ASCs & the “new” Life Safety Code®

Part 1:
February 27, 2017

Welcome!

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Today’s Objective

- Explore the implications of the May 4, 2016 CMS adoption of the 2012 editions of NFPA 101® & NFPA 99®
CMS adoption of 2012 editions of NFPA 101® and NFPA 99®

- Federal Register / Vol. 81, No. 86 / Wednesday, May 4, 2016 / Rules and Regulations
- Regulations effective July 5, 2016
- New code set to be used in all surveys beginning November 1, 2016
- Identified TIAs to adopted codes that would apply
- Exempted chapters 7, 8, 12, and 13 of NFPA 99®
- Delayed implementation of NFPA 101: 21.3.2.1 (doors to hazardous areas) until July 5, 2017

NEW Vs. Existing buildings and/or ASCs are defined by CMS relative to the July 5, 2015 effective date of the 2012 NFPA code set adoption, and the construction date of the building &/or ASC.

- Any ASC for which pertinent construction permits were approved - and/or - started construction before July 5, 2016 are considered to be “Existing” for purposes of code compliance.

2012 NFPA 101/99 “code set”

Adopting any particular edition of the NFPA 101® Life safety Code® brings with it all “contemporary editions” of the NFPA codes and standards in any way referenced from the LSC. Such as the “CMS-current” 2012 ed. of NFPA 101, is contemporary to the 2012 NFPA 99, the 2011 NFPA 70, the 2010 NFPA 10, etc.
The CMS adoption of the 2012 NFPA 101 and NFPA 99 involves 4 Codes and more than a dozen Standards that together most significantly regulate ASC design, construction, and occupancy.

Codes set the rules for what must be done; e.g., Chapters 20 & 21 of NFPA 101 (the Life Safety Code) require manual pull fire alarm systems in new and existing ASCs.

Standards describe what it takes to achieve compliance; e.g., NFPA 72 is the Standard that establishes requirements for all types of fire/smoke alarm systems.

Codes apply to both new and existing facilities; but establish separate sections for them, and/or separate requirements within topic-focused sections.

Standards tend to focus on new construction, but at times include retroactive requirements that are particularly important to safety. Many if not all requirements for inspection, testing, and maintenance apply to existing and new construction, per installed components.
DEFINITIONS

▪ For a sprinkler system to be considered supervised as required by the 2012 NFPA 101 Code, the supervision must be electrical, as opposed to supervision by securing control valves in the open position with chains and locks as permitted by the NFPA 13 “Standard.”

2012 NFPA 101/99 “code set”
Necessary “Code Speak” w/ apologies

▪ The 2012 NFPA 101 has a new chapter dedicated to “Rehabilitation” that addresses additions to &/or modifications, and when new standards must be complied with.
  – Generally speaking, replacement in kind and maintenance is allowed to meet existing rqmts
  – Modification of structural, electrical, plumbing, mechanical, and fire protection usually defaults to new requirements
  – Large modifications can potentially affect multiple floors or even entire buildings

2012 NFPA 101/99 “code set”
Ramifications for existing & new ASCs

▪ Construction and Overall Fire Protection
  ▪ Building construction requirements have not changed, relative to protecting a single-story Vs. a multi-story building that houses an ASC
  ▪ The NFPA 101 definition of what qualifies as a basement has changed, such that some previous one-story buildings with a basement now qualify as multi-story buildings requiring better fire protection throughout.
2012 NFPA 101/99 “code set”
Ramifications for existing & new ASCs

- Stories/Basements per “old” 2000 Code

2012 NFPA 101/99 “code set”
Ramifications for existing & new ASCs

- Construction & Overall Fire Protection
  - "Basement(s)" are now defined as one or more stories occurring below the first story
  - “First story” is now defined as the lowest level meeting one of three conditions related to the floor elevation and “average grade level” six feet away from the building perimeter, or at the property line, whichever is closer

2012 NFPA 101/99 “code set”
Ramifications for existing & new ASCs

- Construction and Overall Fire Protection
  - NFPA does not indicate an existing building exemption for the definitions, or the adverse effect on previously defined single-story buildings
  - Many or most potentially adverse retroactive requirements include an exemption for existing buildings “approved by the Authority Having Jurisdiction (AHJ).” Too soon to tell how CMS (the AHJ) will handle it.
<table>
<thead>
<tr>
<th>2012 NFPA 101/99 “code set” Ramifications for existing &amp; new ASCs</th>
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<tbody>
<tr>
<td>Fire Sprinkler Systems, new and existing</td>
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<tr>
<td>* A CMS “adoption-note” regarding supervised sprinkler systems clearly expands the requirements for “supervision” beyond open valve positions alone.</td>
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<td>* Any condition that could impair sprinkler system function must now be electronically monitored. Manual means of protecting open valves are no longer sufficient.</td>
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<td>* When the fire sprinkler system is impaired or is anticipated to be impaired for more than 10 hours in any given 24 hour period, a designated Impairment Coordinator must initiate one of three responses.</td>
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<td>Impaired Fire Sprinkler Systems</td>
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<td>* Evacuate entire building -OR-</td>
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<td>* Establish fire watch: notify all building occupants, mitigate risks that could start or worsen a fire, extinguish small fires, and insure integrity of life safety design and systems -OR-</td>
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<tr>
<td>* Establish a temporary supply of water for the sprinkler system</td>
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2012 NFPA 101/99 “code set”  
Ramifications for existing & new ASCs

- Exiting/Egress
  - Existing buildings are exempt from diagonal exit separation distance requirements as long as the exits are as remote as practical and arranged to minimize the possibility both could be blocked by any one emergency situation – a lot of room for surveyor interpretation

- Exiting/Egress
  - Existing egress that passes through intervening rooms require new exit signs and doors with minimum 32 inch clearance when open 90°
  - No portion of exit egress is permitted through a hazardous area, storeroom, workroom, kitchen, or toilet room

- Exiting/Egress
  - Testing of self-contained battery-powered emergency lights and exit signs monthly (at 3 to 5 week intervals) . . .
  - “Approved” self-luminous exit signs now permitted
2012 NFPA 101/99 “code set”
Ramifications for existing & new ASCs

“Laboratory” definition has broadened, and the requirements for special protection are extensive and complex: avoid laboratory areas where more than 1 gallon of flammable liquid exists, or ≥ 75 ft³ of flammable gas, or chemicals with a hazard rating greater than 1 are present.

2012 NFPA 101/99 “code set”
Ramifications for existing & new ASCs

- Vertical opening protection:
The definition of “mezzanine” has been clarified, and details of compliance added . . . very unlikely any ASC will include a mezzanine (space inside of and overlooking the room it is within).

2012 NFPA 101/99 “code set”
Ramifications for existing & new ASCs

- Hazardous area protection
  - Doors to storage locations with flammable or otherwise hazardous contents require automatic closing or self-closing doors – CMS is allowing existing ASCs to reach compliance before July 5, 2017.
  - ABHR considerations now part of NFPA 101, and slightly less restrictive than prior CMS requirements . . . time will tell if CMS will allow.
2012 NFPA 101/99 “code set”
Ramifications for existing & new ASCs

- Hazardous area protection
  - ABHR now allowed to include aerosol dispensers up to 18 oz.
  - Total allowed quantity of ABHR fluids now excludes one dispenser per room where installed
  - ABHR dispenser location requirements mostly unchanged – separation from ignition source clarified to be minimum of 1 inch horizontally and vertically between devices

- ABHR dispenser operational requirements
  - Dispensers do not release contents without purposeful activation
  - Touch-free models require activation within 4 inches of sensing device
  - Touch-free activation releases only enough solution for proper hand sanitation regardless of the amount of time an object is in activation zone
  - Dispensers designed to avoid accidental or malicious activation

- Medical gases:
  - Requirements now based on risk categories; NFPA states categories are established by each ASC’s defined risk assessment
  - Examples and appendix clarifications indicate ASCs will all be Category 1, except specialty facilities where only non-invasive procedures are performed and general anesthesia is never used (basically G.I. Endo facilities only) where Category 2 is acceptable
2012 NFPA 101/99 “code set”
Ramifications for existing & new ASCs

- **Medical gases:**
  - Design and construction requirements intended for new facilities; however, altered, renovated or modernized portions of existing systems must meet new standards. If AHJ determines an existing system constitutes distinct hazard to life, it must be replaced with new system.

- **Medical gases:**
  - Category 1 systems are the equivalent of what hospitals have previously been required to provide. Category 2 is roughly equivalent to what all ASCs have previously been required to provide.
  - Medical gas containers must now be maintained at temperatures ≤ 130°F.
  - Medical gas storage signage requirements have changed, but the old ones linger . . .

- **New (additional?) medical gas signs:**
  - Medical Gases
    - NO Smoking or Open Flame
  - Positive Pressure Gases
    - NO Smoking or Open Flame
    - Room May Have Insufficient Oxygen
    - Open Door and Allow Room to Ventilate Before Entering
Medical gases:
- Central supplies for N₂O & CO₂ are maintained between -20° and 125° F.
- Routine maintenance programs (i.e., written and followed) required for each/all piped gas and vacuum systems
- Specific clarification re: zone valve locations, i.e., outside of room in which controlled inlets/outlets are located (Handbook diagram and explanation is in error)

Category 2 medical gas systems:
- The facility has an emergency plan for loss of Medical Air
- The facility has an emergency plan for loss of medical-surgical vacuum
- The facility has an emergency plan for loss of WAGD

ASCs & the “new” Life Safety Code®

Part 2:
February 27, 2017
2012 NFPA 101/99 “code set” Ramifications for existing & new ASCs

- **Electrical System**
  - NFPA 99 now more restrictive than NFPA 70 – both Codes must be applied per the most restrictive requirement
  - Design and construction requirements intended for new facilities; altered, renovated or modernized portions of existing systems must meet new standards. If AHJ determines an existing system constitutes distinct hazard to life, it must be replaced with new system.

2012 NFPA 101/99 “code set” Ramifications for existing & new ASCs

- **Electrical System**
  - Requirements now based on risk Categories; NFPA states that the Categories are established by each ASC’s defined risk assessment
  - Examples and appendix clarifications indicate ASCs will all be Category 1, except specialty facilities where only non-invasive procedures are performed and general anesthesia is never used (basically G.I. Endo facilities only) where Category 2 is acceptable

2012 NFPA 101/99 “code set” Ramifications for existing & new ASCs

- **Electrical System**
  - Requirements for plug strip use now part of NFPA 99 – less restrictive than the CMS categorical waiver (no UL rating requirements); but CMS’s position related to that is as yet unknown
  - ASC sets and follows policies for routine testing and maintenance of patient care electrical equipment. At minimum, required when new and after maintenance.
2012 NFPA 101/99 “code set”
Ramifications for existing & new ASCs

- Electrical System
  - New circuit breaker cabinets not located in public access areas
  - Patient care receptacles are Hospital grade
  - New general care patient positions provided with 8 receptacles each
  - New critical care patient positions provided with 14 receptacles each
  - New O.Rs. provided with 36 receptacles each

- Receptacles in pediatric care spaces or where pediatric patients may access them are listed as tamper-resistant or provided with a listed tamper-resistant cover
- New O.Rs. are wet areas unless ASC demonstrates otherwise through qualified risk assessment

- General care areas served by Type 2 EES or Type 1 EES
- Type 3 EES no longer applicable to new ASC
- Self-contained battery-powered emergency lights provided at new areas where deep sedation or general anesthesia used, at new transfer switch locations, at interior generator sets, and at central battery-source equipment locations
### 2012 NFPA 101/99 “code set” Ramifications for existing & new ASCs

**Electrical System**
- New patient care receptacle testing now addresses pull-retention force of the grounding blade alone
- Battery system alternate sources for Type 1 & 2 EES now follow NFPA 70 Article 700 (as opposed to NFPA 111)
- Optional loads on a new EES require a separate transfer switch that is subservient to the required EES loads

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**Electrical System**
- 36-inch working clearances around New interior alternate source generator sets
- Generator set engine jackets heated as specified by the manufacturer
- Annual load bank of diesel generators, when required, is for 90 minutes (30/50%; 60/75%)
- Generator sets tested for full duration or 4 hours, whichever is less, every 36 months.

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**Electrical System**
- Some types of sealed batteries now permitted for generator sets; but require supplemental testing
- Specific testing and maintenance parameters for main and feeder circuit breakers, main feed insulation resistance, generator set starting batteries, and minimum documentation thereof
Ramifications for existing & new ASCs

- New Type 1 EES
  - A little more flexibility in required Life Safety Vs. Critical branch loads

- New Type 2 EES
  - Very similar to Type 1; but only 2 branches are required (Life Safety and Equipment) – slightly reduced “critical loads” are part of Equipment branch with slightly reduced equipment loads.

- Type 3 EES (existing systems only)
  - Inspection, testing and maintenance of battery-based alternate sources of power per NFPA 111
2012 NFPA 101/99 “code set”
Ramifications for existing & new ASCs

▪ Interior finishes
  ▪ The total combined area of bulletin boards, posters, and paper attached to walls does not exceed 20% of the wall surface to which they are attached.

▪ Fire Alarm Systems
  ▪ Documentation of new system acceptance testing on specific NFPA 72 form “FIRE ALARM AND EMERGENCY COMMUNICATION SYSTEM RECORD OF COMPLETION”
  ▪ Records of completion updated to reflect changes to system over time
  ▪ Remote supplementary power supplies require dual sources of power, and smoke detection if in areas not continuously staffed

2012 NFPA 101/99 “code set”
Ramifications for existing & new ASCs

▪ Fire Alarm Systems
  ▪ Existing system manual pull devices may be located in natural path of travel near each required exit. New system requires pull device within 5 feet of each required exit door opening.
  ▪ When fire alarm system is out of service for more than 4 hours in a 24 hour period, the local AHJ is notified and the building is either evacuated or placed under a fire watch.
2012 NFPA 101/99 “code set”
Ramifications for existing & new ASCs

- **Fire Alarm Systems**
  - Inspection and testing very much like prior codes, with a wide variety of tasks required at various frequencies – basically a matrix based on the specific system design and installation
  - Allowances for automated testing of the fire alarm system, contingent on compliance with manual testing frequencies and tasks

2012 NFPA 101/99 “code set”
Ramifications for existing & new ASCs

- **Fire Alarm Systems**
  - Maintenance is performed in accordance with manufacturer’s recommendations
  - Documentation (paper or electronic) of inspection, testing and maintenance are retained for at least one year following the next periodic ITM activity

2012 NFPA 101/99 “code set”
Ramifications for existing & new ASCs

- **Smoke & Fire Separation**
  - New NFPA 101 section requires vertical as well as horizontal separation between ASCs and any other occupancy above, below, or beside it.
  - In non-sprinklered buildings most required separations are 2 hours. Applicable to all occupancies unless AHJ allows existing separations to remain. No direction from CMS as yet.
2012 NFPA 101/99 “code set”
Ramifications for existing & new ASCs

- Smoke & Fire Separation
  - Sealing of new penetrations in fire-rated surfaces must utilize a firestop system or device tested in accordance with ASTM814 or ANSI/UL 1479, with some exceptions that are little if any better.
  - Only cross-corridor smoke compartment doors (as opposed to doors from individual rooms) are required to have vision panels.

- Annual testing of fire and smoke doors
  - If it is labeled, it is subject to testing
  - Written records maintained and available
  - Visual inspection of both sides for overall condition of assembly
  - Clear floor space at both sides of opening
  - Functional testing by individuals with demonstrated knowledge of all components related to the fire and/or smoke door(s)

- Functional Testing per NFPA rqmts.
  - No open holes or breaks in either door face
  - Glazing integrity and installation
  - All hardware and components present and in working order with no visible damage
  - Clearances at head, sill and jambs
  - Closer operation and/or coordination
  - Latching hardware function and integrity
2012 NFPA 101/99 “code set”
Ramifications for existing & new ASCs

- Functional Testing per NFPA reqmts.
  - No attachments or alterations that interfere with function or rating
  - Power-operated door function
  - Signage as required
  - Egress control devices
  - Gasket inspection, if provided

- Portable Fire Extinguishers
  - Allowances for specific water-type extinguishers to substitute for 2-A or 4-A types
  - 10-B rated extinguishers required within 30-foot travel, or 20-B within 50 foot travel of any point in a room or area containing more than 5 gals of flammable liquids
  - Must be located along normal paths of travel

- Portable Fire Extinguishers
  - Allowances for electronic monitoring for monthly inspection
  - Any extinguisher removed from service for service or maintenance is immediately replaced with a like-rated unit for the duration of the service/maintenance
  - Hydrostatic testing of rechargeable extinguishers on 5-12 year interval as applicable to the specific type
### 2012 NFPA 101/99 “code set”
**Ramifications for existing & new ASCs**

**Building Services**
- New HVAC systems comply with ASHRAE 170, including system design, installation, and performance
  - Pressure relationships between adjacent spaces
  - Minimum fresh air per hour
  - Minimum total air changes per hour
  - Spaces requiring 100% exhaust
  - Acceptable/required humidity ranges
  - Acceptable/required temperature ranges

**Fire Emergency Plan**
- Requirements clarified to absolutely involve activation of audible alarm EXCEPT between the hours of 9:00 PM and 6:00 AM
- Fire drills forbidden to require movement of patients

**Behavioral Health Facilities**
- Minimum fresh air per hour
- Spaces requiring 100% exhaust
- Acceptable/required temperature ranges

**Smoke Detection**
- Smoke and fire dampers inspected and tested after installation, after 1 year, and every 4 years thereafter
- Acceptance testing of HVAC controls includes both normal and emergency power functions

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2012 NFPA 101/99 “code set”
**Ramifications for existing & new ASCs**

- Building Services
  - HVAC for ORs and other restricted areas continuously “on” including during normal power loss
  - Smoke and fire dampers inspected and tested after installation, after 1 year, and every 4 years thereafter
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2012 NFPA 101/99 "code set"  
Ramifications for existing & new ASCs

- Furnishings and Decorations
  - Except in rooms larger than 64 ft² and protected as hazardous areas, trash and soiled linen containers comply with the following:
    - Trash and soiled linen receptacles ≤32 gal.
    - Maximum ½ gal of trash or linen volume per SF room area
    - Mobile collection carts > 32 gal. are never left unattended outside of rooms protected as hazardous areas

Questions?

Send your inquiries to AAAHC:

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