Healthcare Facilities Management

Module 1: Introduction & Compliance Student Workbook







Lesson 1 ~ Compliance 1



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Standards & Codes

- > American Institute of Architects (AIA) Construction Standards.
- > Model Building Codes (e.g., BOCA, SBCCI, IBC, UBC).
- > Americans with Disabilities Act (ADA).
- > Environmental Protection Agency (EPA).
- > The Joint Commission (TJC).
- > National Fire Protection Association (NFPA).
- > Occupational Safety and Health Administration (OSHA).
- > Centers for Disease Control and Prevention (CDC).
- Centers for Medicare & Medicaid Services (CMS.).
- ➤ Local Authority Having Jurisdiction (AHJ)
 - Occupancy codes
 - · Inspection of fire protection systems
 - · Building Permits
 - Elevators
 - · Signage for elevators and vertical transportation equipment

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American Institute of Architects (AIA) Construction Standards

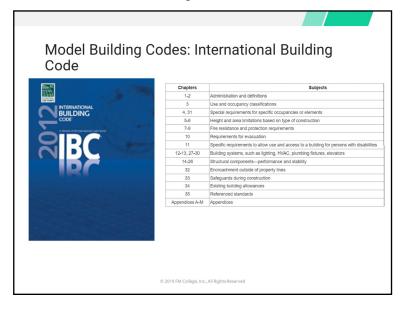


Part 1 - General

- > 1.1 Introduction
- ➤ 1.2 Planning, Design, Construction and Commissioning
- > 1.3 Site
- 1.4 Equipment

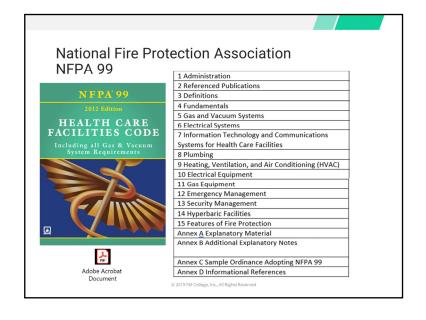
Part 2 Hospitals

- > 2.1 Common Elements of Hospitals
- 2.2 Specific Requirements for General Hospitals
- 2.3 Specific Requirements for Freestanding Emergency Departments
- 2.4 Specific Requirements for Critical Access Hospitals



IBC Occupancies 308.4 Institutional Group I-2. This occupancy shall include buildings and structures used for medical care on a 24-hour basis for more than five persons who are incapable of self-preservation. This group shall include, but not be limited to, the following: Foster care facilities Detoxification facilities Hospitals Nursing homes Psychiatric hospitals 407.1 General. Occupancies in Group I-2 shall comply with the provisions of Sections 407.1 through 407.10 and other applicable provisions of this code. AMBULATORY CARE FACILITY. Buildings or portions thereof used to provide medical, surgical, psychiatric, nursing or similar care on a less than 24-hour basis to persons who are rendered incapable of self-preservation by the services provided. 422.1 General. Occupancies classified as ambulatory care facilities shall comply with the provisions of Sections 422.1 through 422.7 and other applicable provisions of this code.

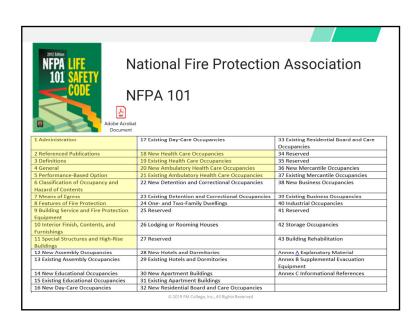




NFPA 99 - Risk-Based Approach

- > Risk assessment performed per 99.4.2
 - A.4.2 Risk assessment should follow procedures such as those outlined in ISO/IEC 31010, NFPA 551, SEMI S10-0307E, or other formal process. The results of the assessment procedure documented and retained.

Category	Description
1	Failure of the system or equipment is likely to cause major injury or death to patients or caregivers
2	Failure of the system or equipment is likely to cause minor injury to patients or caregivers
3	Failure of the system or equipment is not likely to cause injury, but rather patient discomfort
4	Failure of the system or equipment would have no impact on patient care



NFPA 101 - Chapter 18 - New HC Occupancies

18.7 Operating Features

- > 18.7.1 Evacuation & Relocation Plan & Fire Drills
- > 18.7.2 Procedures in case of fire
- > 18.7.3 Maintenance of Means of Egress
- > 18.7.4 Smoking
- > 18.7.5 Furnishings, Mattresses, and Decorations
- > 18.7.6 Maintenance and Testing (See 4.6.12)
- > 18.7.7 Engineered Smoke Control Systems
- > 18.7.8 Portable Space Heating Devices
- ➤ 18.7.9 Construction, Repair, and Improvement Operations (See 4.6.10)

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NFPA 101 - Chapter 19 - Existing HC Occupancies

19.7 Operating Features

- > 19.7.1 Evacuation & Relocation Plan & Fire Drills
- > 19.7.2 Procedures in case of fire
- > 19.7.3 Maintenance of Means of Egress
- > 19.7.4 Smoking
- > 19.7.5 Furnishings, Mattresses, and Decorations
- > 19.7.6 Maintenance and Testing (See 4.6.12)
- > 19.7.7 Engineered Smoke Control Systems
- > 19.7.8 Portable Space Heating Devices
- ➤ 19.7.9 Construction, Repair, and Improvement Operations (See 4.6.10)

NFPA 101 - 4.6.10

Construction, Repair, and Improvement (CRI) Operations

➤ 4.6.10.1 Buildings, and portions thereof, may only be occupied during CRI only where required means of egress and required fire protection features are in place and continuously maintained for that portion occupied or where alternate life safety measures acceptable to the AHJ are in place.

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NFPA 101 - 4.6.12

Maintenance, Inspection, and Testing (MIT)

- > 4.6.12.1 Whenever "anything" is required for compliance with the LSC it must be continuously maintained.
- > 4.6.12.2 No existing LS feature shall be removed/reduced when it is required for new construction
- > 4.6.12.2 Existing LSC safety features obvious to public, when no longer req'd, shall be either maintained or removed
- 4.6.12.4 "Anything" requiring periodic MIT shall be MIT'd per the LSC or the AHJ
- > 4.6.12.5 MIT performed under the supervision of a responsible person





Title 42—Public Health



MODULE 02-B

HEALTHCARE FACILITY REGULATION & INSPECTION

United States model (as tested on CHFM Exam)

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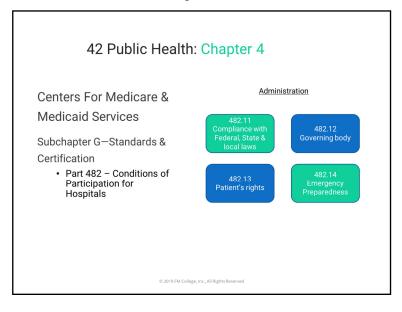
42 Public Health: Chapter 7 - Social Security

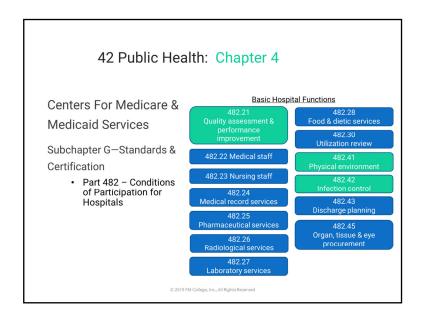
Subchapter XVIII—Health Insurance For Aged And Disabled

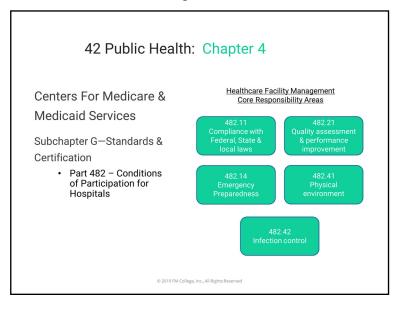
- · "Accredited"
 - Section 1865(a)(1) of the Social Security Act (the Act) permits providers and suppliers "accredited" by an approved national accreditation organization (A0) to be exempt from routine surveys by State survey agencies to determine compliance with Medicare conditions.
- "Deems"
 - Section 1865(a)(1) of the Act provides that if the Secretary finds that
 accreditation of a provider entity by a national accreditation body
 demonstrates that all applicable conditions are met or exceeded, the
 Secretary deems those requirements to be met by the provider or supplier.
- · "Deeming Authority"
 - In order to be granted deeming authority for Medicare, an AO must apply and demonstrate its ability to meet or exceed the Medicare conditions of participation/coverage as cited in the Code of Federal Regulations:
 - For hospitals in accordance with 42 CFR 482

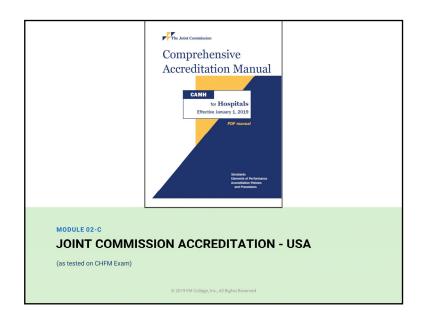


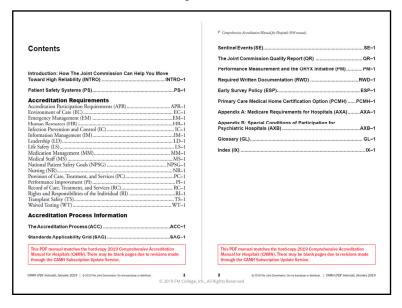




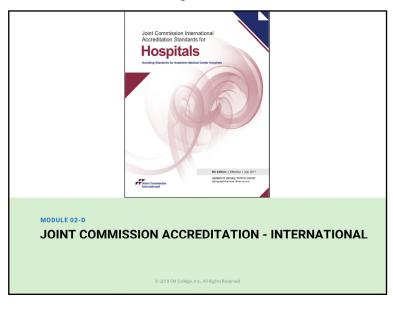


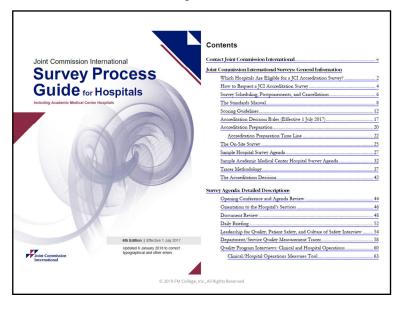


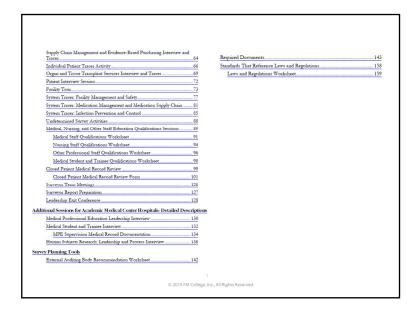












JCI Required Facility Management & Safety Documents

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Facility Management and Safety (FMS)				
Standard	Standard Text	In English	Type of Document	
FMS.2	The hospital develops and maintains a written program(s) describing the processes to manage risks to patients, families, visitors, and staff.	Yes	Program	
FMS.4	The hospital plans and implements a program to provide a safe physical facility through inspection and planning to reduce risks.		Program	
FMS.4.1	The hospital plans and implements a program to provide a secure environment for patients, families, staff, and visitors.		Program	
FMS.4.2.1	When planning for demolition, construction, or renovation, the organization conducts a preconstruction risk assessment.		Policy/procedu	
FMS.5	The hospital has a program for the inventory, handling, storage, and use of hazardous materials and waste.		Program	
FMS.5.1	The hospital has a program for the control and disposal of hazardous materials and waste.		Program	
FMS.6	The hospital develops, maintains, and tests an emergency management program to respond to emergencies and natural or other disasters that have the potential of occurring within the community.		Program	
FMS.7	The hospital establishes and implements a program for the prevention, early detection, suppression, abatement, and safe exit from the facility in response to fires and nonfire emergencies.		Program	
FMS.7.1	The hospital regularly tests its fire and smoke safety program, including any devices celated to early detection and suppression, and documents the results.		Policy/procedu	
FMS.7.2	The fire safety program includes limiting smoking by staff and patients to designated non-patient care areas of the facility.		Policy/procedur	
FMS.8	The hospital establishes and implements a program for inspecting, testing, and maintaining medical equipment and documenting the results.		Program	
FMS.8.1	The hospital has a system in place for monitoring and acting on medical equipment hazard notices, recalls, reportable incidents, problems, and failures.		Policy/procedu	

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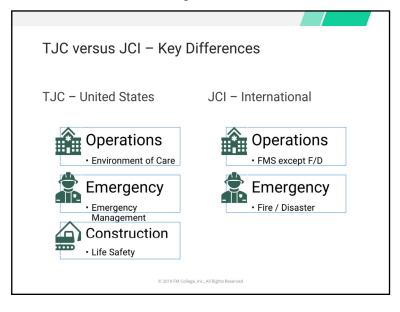
TJC versus JCI – Key Differences

TJC - United States

- Prescriptive approach
- US CFR 42 Compliance
- NFPA 99 & 101 / 2012 compliance
- State & Local compliance
- Detailed document requirements
- Detailed testing requirements

JCI - International

- · Performance approach
- Knowledge & compliance required with local laws, codes & standards
- JCI standards, where more stringent, must be complied with
- Simplified paperwork requirement.
- "Systems" vs "documents"





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	Environment of Care
	Elements of Performance
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	(T.IC) Environment of Core (EOC)
	(TJC) Environment of Care (EOC)
	EC.01.01.01 - The hospital plans activities to minimize risks in the environment of care.
	 EP 1: Identify individual(s) to mange risk EP 3: Hospital has a library of information regarding inspection,
	testing & maintenance Written plans:
	➤ EP 4: Environmental safety of people ➤ EP 5: Security
	➤ EP 6: Hazardous materials & waste ➤ EP 7: Fire Safety
	> EP 8: Medical Equipment > EP 9: Utility Systems
	Er 9. Othity Systems
	Source: The Joint Commission, Comprehensive Accreditation Manual for Hospitals Effective January 1, 2019 © 2019 FM College, Inc., All Rights Reserved
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EC.02.01.01 - The hospital manages safety and security risks.

- > EP 1: Process to identify EOC safety and security risks
- > EP 3: Takes action to minimize or eliminate identified risks
- > EP 5: Maintains all grounds and equipment
- > EP 7: Identifies individuals entering the facilities
- ➤ EP 8: Controls access to sensitive areas
- > EP 9: Written procedures for security events
- > EP 10: Follows identified procedures when an event occurs
- > EP 11: Responds to product notices and recalls
- EP 14: Manages patient and other safety risks associated with MRI
- EP 16: MRI risks are managed by access restriction, supervision and signage



EC.02.01.03 - The hospital prohibits smoking except in specific circumstances.

- > EP 1: Written policy with any exceptions specifically defined.
- > EP 4: Smoking materials removed for respiratory patients
- ➤ EP 6: Actions to maintain compliance



EC.02.02.01 - The hospital manages risks related to hazardous materials and waste.

- > EP 1: Written inventory of materials used stored or generated
- > EP 3: Written procedures and precautions
- > EP 4: Procedures as written are implemented
- > EP 5: Risks are minimized with hazardous chemicals
- > EP 6: Risks are minimized with radioactive materials
- > EP 7: Risks are minimized with hazardous energy sources
- EP 8: Risks minimized with disposing of hazardous medications
- > EP 9: Risks minimized with hazardous gases or vapors
- EP 10: Hazardous gas and vapors levels are monitored and maintained in a safe range.

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(TJC) Environment of Care (EOC)

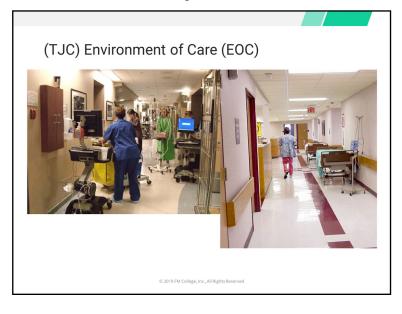
EC.02.02.01 - The hospital manages risks related to hazardous materials and waste.

- > EP 11: For hazardous materials has all permits, licenses, documents and records required
- EP 12: Hazardous materials labeled, identified and warnings attached
- > EP 17: Rules for radiation management for staff (ALARA)
 - · "as low as reasonably achievable"
- > EP 18: Radiation workers checked periodically
- ➤ EP 19: Proper storage and prompt disposal of trash



EC.02.03.01 - The hospital manages fire risks.

- > EP 1: Minimize potential for harm from fire, smoke, etc.
- > EP 4: Unobstructed access to all exits
- > EP 9: Written fire response plan describing staff roles, etc.
- > EP 11: Periodic evaluation of fire hazards during surgery
- ➤ EP 12: Requirements when flammable compounds used during surgery
- ➤ EP 13: All Health care Facilities requirements of NFPA 99-2012: Chapter 15 are met.



EC.02.03.03 - The hospital conducts fire drills.

- > EP 1: Quarterly Fire drills once per shift in health care occupancies
- > EP 2: Annually Fire drills in business occupancies
- ➤ EP 3: When quarterly fire drills are required, ALL are unannounced
- > EP 4: Per Plan Staff participate in the drills per the fire response plan
- EP 5: Critiques include fire safety equipment and building features, and staff response



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EC.02.03.05 - The hospital maintains fire safety equipment and fire safety building features.

- ➤ EP 1: Quarterly Supervisory Signals
- > EP 2: Semi-annual Water flow devices & tamper switches
- > EP 3: Annually Duct detectors, and manual fire alarm boxes
- > EP 4: Annually Notification devices and door-releasing devices
- > EP 5: Annually Emergency services notification equipment
- EP 6: Monthly tests for electric fire pumps / Weekly tests for diesel fire pumps
- > EP 7: Semi-Annually Auto sprinkler water storage high/low level alarms
- > EP 8: Monthly during cold weather Water storage tank temp
- ➤ EP 9: Annually test main drains on sprinkler risers

See next page →

Source: The Joint Commission, Comprehensive Accreditation Manual for Hospitals Effective January 1, 2019

(TJC) Environment of Care (EOC)

EC.02.03.05 - The hospital maintains fire safety equipment and fire safety building features.

- ➤ EP 10: Quarterly Fire department connections
- > EP 11: Annually Test fire pumps under flow
- ➤ EP 12: 5 years Hydrostatic tests of standpipes
- ➤ EP 13: Semi-Annually Kitchen automatic fire systems
- ➤ EP 14: Annually CO2 and other gaseous systems
- ➤ EP 15: Monthly Inspection of portable extinguishers
- ➤ EP 16: Annually Portable extinguisher maintenance
- > EP 17: 5 years/ 3 years fire hose tests
- > EP 18: 1 year / 6 years Fire and smoke damper tests

See next page →

EC.02.03.05 - The hospital maintains fire safety equipment and fire safety building features.

- ➤ EP 19: Annually Smoke shutdowns for air handling equipment
- > EP 20: Annually Test sliding and rolling fire doors
- ➤ EP 25: Annually Fire door assemblies tested by technician
- > EP 27: Monthly Elevator firefighter emergency call systems
- ➤ EP 28: Documentation of all testing

Source: The Joint Commission, Comprehensive Accreditation Manual for Hospitals Effective January 1, 2019

EC.02.04.01 - The hospital manages medical equipment risks.

- > EP 2: Maintains a written inventory of medical equipment.
- > EP 3: High-risk medical equipment identified on the inventory
- > EP 4: Inventory includes activities and associated frequencies for maintaining, inspecting, and testing
- EP 5: Frequencies for maint/inspect/test meet OEM req's for certain equipment
- EP 6: Procedures for an "Alternate Equipment Maintenance" program set-up
- > EP 7: Identification on inventory of AEM equipment
- > EP 9: Written procedures to follow when equipment fails
- > EP 10: Quality control and maintenance for radiological equipment

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Medical Equipment Risks Victorial Figure 1 August 1 Augu

EC.02.04.03 - The hospital inspects, tests, and maintains medical equipment.

- > EP 2: Inspect/test/maintain all high-risk equipment.
- EP 3: Inspect/test/maintain non-high-risk equipment identified on its inventory.
- ➤ EP 4: Sterilizers
- ➤ EP 5: Hemodialysis
- > EP 8: Equipment for use in oxygen-enriched atmospheres
- > EP 10: Hyperbaric facilities conform to NFPA 99-2012:Ch. 14
- > EP 16: Nuclear medicine equipment annual testing/maint.
- > EP 18: CT/PET/MRI/NM image maintenance/storage
- > EP 20/21: CT services annual requirements
- > EP 22: MRI Services annual requirements

See next page →

Source: The Joint Commission, Comprehensive Accreditation Manual for Hospitals Effective January 1, 2019

(TJC) Environment of Care (EOC)

EC.02.04.03 - The hospital inspects, tests, and maintains medical equipment.

- > EP 23: Inspect/test/maintain nuclear medicine imaging equipment
- ➤ EP 24: Inspect/test/maintain PET equipment
- > EP 25: CT/PET/NM/MRI annual testing of monitors
- > EP 26: Maintenance on anesthesia apparatus
- ➤ EP 27: Meet NFPA 99-2012:Ch. 10 requirements for electrical equipment in patient care vicinity
- > EP 34: Fluoroscopic imaging equipment annual requirements



EC.02.05.01 - The hospital manages risks associated with its utility systems.

- > EP 1: Designed and installed per NFPA Codes
- > EP 2: Buildings systems meet NFPA category 1-4 req's
- > EP 3: Written inventory of utility systems components
- > EP 4: High risk components of utility systems identified
- ➤ EP 5: Activities/frequencies identified for inspect/test/maintain and where OEM or AEM is used
- > EP 6: Items required to meet OEM
- ➤ EP 7: AEM program reqs for certain utility systems equipment
- > EP 8: Identification on inventory of AEM equipment
- > EP 9: Labeling of utility equipment for partial/complete shutdown

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EC.02.05.01 - The hospital manages risks associated with its utility systems.

- > EP 10: Written procedures for utility disruptions
- > EP 11: Procedures address shut-off and notification
- > EP 12: Procedures address emergency clinical interventions
- > EP 13: Hospital responds per its written procedures
- > EP 14: Hospital minimizes biologics (i.e. legionella) in systems
- > EP 15: Critical care areas: ventilation & filtration maintained
- > EP 16: Non-critical care areas: ventilation & filtration maintained
- > EP 17: The hospital maps its utility distribution systems
- > EP 18: Med gas storage, transfer & manifold rooms meet NFPA 99-2012: 9.3.7

See next page →

Source: The Joint Commission, Comprehensive Accreditation Manual for Hospitals Effective January 1, 2019

(TJC) Environment of Care (EOC)

EC.02.05.01 - The hospital manages risks associated with its utility systems.

- EP 19: Emergency power supply equipment maintained per OEM
- > EP 20: Operating rooms (wet) protected by GFCIs, etc.
- > EP 21: Electrical distribution (Category 1,2 & 3)
- > EP 22: Hospital electrical receptacle requirements
- > EP 23: Power strips in patient care vicinity
- > EP 24: Extension cords / temporary use
- EP 25/26: General anesthesia areas conform to NFPA 101-2012 and 99-2012
- > EP 27: General anesthesia areas conform to ASHRAE 170 and NFPA 101

