


Life Safety Code Surveys



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Director OPRI

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Overview

- Motivation
- Role of the Engineer
- Life Safety Survey Process
- Top 10 Citations
- Common Q / A
- Quality

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Motivation

- Regulations exist to avoid negative outcomes ?
- or
- Regulations exist to ensure the right things happen ?

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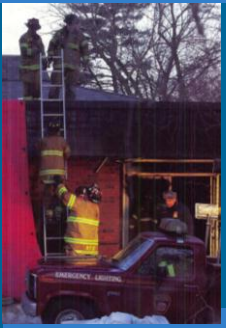
Motivation

Fire	Date	Lives Lost	Code Changes
Iroquois Theater, Chicago, IL	12.30.1903	602	Outward door swing in places of assembly.
Cocoanut Grove, Boston, MA	11.28.1942	492	Egress distribution and regulation of combustible interior finishes.
Marting Arms, Richmond, IN	04.05.1968	41	Limits on gunpowder storage in retail sales occupancies.
Barnum and Bailey Circus, Hartford, CT	07.06.1944	168	Flame retardent treatments for tents.
Great Adventure Amusement Park, Jackson Township, NJ	5.11.1984	8	Fire and life safety improvements for "amusement buildings."
One Meridian Plaza, Philadelphia, PA	02.23.1991	3	Improvements in fire standpipe system design.
Station Nightclub, West Warwick, RI	02.19.2003	100	Sprinklers in places of assembly.

Motivation

- Historically: what initiated the LSC as a condition of participation ?
 - 1961 Hartford Hospital Fire (16 deaths)
 - 1963 Golden Age Nursing Home (63 deaths)
 - 1960's Nursing Homes
 - 28 multiple-death fires
 - 211 deaths
- Congress asked: Why should federal benefits continue to flow to substandard facilities ?

Motivation



- 2003 Fire
- Hartford Connecticut
 - 1970/1974 structure
 - 148 residents
 - 1 story noncombustible
 - not sprinkler protected
 - 2:40 AM fire
 - 16 residents killed

Motivation



- 2003 Fire
- Nashville Tennessee
 - 1967 structure
 - 117 residents
 - 4 story fire resistive
 - not sprinkler protected
 - 2:40 AM fire
 - 15 residents killed

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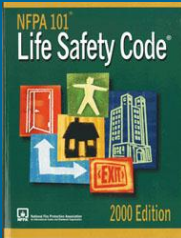
Motivation

- Nation wide
- Adopted consistent code
- Federal benefits go to facilities that establish and maintain code compliance
- Congress: regulations exist to ensure the right things happen



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Federal & State



2000 Edition
NFPA 101

Life Safety Code (LSC)

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Role of Engineer

WHAT DOES A DQA ENGINEER DO?

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Role of Engineer

3 PRIMARY TASKS

1. Surveys
2. Plan Review
3. Construction Inspections

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Role of Engineer

3 PRIMARY TASKS

1. Survey
- 2. Plan Review**
3. Construction Inspections

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Plan Review

- LIFE SAFETY
- BUILDING
- INSTALLATION

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Plan Review

70% of Acute Engr Work

30% of LTC Engr Work

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Plan Review

Construction plans:
Make sure it's
designed right !

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Role of Engineer

3 PRIMARY TASKS

1. Survey
2. Plan Review
3. Inspections

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Construction Inspection

On-Site: Make sure it's Built Right!





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Inspection Feedback



WISCONSIN DEPARTMENT OF HEALTH SERVICES

About DHS
Topics A - Z
Programs & Services
Partners & Providers
Resources

If You Have Complaints about Wisconsin Health Care

Information about Division of Quality Assurance (DQA)

DQA Web Pages

Provider Types Regulated by DQA

Division of Quality Assurance Construction/Remodeling for Health Care Facilities

Post-Construction Inspection Questionnaire - for
HOSPITAL

As part of the Division of Quality Assurance (DQA) ongoing improvement processes, we measure our business stakeholders experience with our on-site engineer construction inspection processes. Results from this questionnaire provide an opportunity for DQA to address improvements in our oversight process, expand

<https://doa.wi.gov/DHSSurveys/TakeSurvey.aspx?SurveyID=12KL776K>

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Role of Engineer

PRIMARY TASKS

1. Survey
2. Plan Review
3. Construction Inspections

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SURVEYS

30% of Acute Engr Work

70% of LTC Engr Work

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SURVEYS

- Brief meeting w/ management
- Explanation of Purpose & Process
- Request Records (Maintenance & Testing)
- Request Floor Plan (s)
- Construction History / Types
- Extent of Sprinkler Protection

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graph LR
    A[Entrance Conference] --> B[Survey]
    B --> C[Determine Deficiencies]
    C --> D[Exit Conference]
  
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Life Safety Survey

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SURVEYS

- Records Review
- Tour & Observations
- Interviews

Life Safety Survey 22

SURVEYS

- Code verification
- Consistency
- Scope

Life Safety Survey 23

SURVEYS

- Facility Debriefing
- Finding Summary
- Questions Welcome

Life Safety Survey 24

Survey Feedback

DQA - Working to Protect - Promote - Provide Quality in Wisconsin's Health Care Facilities

Division of Quality Assurance
 P.O. Box 2969
 Madison, WI 53701-2969
 Phone: (608) 266-8481
 Fax: (608) 267-0352

Please review [List of providers regulated by DQA](#) for specific contact information regarding individual provider types

[DQA Web Pages](#) - information and navigation assistance
[DQA Organization Chart](#) (PDF, 20 KB)
[Emergency Preparedness System Registration](#)

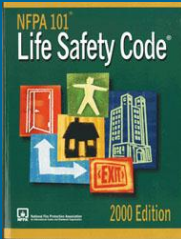
Health Care Providers complete the DQA [Post Survey Questionnaire](#)

http://www.dhs.wisconsin.gov/rl_dsl/bqa.htm

Areas of Emphasis

- Occupancy Class
- Construction Type
- Means of egress
- Compartments
- Hazardous areas
- Systems:
 - Sprinkler & Fire Alarm
 - Med Gas & E-power
- Operational
 - Fire Drills & Emergency Plans

Federal & State



2000 Edition
NFPA 101

Life Safety Code
 (LSC)

Codes vs. Standards

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Common Standards

- NFPA 13 Sprinkler systems
- NFPA 70 Electrical
- NFPA 72 Fire Alarm
- NFPA 80 Fire Doors & shutters
- NFPA 90A Ventilation
- NFPA 96 Commercial cooking
- NFPA 99 Health Care Facilities
- NFPA 110 Emergency power

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Life Safety Plan

INSPECT

2. Stairs & Vertical Openings

Document Checklist

2 DOCUMENT CHECKPOINTS

BATTERY LIGHTS

FIRE ALARM

DAMPERS

POLICIES

FIRE DRILLS

FIRE PUMPS

GENERATORS

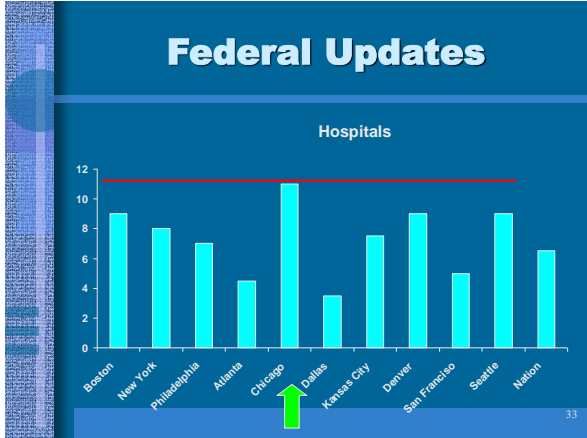
KITCHEN HOOD

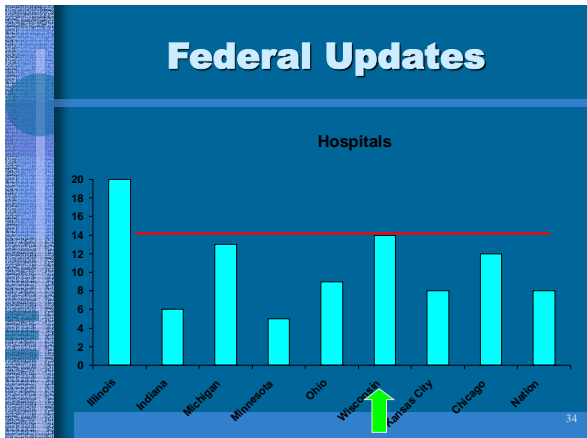
PORTABLES

SPRINKLERS

Top 10 Hospital

Illinois	Indiana	Michigan	Minnesota	Ohio	Wisconsin	RO V	ROVII	Nation
K29	K144	K25	K50	K130	K18	K29	K147	K29
K130	K50	K25	K52	K75	K29	K130	K33	K147
K147	K54	K18	K29	K27	K56	K18	K62	K18
K51	K25	K27	K46	K38	K12	K38	K46	K52
K38	K62	K147	K56	K29	K147	K56	K50	K25
K33	K46	K20	K76	K44	K62	K147	K56	K56
K47	K14	K52	K11	K78	K17	K50	K27	K130
K77	K211	K62	K144	K17	K11	K25	K144	K38
K56	K154	K56	K64	K25	K38	K62	K52	K50
K18	K69	K38	K38	K62	K25	K76	K35	K76



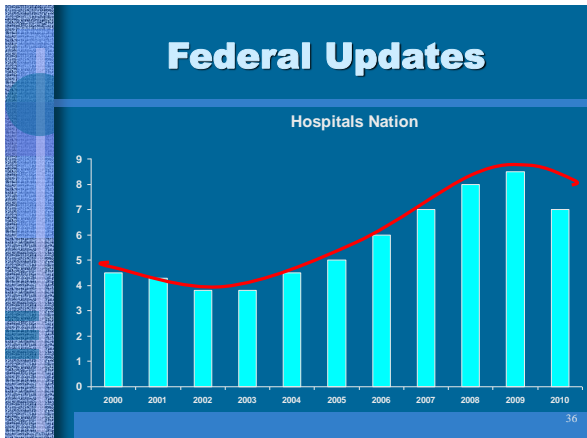


Federal Updates

Fact or Fiction

- Is the Midwest the highest citing region? **Yes**
- Is Wisconsin the highest citing states? **No**

Fiction



Top 10

#1 hazardous areas	K-29
#2 generator testing	K-144
#3 sprinkler testing	K-62
#4 means of egress	K-38
#5 corridor doors	K-18
#6 fire drills	K-50
#7 smoke barriers	K-25
#8 general electrical	K-147
#9 fire alarm testing	K-52
#10 sprinkler installation	K-56

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Resources

Internet: DQA construction

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2000 LSC timeline

- Jan 10, 2003 - effective
- March 11, 2003
 - new (Chapter 18)
 - existing (Chapter 19)
- Sept 11, 2003 – enforced
- S&C 03-21 (CMS Memo)

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Grandfathering

- March 11, 2003
 - new (Chapter 18)
 - existing (Chapter 19)
- Not diminish existing life safety
- Verify past code compliance
- Major vs Minor remodeling
- **S&C 04-15** (CMS Memo)

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“ Grandfathered ”

- Code in effect ...
 - Remains in effect
- Not exempt from compliance

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Question

What steps are taking to help assist Life Safety surveyor consistency ?



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Question

Under what criteria can a state engineer who is investigating a complaint, authorize an accredited facility validation survey ?



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Question

Is the Departmental approval mean my plans are (a) substantially or (b) fully compliant ?



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Question

What do we do, when two codes have differing requirements ?



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Question

What is the best approach to understanding a specific code section ?



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Question

Is the code intended to be used as a design manual ?



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Question

How big or small of a project needs to be submitted to the Department ?



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Response

Remodeling: means to make over or rebuild any portion of a building and thereby modify its structural strength, fire hazard character, exits, HVAC, electrical system or internal circulation...

DHS 124.27(2)(f)

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Question

How long does it take for a typical health care plan review ?



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Life Safety Plan



Teamwork

- Owners
- Designers
- Contractors
- Regulators
- Operators

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Choices

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Thank You

- Wisconsin Department of Health Services www.dhs.wisconsin.gov

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