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Learning Points

• Identify the major code changes from 2000 until 2012 (four revisions of NFPA 101).
• Discuss advantages of the new Code requirements.
• Review sample applications of the new code requirements.
• Review and discuss the CMS adoption process for the new edition of the Code.
Potential Code Change

• CMS presented a “Notice of Rules Change” October 2011
• Public Comments closed in December 2011
• Waiting for Government response
• Cost impact study
• Act of Congress
4 Editions of NFPA 101
Adoption

- Adoption of the new NFPA 101 - 2012 edition needed to use any of these changes.
- Adoption range is 2013 to late 2014.
Major Code Changes Impacting NFPA 101 2003 to 2012

• Editorial changes
• Definitions
• Suite arrangement
• Exiting
• Corridor clutter
• Special hazards
2003 Edition

• Major rewrite with minor technical changes.
• Editorial changes to write the Code without exceptions.
• Most sections worked; there were fixes required in 2006.
Definition - New 2012

• 3.3.255.2.3 Non-Patient Care Suite (Health Care and Ambulatory Health Care Occupancies). A suite within a health care or ambulatory health care occupancy that is not intended for sleeping or treating patients.
Definition - New 2012

• Normally Unoccupied Building Service Equipment Support Area
  – Examples of such areas include interstitial spaces, crawl spaces, chases, tunnels, attics and service vaults
Example
Impact of New 2012 Definition

- New Section 7.13 for Normally Unoccupied Building Service Equipment Support Areas
  - Unless prohibited by Chapters 11 to 43
  - Areas less than 45,000 sq ft non-sprinklered and 90,000 sq ft sprinklered buildings have little change
Unoccupied Areas

• Larger areas will have:
  – Head room 6 feet 8 inches minimum
  – Width 28 inches minimum
  – Exit signage required
  – Exit lighting required
  – Minimum two (2) exits from the space
Definition Clarification

- Contiguous facilities
  - Ambulatory care facilities, medical clinics, and similar facilities that are contiguous to health care occupancies shall be permitted to be used for diagnostic and treatment services of inpatients who are capable of self preservation - Sections 18.1.2.3.1 and 19.1.2.3.1 - 2012 edition
Suite Arrangements

• Suite Separation (18.2.5.6.1.2 – 2006 Edition)
  – Suites are to be separated from the remainder of the building the same as corridors (Figure 1).
  – Suite separation must include partitions that limit the transfer of smoke and doors that positively latch and limit the transfer of smoke.
  – Specifically permits egress from one suite to another.
Figure 1 - Suites

PARTITION CAPABLE OF LIMITING THE TRANSFER OF SMOKE
Suite Arrangements

• Suite Exit Access Doors (Sections 18.2.5.6.2.2 and 18.2.5.6.3.2 – 2006 Edition)
  – Where one exit access door is required (based on size and use of suite), the door must open directly into a corridor.
  – Where two exit access doors are required (based on size and use of suite), one door must open directly into a corridor. The other door is permitted to exit into an adjacent suite provided that separation between suites complies with the corridor requirements.
Suite Arrangements

• Suite Travel Distance (Sections 18.2.5.6.2.4 and 18.2.5.6.3.4 – 2006 Edition)
  
  – Travel distance within a sleeping suite to an exit access door must not exceed 100 feet (Figure 2) without passing through more than one intervening room.
Figure 2 - Sleeping Suite & Non-Sleeping

Limitations

• A1→D1≤100 feet (1 intervening room)
• A2→D2≤100 feet (0 intervening rooms)
• A1→D1→EX≤200 feet
Suite Arrangement

• Travel distance within non-sleeping suites will be 100 ft (Sections 18.2.5.7.3.4 and 19.2.5.7.3.4 - 2012 edition); NO reduction for multiple room or intervening rooms.
Suite Arrangement

• One of the exit accesses from suites may be directly to:
  – Exit stair
  – Exit passageway or
  – Exit door to the exterior

• One must be to the corridor (Sections 18.2.5.7.2.1 and 19.2.5.7.2.1 – 2012 edition)
Suite Arrangement

• Suite sizes increase:
  – 7,500 sq ft maximum sleeping
  – 10,000 sq ft maximum sleeping with direct supervision and smoke detection
  (Sections 18.2.5.7.2.3 and 19.2.5.7.2.3 – 2012 Edition)
Stair Structure Protection

- Section 7.1.3.2.1(5) - 2009 edition requires the structure supporting a stair within a rated wall to have the full fire resistive rating of the enclosure.
Exiting - Travel Distance

- **New Construction - Section 18.2.6.2 - 2009 Edition**
  - Maximum 200 feet from any point in the building
  - Maximum 50 feet in a patient room

- **Existing – Section 19.2.6.2 – 2009 Edition**
  - Maximum 150 feet in non-sprinklered, and 200 feet in sprinklered
  - Maximum 50 feet in a patient room
Exiting - Corridor

- Minimum Corridor Width for Hospitals and Nursing Homes [Sections 18.2.3.4 and 18.2.3.5 – 2006 Edition; Tentative Interim Amendment (TIA) to 2003 and 2000 Editions]
  - Corridors must be a minimum of 8 feet wide in treatment areas and 44 inches in non-treatment areas.
  - Where minimum corridor width is 6 feet, projections not more than 6 inches from the corridor wall above the handrail height shall be permitted for hand-rub dispensers.
Exiting - Corridor (cont’d)

• Corridor Width for Hospitals & Nursing Homes
  – Where minimum corridor width is 6 feet, projections shall be permitted in corridor provided:
    1) Each projection has a depth of 6 inches or less
    2) Each projection has a length of 36 inches or less
    3) Each projection must be at least 40 inches above the floor
    4) Each projection must be at least 48 inches away from each other horizontally
Exiting

• Wide Stairs
  (Section 7.2.2.2.1.2 – 2006 Edition)
  – New stairs serving a cumulative occupant load of 2,000 or more must be a minimum of 56 inches.
  – Change intended for counterflow in stairs and simultaneous evacuation of multiple floors.
Exiting

• Manual Sliding Doors (Section 7.2.1.4.1.6 – 2006 Edition)
  – Horizontal sliding doors permitted in Health Care occupancies provided that the low to ordinary hazard room that these doors serve has an occupant load fewer than 10 persons.
  – Relieves requirement for breakaway operation.
  – Does not relieve positive latching and smoke limiting requirements of corridor doors in Health Care occupancies.
Exiting – Locking

- Sections 18.1.1.1.5 and 19.1.1.1.5 – 2009 Edition

- Detention and Security needs are valid. Safety needs for infants, pediatrics and civil disorder are allowed.
- Health care occupancies are allowed to lock the means of egress.
- Staff must be present at all times to unlock the means of egress.
Exiting - Locks

• These new sections allow the automatic release of locked doors on smoke detection or automatic sprinkler water flow activations. [Sections 18.2.2.4(4) and 19.2.2.4(4) – 2009 Edition]
Exiting - Security Locking

• Sections 18.2.2.5, 18.2.2.6, 19.2.2.5 and 19.2.2.6 - 2009 Edition state how to do security locking based on:
  – Staff must be able to unlock at all times
  – Smoke detection throughout the secured area
  – Building is fully sprinklered
  – Locks failsafe (release)
  – Smoke detection or sprinkler activation will release the locks
Exiting - Delayed Egress Devices

• The code deleted the limitation of one (1) delayed egress device in the means of egress for health care. [Sections 18.2.2.4(2) and 19.2.2.4(2) – 2009 Edition]
Exiting

- Roller Latches are still prohibited
- New allowance to use roller latches in acute psychiatric settings in the 2012 edition
  - 5 lb. pull minimum
  - Fully sprinklered buildings only
Exiting - Dead Ends

Existing Buildings

- Existing dead ends must be limited to 30 feet unless impractical or unfeasible to correct. (Section 19.2.5.2 – 2009 Edition)
Corridor Clutter
Exiting - Corridor Clutter

- Sections 18.2.3.4 and 19.2.3.4 - 2012 edition added allowances in 8 foot corridors:
  - Wheeled carts and equipment can reduce the corridor to not less than 5 feet
  - Fire plan and training to relocate mobile equipment
Exiting - Corridor Clutter

• Mobile equipment is limited to:
  – Equipment in use and carts in use
  – Medical emergency equipment not in use
  – Patient lifts and transport equipment
Exiting - Corridor Clutter 2012 Edition

• 8 foot corridor shall be permitted to have fixed furniture provided:
  – Furniture is secured to the floor or wall
  – Corridor width is not less than 6 feet
  – Area of furniture is less than 50 sq ft
  – Furniture grouping is separated by 10 feet
Exiting - Corridor Clutter

- Fixed furniture does not block access to building services or fire protection equipment
- Direct supervision of the staff or corridor smoke detection
Special Hazards and Clarifications

- Corridor wall construction forms a barrier to limit the passage of smoke.
  - A new Annex note was added to state the wall IS NOT a smoke barrier or smoke partition (2012 Edition).
Special Hazards and Clarifications

- Automatic sprinklers can be omitted in hospital only patient closets less than 6 sq ft
  (NFPA 101 - 2012 edition)
DOMESTIC COOKING
Special Hazards and Clarifications - 2012 Edition

• Domestic Cooking for 30 or fewer will be allowed open to the corridor provided:
  – Cook top has a suppression system, grease collection, and 500 cfm minimum exhaust
  – Interlocks to shut down fuel and electrical power
  – Area provided with smoke alarms
  – Smoke zone limited to 30 beds
Special Hazards and Clarifications - 2012 Edition

- Domestic cooking (continued):
  - No solid fuel
  - No deep fat frying
  - A locked switch to deactivate the cook top
  - Timer to deactivate cook top in 120 minutes or less
  - Fire extinguishers

- Cook tops can be in a separate room
Special Hazards and Clarifications - 2012 Edition

- Direct vent gas fireplaces are permitted open to the corridor.
  - Not allowed in patient rooms
  - Smoke zone sprinklered
  - Controls are restricted access or locked
  - Carbon Monoxide monitors are required
Special Hazards and Clarifications - 2012 Edition

• Solid Fuel fireplaces shall be permitted in other than patient sleeping areas provided:
  – 1 hour separation to sleeping areas
  – Complies with Section 9.2.2
  – Enclosure temperature rated
  – CO monitoring
  – AHJ approval for locked enclosure or other safety issues
Special Hazards and Clarifications
2006 Edition

• Alcohol-Based Hand-Rub Dispensers
  (Section 18.3.2.6)
  – If placed in corridor, the corridor must be a minimum of 6 feet in width
  – Maximum size
    » 0.32 gallon dispensers in rooms, corridors, and areas open to corridors
    » 0.53 gallon dispensers in suites of rooms
  – Dispensers must separated from each other by a minimum horizontal distance of 48 inches
Special Hazards and Clarifications
2006 Edition

• Alcohol-Based Hand-Rub (Cont.)
  – No more than an aggregate of 10 gallons, outside of the storage cabinet, shall be in any single smoke compartment.
  – Storage of more than 5 gallons in a single smoke compartment must meet the requirements of NFPA 30, *Flammable and Combustible Liquids Code*.
  – Dispensers shall not be installed over or directly adjacent to an ignition source.
  – Dispensers installed directly over carpeted floors only permitted in sprinklered smoke compartments.
Special Hazards and Clarifications
2009 Edition

• Aerosol containers of Alcohol Based Hand Rubs are limited to 18 oz. and shall be Level 1 aerosols per NFPA 30B.

• Not more than 1,135 oz. shall be in a smoke zone outside storage cabinets [Sections 18.3.2.6 (3) and 19.3.2.6(3) – 2009 Edition]
Special Hazards and Clarifications
2009 Edition

- New Sections 18.3.6.3.7 and 19.3.6.3.7 – 2009 Edition: Power doors complying with 7.2.1.9 are not required to latch provided the doors can be kept closed if a force of 5 pounds is applied in the direction to open the door (swinging or sliding).
Special Hazards and Clarifications
2009 Edition

• Revisions to Hazardous Area Change Tables (Sections 18.3.2.1 / 19.3.2.1 – 2009 Edition)
  – Soiled linen greater than 64 gallons – 1 hour
  – Trash greater than 64 gallons – 1 hour
Special Hazards and Clarifications
2009 Edition

• Section 18.7.5.7(3) - 2009 Edition
Mobile soiled linen and trash collection containers larger than 32 gallons must be in a room protected as a hazardous area.
Special Hazards

- Patient room window requirements were removed from NFPA 101 in 2009 edition.
- Facility Guidelines Institute (FGI) has criteria for patient windows. These are not a life safety issue.
Retrofit Automatic Sprinklers for Existing High Rise – Section 19.4.2 - 2009 and 2012

• Owners shall have twelve (12) or nine (9) years from the adoption of this code, depending on if 2009 was adopted, to have existing high rise health care occupancies fully sprinklered.
How and When Do we Use this New Code?

- CMS is the key
  - Impact study required
  - Rule change draft
  - Public Comment
  - Act of congress needed to adopt
  - Earliest adoption 2013
What to do in the interim?

- Waivers
- Equivalencies
CMS March 2012 Memo

• Allows NFPA 101 - 2012 for:
  – Corridor clutter (5 feet clear)
  – Fixed furniture
  – Direct vent fire places
  – Cooking surfaces open to the corridor
  – Decorations on the corridor walls

• Wavier is required for each request
ASHE – ICC Effort

• ASHE and ICC have agreed to develop one health care code.
• An Ad-hoc Health Care committee has developed Changes to the International Building Code and International Fire Code.
• Purpose: to reduce the number of Codes that impact the health care facility.
ASHE – ICC Effort

• Major goal is to have one family of codes.
• ICC codes are used in a majority of US local jurisdictions; it’s time for a one Code solution.
• 2015 is the proposed date of publishing.
• IBC and IFC will address new and existing.
• Provisions are being made to be compatible with CMS and Existing K Tags.
Questions?

Thank You.

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