WISCONSIN DEPARTMENT of HEALTH SERVICES

Codes Refresh

Healthcare Facilities

Technician 101

David Soens, PE, RA
Life Safety Fire Authority
May 7, 2025

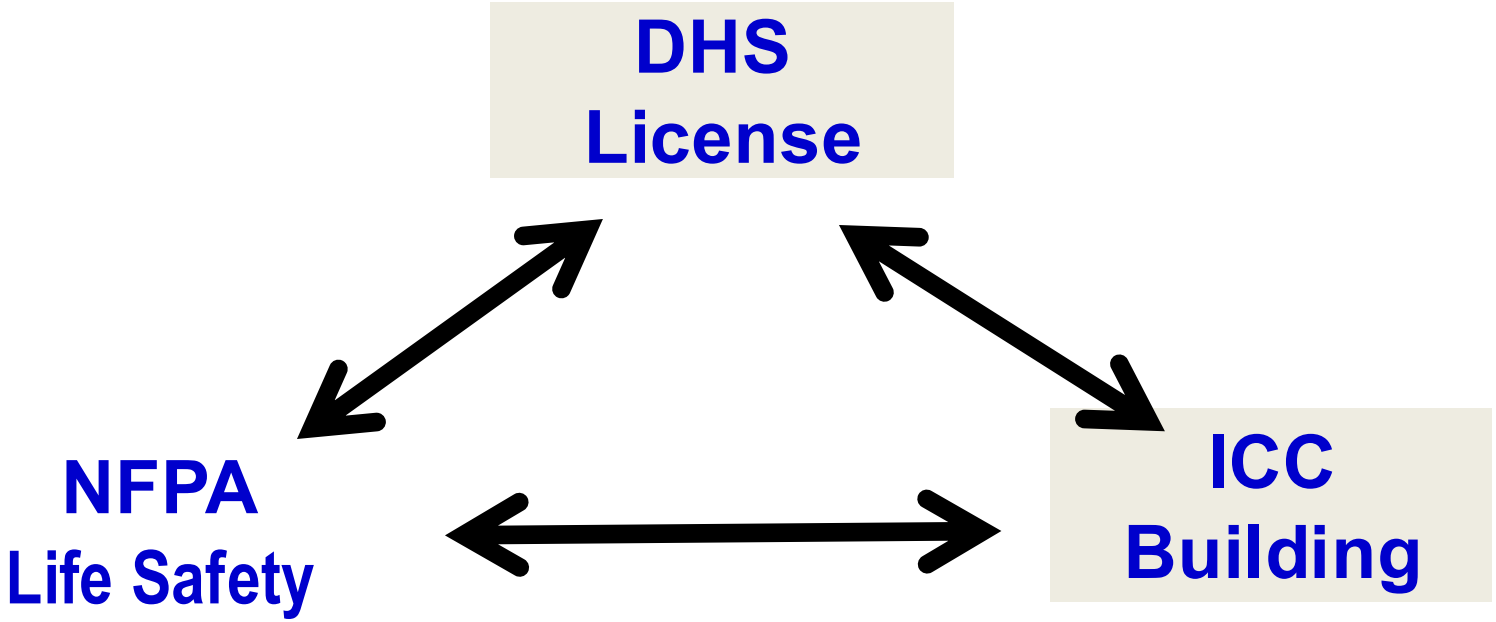
Overview

- Total Concept
- Building Blocks
- Summary

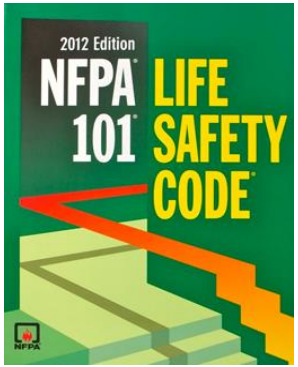
Universe


2009 IMC
INTERNATIONAL MECHANICAL CODE
2009 IBC
INTERNATIONAL BUILDING CODE
NEC 2005
NFPA 70: National Electrical Code
International Electrical Code Series
ICC/ANSI A117.1-2003 Standard & Commentary
Health Care Facilities NFPA 99
NFPA 13 Installation of Sprinkler Systems 1999 Edition
NFPA 101 Life Safety Code 2000
Life Safety Code HANDBOOK

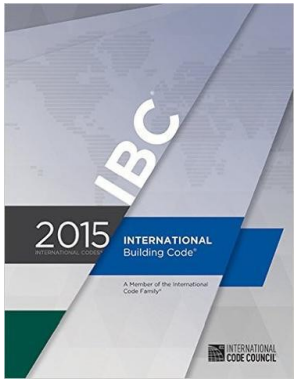
Code Triad



Code Triad



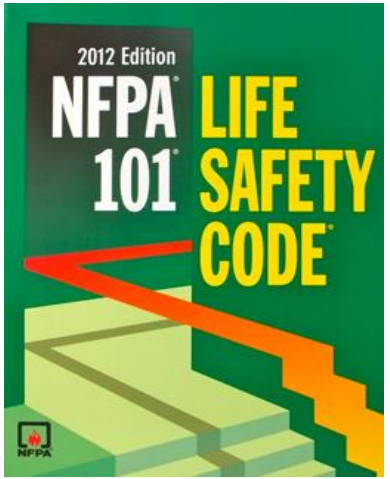
DHS Admin Codes



Code

18.1.1.3 Total Concept.

18.1.1.3.1 All health care facilities shall be designed, constructed, maintained, and operated to minimize the possibility of a fire emergency requiring the evacuation of occupants.

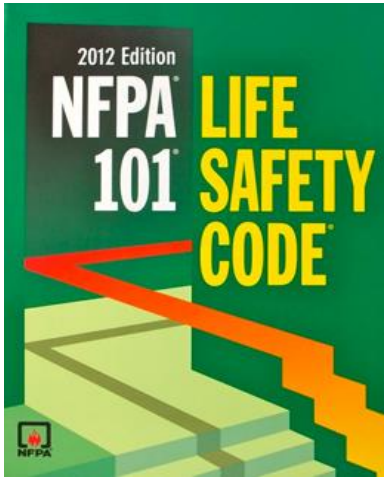


Defend-in-Place

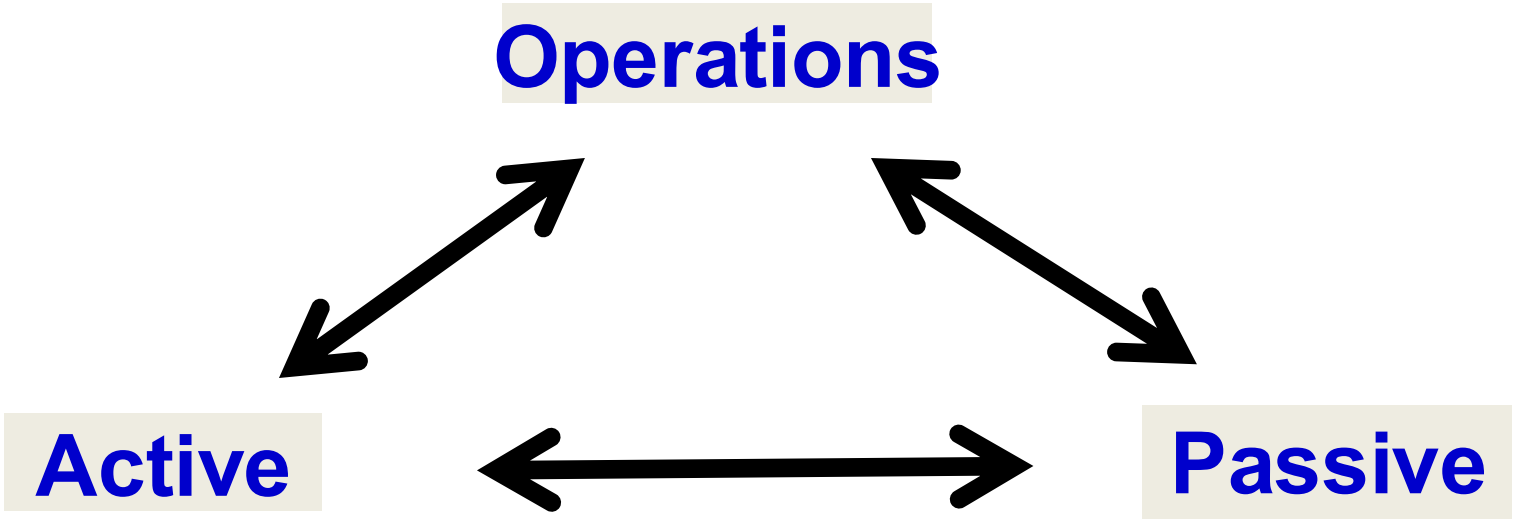
Code

18.1.1.3.2 Because the safety of health care occupants cannot be ensured adequately by dependence on evacuation of the building, their protection from fire shall be provided by appropriate arrangement of facilities; adequate, trained staff; and development of operating and maintenance procedures composed of the following:

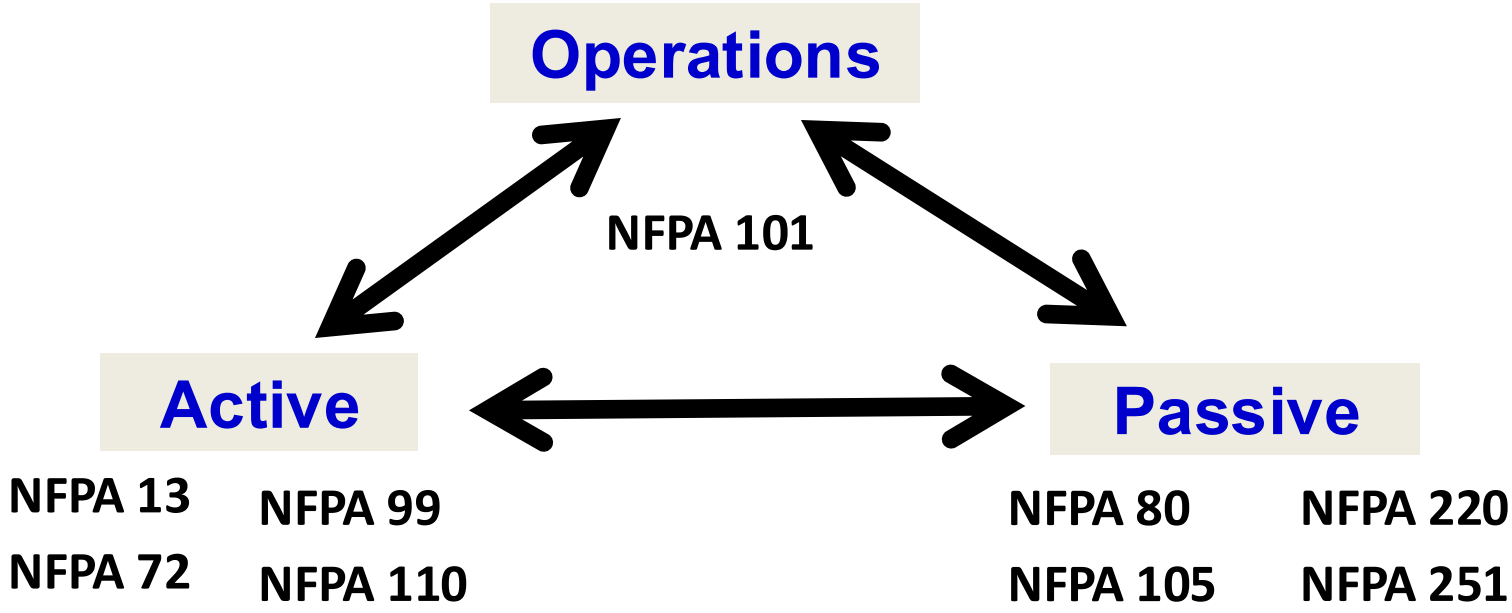
(1) Design, construction, and compartmentation
(2) Provision for detection, alarm, and extinguishment
(3) Fire prevention procedures and planning, training, and drilling programs for the isolation of fire, transfer of occupants to areas of refuge, or evacuation of the building



Total Concept



Total Concept



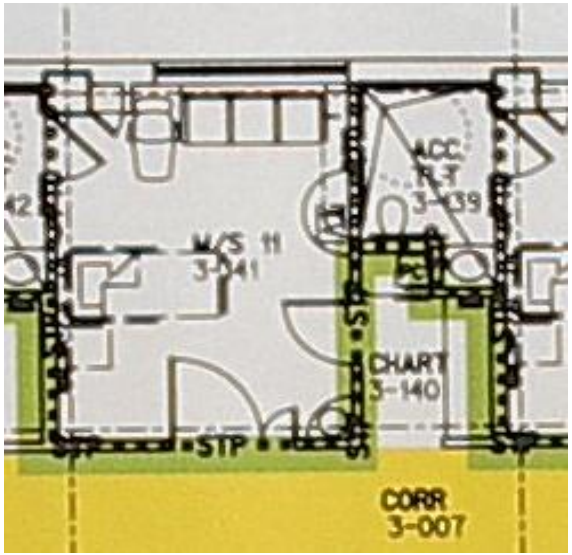
Passive

- Room
- Floor
- Vertical
- Building

Passive

Life Safety Plan

Passive



Patient Room

Smoke Partition	
Fire Rating	0
Smoke Rating	0
Door Latch	Yes
Door Closer	No

Passive

Patient Room

Smoke Partition	
Fire Rating	0
Smoke Rating	0
Door Latch	Yes
Door Closer	No

Passive

Hazardous Room

- Storage
- Boilers
- Repairs
- Soiled linen
- Medical gas

Fire Stopping

Passive

Soiled Utility Room

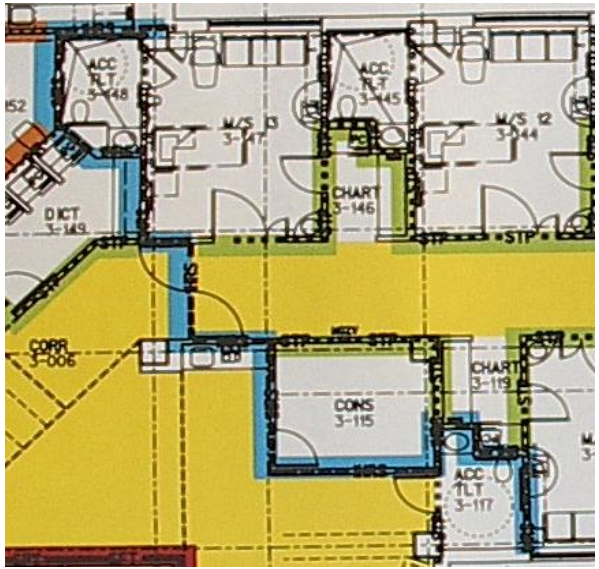
Fire Barrier	
Fire Rating	1 hr
Smoke Rating	0
Door Latch	Yes
Door Closer	Yes

Passive

Soiled Utility Room

Fire Barrier	
Fire Rating	1 hr
Smoke Rating	0
Door Latch	Yes
Door Closer	Yes

Passive



Smoke Barrier Wall

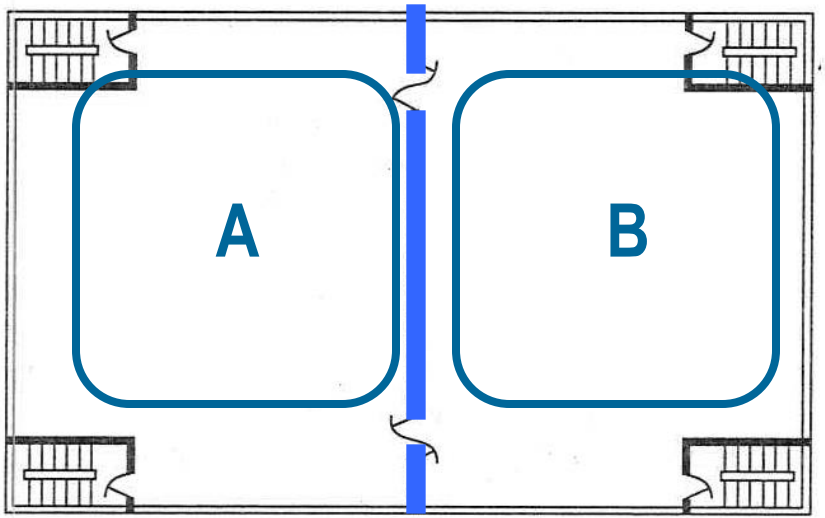
Smoke Barrier	
Fire Rating	1 hr
Smoke Rating	Yes
Door Latch	No
Door Closer	Yes

Passive

Smoke Barrier Wall

Smoke Barrier	
Fire Rating	1 hr
Smoke Rating	Yes
Door Latch	No
Door Closer	Yes

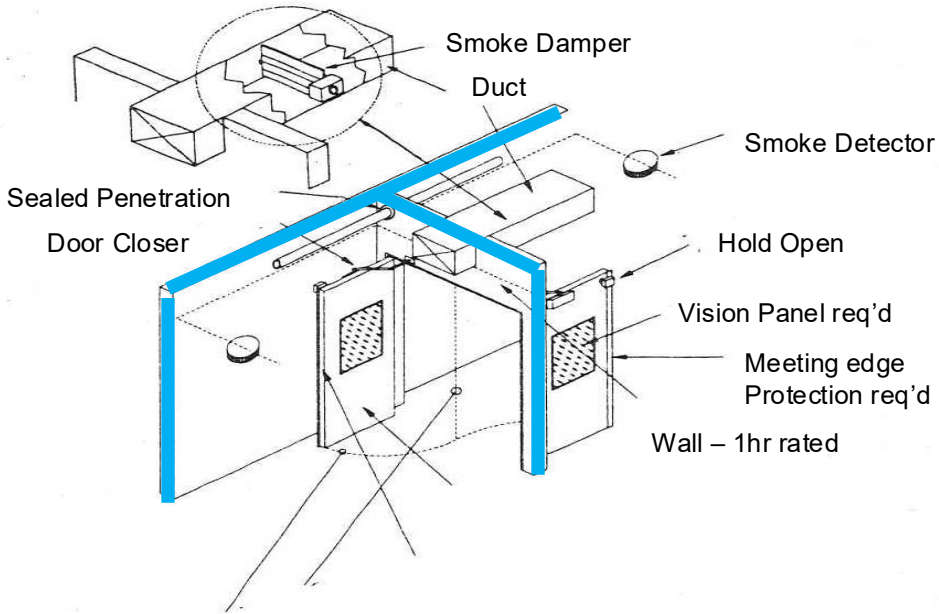
Passive



Smoke Compartment

- Smoke barrier
- Fire and smoke protection
- Six-sided compartment
- Defend-in-Place

Passive

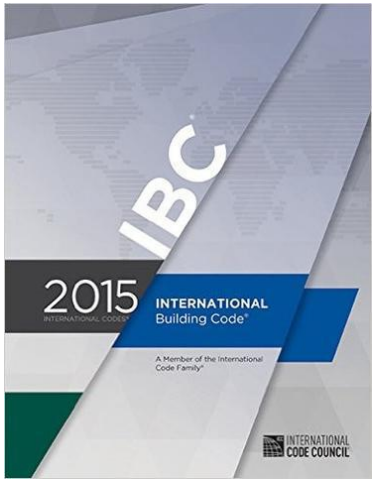


Smoke Door Assembly

Passive

709.4 Smoke barriers shall form an effective membrane continuous from outside wall to outside wall and from the top of the foundation or floor/ceiling assembly to the underside of the floor or roof sheathing, deck or slab above, including through concealed or interstitial spaces

Exception: Smoke barriers walls are not required in interstitial spaces where such spaces are designed with ceilings or exterior walls that provide resistance to the passage of fire **and** smoke equivalent to that provided by the smoke-barrier wall

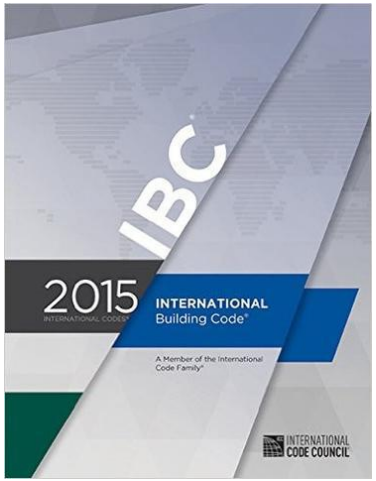


Passive

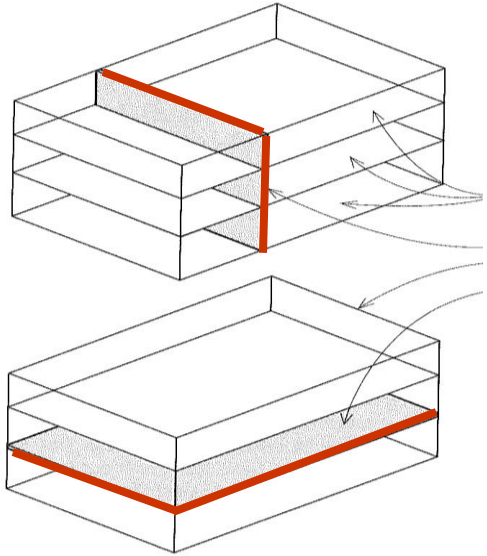
709.6 Penetrations of smoke barriers shall comply with Section 714.4.4 (L-rating)

709.7 Joints made in or between smoke barriers shall comply with Section 715.6 (L-rating)

709.8 Penetrations in a smoke barrier by ducts or air transfer openings shall comply with Section 717.5.5 (fire and smoke damper)



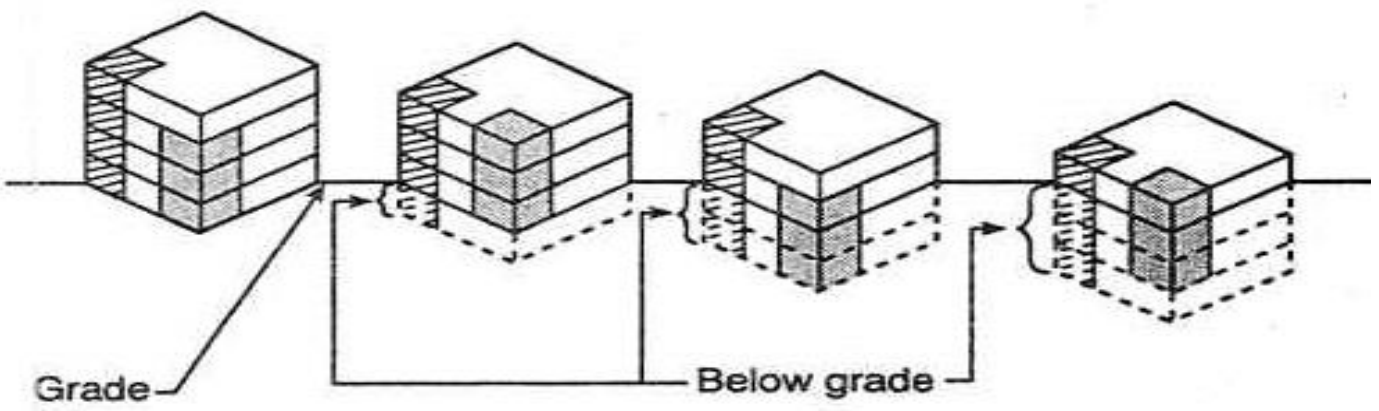
Passive



Fire Barrier

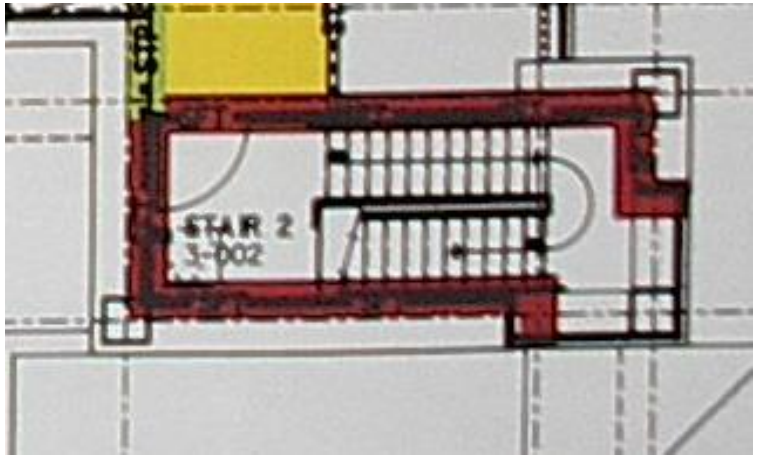
- Vertical separation
- Horizontal separation
- Occupancy separations

Passive



Vertical Elements

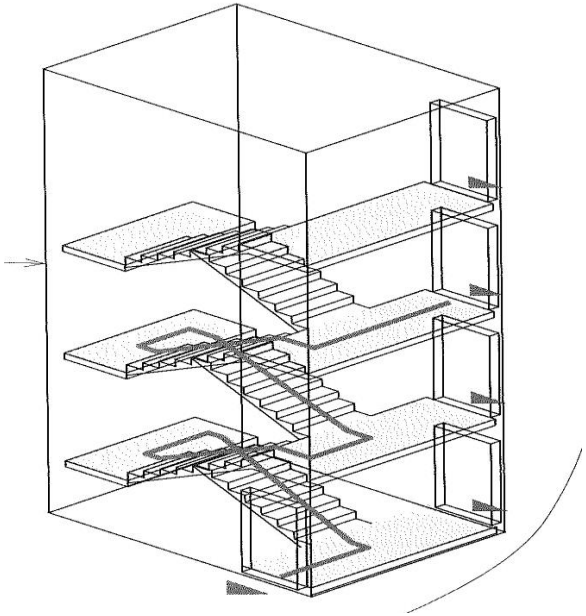
Passive



Fire Barrier	
Fire Rating	2 hr
Smoke Rating	Yes
Door Latch	Yes
Door Closer	Yes

Exit Stair

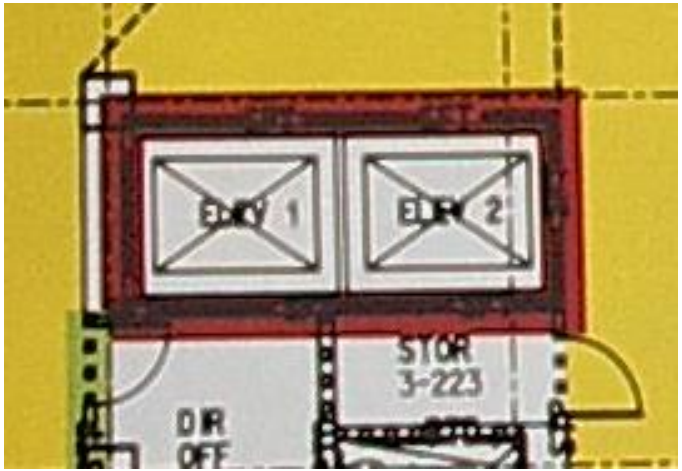
Passive



Exit Stair

Fire Barrier	
Fire Rating	2 hr
Smoke Rating	Yes
Door Latch	Yes
Door Closer	Yes

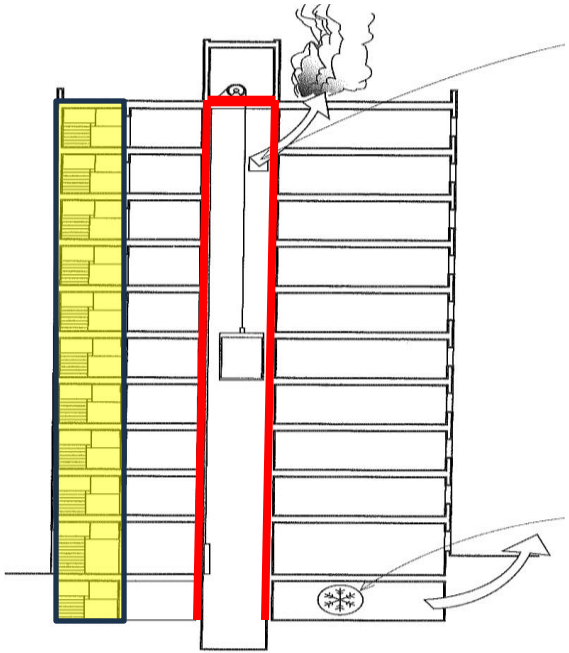
Passive



Elevators

Fire Barrier	
Fire Rating	2 hr
Smoke Rating	Yes
Door Latch	Yes
Door Closer	Yes

Passive

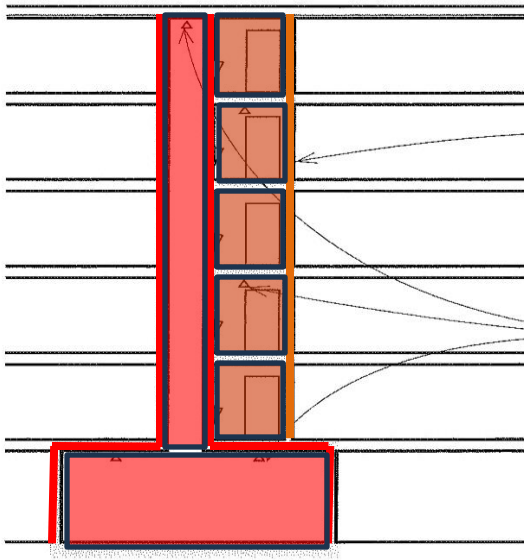


Elevators

- Passenger
- Fire fighter recall
- Pressurization
- Vertical protection

Building Codes Illustrated, Ching & Winkel, Wiley Publishing

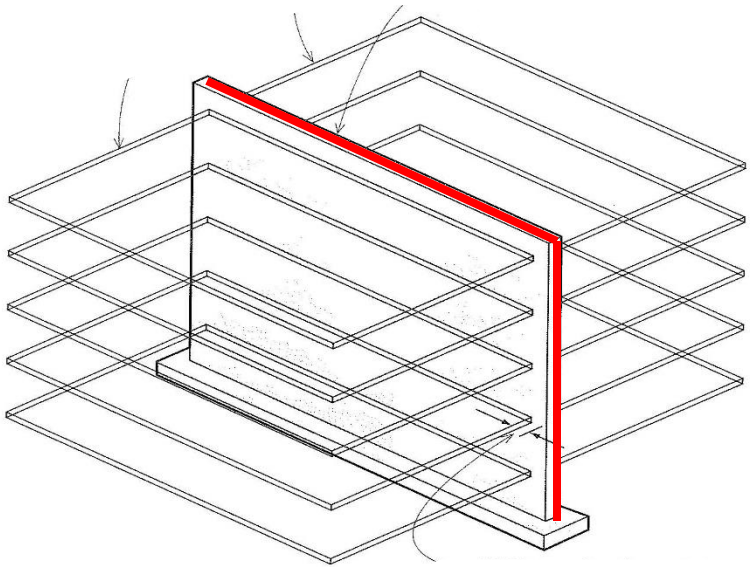
Passive



Linen Chute

- Utility shafts
- Rated access
- Door closer and latching
- Rated collection room
- Vertical protection

Passive



Building Separation

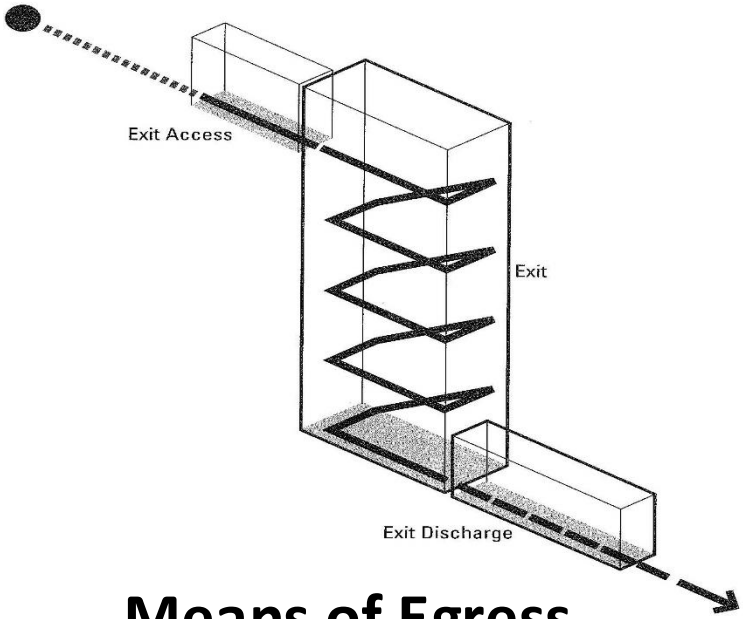
Fire Wall	
Fire Rating	3 hr
Smoke Rating	Yes
Door Latch	Yes
Door Closer	Yes
Independent*	Yes

Passive

Building Separation

Fire Wall	
Fire Rating	3 hr
Smoke Rating	Yes
Door Latch	Yes
Door Closer	Yes
Independent*	Yes

Passive



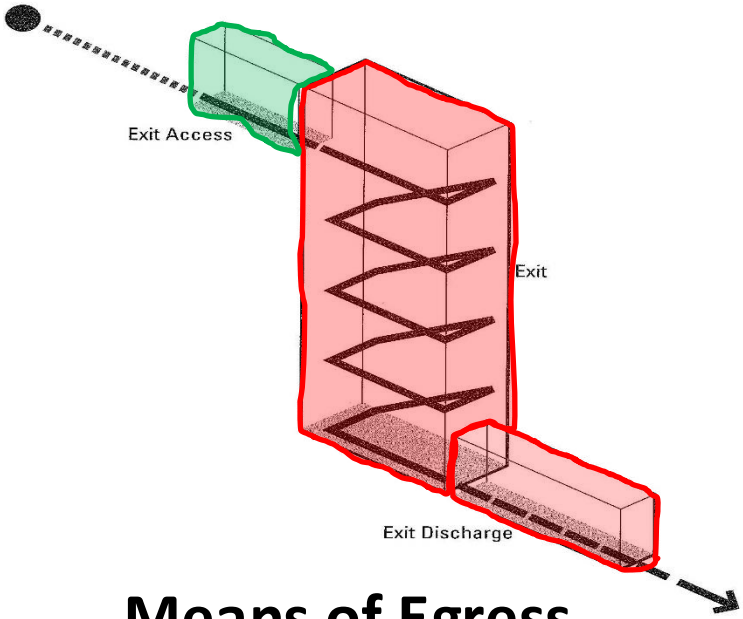
Means of Egress

Fire and Smoke Protection

- Exit access
- Exit
- Exit discharge

Building Codes Illustrated, Ching & Winkel, Wiley Publishing

Passive



Means of Egress

Fire and Smoke Protection

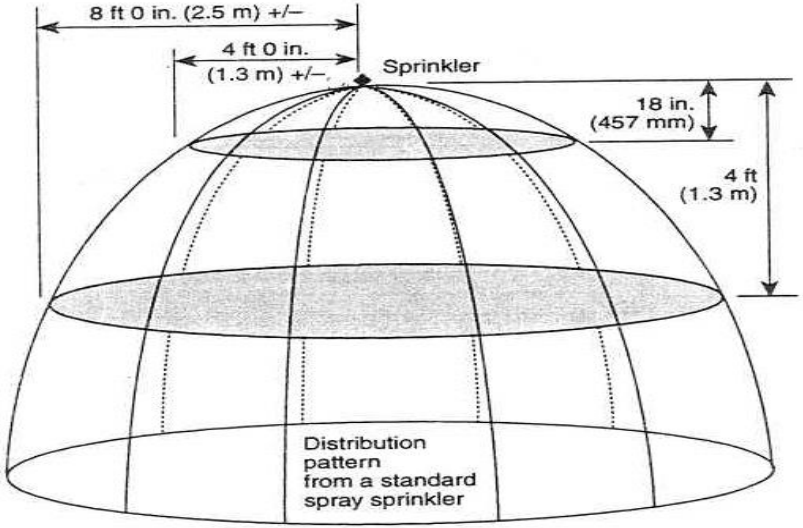
- Exit access
- Exit
- Exit discharge

Building Codes Illustrated, Ching & Winkel, Wiley Publishing

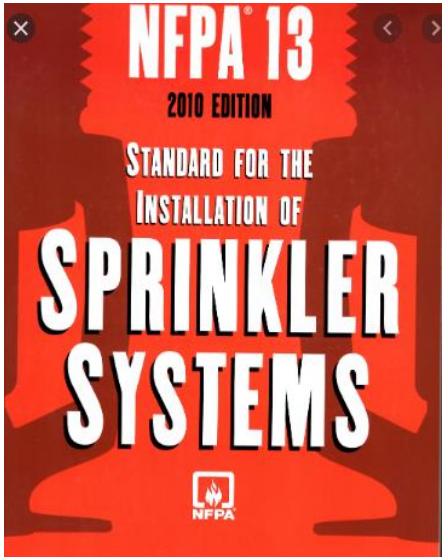
Passive

Smoke Partition	Smoke Barrier	Fire Barrier
Fire Rating 0	Fire Rating 1 hr	Fire Rating 1-2 hr
Smoke Rating 0	Smoke Rating Yes	Smoke Rating Yes
Door Latch Yes	Door Latch No	Door Latch Yes
Door Closer No	Door Closer Yes	Door Closer Yes

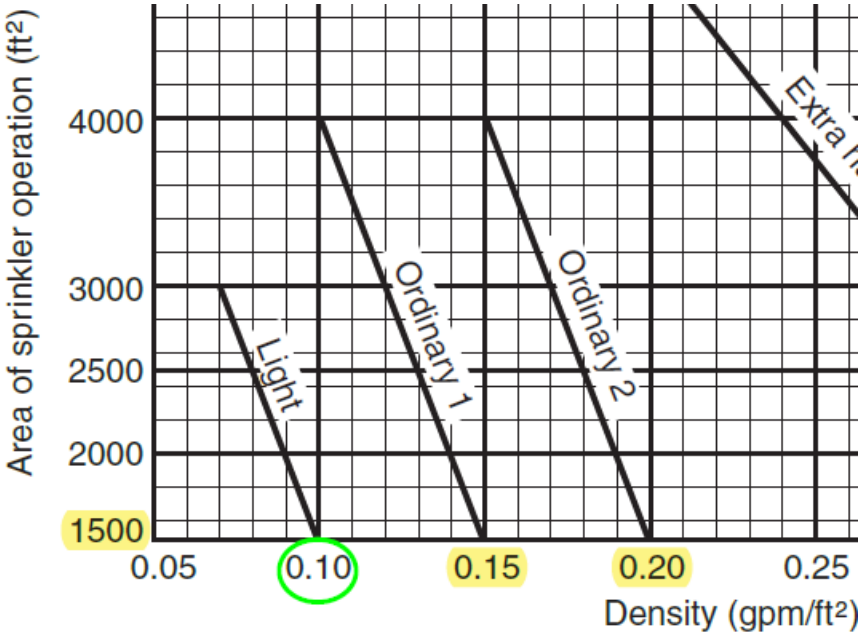
Active



Water Distribution



Active

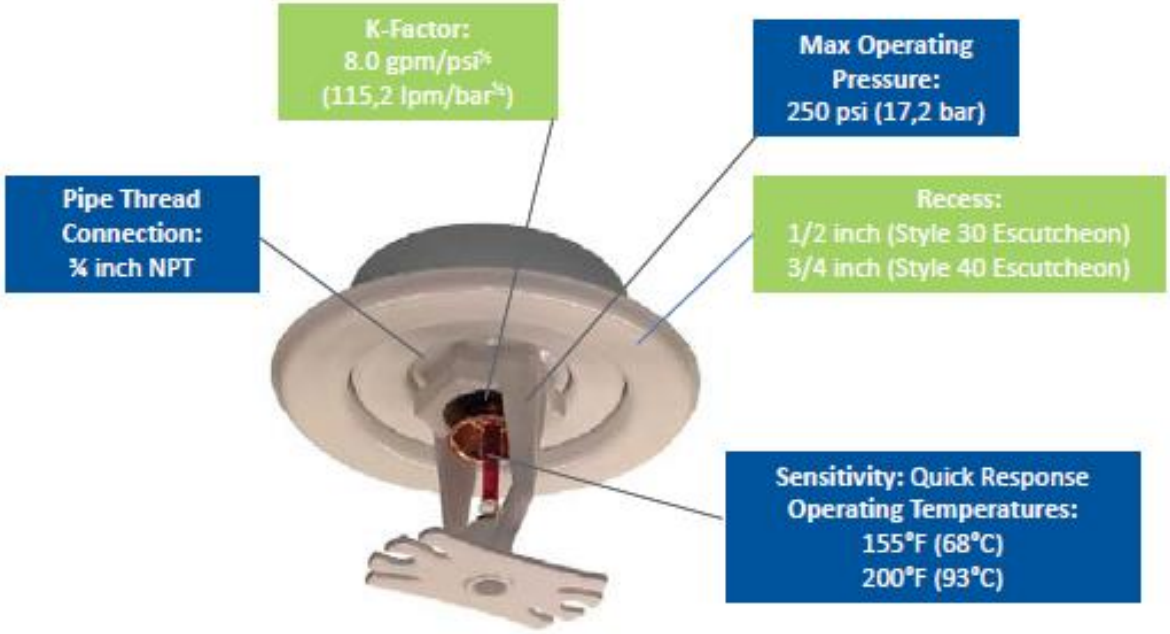


Water

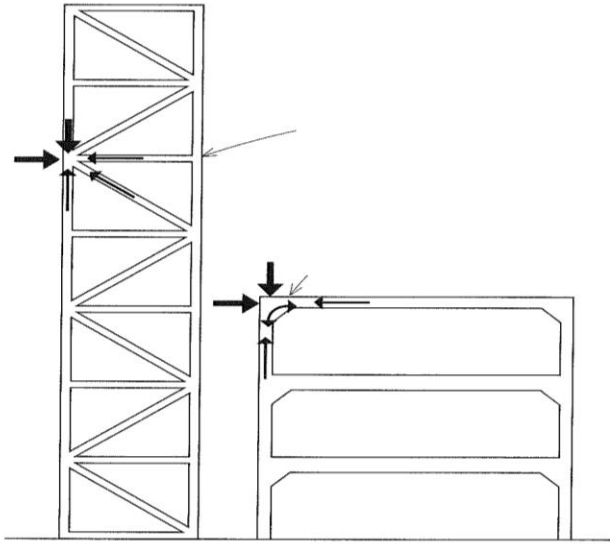
Sprinkler system

- Patient Room 0.10
- Storage Low 0.15
- Liquid Oxygen 0.20
- Generators 0.25

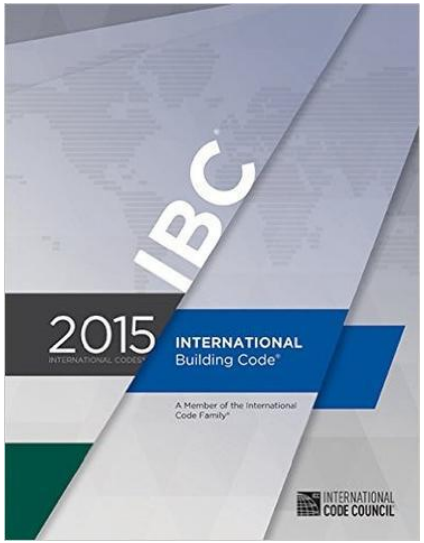
Active


K-Factor:
8.0 gpm/psi½
(115,2 lpm/bar½)
Max Operating Pressure:
250 psi (17,2 bar)
Pipe Thread Connection:
¾ inch NPT
Recess:
1/2 inch (Style 30 Escutcheon)
3/4 inch (Style 40 Escutcheon)
Sensitivity: Quick Response
Operating Temperatures:
155°F (68°C)
200°F (93°C)

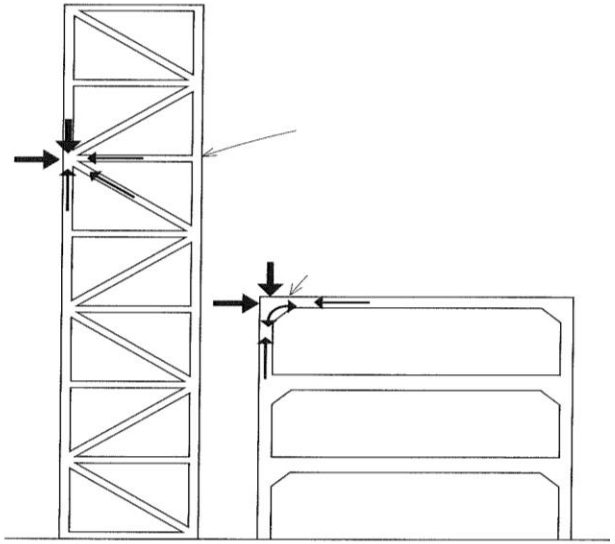
Active



Building Codes Illustrated, Ching & Winkel, Wiley Publishing



Active

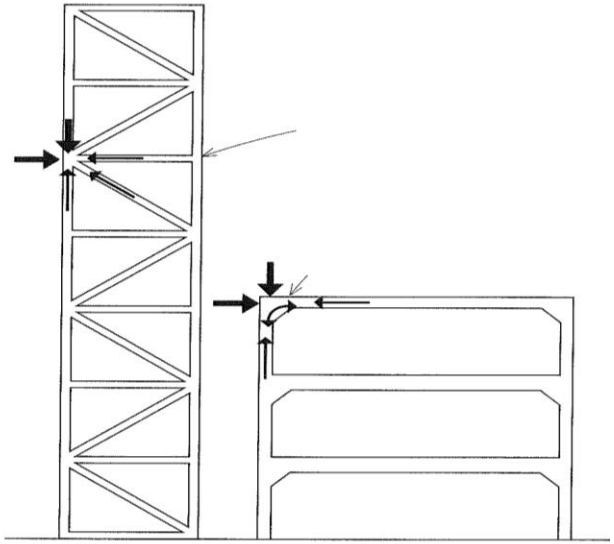


Structural Load Path

- Occupant loads
- Wind load
- Snow load
- Dead load

Structural Importance Factor – ASCE 7

Active

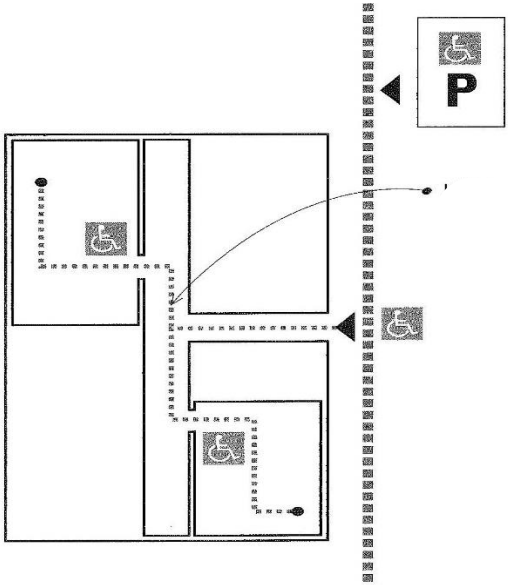


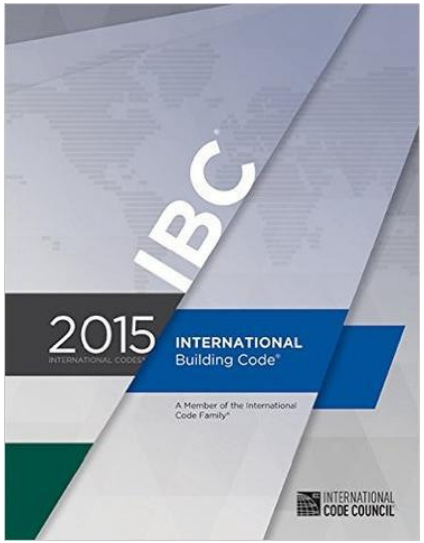
Structural Failure

- Cat I Low hazard to life
- Cat II Moderate hazard
- Cat III Substantial hazard
- Cat IV Essential

Structural Importance Factor – ASCE 7

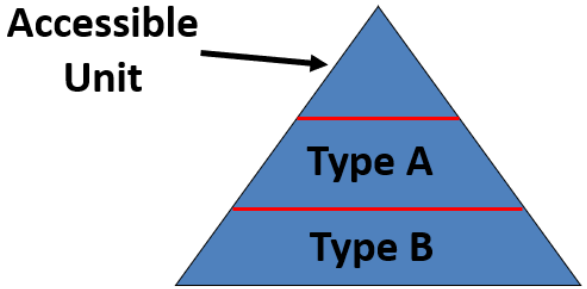
Active





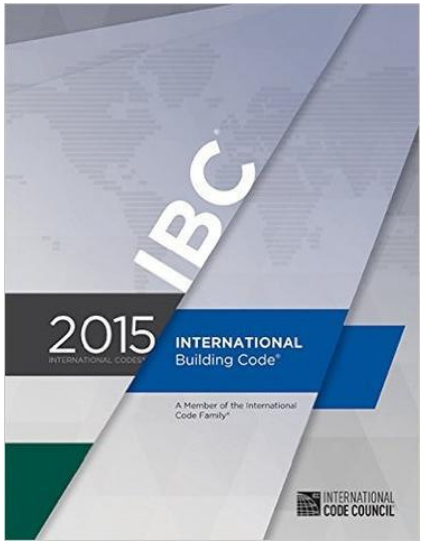
Accessibility Means of Egress

Active



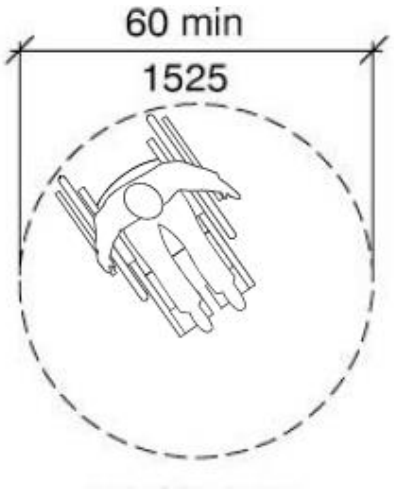
Accessible > Type A > Type B > Type C Units

Accessible Route and Means of Egress



Accessibility and Access

Active

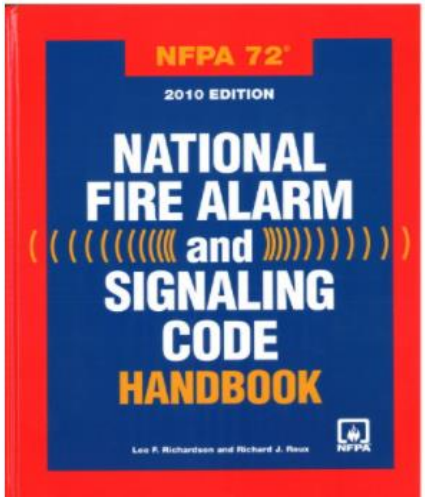


Access

- Entrance
- Route
- Primary space
- Clearances

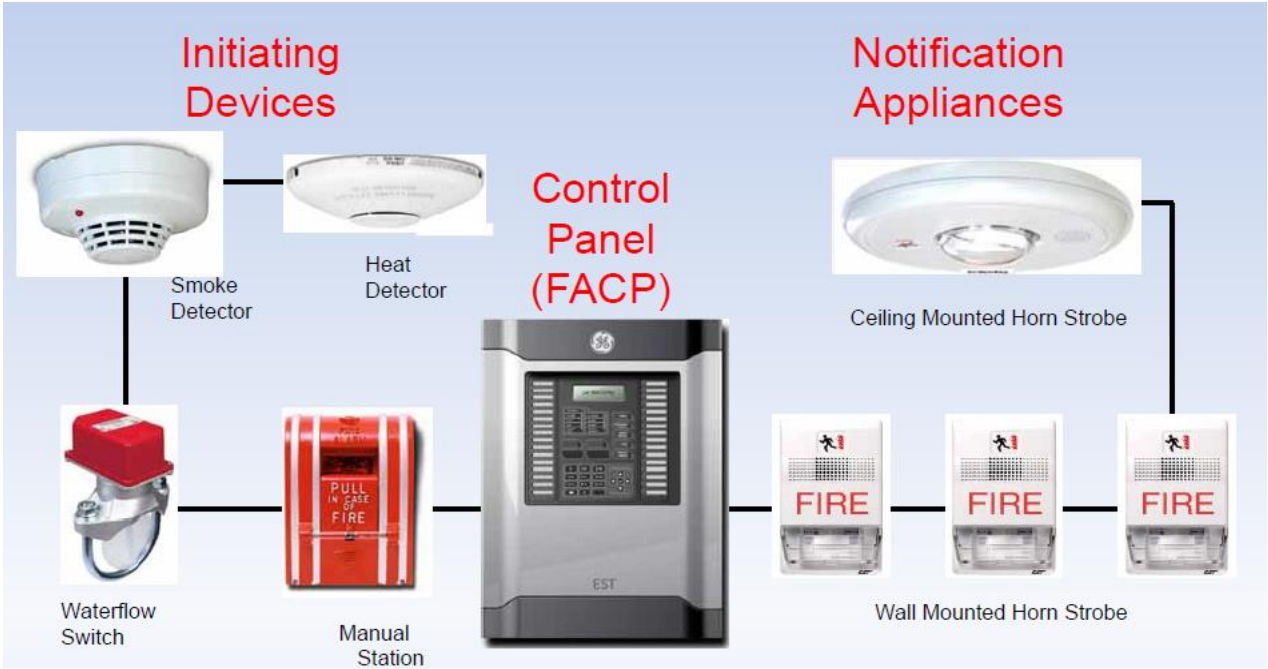
Accessibility – ANSI A117.1

Active



Fire Alarm System – NFPA 72

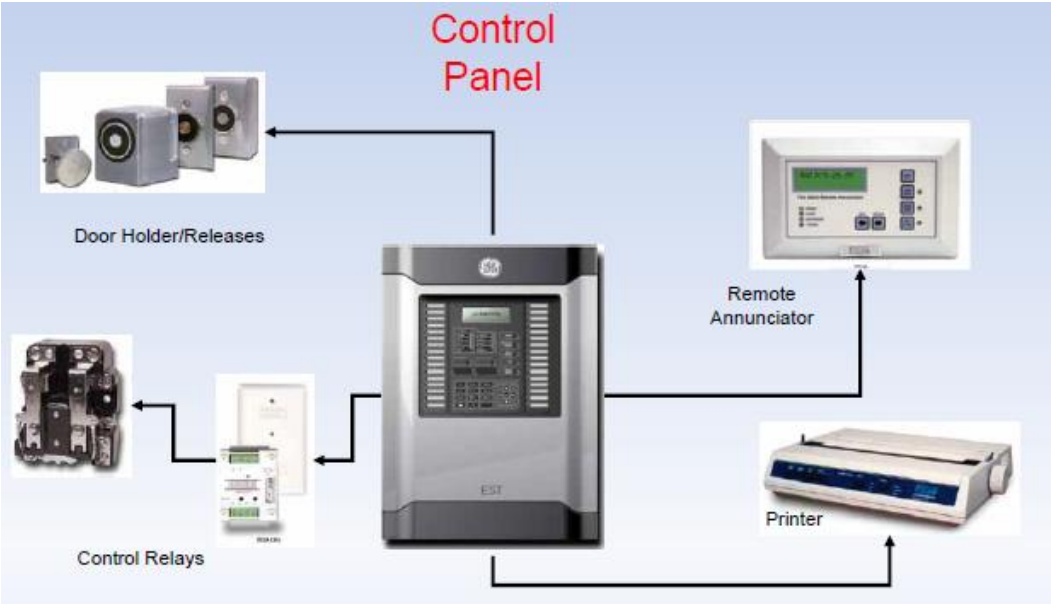
Active



Fire Alarm System

Active

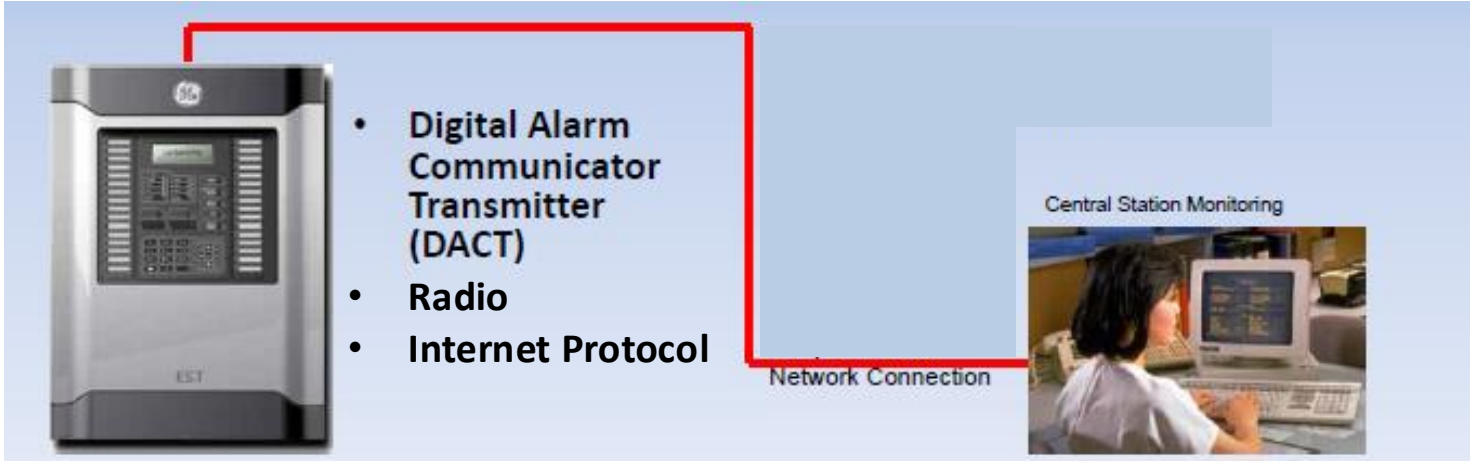
Fire Alarm System



Fire Alarm System

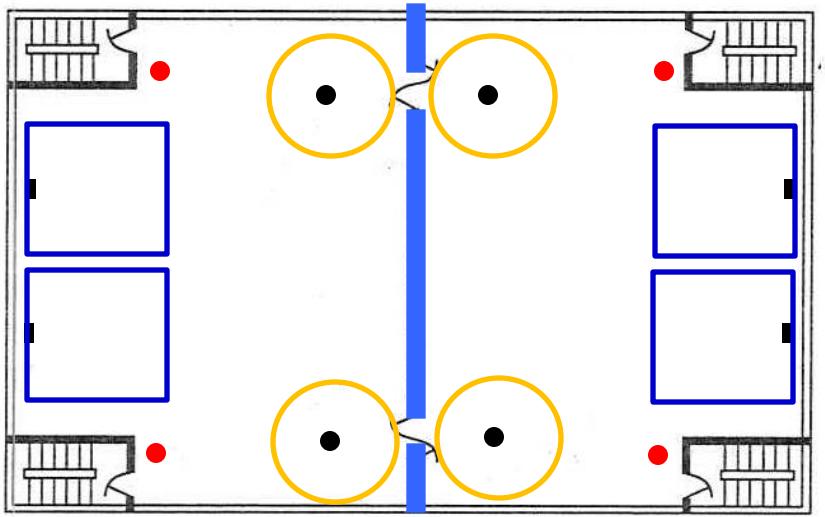
Active

Fire Alarm System



Off Premise Communications

Active

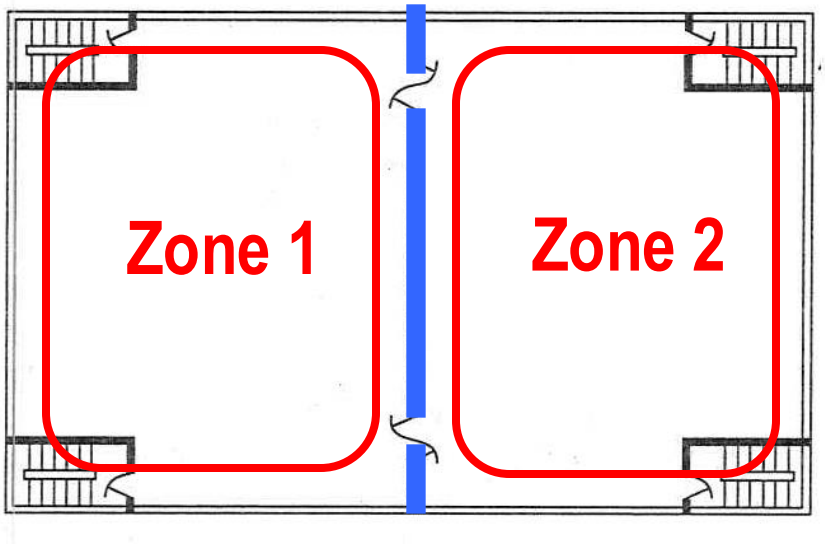


Patient Floor

Fire Alarm System

- Detection
- Pull stations
- Control
- Notification
- Interface

Active

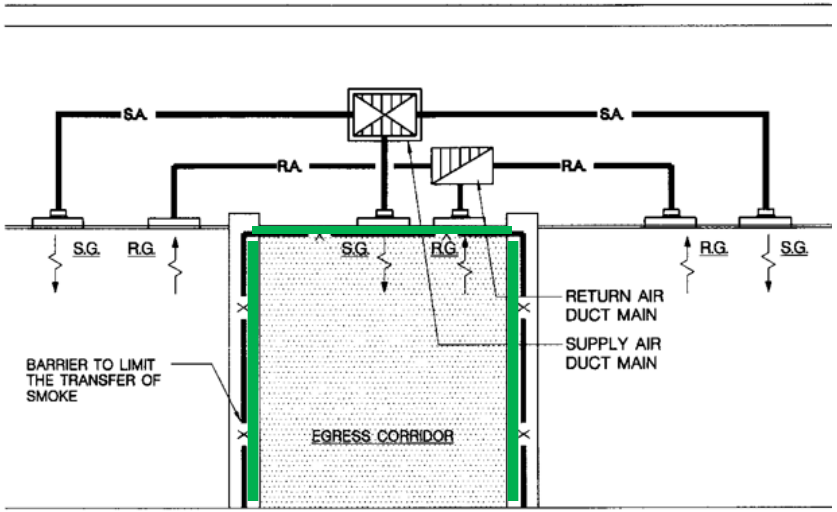


Patient Floor

Fire Alarm System

- Event in 1 – Go to 2
- Event in 2 – Go to 1

Active

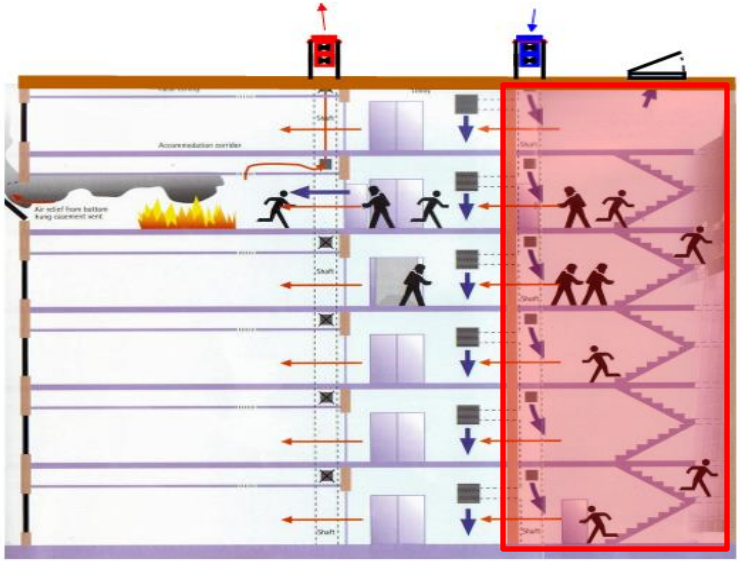


Patient Floor

HVAC Ventilation

- Corridor
- Smoke Partitions
- Fully Ducted

Active

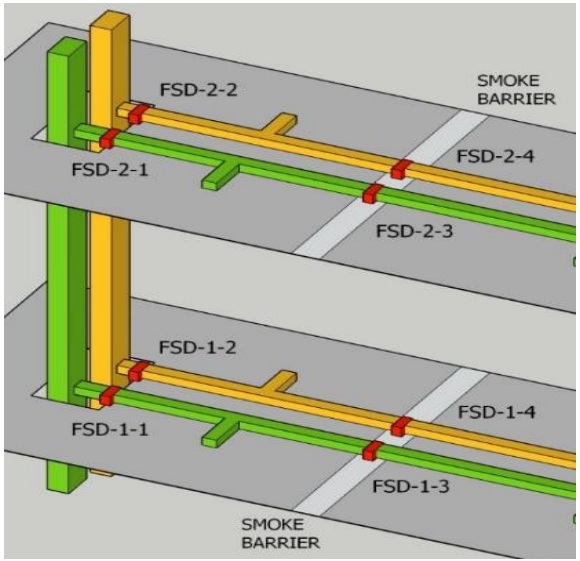


Compartments

HVAC Ventilation

- Shaft compartment
- Fire & smoke dampers
- Fire alarm interlocks
- Pressurization

Active

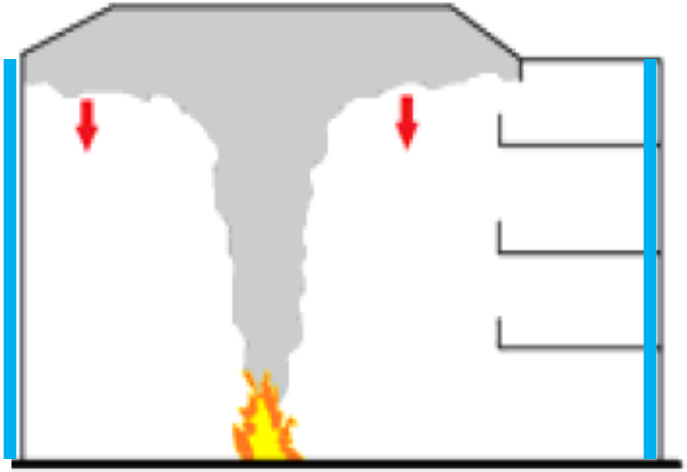


Compartments

HVAC Ventilation

- Smoke compartment
- Fire & smoke dampers
- FAS interlocks

Active



Atrium

HVAC Ventilation

- Vertical shaft
- Occupied levels
- FAS interlocks
- Smoke-control
  - NFPA 92

Active

Essential Electrical

Generator

- Engine driven
- Transfer switch
- Battery life
- Fuel quality
- NFPA 99

Active

Essential Electrical

Generator

- Running condition
- Warning signals
- Fuel level indicator
- Safe shutdown
- NFPA 110

Active

Essential Electrical

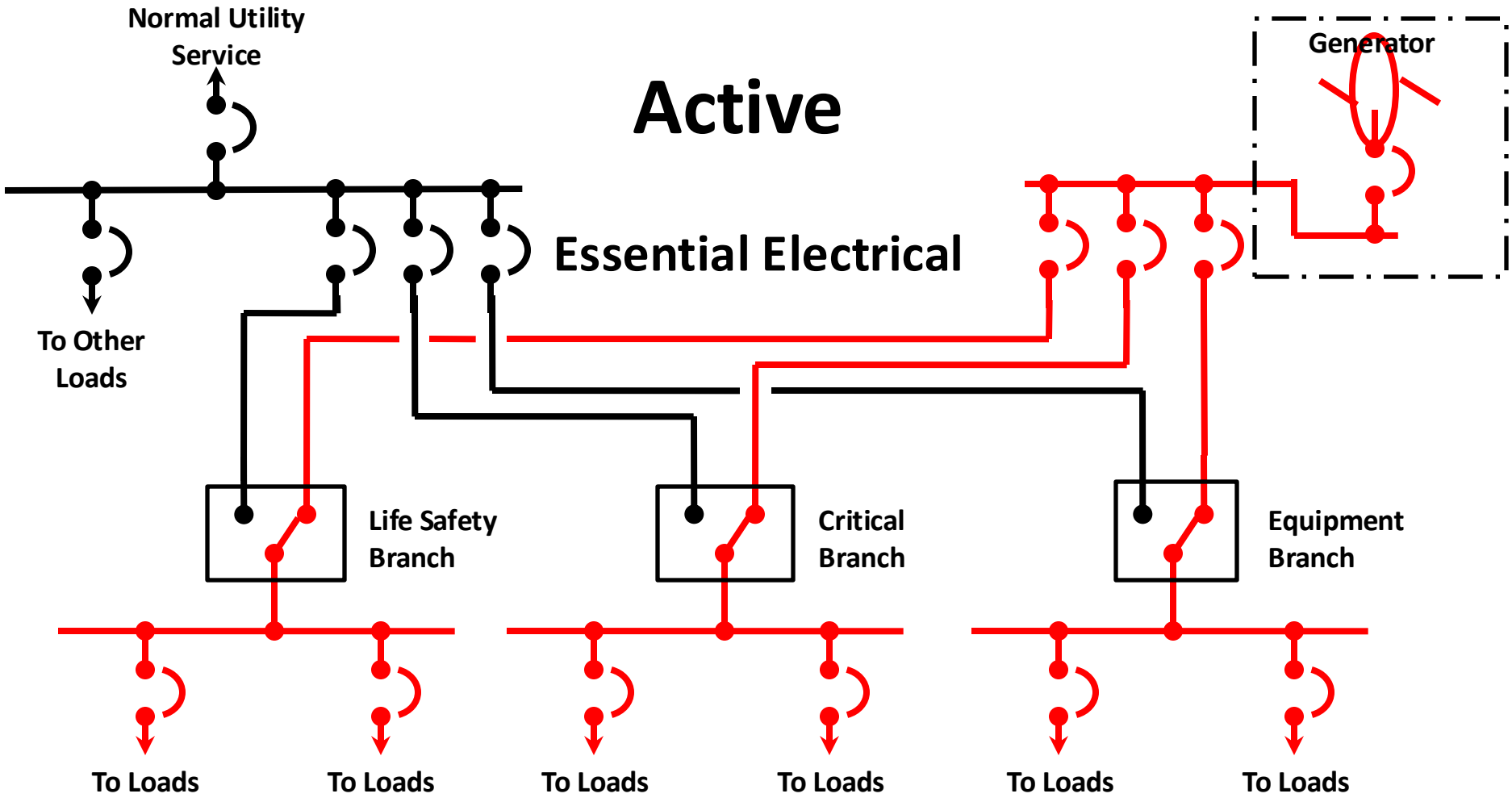
Generators

- Weekly
- Monthly
- Annual*
- 36 Month

Active

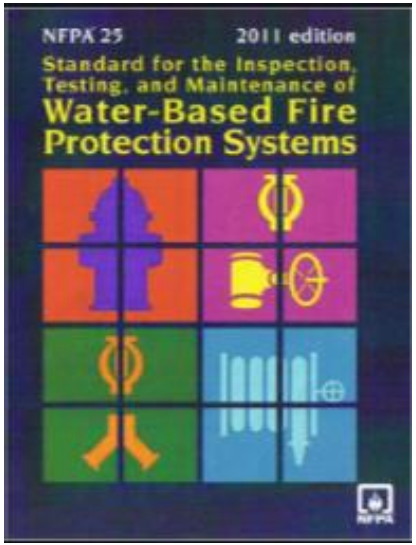
Life	Critical	Equipment
Means of egress illumination	Critical care area illumination	Medical gas equipment
Exit signs	Select receptacles	Sump pumps
Emergency communication	Isolated power systems	Smoke control systems
Gen set illumination	Medication area illumination	Kitchen hood systems
Elevator cab lighting	Nurse call systems	Exhaust fans
Fire alarm systems	Telephone equipment	Heating equipment

Essential Electrical


Normal Utility Service
Active
Generator
Essential Electrical
To Other Loads
Life Safety Branch
Critical Branch
Equipment Branch
To Loads
To Loads
To Loads
To Loads
To Loads
To Loads

Operations

Sprinkler System Testing



NFPA 25

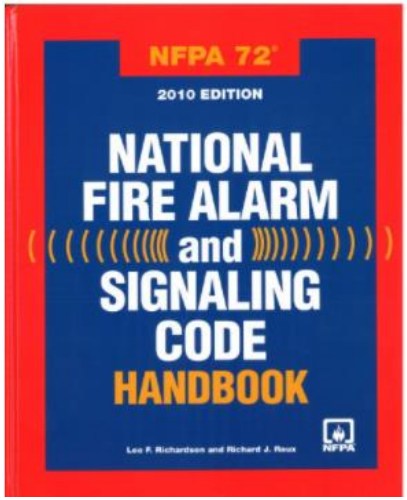
Operations

Sprinkler System ITM

- Monthly
- Quarterly
- Semi-annual
- Annual
- 5 year
- 10, 20, and 50 year

Operations

Fire Alarm System Testing



NFPA 72

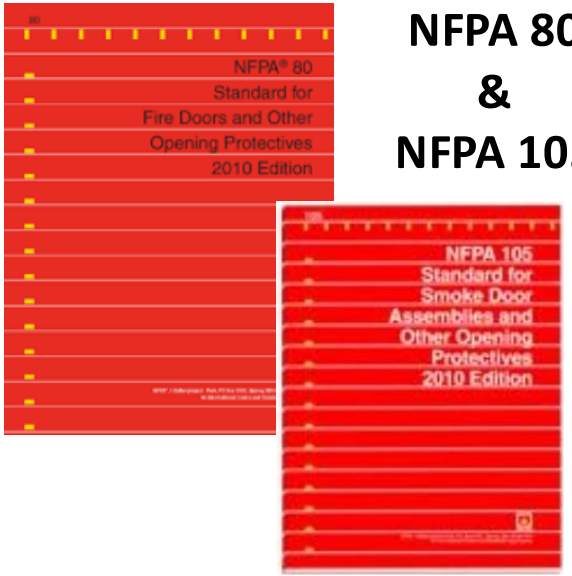
Operations

Fire Alarm ITM

- Monthly
- Quarterly
- Semi-annual
- Annual
- Initial, 1 yr, 2 yr, and 5 year

Operations

Fire Rated Doors & Dampers



NFPA 80
&
NFPA 105

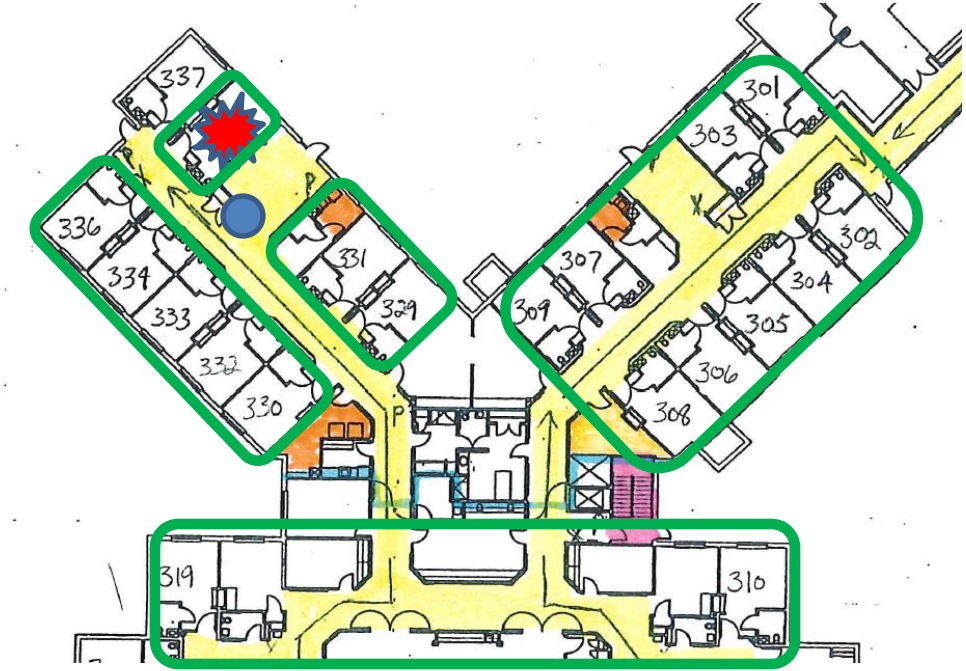
Yearly Frequencies

Operations

Fire Drills

- Per quarter / shift
- Staff participation
- Pull station
- Response
- Lessons learned

Operations



Defend-in-Place

- Patient room
- Compartment
- Floor
- Building

Operations

RACE

- Rescue
- Alarm
- Confine
- Extinguish / Evacuate

Operations

RACE

- Rescue
- Alarm
- Confine
- Extinguish / Evacuate

Operations

RACE

- Rescue
- Alarm
- Confine
- Extinguish / Evacuate

Operations

RACE

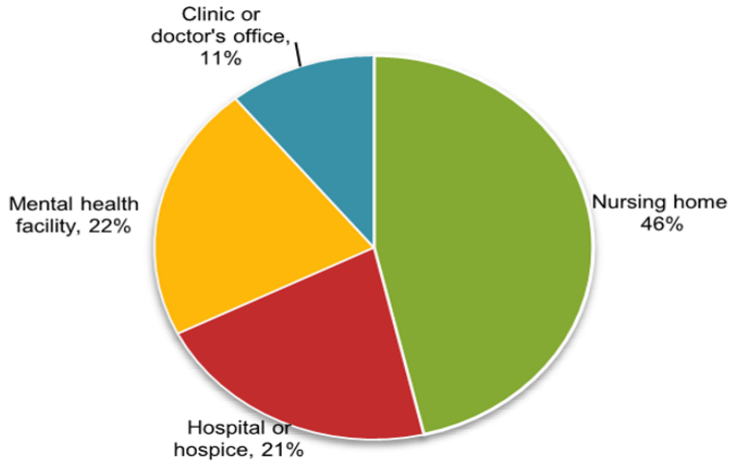
- Rescue
- Alarm
- Confine
- Extinguish / Evacuate

Operations

RACE

- Rescue
- Alarm
- Confine
- Extinguish / Evacuate

Structure Fires in Health Care

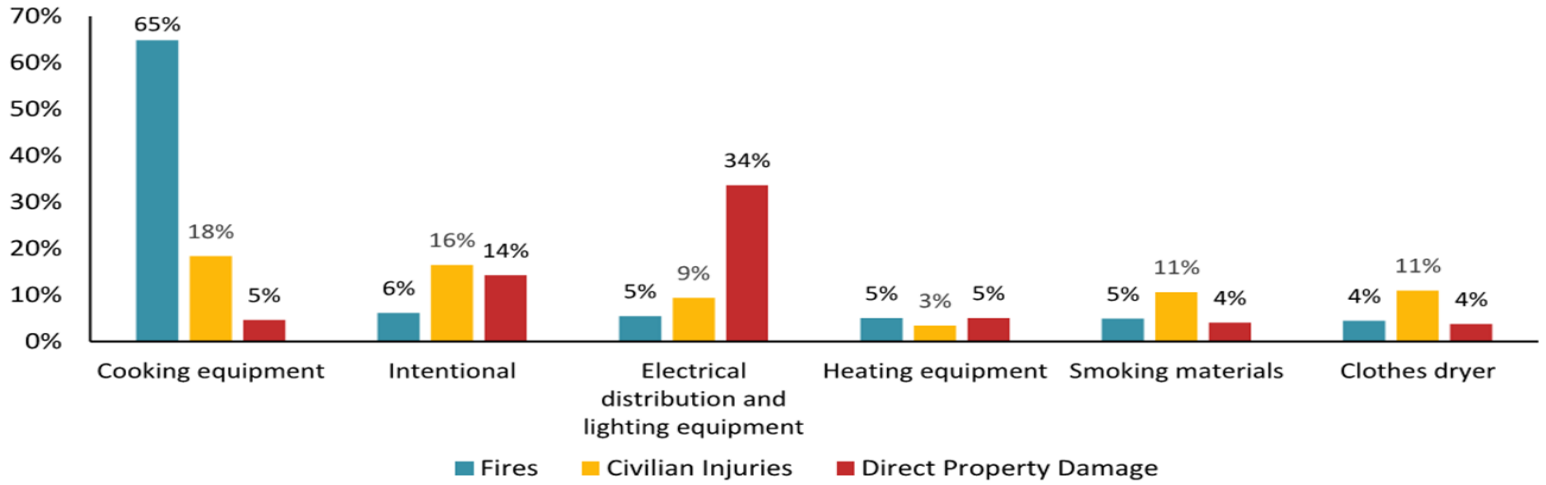


NFPA Data

Annual Averages

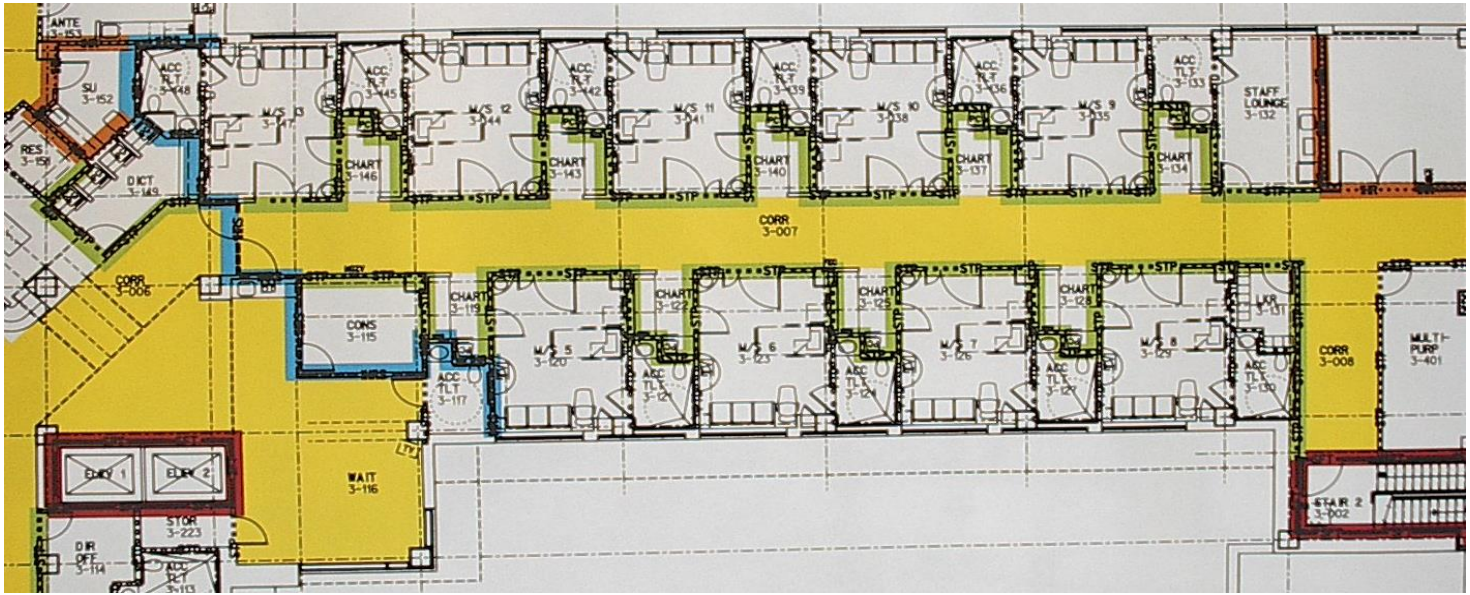
- 5,600 fires
- 4 deaths / 160 injured
- $50 million property damage

Fire in Health Care



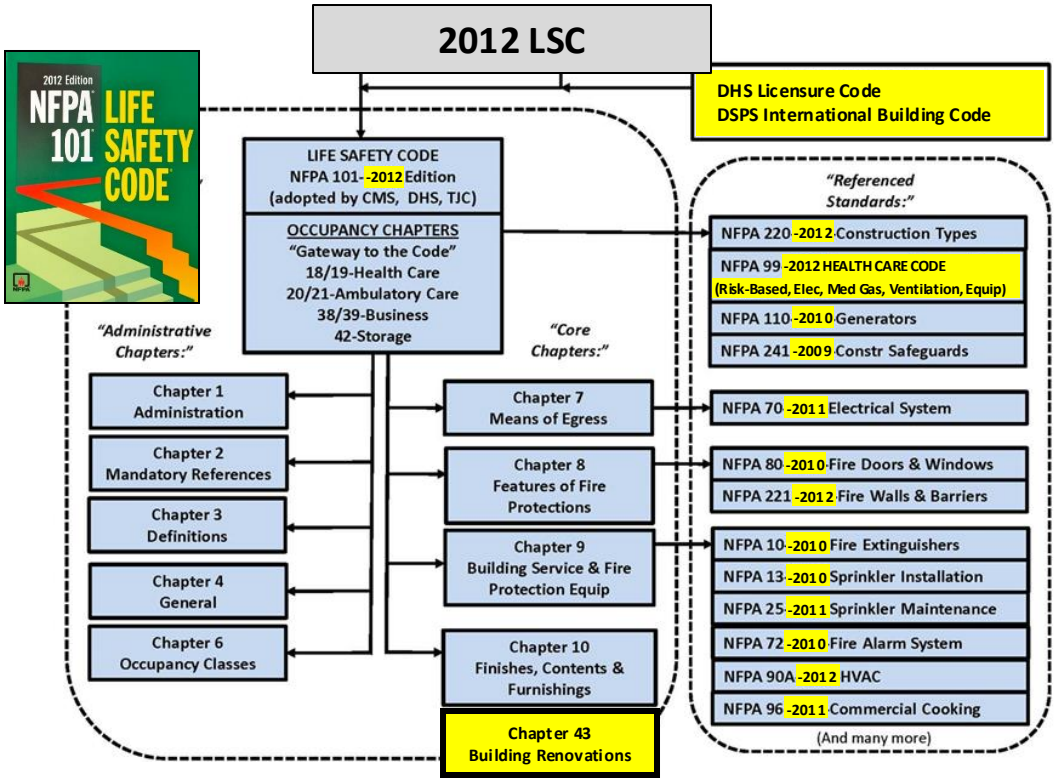
Estimates

Life Safety Plan

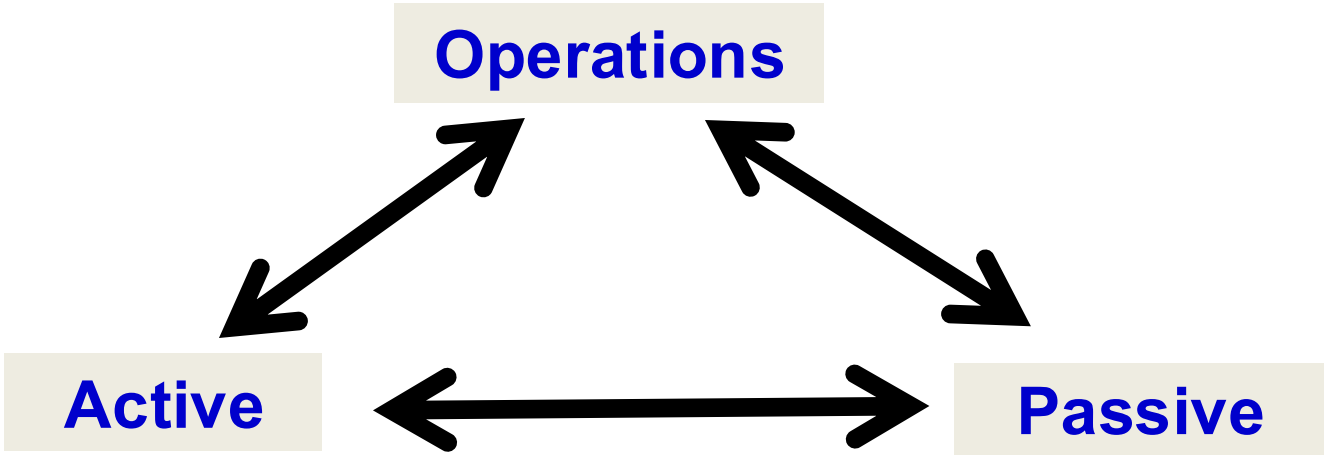


Living Document

Life Safety Tree



Total Concept



Summary

- Model Fire Codes
- Prescriptive Compliance
- We all have a role

Thank You

The Joint Commission & Accreditation

Laura L. Cooke, MS, CHFM, CHFSP, CHSP
Associate Field Director

May 7, 2025

The Joint Commission

Learning Objectives

At the conclusion of this presentation, the participant will have a better understanding of:

1. Where the Standards Come From
2. The Joint Commission's Role
3. Survey Process Objectives
4. Role of the Life Safety Code Surveyor
5. Most Common Observations and Connection to Patient, Staff, and Visitor Safety

How We Get Our Standards

Understanding Joint Commission Accreditation

We believe all people should experience safe, high quality, and consistently excellent healthcare.

Where do standards come from?

The Centers for Medicare & Medicaid Services (CMS)
Conditions of Participation (CoPs) are requirements developed by CMS that healthcare organizations must meet to participate in federally funded healthcare.

OSHA Occupational Safety and Health Administration (OSHA)
OSHA requirements and recommendations are designed to protect employee safety. They cover several serious safety and health hazards including bloodborne pathogens and biological hazards, potential chemical and drug exposures, and other work-related hazards.

The Joint Commission
Joint Commission standards are patient centric and focus on organizational systems and processes essential to the delivery of safe, high-quality care. Standards are informed by evidence associated with structures and processes predictive of better care. They include patient rights and education, infection control, medication management, and preventing medical errors.

The Joint Commission

12/23

The Survey Experience*

We survey to all standards, including our own. Our survey time together includes both an objective evaluation of standards compliance along with strategies and structures for improvement. Surveys are generally conducted every three years.
Your survey includes:

- Your leadership team
- A look at the environment of care
- Connecting with your physician, nursing and other frontline staff
- A review of your pharmacy
- Infection control process review
- Patient tracers
- Risk assessments
- Identification of improvements
- Collaborative discussions with our team and yours

Your Survey Team
Includes clinically and operationally experienced nursing leaders, physicians, facility managers and other professionals who understand your challenges and share your passion for safe, high quality patient care.

Impact of Achieving Accreditation

- Strengthens process standardization
- Reduces variability
- Minimizes risk
- Improves patient outcomes
- Fosters a culture of quality and safety

After your survey
Most surveys have a positive outcome. An accreditation award means you can expect to see us again in three years, but know we continue to be available throughout those years to support your quality journey.

If you have a survey that finds areas for improvement, we are here to work with you to make those improvements as quickly and sustainably as possible.

* *This is not a complete list of focus areas we survey. For example, additional areas include:* Medical staff, credentialing & privileging, visiting off-site ambulatory sites/locations, emergency management and data sessions, etc.

THE JOINT COMMISSION NATIONAL QUALITY APPROVAL

The Joint Commission's Role

History of The Joint Commission

American College of Surgeons Chicago headquarters; ACS was a founder of The Joint Commission

1952 Edwin L Crosby, MD, first director of Joint Commission on Accreditation of Hospitals

1950s

- The American College of Physicians, the American Hospital Association, the American Medical Association, and the Canadian Medical Association join with the American College of Surgeons as corporate members to create the Joint Commission on Accreditation of Hospitals, an independent, not-for-profit organization, in Chicago, Illinois

1960s

- The Social Security Amendments of 1965 include a provision that JCAH accredited hospitals are "deemed" in compliance with most Medicare Conditions of Participation

1980s

- Created Quality Healthcare Resources, Inc., a not-for-profit consulting subsidiary, that later becomes Joint Commission Resources
- Changed name to the Joint Commission on Accreditation of Healthcare Organizations

1990s

- Formed Joint Commission International to provide education and consulting to international clients
- Established Sentinel Event Policy
- Launched ORYX®: The Next Evolution in Accreditation

2000s

- Added Gold Seal of Approval® to accreditation certificates
- Shortened name to The Joint Commission

2020s

- Formed a strategic alliance with National Quality Forum to accelerate improvements in health for all people
- Formed a strategic alliance with the National Association for Healthcare Quality, to advance global healthcare quality and safety for all.
- Established Bernard J. Tyson Award for Excellence in Pursuit of Healthcare Equity with Kaiser Permanente

- 23,000+ accredited/certified organizations and programs
- 10,000+ accreditation-related surveys annually
- Programs:
  - Hospital
  - Behavioral Health
  - Ambulatory
  - Home Care
  - Nursing Care Centers

Survey Process Objectives

Survey Process Objectives

- **Validate Compliance with**
  - CMS requirements for deemed programs
  - Our standards
- **Provide a meaningful assessment**
  - Risks - known and unknown
- **Inspire and encourage**

The Joint Commission

- During 2024, over 1800 surveys completed
- Unannounced full survey occurs 30-36 months from previous survey
- Survey length is determined by information supplied by organizations on their applications
- Life Safety Code Surveyor days

Role of the Life Safety Code Surveyor

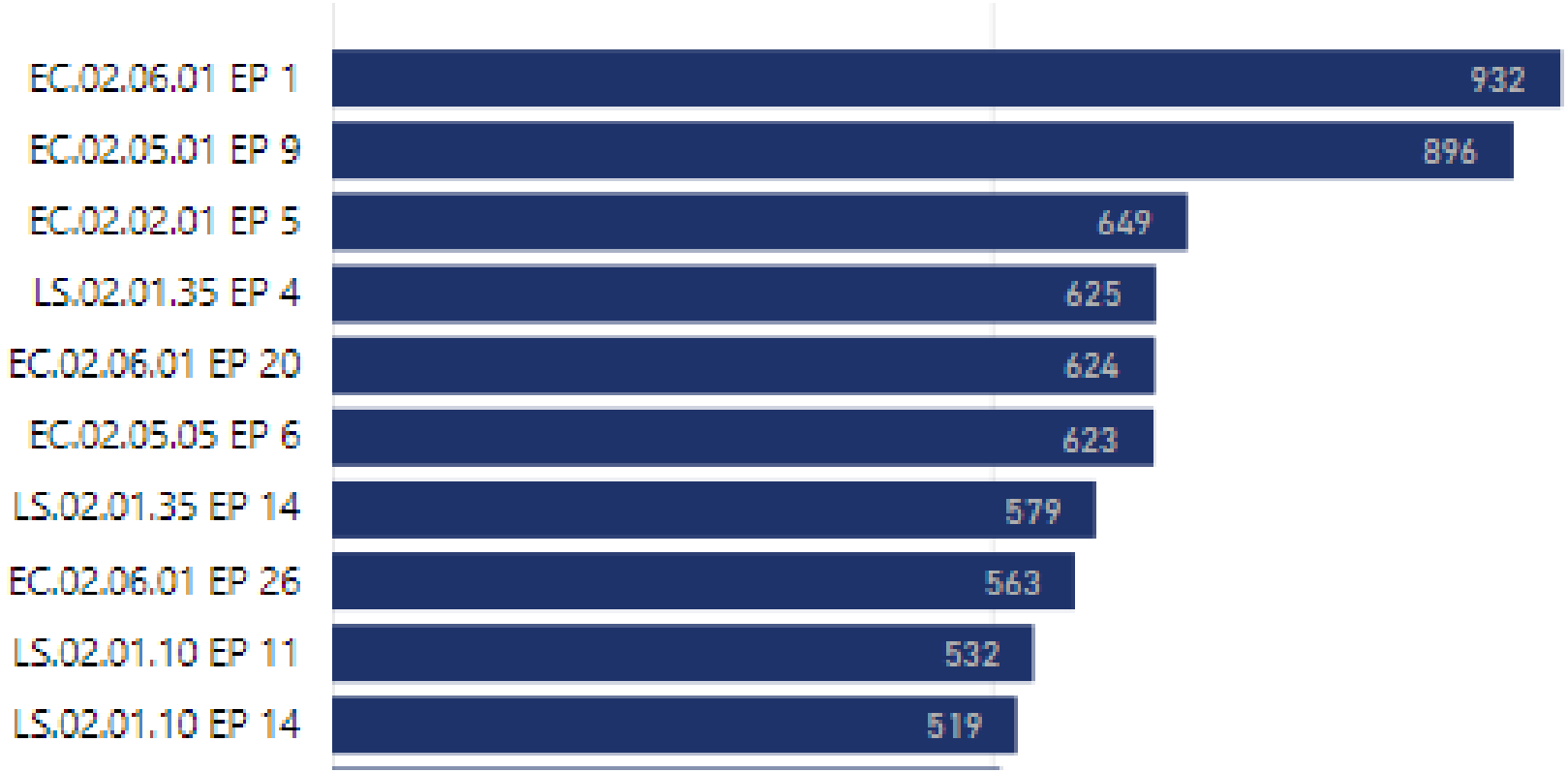
Life Safety Code Surveyor Role

- Subject Matter Experts in life safety, environment of care, and emergency management
- Assess compliance with:
  - NFPA 99-2012
  - NFPA 101-2012
  - Other relevant NFPA standards

SAFER Matrix 2025

ITHS			
HIGH	Critical Results Process – NPSG.02.03.01 EP 1 Medication Admin Pre Order – MM.06.01.01. EP 3 Pre-Dispense Pharm Review – MM.05.01.01 EP 1	Activities to Reduce HAIs – IC.06.01.01 EP 3 Govern Body – Perf Improv – LD.01.03.01 EP 21 Pt Assess/Reassess Criteria – PC.01.02.01 EP 1 Haz Chemical Handling Storage – EC.02.02.01 EP 5 Interior Spaces Safe-Suitable – EC.02.06.01 EP 1	Governing Body Responsibility – LD.01.03.01 EP 12 Critical Care Ventilation Sys – EC.02.05.01 EP 15 Hemodialysis Equip Maint/Test – EC.02.04.03 EP 5
Moderate	Exit Signs-Visible – LS.02.01.20 EP 40 Care Plan-Patient Specific – PC.01.03.01 EP 1 Pain Assessment Criteria – PC.01.02.07 EP 1 Food Stored Properly – PC.02.02.03 EP 11 Cylinder Handling Policy – EC.02.05.09 EP 12 Low-Risk Equip Maintenance – EC.02.04.03 EP 3	Staff Current License – HR.01.02.07 EP 1 OB HTN Role-Specific Education – PC.06.03.01 EP 3 Fire Barrier Penetration Seal – LS.02.01.10 EP 14 Staff Fire Drill Particip – EC.02.03.03 EP 4	Water Mgmt Prog Oversight – EC.02.05.02 EP 1 Clear Exits – LS.02.01.20 EP 14 High-Risk Utility System Test – EC.02.05.05 EP 4 Fire Safety Train – LS.01.02.01 EP 14
Low	Discharge/Transfer Education – PC.04.01.05 EP 7 No Exit Signage – LS 02.01 35 EP 5 Ceiling Membrane Integrity – LS.02.01.34 EP 9 Portable Space Heaters – LS 02.01 70 EP 8	Pt Care-Law & Reg Compliance – LD.04.01.01 EP 2 NFPA Auto Extinguisher – LS.02.01.35 EP 14 Waived Test-Policy – WT.01.01.01 EP 2	Spare Sprinkler Heads Avail – LS.02.01.35 EP 7 Fire Rated Door Requirement – LS.02.01.10 EP 11

Scoring Trends



The Joint Commission

What’s New

FACILITIES SERVICES COMPETENCY

Director/Manager

- Individual identified:
  - Manage risks
  - Coordinate risk reduction activities in the physical environment
  - Collect deficiency information
  - Disseminate summaries of actions and results

- Review of Facility Director's job description and proof of qualifications

OTHER FACILITIES SERVICES COMPETENCY (continued):

- Medical Gas Systems
  - ASSE 6030 or 6040 Certified
- Fire Alarm Systems
  - NICET Certification
- Fire Door Inspector
  - No formal certification
  - Documentation reflecting training
- Boilers/High Pressure Vessels
  - Locality Driven
- Hazardous Waste Handling
  - DOT Training

Facility Orientation

Fire Panel
- Troubles
- FACP Circuit Breaker
- Smoke Detection or Continuously Monitored in one-hour fire-rated

Fire Pump
- Diesel or Electric
- Drip @ Packing
- Spare Sprinkler Heads
  - Stored @ less than 100 degrees
  - Inventory
  - Wrench

Fire Plan

Building Construction Type

Generators
- Remote Stop
- Auto
- Cleanliness
- Emergency Lighting

Boiler Room
- Excessive Storage

Bulk Oxygen
- Proper Signage
- Source Valve Labeled
- Concrete Pad
- No Parking

Water Management

The Why: Maintain water quality in various systems as well as prevention of waterborne pathogens such as Legionella

Requirements

Individual or team assigned oversight

Develop and Manage basic diagram mapping water supply sources, treatment systems, processing steps, control measures, and end-use points

Update when changes occur with a minimum of annual review

Operating Rooms & Other Critical Spaces

In critical areas designed to control airborne contaminants, the ventilation system provides appropriate pressure relationships, air-exchange rates, filtration efficiencies, temperature, and humidity.

For new and existing health care facilities, or altered, renovated, or modernized portions of existing systems or individual components, heating, cooling, and ventilation are in accordance with NFPA 99-2012, which includes 2008 ASHRAE 170, or state design requirements if more stringent.

Operating Rooms, Cystoscopy Rooms, C-Section/Delivery Rooms
Trauma Rooms
Sterile Core Areas
Sterile Processing Areas – includes Decontam and Sterilizer Equipment Rooms
Utility, Storage, Janitor or Equipment Rooms within the Sterile and/or Semi-Restricted Areas
Cath Labs
Bronchoscopy
Scope Processing
Sterile Compounding Rooms

OPERATING ROOMS

Includes C-Section, Cysto, Cath Labs, Endoscopy

Temperature range is **between 68°F and 75°F**.

Humidity range in is **between 30% and 60%**

20% Allowed when:

CMS Waiver

Risk Assessment of Equipment and Supplies

STERILE PROCESSING & STORAGE

Temperature range 72 to 78 F

Humidity is ≤ 60% in Clean Workroom & Sterile Storage

Can temperatures be outside of established range in operating rooms?

Any examples are for illustrative purposes only.

The Joint Commission references NFPA 99-2012 Chapter 9, that requires the use of ASHRAE 170-2008, Ventilation Table 7-1. This document provides allowances to exceed minimum temperature ranges. To use this exception, it must be done by following the established organizational policy. In accordance with the allowances, the policy or formal process must be limited to cases based on either surgeon, patient, or procedure. **It is not acceptable to consistently maintain temperatures outside of the required ranges.**

This is not a blanket exception but one to be used on a case-by-case basis. Once the surgical procedure has been completed the temperature is to be returned to the normal range. Additionally, when the temperature is temporarily adjusted outside of the established range, there is still an expectation that relative humidity levels remain below 60%.

Excursions

For critical spaces, including operating rooms, standard EC.02.05.01 EP 15 uses the 2008 ASHRAE 170, Ventilation Table 7-1:

Note I: Lower or higher temperature shall be permitted when patients' comfort and/or medical conditions required those conditions.

Note O: Surgeons or surgical procedures may require room temperatures, ventilation rates, humidity ranges, and/or air distribution methods that exceed the minimum indicated ranges

Notes indicate that organizations may take allowances to meeting the range requirements, **but** these are not blanket allowances

Relocatable Power Taps (RPT)

The Joint Commission

- **Patient care vicinity** (within 6' of patient or anywhere in Operating Rooms)
  - Meet UL 1363A or UL 60601-1
  - Part of fixed, movable electrical equipment assemblies used for patient care and assembled by qualified personnel to ensure compliance with NFPA 99-2012: 10.2.3.6

- **Outside patient care vicinity but in patient room** – must be UL 1363

- **Non–patient care rooms** meet other UL standards.

- In new facilities, the number of receptacles shall be in accordance with NFPA 99-2012: 6.3.2.2.6.2. If patient bed locations in existing health care facilities undergo renovation or a change in occupancy, the number of receptacles must be increased to meet the requirements of NFPA 99-2012: 6.3.2.2.6.2 **to eliminate the need for power strips.**

- Extension cords are not used as a substitute for fixed wiring in a building.
- Extension cords used temporarily are removed immediately upon completion of the intended purpose.

In other words, if power is needed, you should have additional outlets installed – Power strips are not considered permanent wiring

Construction

PCRA/ICRA/ILSM

- Issues the PCRA Should Address (EC.02.06.05):
  - Infection Control (ICRA)
    - Occupied or unoccupied
    - Integrity of barriers is essential to infection control
  - Fire Hazards – Interim Life Safety (LS.01.02.01)
  - Noise/Vibration
  - Exposure to Hazardous Particles/Chemicals
  - Security
    - Preventing Unauthorized Access

Construction – Best Practices

- Construction safety rounds throughout day, especially during non-construction shifts
- Be aware of potential failures and prepare
- Educate construction workers on safety expectations
- Encourage everyone to speak up
- Conduct periodic audits
- Utilize prior incidents and issues to improve processes

ILSM Cautions…

- Do not be overly onerous…
- Does everyday mean 7 days a week?
- Who needs to know – keep it simple!
- Fire drill apathy…

Tied to ILSM is Fire Watch…

NFPA requirements

NFPA 101-2012, 9.6.1.6, 9.7.6; NFPA 25-2011, 15.5.2(4)

State and local requirements

OSHA requirements

OSHA 29 CFR 1910.252 (a)(2)(iii)

Fire Response

Fire Response Plan

Describes role of staff at and away from fire's point of origin
- RACE
- PASS

Defend in Place
- Horizontal Evacuation
- Smoke Compartmentation

Exit Egresses

LS.02.01.20 EP 40

Exit signs are visible when the path to the exit is not readily apparent. Signs are adequately lit and have letters that are 4 or more inches high (or six inches if externally lit)

Exit and directional signs displayed with continuous illumination are also served by the emergency lighting system unless the building is one story with less than 30 occupants, and the line of exit travel is obvious.

For full text, refer to NFPA 101-2012: .2.10; 7.10.1.4; 7.10.1.5.1; 7.10.5; 7.10.6; 7.10.7

Exit Confusion

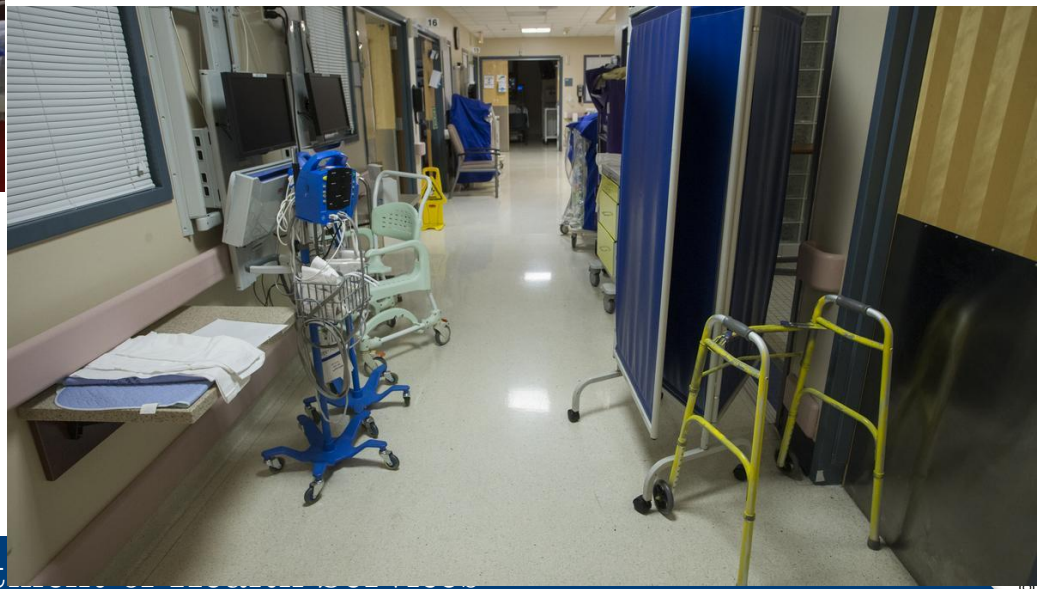
LS.02.01.20 EP 14

Exits, exit accesses, and exit discharges (means of egress) are clear of obstructions or impediments to the public way, such as clutter, construction material, and snow and ice.

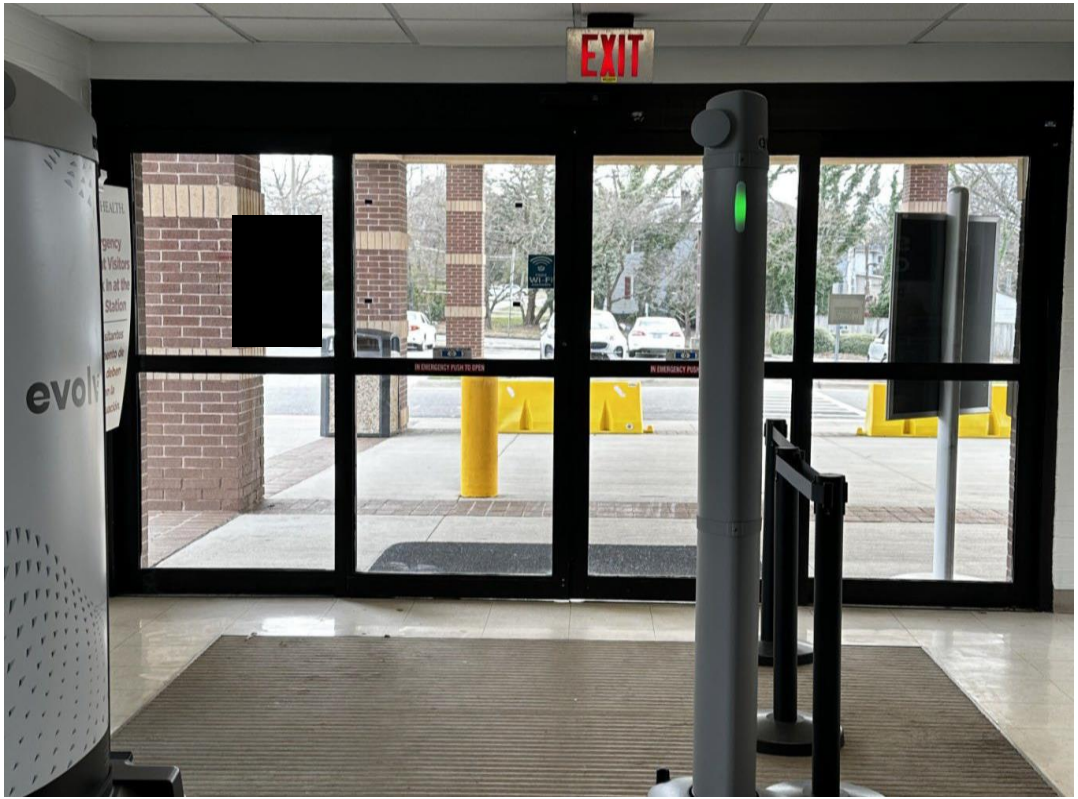
Note 1: Wheeled equipment that maintains at least 5 feet of clear and unobstructed corridor width is allowed. There is a fire plan and training program which addresses its relocation in a fire or similar emergency.

For full text, refer to NFPA 101-2012: 18/19.2.5.1; 7.1.10; 7.5.1.1

Blocked Exits



- Weapons Detection Systems and their installation and any furniture or fixtures are often placed in an exit egress.



Special Locking Arrangements

The Joint Commission

LS.02.01.20 EP 1

Doors in a means of egress are not equipped with a latch or lock that requires the use of a tool or key from the egress side, unless a compliant *locking* configuration is used, such as a delayed-egress *locking* system or access-controlled egress door assemblies.

NFPA 101-2012, 18/19.2.2.2.4

- **19.2.2.2.4 - Doors within a required means of egress shall not be equipped with a latch/lock that requires use of tool or key from egress side unless permitted by one of the following:**
  - Locks complying with 19.2.2.2.5:
    - Clinical needs of patients require specialized security measures or where patients pose a security threat, provided staff can readily unlock doors at all times
    - Patient special needs require specialized protective measures for their safety provided all of the following are met

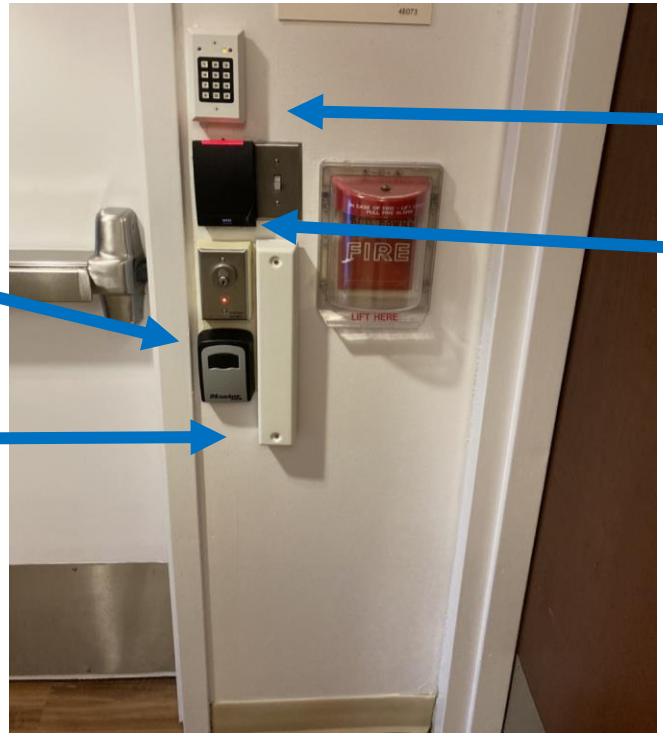
NFPA 101-2012, 18/19.2.2.2.5

- Patient special needs require specialized protective measures for their safety provided all of the following are met:
  - Staff can readily unlock door at all times
  - Total smoke detection throughout locked space **or** door can be remotely unlocked @ approved, constantly attended location within the locked space
  - Building protected by approved, supervised automatic sprinkler
  - Locks are electrical that fail **safe**
  - Locks release by **independent** activation of each of following:
    - Smoke detection system
    - Waterflow in automatic sprinkler system

NFPA 101-2012, 18/19.2.2.2.6

- Doors that are located in means of egress and are permitted to be locked under other provisions of 19.2.2.2.5 shall comply with **all** of the following:
  - Provisions shall be made for the rapid removal of occupants by means of **one of the following:**
    - Remote control of locks
    - Keying of all locks to keys carried by staff at all times
    - Other such reliable means available to the staff at all times
  - Only **one** locking device shall be permitted on each door
  - More than one lock shall be permitted subject to AHJ approval

Does This Meet the Intent of the Code?



DISCLAIMER

This presentation reflects information as of the date it was originally presented and is intended only as a high-level overview for discussion purposes. The Joint Commission reserves the right to update, modify, or revise the information as needed.

The content herein is intended to highlight key topics for informational purposes only. This content does not represent all the supplementary verbal discussion from the original live presentation. Relying only on the written content here may not provide a full account of the complete discussion and range of viewpoints that were shared. No representations or warranties are made concerning the accuracy, completeness, or suitability of the information for a particular purpose. Joint Commission, or other requirements, should not be interpreted or implemented based solely on this presentation.

WISCONSIN DEPARTMENT of HEALTH SERVICES

Emergency Preparedness Rule

David Soens PE RA
DHS 2025

Emergency Preparedness Mission

Facilities have a realistic emergency preparedness plan to assist an effective response that supports timely recovery

Emergency Preparedness Steps

- Mitigation
- Planning
- **Response**
- Recovery

Motivations

Manmade

- 2001 terrorist attacks
- Anthrax attacks

Natural

- 2005 Gulf Coast hurricanes
- 2008 Midwest flooding and tornadoes
- 2009 Influenza pandemic

- Facilities found lacking in a realistic plan

- Current regulations lack
  - Consistency
  - Flexibility
  - Best practices

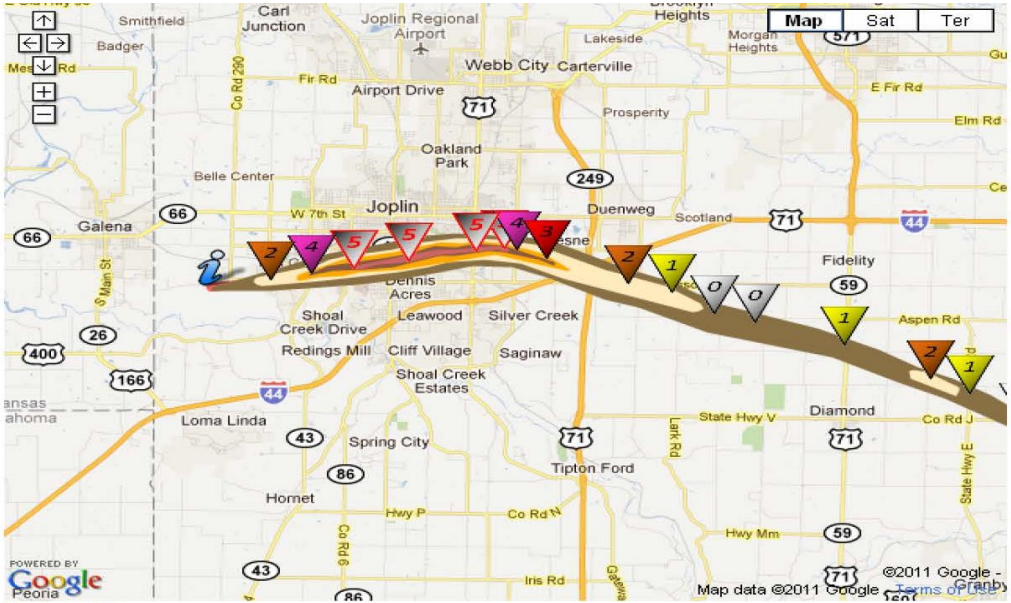
Motivations

Tornado

- Joplin Missouri
- 50,000 population
- 270,000 daytime population
- Tornado Alley

- **May 22, 2011**
- EF-5 Tornado
- 200+ mph winds
- 6 mile path
- 1 mile wide
- 161 fatalities
- 1400 injuries

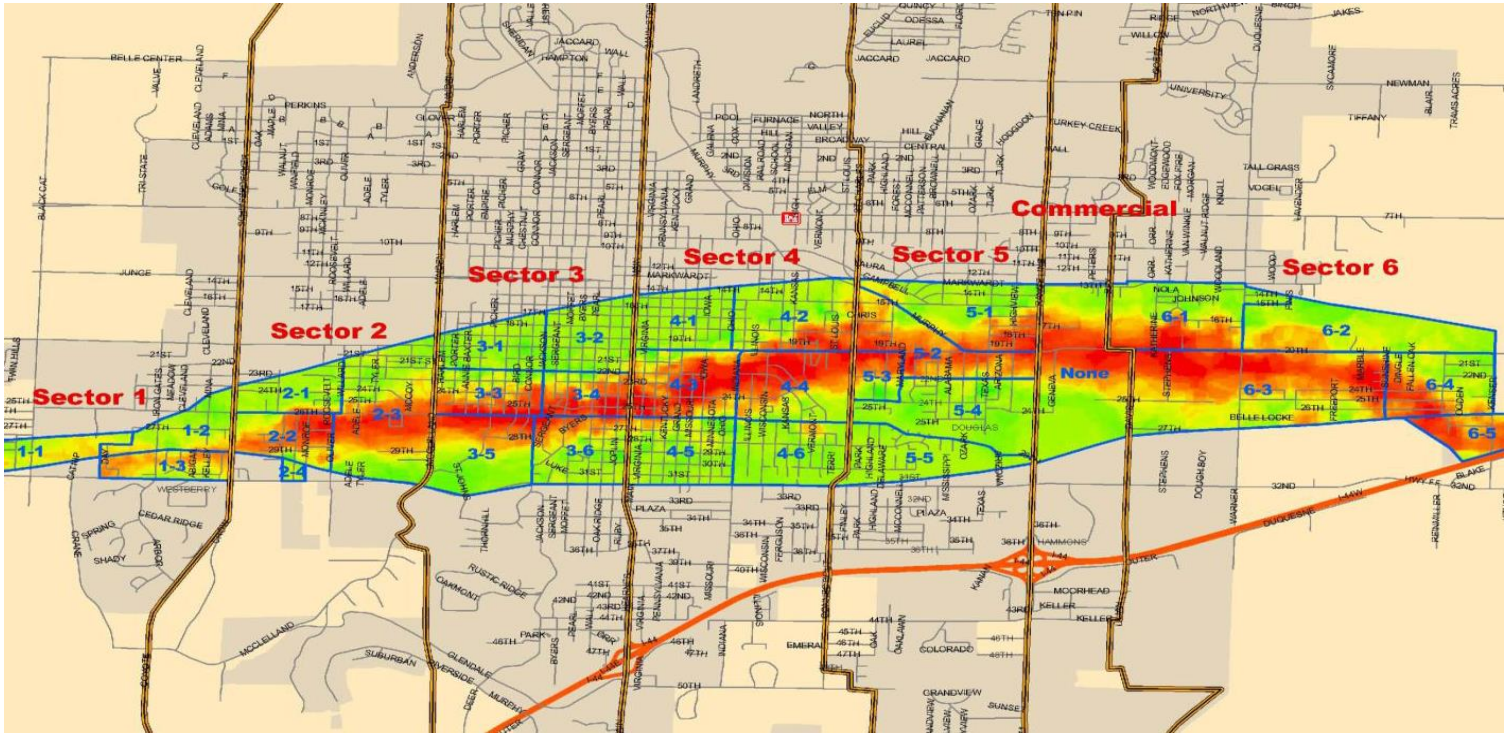
Motivations



St John's Regional Medical

- 200 patients defend-in-place during storm
- 90 minutes to evacuate after storm
- 5 patients and 1 visitor were killed
- Loss of building
- Loss of power
- Loss of heat

Motivations



Motivations

Motivations

Video

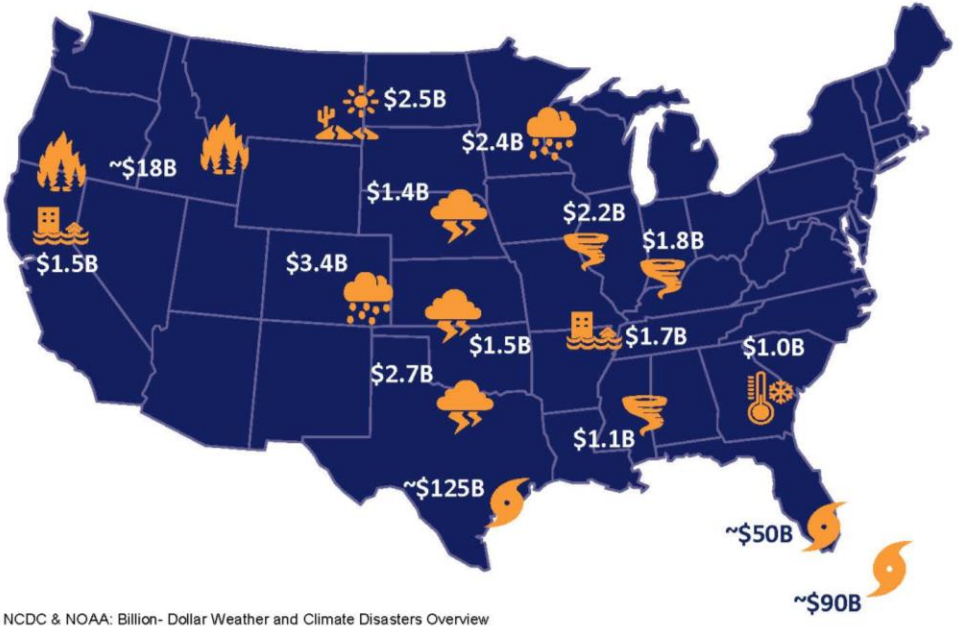
10 minutes

St John's staff

perspectives

Motivations

In 2017 Alone, the US Experienced 16 Separate Billion-dollar Weather and Climate Disasters



2017 weather events tied the record for number of billion-dollar disasters for an entire calendar year set in 2011.

Key Stats

$300B*

Total Global Economic Losses

$130B*

Total Insured Losses

*Denotes a record total

Source: NCDC & NOAA: Billion- Dollar Weather and Climate Disasters Overview

Motivations


Sentinel Event Alert

A complimentary publication of The Joint Commission

Issue 69, November 2024

Environmental disasters: Preparing to safely evacuate or shelter in place

2023 was the fourth consecutive year in which the U.S. saw 18 or more separate $1 billion disaster events

Motivations

March 2025 | OEI-04-23-00030

State Survey Agencies need additional Guidance to Assess Nursing Home Emergency Preparedness Programs

Cyclic Process

Step 1 : Risk assessment

Step 2 : Policy definition

Step 3 : Implementation

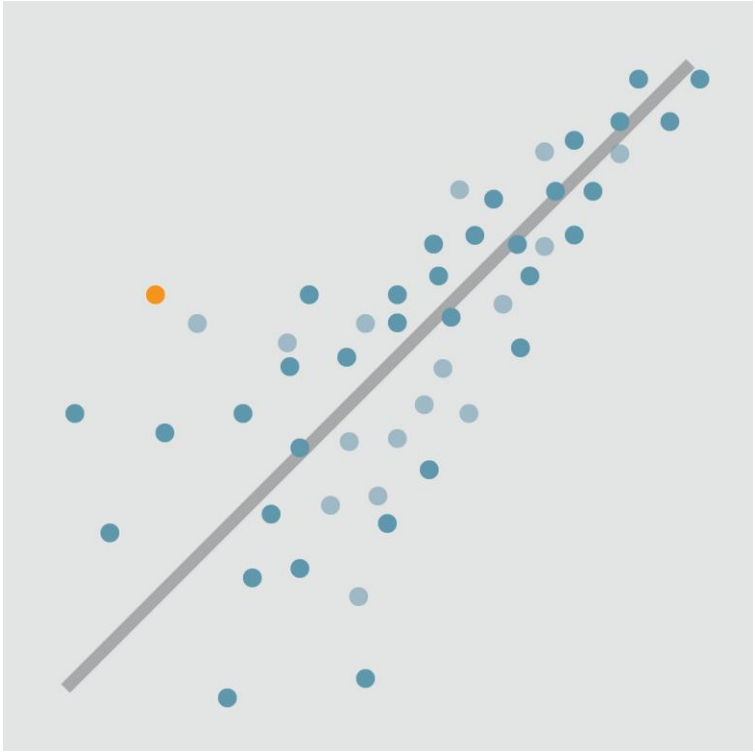
Step 4 : **Lessons learned**

Step 5 : Plan improvements

Regulatory Key Changes

- **Comprehensive Regulations**
- Hazards Assessment
- Communication & Continuity
- Patient & Resident Tracking
- **Training and Testing**

Approach



Federal Regulatory Timeline

Proposed 2014	December
Public	Feedback
Final rule 2016	September 8,
Enforcement	**November 15,**

Source

Centers for Medicare & Medicaid Services (CMS)

Emergency preparedness requirements
Providers and suppliers
Planning and communication
Accountability and training

Source

State Operations Manual (SOM) Appendix Z

E-tags and Interpretive Guidelines

Updated in 2020 and 2021

40 E-tags

Complex

Reference: QSO-21-15

Training Resource

Federal
Providers & Surveyors
https://qsep.cms.gov

Online 24 / 7

Regulated Facilities

- Hospitals — E-tags — **16**

40

- ASC — E-tags
- Hospice — E-tags
- ESRD — E-tags
- NF/SNF — E-tags
- ICF/IIDs — E-tags
- HHAs — E-tags
- CAHs — E-tags
- RHCs — E-tags — 10

20

Regulatory Balance

No one size fits all

Flexibility written in regulations

Surveyors VERIFY required elements are included and testing is completed

Surveyors do not approve E-plans

Simplicity

Emergency Plan

Facility has an emergency preparedness plan (Plan)

E-0004

Plan is updated every year (LTC)

Plan is updated every two years (NLTC)

Risk Assessment

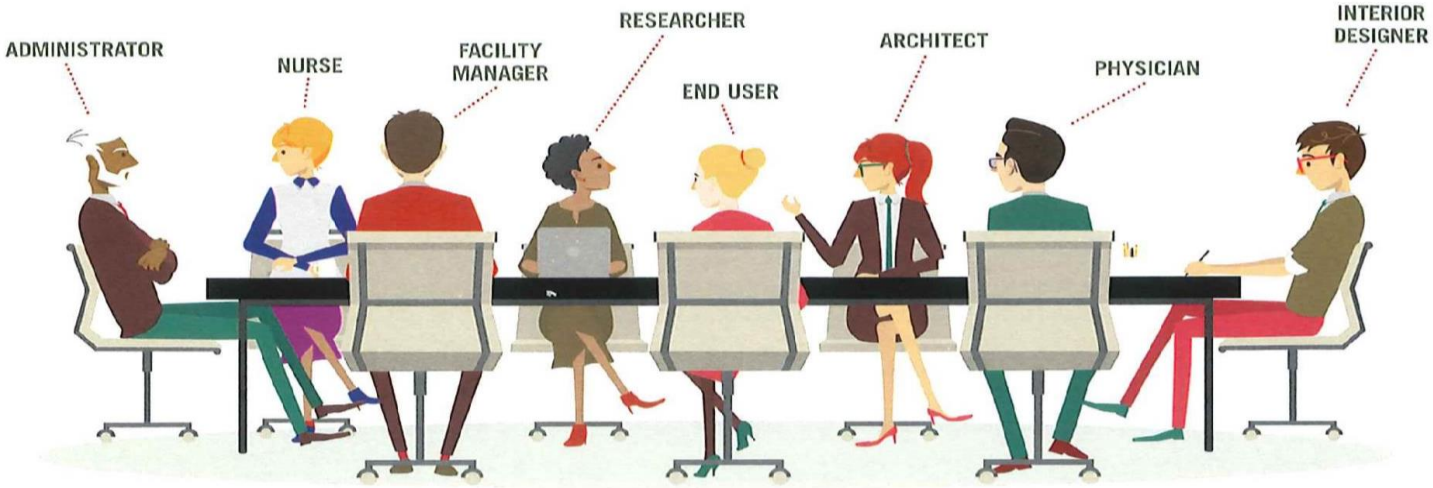
Multi-hazard approach is documented

- Hazards specific to geographic location
- Written and updated

E-0006

SOM Z: Interview facility how the risk assessment was conducted, how do hazards impacts decision to evacuate or shelter-in-place

Risk Assessment



Risk Assessment

Risk Assessment

DEPARTMENT	PROBABILITY	SEVERITY				RISK
		HEALTH IMPACT	ENGINEERING CONTROLS	WORK PRACTICE CONTROLS	PATIENT/PARENTAL CONTROLS	
Insert Department Name Here	Likelihood of (insert event/situation being risk assessed)	Severity of injury if it were to occur	Accessibility is minimized (Non-patient care area, access restricted by physical barriers, locks, or electronic monitoring, etc)	Monitoring of the area (Area is consistently attended by staff, area/device is not easily occupied, policy, training of staff, etc)	Supervision (Patient or family is left unsupervised in an area that contains event/situation being risk assessed)	Total risk identified for the department
SCORING	0 = NA	0 = NA	0 = NA	0 = NA	0 = NA	Total
	1 = Low likelihood	1 = Little to no injury	1 = Low likelihood for access	1 = Low likelihood for access	1 = Low likelihood for access (high	
	2 = Moderate likelihood	2 = Moderate to severe injury	2 = Moderate likelihood for access	2 = Moderate likelihood for access	2 = Moderate likelihood for access (moderate to high supervision)	
	3 = High likelihood	3 = Health effects **may** be fatal, chronic, or acute	3 = High likelihood for access	3 = High likelihood for access	3 = High likelihood for access(low to moderate supervision)	
	4 = Extremely high likelihood	4 = Health effects **would** be fatal, chronic, or acute	4 = Extremely high likelihood for access	4 = Extremely high likelihood for access	4 = Extremely high likelihood for access(little to no supervision)	
Insert specific item/area/requirement being assessed in the far left pink column, then score each area across the categories, yellow column is a formula that will comute a percentage; the higher the percentage, the higher the risk.						0%
						0%
						0%
						0%
						0%

Template

Risk Assessment

- Facility ownership
- Risk procedure
- Qualified personnel
- Documented decisions

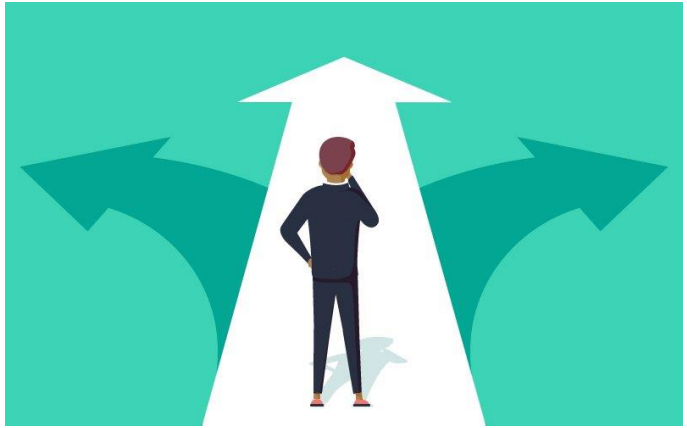
Risk Assessment

Risk = Probability * Severity

Risk Assessment

Wisconsin Top Five

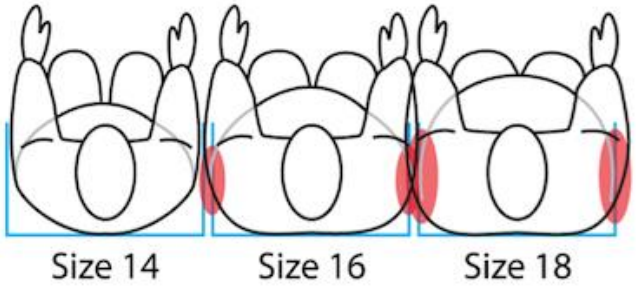
1. Tornado
2. Communicable disease
3. Cyber attack
4. Ice / snow
5. Flood



Continuity of Operations

Policy to address continuity of operations

- Who are their at-risk patients / residents
- Strategies / services to meet needs
- Continuity of services
- Staff delegation



E-0007

SOM Z: At-risk populations have additional needs

Policies and Procedures

Implementation of Policies and Procedures

- Based on risk assessment **E-0006**
- Reviewed and updated periodically
- Address and respond to surge
- Modify post disaster

E-0013

Subsistence

Subsistence is documented within the Plan

- Food, water, meds, alternate power
- Evacuate or shelter-in-place
- Temperatures for safe storage
- Sewage and waste disposal
- Personal protective equipment (PPE)
- Lamps or flashlights in select areas
- Staff, patients, and residents

E-0015

SOM Z: Facilities are not required to provide onsite storage
FAQ: Alternate sources of energy to maintain temperatures

Tracking

System for tracking is documented within the Plan

- On-duty staff
- Sheltered and relocated patients
- During emergency (NLTC)
- During and after emergency (LTC)

E-0018

SOM Z Guidance

- Ask staff to describe the tracking system
- Verify that the system has documentation

Safe Evacuation

Policy for safe evacuation from the facility

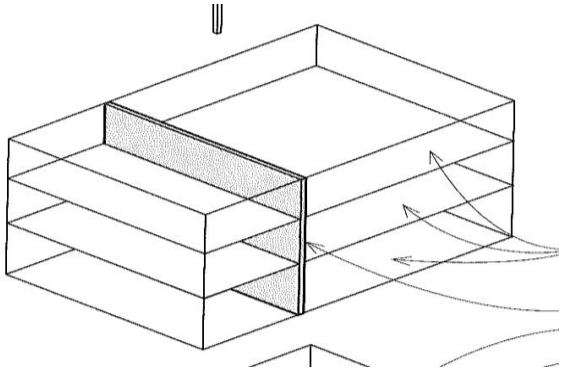
- Staff responsibilities
- Alternate communications
- Care of evacuees
- Transportation

E-0020

Shelter-in-Place

Policy for sheltering in place

- Patients / Residents
- Staff
- Volunteers



E-0022

Facility must plan for shelter-in-place when community event prevents evacuation or patient / resident refuses to evacuate

Staffing

Staffing strategies are documented within the Plan

- Routine
- On-call
- Volunteer
- Volunteer roles

E-0024

SOM Z: During an emergency, a facility needs to plan for some staffing remaining unaccounted or not reporting

Agreements

Service agreements are documented within the Plan

- Memorandums of Understanding
- Transfer Agreements

E-0025

SOM Z: Ask to see copies

CMS FAQ: Optional arrangements when transfer is not possible due to a community wide event*

Communications

Communication policy

Updated annually (LTC) or two years (NLTC) **E-29**
Contacts for staff and service providers
E-30
Contacts for emergency officials
E-31
Alternate means of communication identified **E-32**
Method of sharing medical documentation **E-33**
Reporting facility impacts to state / local center **E-34**

SOM Z: Verify current contacts and the plan is updated at least

Long Term Care Specific

Method of sharing emergency plan with:

- Residents
- Families
- Representatives

E-0035

SOM Z: Interview representatives, residents, or family members

Training and Testing

Training and Testing

- Documented
- Reviewed

E-0036

SOM Z: Training to staff, contractors, and volunteers
Training is based on the risk assessment

Training

Training for staff

- Annually
- New, existing, and contract staff

E-0037

SOM Z

- Interview various staff and verify they participation
- Review documentation of participation
- Training responds to hazards assessment
- Not just fire drills

Training

Testing

Testing is conducted and documented

- Annually
  - First year is a full-scale or community event
  - Alternate year can be optional events
  - Documented post-activation evaluation

E-0039

CMS Memo 20-41: Two exercises

Key: Staff participation

Testing

Actual Event

- Counts as an Exercise …
- Disaster or emergency impacts a facility
- Emergency preparedness plan is engaged
- Staff and systems respond
- Documentation, Documentation, Documentation
- Risk assessment is re-evaluated
- Plan is updated

Testing

Emergency power meets the needs of the Plan

Sufficient power for subsistence needs

Sufficient power for shelter-in-place

Tested per NFPA 110

E-0041

SOM Z Emergency power must meet NFPA 101, NFPA 99, NFPA 70, and NFPA 110

Testing

Portable permitted for additional emergency loads

Portable must meet NFPA 70

E-0041

Memo QSO 19-06-ALL and QSO 15-21

Integrated Healthcare

Integrated healthcare system option

- Each separate certified facility participates
- Each facility unique circumstances are included

E-0042

SOM Z

- Verify each facility was involved
- Verify annually reviews

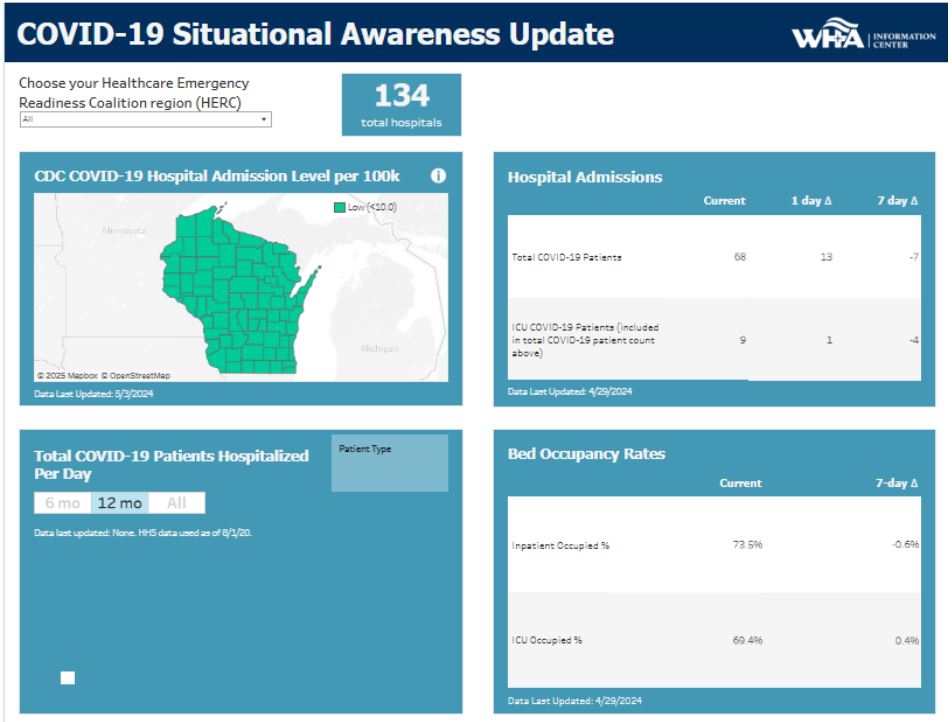
Wisconsin Resources

- **Department of Military Affairs**
  - http://dma.wi.gov/DMA
  - http://readywisconsin.wi.gov/

- **DHS Office of Preparedness and Emergency**
  - https://www.dhs.wisconsin.gov/preparedness/index.htm

Wisconsin Healthcare Coalitions

Wisconsin Resources



Wisconsin Hospital Association

Wisconsin Resources

Infrastructure improvements

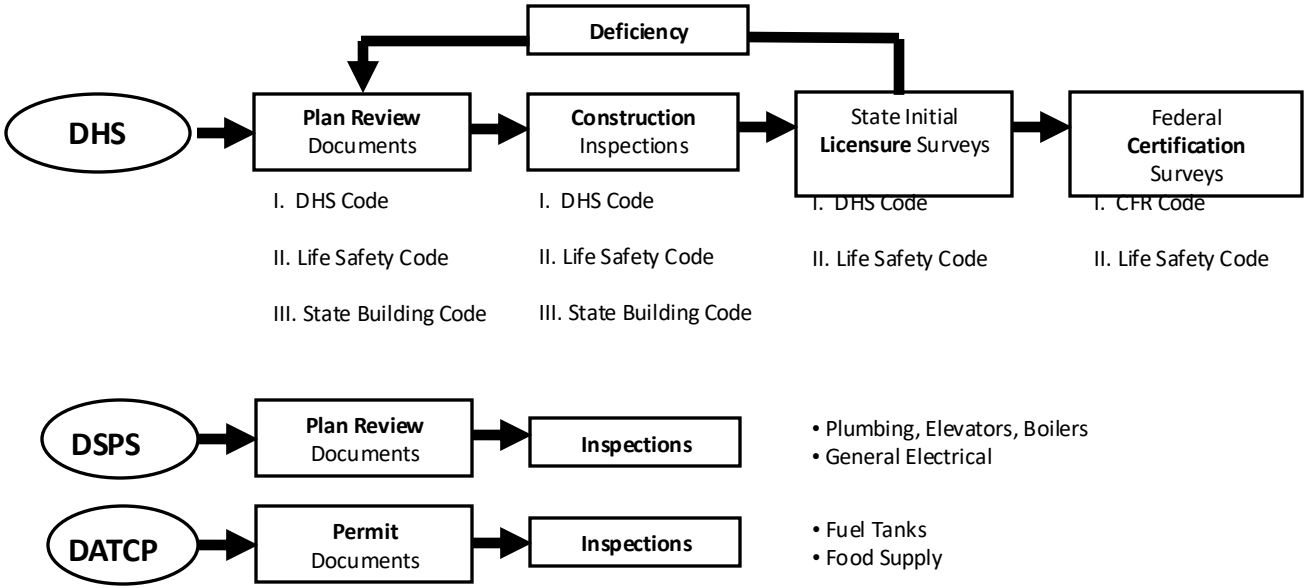
- Building resiliency
- Fire protection upgrades
- Emergency power redundancy

Proactive design and state review

Office of Plan Review and Inspections

https://www.dhs.wisconsin.gov/regulations/plan-review/index.htm

Wisconsin Resources



Regulatory Quality Assurance

Emergency Preparedness

Collaboration

- Miracles
- Reciprocity
- Preparation today
- Maintenance today
- True safety requires commitment both sides of the fence
- Ongoing process

Shared Responsibilities

WISCONSIN DEPARTMENT of HEALTH SERVICES

Thank You