces in smoke compartments containing patient sleeping rooms and the installation of solid fuel burning fireplaces in areas other than patient sleeping areas;

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## Health Care – Fireplaces

- 18/19.5.2.3



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## Fireplace



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## S&C-12-21-LSC: Affected Sections

- And lastly, CMS will consider a waiver to allow the use of the requirements found at LSC section 18/19.7.5 Furnishings, Mattresses, and Decorations including sections 18/19.7.5.6 which allow the installation of combustible decorations on walls, doors and ceilings.



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## Health Care - Decorations

• 18/19.7.5.6



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## S&C-12-21-LSC: Summary

Memorandum Summary

- **Updates to Previous Instructions:** This letter addresses updates to the Centers for Medicare & Medicaid Services (CMS) policy regarding Capacity of the Means of Egress; Cooking Facilities; Heating, Ventilating, and Air Conditioning; and Furnishings, Mattresses, and Decorations.
- **Permitting Nursing Homes to Utilize Certain Changes to Life Safety Code Provisions Immediately:** Since these changes are included in the 2012 Life Safety Code, CMS is permitting nursing homes to use the new provisions immediately.
- **Waiver Processing:** Waiver requests will be processed in accordance with standard operating procedures.



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DEPARTMENT OF HEALTH & HUMAN SERVICES  
Centers for Medicare & Medicaid Services  
7500 Security Boulevard, Mail Stop C2-21-16  
Baltimore, Maryland 21284-4500



Center for Clinical Standards and Quality/Survey & Certification Group

Ref: S&C: 13-58 LSC

**DATE:** August 30, 2013


**TO:** State Survey Agency Directors

**FROM:** Director  
Survey and Certification Group

**SUBJECT:** 2000 Edition National Fire Protection Association (NFPA) 101® Life Safety Code (LSC) Waivers

Memorandum Summary

- **Several Categorical LSC Waivers Permitted:** The Centers for Medicare & Medicaid Services (CMS) has identified several areas of the 2000 edition of the LSC and 1999 edition of NFPA 99 that may result in unreasonable hardship on a large number of certified providers/suppliers and for which there are alternative approaches that provide an equal level of protection. This memorandum specifies the provisions that are available for waiver, including the conditions for the alternative approaches.
- **Providers and Suppliers Must Elect to Use the Waiver:** Individual waiver applications are not required, but providers and suppliers are expected to have written documentation that they have elected to use a waiver and must notify the survey team at the entrance conference for any survey assessing LSC compliance that it has elected the use of a waiver permitted under this guidance and that it meets the applicable waiver requirements. The survey team will review the information and confirm they are meeting the circumstances for the waiver.



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## Fire Up Your Crystal Ball



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## Tasks and Influences

- NPRM Preparation
  - Preamble
  - Significant Changes
  - “Hot Button” Issues
  - Cost



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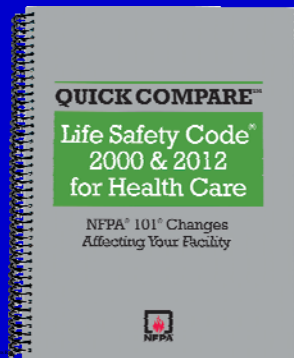
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## Finding Changes



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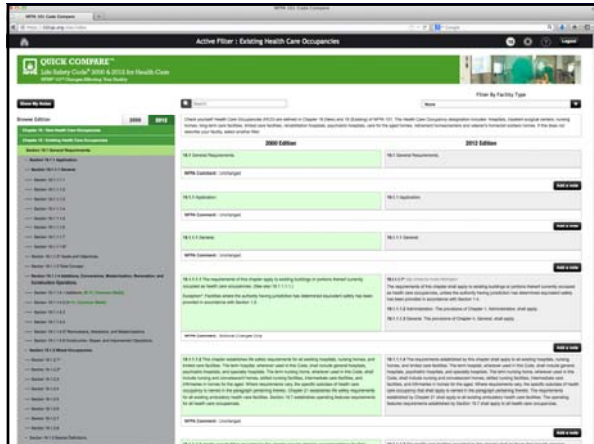
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