NEW YORK STATE OF OPPORTUNITY. Department of Health

2017 NYS Healthcare Facilities Conference

Current Regulatory Conditions and Updated CON Submission Requirements

October 9, 2017

- **Introduction**
  - Baer Staff
  - Metrics

- **ASHRAE 2014 Updates (Included as reference only.)**

- **Fires in Healthcare Facilities Statistics (Included as reference only.)**

- **AER Submission Requirements for CON a review**
  - Electronic Reviews
  - Narrative Guidance
  - DSG's and Checklists
    - Triage of initial submission

  - Code Summary Comparison of NFPA 101 (Included as a reference only.)
    - 2000 Edition-2012 Edition

Intro & Presentation Outline

The Friendly faces of BAER

NEW YORK STATE OF OPPORTUNITY. Department of Health

If you had to ask two and a half questions in regards to CON's what would they be?

I know what your thinking.

1. Did NYDOH adopt the 2014 Edition of FGI?

2. Did CMS adopt the 2012 LSC?
   a) Is NYSDOH following CMS?

Non-Sense

01-Fun Facts

Metrics

Review Unit	Year	Received Total	Limited		Admin.		Full		SHC		Mod's		Waivers	
			No.	Days	No.	Days	No.	Days	No.	Days	No.	Days	No.	Days
AER	2014	105	33	**126**	34	**161**	38	**119**	31	**342**	23	*	318	**118**
	2015	128	54	**78**	41	**107**	33	**89**	90	**181**	32	*	217	**68**
	2016	158	54	**32**	65	**32**	39	**35**	117	**172**	43	**13**	131	**32**
	2017	140	70	**41**	50	**49**	20	**47**	99	**114**	40	**9**	111	**23**
DASNY	2014	41		**52**						**77**				
	2015	59		**50**						**56**				
	2016	53		**46**						**57**				
	2017	25	9	**52**	12	**59**	4	**44**		**51**				
AES	2014	260												
	2015	248												
	2016	311												
	2017	175												

* No data available

Reviews Submitted & Processed

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02-Self-Certification

Statistics

Year	Total AES Processed	Number Reassign to AER	%	Number of Waivers	Exceeded Project Cost	Not Allowed under AES	Non-Compliance w/pertinent standards	Non-Compliance w/Pertinent Standards No Reassignment to AER
2013	333	18	5.41	3	7	7	*	
2014	260	20	7.6	8	0	12	0**	
2015	355	4	1.01	2	0	2	***	3
2016	311	1	0.3	0	0	1	1	1
2017	102	0	0	0	0	0	0	0

* Not Documented During this Time Frame
** Partially Documented During this Time Frame
*** Documented during this Time Frame

AES Reassigned to AER

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Costs Associated with all Submitted Self-Certifications					
	2013	2014	2015	2016	2017
Projects under $100,000.00	69	39	35	34	33
Projects between $100,000.00 and $500,000.00	71	52	58	63	31
Projects between $500,000.00 and $1,000,000.00	41	38	35	42	25
Projects between $1,000,000.00 and $6,000,000.00	104	107	99	151	82
Projects between $6,000,000.00 and $15,000,000.00	15	9	15	13	4
Projects over $15,000,000.00	3	0	0	0	0
Total	303	245	242	304	175

Self-Certification Quick Facts

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03-ASHRAE 170 Table 7.1

Design Parameters

What's wrong with this picture.

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ASHRAE Table 7-1 Design Parameters														
Function of Space	Pressure Relationship to Adjacent Areas (n)	Min. Outdoor ach	Min. Total ach	All Room Air Exhausted Directly to Outdoors (j)		Air Recirculated by Means of Room Units (a)		RH (k), %	Design Temperature (l),°F/°C	Current Reference Standard		Referenced Standard	Modified	
				Yes	N/R	No	N/R			Yes	No		Yes	No
SURGERY AND CRITICAL CARE														
Classes B and C operating rooms, (m), (n), (o)	+	4	20		•	•		30-60	68-75/20-24		•	2010 FGI		
Classes B and C operating rooms, (m), (o)	**+**	**4**	**20**		•	•		**20-60**	**68-75/20-24**	•		**ASHRAE addendum e**	•	
Operating/Surgical cystopic rooms, (m),(n)(o)	+	4	20		•	•		30-60	68-75/20-24		•	2010 FGI	N/A	
Operating/Surgical cystopic rooms, (m),(o)	**+**	**4**	**20**		•	•		**20-60**	**68-75/20-24**	•		**ASHRAE addendum e**	•	
Substerile service area	N/R	2	6		•	•		N/R	N/R		•	2010 FGI	N/A	
Recovery room	N/R	2	6		•	•		30-60	70-75/21-24		•	2010 FGI	N/A	
Recovery room	**N/R**	**2**	**6**		•	•		**20-60**	**70-75/21-24**	•		**2014 FGI**	•	
Medical/anesthesia gas storage (r)	-	N/R	8	·			·	N/R	N/R		•	2010 FGI	N/A	
Laser eye room	+	3	15		•	•		30-60	70-75/21-24		•	2010 FGI	N/A	
Laser eye room	**+**	**3**	**15**		•	•		**20-60**	**70-75/21-24**	•		**2014 FGI**	•	
Class A Operating/ Procedure room (o)(d)	+	3	15		•	•		30-60	70-75/21-24		•	2010 FGI	N/A	
Procedure (Class A Operating) room (o)(d)	**+**	**3**	**15**		•	•		**20-60**	**70-75/21-24**	•		**2014 FGI**	•	

ASHRAE 170 Table 7.1 Design Parameters

NEW YORK STATE OF OPPORTUNITY. Department of Health

ASHRAE Table 7-1 Design Parameters														
Function of Space	Pressure Relationship to Adjacent Areas (n)	Min. Outdoor ach	Min. Total ach	All Room Air Exhausted Directly to Outdoors (j)		Air Recirculated by Means of Room Units (a)		RH (k), %	Design Temperature (l),°F/°C	Current Reference Standard		Referenced Standard	Modified	
				Yes	N/R	No	N/R			Yes	No		Yes	No
DIAGNOSTIC AND TREATMENT														
Endoscopy	+	2	15		•	•		30-60	68-73/20-23		•	2010 FGI	N/A	
Gastrointestinal endoscopy procedure room (x)	N/R	2	6		•	•		20-60	68-73/20-23	•		2014 FGI	•	
Endoscope cleaning	-	2	10	•		•		N/R	N/R	•		2010 FGI		•
Treatment room	N/R	2	6		•		•	Max 60	70-75/21-24	•		2010 FGI		•
STERILIZING														
Sterilizer Equipment Room	-	N/R	10	•		•		N/R	N/R	•		2010 FGI		•
CENTRAL MEDICAL AND SURGICAL SUPPLY														
Soiled or decontamination room	-	2	6	•			•	N/R	72-78/22-26	•		2010 FGI		•
Clean workroom	+	2	4		•	•		Max 60	72-78/22-26	•		2010 FGI		•
Sterile storage	+	2	4		•		•	Max 60	72-78/22-26	•		2010 FGI		•

ASHRAE 170 Table 7.1 Design Parameters

NEW YORK STATE OF OPPORTUNITY. Department of Health

ASHRAE Table 7-1 Design Parameters														
Function of Space	Pressure Relationship to Adjacent Areas (n)	Min. Outdoor ach	Min. Total ach	All Room Air Exhausted Directly to Outdoors (j)		Air Recirculated by Means of Room Units (a)		RH (k), %	Design Temperature (l),°F/°C	Current Reference Standard		Referenced Standard	Modified	
				Yes	N/R	No	N/R			Yes	No		Yes	No
SERVICE														
Laundry, general	-	2	10	•		•		N/R	N/R	•		2010 FGI		•
Soiled linen sorting and storage	-	N/R	10	•		•		N/R	N/R	•		2010 FGI		•
Clean linen storage	+	N/R	2		•		•	N/R	72-78/22-26	•		2010 FGI		•
Linen and trash chute room	-	N/R	10	•		•		N/R	N/R	•		2010 FGI		•
Bedpan room	-	N/R	10	•		•		N/R	N/R	•		2010 FGI		•
Bathroom	-	N/R	10	•		•		N/R	72-78/22-26	•		2010 FGI		•
Janitor's closet	-	N/R	10	•		•		N/R	N/R	•		2010 FGI		•
SUPPORT SPACE														
Soiled Workroom or Soiled Holding	-	2	10	•		•		N/R	N/R	•		2010 FGI		•
Clean Workroom or clean holding	+	2	4		•		•	N/R	N/R	•		2010 FGI		•
Hazardous Material Storage	-	2	10	•		•		N/R	N/R	•		2010 FGI		•

ASHRAE 170 Table 7.1 Design Parameters

NEW YORK STATE OF OPPORTUNITY. Department of Health

U.S. Structure Fires in Health Care Facilities*

Referenced Source of information is from NFPA, Research, Structure Fires in Health Care Facilities, September 2016, Author Richard Campell

- **Between 2009-2013 estimated 5,650 Structure Fires**
  - Annual civilian deaths, 4 (four).
  - Annual civilian injuries, 160 (one hundred and sixty)
  - Direct property damage is $44.9 million.

- **Nursing Home fires accounted for 46%.**
  - Fires in nursing homes had a higher share of civilian deaths and injuries, with less property damage, compared to other health care facilities.
- Mental Health Facilities accounted for 22% of the fires.
- Hospitals and Hospice Facilities accounted for 21% of the fires.
- Clinics and or doctor's office only had 11% incidences of fire.

Statistics and Metrics

- Fires in healthcare facilities accounted for only of 1.2 % of fires between 2009-2013. The total number of fires is approximately 483,000, only 5,650 fires in health care related facilities.
- **Many of the fires are considered small. Only four percent (4%) spread beyond the room of origin.**
- Leading cause of fires is Cooking equipment (65% of fires).
    - Cooking equipment fires accounted for just 5% of direct property damage.
    - Most fires are confined.
    - Six percent (6%) of the fires were intentionally set.
    - Five percent (5%) Electrical distribution and lighting equipment, the cause of fires.
    - Five percent (5%) Heating equipment
    - Five percent (5%) Smoking materials.
    - Thirty four percent (34%) of property damage, caused by electrical distribution and lighting equipment.
    - Clothes dryers caused 4% of fires.

Statistics and Metrics

- Between 2009-2013, there were an estimated 5,650 fires in health care properties accounted for 1.2% of the reported 483,000 structure fires.
    - The fires in health care properties accounted for 0.2% of the 2,680 civilian structure fire deaths
    - 1.1% of the 14,910 civilian structure fire injuries, and 0.5% of the $9.9 billion in direct property loss.
    - Structure fires in health care facilities have been decreasing over the past decade. T
    - **The most recorded fires was in 2003 with 6,830 fires.**
    - The number of recorded fires fell every year from 2006 to 2011.
    - **An increase in 2013 for reported fire. There were 5,710 fires in 2013.**
    - Fires in nursing homes accounted for a higher share of civilian deaths and injuries.
    - But smaller share of direct property damage, relative to other health care facilities.

- Fires occurring in nursing homes accounted for 46%
- Had a civilian injuries rate of 63%,
- Only 20% of direct property damage occur with nursing home.
- Clinics and doctors' offices had the smallest percentage of fires, had the largest share of property damage (54%),
- Mental health facilities had 22% of fires, but just 9% of civilian injuries and 6% of direct property damage.

Occupancy	Fires		Civilian Deaths		Civilian Injuries		Direct Property Damage (In Millions)	
	Number	Percentages	Number	Percentages	Number	Percentages	Numbers	Percentages
Nursing Home	2,620	(46%)	3	(71%)	101	(63%)	$8.9	(20%)
Mental Health Facility	1,220	(22%)	0	(6%)	15	(9%)	$2.7	(6%)
Hospital or Hospice	1,200	(21%)	0	(11%)	37	(23%)	$8.9	(20%)
Clinic or doctor's office	610	(11%)	0	(12%)	7	(4%)	$24.4	(54%)
Total	5,650	(100%)	4	(100%)	160	(100%)	$44.9	(100%)

Structure Fires in Healthcare Facilities, Occupancy Type

NEW YORK STATE OF OPPORTUNITY. Department of Health

Year	Fires	Civilian Deaths	Direct Property Damage (in Millions)	Direct Property Damage (in Millions) in 2013 Dollars
2003	6,830	57	$35.6	$45.2
2004	6,680	6	$31.8	$39.3
2005	6,420	6	$34.3	$41.0
2006	6,710	6	$39.0	$45.1
2007	6,670	5	$40.7	$45.7
2008	**6,320**	8	**$83.4**	**$90.4**
2009	5,960	8	$56.5	$61.4
2010	5,540	4	$40.7	$43.5
2011	5,440	1	$31.82	$33.0
2012	5,630	6	$51.6	$52.5
2013	5,710	2	$43.8	$43.8

Structure Fires in Healthcare Facilities by Year 2003-2013

NEW YORK STATE OF OPPORTUNITY. Department of Health

Year	Fires	Civilian Injuries	Direct Property Damage (in Millions)	Direct Property Damage (in Millions) in 2013 Dollars
2003	2,950	**142**	$9.0	$11.4
2004	2,970	99	$6.5	$8.0
2005	2,750	129	$4.9	$5.8
2006	2,970	123	$12.8	$14.8
2007	**3,060**	**130**	$6.3	$7.1
2008	**3,000**	**103**	**$30.0**	**$32.5**
2009	2,660	92	$8.0	$8.7
2010	2,510	104	$8.0	$8.6
2011	2,510	61	$4.7	$4.8
2012	2,680	106	$10.6	$10.8
2013	2,730	**142**	$13.2	$13.2

Structure Fires in Nursing Homes by Year 2003-2013

Year	Fires	Civilian Injuries	Direct Property Damage (in Millions)	Direct Property Damage (in Millions) in 2013 Dollars
2003	**1,640**	27	$10.0	$12.7
2004	1,560	12	$3.1	$3.8
2005	1,580	**46**	$2.7	$3.2
2006	1,610	30	$6.0	$6.9
2007	1,520	28	$12.2	$13.7
2008	1,450	23	$8.4	$9.1
2009	1,360	**49**	$7.7	$8.4
2010	1,200	31	$3.3	$3.5
2011	1,110	30	$2.4	$2.5
2012	**1,150**	**48**	**$23.0**	**$23.4**
2013	1,190	27	$8.4	$8.4

Structure Fires in Hospitals by Year 2003-2013

- **The leading factor for fires in healthcare facilities is Unattended equipment.**

- One-fifth of fires (18%) were associated with unattended equipment.
    - Most of these were confined fires that caused a small amount direct property damage (1% of total).

- An electrical failure of malfunction contributed to 12% of the fires, with 19% of civilian injuries and over one-third (35%) involving direct property damage.

- Another leading factor contributing to fire ignition includes,

    - Unclassified misuse of material or product (11%),
    - Abandoned or discarded material or product (11%),
    - Mechanical failure or malfunction (10%)
    - Heat source too close to combustibles (9%).

- Over one-fifth (22%) of civilian injuries were associated with fires in which unclassified misuse of material or product was a factor, and three of four civilian deaths (64%) were associated with the fires in which a heat source too close to combustibles was a factor contributing to the fire.

Structure Fires in Healthcare Facilities, Causes

- **Half of the fires in health care facilities involved either unclassified heat from powered equipment (26%) or radiated or conducted heat from operating equipment (24%) as a heat source.**
    - Other leading heat sources included heat sources that were unclassified (10%)
    - Arcing (8%)
        - The 8% of fires in which arcing served as the heat source caused 21% of direct property damage.
    - Unclassified hot or smoldering objects (7%)
    - Sparks, embers, or flames from operating equipment (6%).

Structure Fires in Healthcare Facilities, Causes

- **The kitchen is the leading area of origin of fires in health care facilities.**
    - Over half (53%) of fires in health care facilities began in the kitchen or cooking area.
        - These fires were mainly confined fires and accounted for just 4% of direct property damage.
    - More leading areas of origin were a laundry room or area (6%)
    - Bedroom or patient room (5%),
        - While fires that began in a bedroom or patient room represented just 5% of the total, they accounted for 38% of civilian injuries.
    - Lavatory, bathroom, locker room, or check room (4%).
- **Consistent with the large share of fires related to cooking, the leading item first ignited in health care facility fires was cooking materials, with 43% of total.**
    - The second leading item first ignited was electrical wire or cable insulation, accounting for 7% of fires, but 20% of direct property damage.
    - Other leading items first ignited were unclassified items (6%) and rubbish, trash, or waste (6%).

- **Most fires in health care facilities were limited in their spread.**
    - More than five of every six fires (85%) were confined to the object of origin
    - Another 11% of fires were confined to the room of origin, although these fires were associated with approximately half (49%) of civilian injuries and 25% of direct property damage.
    - Fires that extended beyond the room of origin, 1% were confined to the floor of origin and 3% to the building of origin.
- **Sprinklers provide protection for health care properties.**
    - NFPA's reports to the U.S. experience with sprinklers, indicated 57% of health care properties had some form of sprinkler protection during 2007-2011.
    - The report indicates that there was a 65% estimated reduction in direct property damage from fires in health care properties between 2007-2011 compared to health care properties that had no automatic extinguishing equipment.

- **Most fires in Nursing Homes occur in January, 250 is the reported number.**
    - June and July have less fires than any other month, only 190 were reported.
    - Sundays are more likely to have a fire. 420
    - Mondays, least likely to have a fire. 350

- **Most Fires in hospitals occur during March, 120 fires reported during that month.**
    - July and September had the least amount of fires. 90 fires reported during that month.
    - Tuesdays are more likely to have a fire. 830
    - Saturday and Mondays, least likely to have a fire. 790

Proposed Electronic Submissions

- **Not officially adopted, not required at this time.**
  - Format type is being considered.

- **Can be used for the following reviews, CON reviews, Modifications and Waivers.**
  - Also, an opportunity for assisted living, long term care and CCU unit to review plans and comments, without having to go into another software application.
  - Eliminates 100% of writing, e-mailing and sending hard copy via US mail RFI's out for modifications.
  - The ability to process waivers in shorter time frames, eliminating the need to have frequent phone calls and emails for waivers.
  - Waiver RFI's and or comments can be saved as a PDF and uploaded into the shared Drive and or waiver database.

- **Plan review and tracking reduced by 30%-40%.**
  - Reduction of telephone calls and telephone conferences.
  - Eliminates time to collate and reconcile comments.
  - All information is in one project folder.

Proposed Electronic Reviews Benefits

- The ability for the regional offices to view comments in the event they have any questions regarding the plans during survey.
- No Costs associated to the applicants.
- Accountability
- Easy to use.
- No more lost drawings, missing files or delays to PMU from the applicant.
- Less staff involved in processing documents.
- Less errors in responses.
- Reduces RFI time by a min. 13 days per RFI.
- Significant savings in reduction of required storage and maintenance.
- Eliminates paper and emails.
- No to very little paper to purchase.
- Reduces 90% of emails.

Proposed Electronic Reviews Benefits

- Environmentally friendly.
- Reduces document transmission time.
- Consistency in requesting information.
- Reduction of generating RFI's is approximately decreased by 30%.
- Writing RFI reduction in time is 30%.
- Cut and paste from DOH Checklists into electronic review, without having to format word document.
- RFI does not have to be uploaded into NYSECON.
- All Correspondence regarding RFI's is in NYSECON and eliminates, miscellaneous e-mails and lost communications.
- Streamlines the review process with real-time Communication.
- Improved reviews.
- Consistent format.
- Documented when comments were sent and received.

Proposed Electronic Reviews Benefits

- Don’t scan drawings and upload into NYSECON.
  - Save drawings as a PDF in lieu of plotting

  - Sort, Select and Upload drawings applicable for a review.
    - For example; structural drawings are not required.

Narrative Guidance

- **Updated Schedule 6**
  - Physicist letter required and design development not at schematic design. Includes all projects involving Diagnostic Radiology, Computed Tomography, Interventional Imaging, Radiation Therapy Facilities, Proton Therapy, Nuclear Medicine and or MRI facilities.

Detailed Architectural Narrative- Schedule 6

- **The narrative doesn’t agree with the plans submitted.**
  - Purpose/need
  - Site Location
  - Brief description of current facility.
  - Facility Type
    - Hospital/Nursing Home
    - Ambulatory Healthcare
    - Business Occupancy
  - Occupancy Type for each occupied space or area
  - Construction Type
  - Building height
  - Number of stories
    - Is it located in a high-rise?
    - Is it located in a basement or underground building?

Detailed Architectural Narrative

- **Brief description of proposed facility.**
  - Addition, Alteration and or Renovation
  - Square footages of existing floor and or building.
  - Square footages of proposed work.
  - Does the area of work exceed more than 50% of the area, floor or building?
  - Does the proposed project require any exceptions to the referenced standards?

- **Sprinklered?**
  - Sprinklered Throughout, Partially Sprinklered and or NonSprinklered.

- **High-Rise Building**
  - Does the building have a generator?
  - Sprinklered throughout?

- **EES System**
  - Does the building have an EES system, if so what Type?

- **Fire Detection, Alarm and Communication System**
  - *Describe existing system*
  - *Describe proposed system*

Detailed Architectural Narrative

- **Brief description of proposed HVAC system.**
- **Brief description of existing non-conforming conditions, if any.**

Detailed Architectural Narrative

Stamped & Sealed Drawings

- **Part 710 Approval of Medical Facility Construction**

- **710.1 General provisions.**
  - (8)(d) All drawings and specification shall bear the seal and signature of an architect or engineer licensed to practice in New York State. The commissioner may waive this requirement when the construction cost is less than $10,000 in value, unless otherwise provided in this Part.

Stamped & Sealed Documents

Submission Requirements

Updated DSG's

- **Checklists(DSG's) and the improvements seen**
  - Submission quality has increased
  - Less RFI's are being developed
  - Improvement in review times.

Updated DSG's

Design Guideline Submission Requirements		
General Submission Requirements	DSG	Name
Drawing Submission Requirements for Schematic Design and Design Development for all Facility Types	1.0	Drawing Requirements
Facility Types		
Hospitals		
Life Safety Code Design Guideline Submission Requirements	18.0	Healthcare
	20.0	Ambulatory Healthcare
	38.0	Business
General Hospitals(FGI) Programmatic Design Submission Requirements	2.2.2	Nursing Units
	2.2.3	Diagnostic and Treatment Facilities
	2.2.4	Patient Support Facilities
	2.2.5	General Support Facilities
Critical Access Hospitals	2.4.0	
Psychiatric Hospitals	2.5.0	
Rehabilitation Hospitals & Other Facilities	2.6.0	
Children's Hospitals	2.7.0	

Outpatient Facilities

Life Safety Code Design Guideline Submission Requirements	20.0	Ambulatory Healthcare*
	38.0	Business
Outpatient Facilities(FGI) Programmatic Design Submission Requirements	3.2.0	Primary Care Facilities
	3.3.0	Freestanding Outpatient Diagnostic and Treatment Facilities**
	3.4.0	Freestanding Birth Centers
	3.5.0	Freestanding Urgent Care Facilities
	3.6.0	Freestanding Cancer Treatment Facilities
	3.7.0	Outpatient Surgical Facilities*
	3.8.0	Reserved
	3.9.0	Endoscopy Facilities*
	3.10.0	Renal Dialysis Centers
	3.11.0	Outpatient Psychiatric Centers
	3.12.0	Outpatient Rehabilitation Therapy Facilities
	3.13.0	Mobile, Transportable, and Relocatable Units
	3.14.0	Dental Facilities

Long Term Care		
Life Safety Code Design Guideline Submission Requirements	18.0	Healthcare
Residential Health, Care and Support Facilities(FGI) Programmatic Design Submission Requirements	4.2.0	Nursing Homes
	4.3.0	Hospice

See DSG-00 Word Document

See Drawing Requirements DSG-1.0 Schematic Design & Design Development

Word Document

See DSG-2.18 Healthcare Facilities
See DSG-3.20 New Ambulatory Care Facilities
See DSG-3.38 Business Occupancies

Go to Word Document

See DSG-3.2.0 Primary Care
See DSG-3.3.0 Outpatient Diagnostic & Treatment
See DSG-3.4.0 Freestanding Birth Centers
See DSG-3.5.0 Urgent Care Facilities
See DSG-3.6.0 Cancer Treatment Facilities
See DSG-3.7.0 Outpatient Surgical Facilities
See DSG-3.9.0 Endoscopy Facilities
See DSG-3.10.0 Renal Dialysis Centers
See DSG-3.11.0 Outpatient Psychiatric Facilities
See DSG-3.12.0 Outpatient Rehabilitation Therapy Facilities
See DSG-3.13.0 Outpatient Dental Facilities

What about Hospitals, Nursing Homes and Others

- Work in progress scheduled to be completed by the end of 2017.
- Will be posted as each section is completed.

Code Summary Comparison

2000 Edition LSC & 2012 LSC for New Buildings

DSG-00

CODE SUMMARY HEALTH CARE NEW BUILDINGS

This code summary is based on the following codes:

- 2000 Edition NFPA 101, The Life Safety Code (LSC), as adopted by CMS
- 2012 Edition NFPA 101, The Life Safety Code (LSC), as adopted by CMS
- 1999 Edition of NFPA 99, Standard for Health Care Facilities as referenced by 2000 NFPA 101
- 1999 Edition of NFPA 13, Standard for the Installation of Automatic Sprinkler Systems as referenced by 2000 NFPA 101

This code summary is based on the following assumptions:

- The building is designated as Healthcare/I-2.
- The building is protected throughout by an automatic sprinkler system using quick response sprinklers.
- The building is four stories (non-highrise).
- Addresses code requirements for a New Health Care Occupancy only.

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
Occupancy	Occupancy Classification	Healthcare (6.1.5.1.)	Healthcare (6.1.5.1.)
Construction Type	Minimum Construction Type	Type II (222) (Table 18.1.6.2)	Type II (222) **(Table 18.1.6.1)**
Height & Area Limits	Maximum Height Allowed Allowable Area Maximum No. of Stories	N/A N/A 4 Stories (Table 18.1.6.2)	N/A N/A 4 Stories (Table 18.1.6.1) **Basements shall not be considered a Story**
Fire Resistance Ratings of Exterior Walls	To Lot Line or Imaginary Line	N/A	N/A
Specific Occupancy Requirements for Group I-2	Corridors in I-2	Corridors shall be separated from all other areas by partitions complying with 18.3.6.2 through 18.3.6.5 unless otherwise permitted (18.3.6.1)	Corridors shall be separated from all other areas by partitions complying with 18.3.6.2 through 18.3.6.5 unless otherwise permitted(18.3.6.1)
	Waiting areas off Corridors	Waiting areas and similar spaces located off corridors are permitted to be open to the corridor provided the waiting area does not exceed 600 sf and is protected by an electrically supervised automatic smoke detection system in accordance with 18.3.4. Each area shall be arranged to allow direct supervision by facility staff and does not obstruct access to exits. (18.3.6.1)	Waiting areas and similar spaces located off corridors are permitted to be open to the corridor provided the waiting area does not exceed 600 sf and is protected by an electrically supervised automatic smoke detection system in accordance with 18.3.4.Each area shall be arranged to allow direct supervision by facility staff and does not obstruct access to exits. (18.3.6.1)

Code Summary Comparison

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
	Nurses' Stations off Corridors	Nurse stations do not need to be separated (18.3.6.1(3))	Nurse stations do not need to be separated (18.3.6.1(3))
	Mental Health Treatment (Areas Open to Corridors)	N/A	N/A
	Smoke Compartments:	Every story used by patients for sleeping or treatment and other stories with an occupant load of 50 or more must be divided into at least two smoke compartments constructed as smoke barriers.(18.3.7.1)	Every story used by patients for sleeping or treatment and other stories with an occupant load of 50 or more must be divided into at least two smoke compartments constructed as smoke barriers. (18.3.7.1)
		Not required where: 1. stories contain a health care occupancy, located totally above the health care 2.Separated, non-healthcare occupancies occupancies more than one story below the healthcare floor 3. Open air parking structures protected by a sprinkler system.(18.3.7.2)	Not required where: 1. stories contain a health care occupancy, located totally above the health care 2. Separated, non-healthcare occupancies occupancies more than one story below the healthcare floor 3. Open air parking structures protected by a sprinkler system.(18.3.7.2)
	Smoke Compartment Size	Compartment sizes may not exceed 22,500 s.f. and the travel distance from any point in a smoke compartment to a smoke barrier door may not exceed 200 feet. Smoke barriers must comply with Section 8.3 and be no less than 1 hour rated (18.3.7.1 and 18.3.7.3)	Compartment sizes may not exceed 22,500 s.f. and the travel distance from any point in a smoke compartment to a smoke barrier door may not exceed 200 feet. Smoke barriers must comply with Section 8.5 and be no less than 1 hour rated (18.3.7.1 and 18.3.7.3)
	Smoke Compartment Refuge Area	Provide at least 30 net sq. feet per patient within corridors, patient rooms, lounge or dining , other low hazard areas on each side of the smoke barrier. (18.3.7.4)	Provide at least 30 net sq. feet per patient within corridors, patient rooms, lounge or dining , other low hazard areas on each side of the smoke barrier. (18.3.7.5.1)

Code Summary Comparison

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
		For floors not housing bed or litter patients , provide 6 net square feet per occupant on each side of smoke barrier for the total number of occupants in adjoining smoke compartments. (18.3.7.4)	For floors not housing bed or litter patients , provide 6 net square feet per occupant on each side of smoke barrier for the total number of occupants in adjoining smoke compartments. (18.3.7.5.2)
	Smoke Compartment Independent Egress	Not less than two exits of the types described in 18.2.2.2 through 18.2.2.10 shall be accessible from each smoke compartment(s) and shall not require return through the compartment of fire origin (18.2.4.3)	Not less than two exits of the types described in 18.2.2.2 through 18.2.2.10 shall be accessible from each smoke compartment(s) and shall not require return through the compartment of fire origin (18.2.4.3)
	Smoke Compartment Sprinkler System	Listed quick-response or listed residential sprinklers shall be used throughout smoke compartments containing patient sleeping areas (18.3.5.2 - See Appendix)	Listed quick-response or listed residential sprinklers shall be used throughout smoke compartments containing patient sleeping areas (18.3.5.6 - See Appendix)
Fire Resistive Requirements	Corridors	Must limit the transfer of smoke (18.3.6.2)	**Must limit the transfer of smoke (18.3.6.2.3)**
	Smoke Barriers	1-hour smoke barrier (18.3.7.3)	1-hour smoke barrier (18.3.7.3)
		Smoke barriers must be continuous from wall to wall, barrier to barrier, or from floor to floor and through concealed spaces. (8.3.2)	**Smoke barriers must be continuous from wall to wall, barrier to barrier, or from floor to floor and through concealed spaces. (8.5.2)**
	Doors in smoke barriers shall be self or automatic closing. Latching hardware is not required. Stops shall be provided at the head and sides of door frames. Rabbets, bevels, or astragals to be provided at the meeting edges of pairs of doors. Center mullions prohibited		**18.3.7.8**

Code Summary Comparison

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
	Shaft Enclosures (Connecting 4 or More Stories)	2-hour fire barrier(8.2.5.4(1))	2-hour fire barrier (8.6.5(1))
	Shaft Enclosures (Connecting 4 or More Stories)	2-hour fire barrier (8.2.5.4(1))	2-hour fire barrier (8.6.5(1))
	Shaft Enclosures (Connecting 3 Stories or Less)	1-hour fire barrier Connecting up to 3 stories (8.2.5.4(2))	1-hour fire barrier Connecting up to 3 stories (8.6.5(2))
	Exit Stair Enclosures (Connecting 4 or more Stories)	2-hour fire barrier (7.1.3.2.1(b))	2-hour fire barrier (7.1.3.2.1(2))
	Exit Stair Enclosures (Connecting 3 Stories or Less)	1-hour fire barrier (7.1.3.2.1(a))	1-hour fire barrier (7.1.3.2.1(1))
	Exit Passageways	Fire barrier with same rating as that for the exit stair enclosure that it serves. (7.2.6.2)	Fire barrier with same rating as that for the exit stair enclosure that it serves. (7.2.6.2)
	Horizontal Exit wall	2-hour fire barrier and barrier must continue to grade level unless all stairs discharge directly to outside and floor with horizontal exit does not have an unprotected vertical opening. (7.2.4.3.1)	2-hour fire barrier and barrier must continue to grade level unless all stairs discharge directly to outside and floor with horizontal exit does not have an unprotected vertical opening. (7.2.4.3.1 and 7.2.4.3.3)
	Horizontal Exit Opening Protection (doors)	1- 1/2 hours (8.2.3.2.3)	1- 1/2 hours (Table 8.3.4.2)
	Permitted Unprotected Floor Openings. (Unless permitted by the code all floor openings to be protected as noted above for a shaft.) (711)	Communicating space is permitted by 18.3.1.1 Unprotected floor openings permitted provided: 1. Connects no more than 2 adjacent stories 2. Is separated from floor opening serving other floors 3. Separated from corridors 4. Shall not serve as a required means of egress (8.2.5.5)	Permitted provided the following: 1. Connects no more than two adjacent floors 2. Is separated from floor openings serving other floors 3. Opening is separated from corridors 4. Convenience openings shall be separated from by a smoke partition. 4. Opening is not part of a required exit path.(8.6.8.2)

Code Summary Comparison

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
	Horizontal Assemblies	Required by NFPA 220	Required by NFPA 222
	Horizontal Assemblies (Fire Resistive Rating)	N/A	N/A
	Exterior Walls	N/A	N/A
	Elevator Lobbies	Required if used for occupant evacuation. Shall meet the following: very floor served by the elevator shall have an elevator lobby and form a 1- hour barrier in accordance with 8.5 (7.2.13.3)	Required if used for occupant evacuation. Shall meet the following: very floor served by the elevator shall have an elevator lobby and form a 1- hour barrier in accordance with 8.5 (7.2.13.3)
	Fire-Resistance Ratings of Structural Members	Structural members supporting the 2 hour floor assembly shall have the resistance rating required of the building (18.1.6.2(b))	**Structural members supporting the 2 hour floor assembly shall have the resistance rating required of the building (18.1.6.2(3)) Roof covering shall meet ASTM E 108 or ANSI/UL 790 for 18.1.6.2 and 18.1.6.3**
	Ducts and Air Transfer Openings	Smoke dampers shall not be required in duct penetrations of smoke barriers in fully ducted heating, ventilating, and air conditioning systems. (18.3.7.3(2))	Smoke dampers shall not be required in duct penetrations of smoke barriers in fully ducted heating, ventilating, and air conditioning systems. (18.3.7.3(2))
Opening Protectives		New Health Care - Doors protecting corridor openings shall be constructed to resist the passage of smoke. Bottom clearance shall not exceed 1 inch. Doors shall have positive latching hardware and no roller latches. (18.3.6.3.1 and 18.3.6.3.2)	New Health Care - Doors protecting corridor openings shall be constructed to resist the passage of smoke. Bottom clearance shall not exceed 1 inch. Doors shall have positive latching hardware and no roller latches. (18.3.6.3.1 and 18.3.6.3.5)
	2- hour Elevator Hoistways	1-1/2 hour (8.2.3.2.3.1)	1-1/2 hour (Table 8.3.4.2)
	1- hour Elevator Hoistways	1-hour (8.2.3.2.3.1)	1-hour (Table 8.3.4.2)
	2-hour Vertical Shafts (including stairways, exits, and chutes)	1-1/2 hour (8.2.3.2.3.1)	1-1/2 hour (Table 8.3.4.2)
	1-hour Vertical Shafts (including stairways, exits, and chutes)	1-1/2 hour (8.2.3.2.3.1)	1- hour (Table 8.3.4.2)
	2- hour Fire Barriers	1-1/2 hour (8.2.3.2.3.1)	1-1/2 hour (Table 8.3.4.2)
	1- hour Fire Barriers	3/4 hour (8.2.3.2.3.1)	3/4 hour (Table 8.3.4.2)

Code Summary Comparison

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
	2- hour Horizontal Exits	1-1/2 hour (7.2.4.3.2 and 8.2.3.2.3)	**1-1/2 hour (Table 8.3.4.2)**
	Smoke Barriers	20 minutes (8.2.3.2.3.1)	**21 minutes (Table 8.3.4.2)**
	Fire Window Assembly	8.2.3.2.2	**8.3.3.2**
Occupancy Separations	Non-separated Uses	Occupancy separation is not required when the entire building meets the most restrictive requirements of each individual occupancy. (A3.3.134.10 and 6.1.14.2)	**Occupancy separation is not required when the entire building meets the most restrictive requirements of each individual occupancy. (6.1.14.3.2)**
	Boiler and fuel-fired heater rooms	1 hour (Table 18.3.2.1)	1-Hour (18.3.2.1)
	Central bulk laundries more than 100 sf	**1 hour (Table 18.3.2.1)**	**2 hour (Table 18.3.2.1)**
	Laboratories employing flammable or combustible materials in quantities less than that which would be considered severe.	Smoke tight and self-closing (18.3.2.1)	Smoke tight and self-closing (18.3.2.1)
	Laboratories that use hazardous materials that would cause classification as a severe hazard in accordance with NFPA 99 "Standard for Health Care Facilities"	See 18.3.6.3.11 (Table 18.3.2.1)	See 18.3.6.3.11 (Table 18.3.2.1)
	Paint Shops not classified as an H occupancy	1 hour (Table 18.3.2.1)	1 hour (Table 18.3.2.1)
	Physical Plant Maintenance shops	1 hour able 18.3.2.1)	1 hour (Table 18.3.2.1)

Code Summary Comparison

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
	Soiled Linen Room	1 hour (Table 18.3.2.1)	1 hour (Table 18.3.2.1)
	Waste/trash collection	1 hour (Table 18.3.2.1)	1 hour (Table 18.3.2.1)
	Refuse(waste) & Laundry Chutes	See Section 9.5 Chute charging or discharging room require max 1-hour fire rating. Enclosed by walls or partitions in accordance with 8.2. Inlet openings in accordance with 8.2. Installed and maintained in accordance with NFPA 82: Standard on Incinerators and Waste Linen Handling Systems and Equipment. (9.5 and 18.5.4)	See Section 9.5 Chute charging or discharging room require max 1-hour fire rating. Enclosed by walls or partitions in accordance with 8.3. Inlet openings in accordance with 8.3. Installed and maintained in accordance with NFPA 82: Standard on Incinerators and Waste Linen Handling Systems and Equipment. (9.5 and 18.5.4)
		Any trash chute shall discharge into a trash collection room used for no other purpose and protected in accordance with section 8.4 (18.5.4.3)	Any trash chute shall discharge into a trash collection room used for no other purpose and protected in accordance with section 8.7 (18.5.4.4)
	Storage rooms between 50-100 sf of combustible materials	Smoke tight and self-closing. (18.3.2.1)	Smoke tight and self-closing. (18.3.2.1)
	Storage rooms greater than 100 sf of combustible materials	1 hour (Table 18.3.2.1)	2 hour (Table 18.3.2.1)
	Gift shops less than 500 sf and not considered hazardous	No separation required. (18.3.2.5)	No separation required. (18.3.6.1(4))
	Gift shops with combustible loading considered hazardous	1 hour (8.4.1.1)	2 hour (8.7.1)
	Non-flammable gas storage including oxidizers	1 hour (NFPA 99:4-3.1..1.2(a)2)	2 hour (NFPA 99:4-5.1.3.3.2(4))

Code Summary Comparison

NEW YORK STATE OF OPPORTUNITY. Department of Health

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
	Electrical rooms with transformers greater than 112.5 kVA	1 hour NFPA 70-2005: 450.21(b))	2 hour(NFPA 70-2005: 450.21(b))
	Generator Rooms	Emergency Power 7.2.3.12 One hour separation and two hour fuel supply	Emergency Power 7.2.3.12 One hour separation and two hour fuel supply
Interior Finish Maximum Flame Spread	Interior Wall & Finish Systems	May comply with NFPA 355 or 286 (10.2.3)	In accordance with ASTEM E84 or ANSI/UL 723 (10.2.3)
	Interior Wall Finish Based on Group I- 2	Permitted throughout if Class A or B and compliant with 10.2 (18.3.3.2)	Permitted throughout if Class A or B and compliant with 10.2 (18.3.3.2)
	Maximum smoke developed	0-450 (Table A.10.2.2)	0-450 (Table A.10.2.2)
	Maximum flame spread for vertical exitways, access corridors, other exits, rooms and enclosed spaces, textile wall coverings	Class A: 0-25 Class B: 26-75 Class C: 76-200 (Table A.10.2.2)	Class A: 0-25 Class B: 26-75 Class C: 76-200 (Table A.10.2.2)
	Textiles (Wall & Ceiling Finish)	See 10.2.4.1	**See 10.2.4.2**
	Interior Floor Finish	No Requirement (18.3.3.3)	**See 10.2.7.1 or 10.2.7.2 (18.3.3.3)**
Helistops	Rooftop	NFPA 418 (18.3.2.7)	NFPA 418 (18.3.2.7)

Code Summary Comparison

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
Exit Capacity	Stairways	0.3 inches per occupant (Table 7.3.3.1)	0.3 inches per occupant (Table 7.3.3.1)
	Other Egress Components	0.2 inches per occupant (Table 7.3.3.1)	0.2 inches per occupant (Table 7.3.3.1)
Occupant Load Factors	Office	100 sf / occupant. (Table 7.3.1.2)	100 sf / occupant. (Table 7.3.1.2)
	Conference & Seminar Rooms	15 sf / occupant. (Table 7.3.1.2)	15 sf / occupant. (Table 7.3.1.2)
	Inpatient Treatment Areas	240 sf / occupant. (Table 7.3.1.2)	240 sf / occupant. (Table 7.3.1.2)
	Outpatient Areas	100 sf / occupant. (Table 7.3.1.2)	100 sf / occupant. (Table 7.3.1.2)
	Storage & Mechanical Spaces	300 sf / occupant. (Table 7.3.1.2)	**Anticipated Occupancy 42.1.8**
	Sleeping Areas	120 sf / occupant. (Table 7.3.1.2)	120 sf / occupant. (Table 7.3.1.2)
	Locker Rooms	50 sf / occupant. (Table 7.3.1.2)	50 sf / occupant. (Table 7.3.1.2)
	Kitchen	100 sf / occupant. (Table 7.3.1.2)	100 sf / occupant. (Table 7.3.1.2)
Minimum Number of Exits	1-500 occupants	2 exits (7.4.1.1)	2 exits (7.4.1.1)
	501-1,000 occupants	3 exits (7.4.1.2(1))	3 exits (7.4.1.2(1))
	Greater than 1,000 occupants	4 exits (7.4.1.2(2))	4 exits (7.4.1.2(2))

Code Summary Comparison

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
Minimum Number of Exits	Patient sleeping rooms or suites that include patient sleeping rooms more than 1,000 sf in area	2 exits (18.2.5.2)	**2 exits (18.2.5.5.1)**
	Any room or suite of rooms, other than patient sleeping rooms, more than 2,500 sf in area	2 exits(18.2.5.3)	**2 exits (18.2.5.5.2)**
	Each Smoke Compartment	Access to 2 exits (18.2.4.3)	Access to 2 exits (18.2.4.3)
	Every habitable room or suite must have an exit access door leading directly to an exit corridor, unless permitted by exceptions	(18.2.5.1)	**(18.2.5.6.1)**
	Exit Access from a patient sleeping room with not more than 8 beds shall be permitted to pass through one intervening room to reach an exit access corridor, provided there is constant supervision by nursing personnel.	(18.2.5.1.(2))	**(18.2.5.6.2)**
Location of Exits	Two or more exits or exit access doors required from an area	At least two exits or access doors must be placed a distance apart equal to not less than 1/3 the length of the maximum overall diagonal dimension of the building or area served, measured in a straight line between exits, for sprinklered buildings. (See Exception 2) (7.5.1.4)	**N/A**

Code Summary Comparison

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
	Dead Ends	Maximum of 30 feet (18.2.5.10)	Verify
Suites		Shall not exceed 5,000 sf (18.2.5.6)	**Shall not exceed 7,500 sf 18.2.5.7.2.3 Suites greater than 7,500 sf and not exceeding 10,000 sf is allowed when direct visual supervision and automatic smoke detection in common areas is provided.**
	Suites of rooms other than patient sleeping rooms	Shall not exceed 10,000 sf (18.2.5.7)	**Shall not exceed 10,000 sf (18.2.5.7.3.3)**
	Hazardous areas within suites options	N/A	**See 18.2.5.7.1.4**
	Intervening rooms other than patient sleeping rooms.	One intervening room is allowed if the travel distance within the suite to the exit access door does not exceed 100 feet and two intervening rooms are permitted where the travel distance to the exit access door does not exceed 50 feet. (18.2.5.8)	One intervening room is allowed if the travel distance within the suite to the exit access door does not exceed 100 feet and two intervening rooms are permitted where the travel distance to the exit access door does not exceed 50 feet. (**18.2.5.7.3.4(A))**
	Intervening rooms for patient sleeping rooms.	Exit access from a patient sleeping room with not more than eight patient beds shall be permitted to pass through one intervening room. (18.2.5.1(2))	Exit access from a patient sleeping room with not more than eight patient beds shall be permitted to pass through one intervening room. **(18.2.5.6.2)**
	Special Nursing Suites	May have one intervening room where the arrangement allows for direct and constant visual supervision by nursing personnel. (18.2.5.1(3))	May have one intervening room where the arrangement allows for direct and constant visual supervision by nursing personnel. **(18.2.5.7.2.1)**
	Egress into another suite	Not Addressed	**A suite that requires two means of egress is permitted have one means of egress to be into another suite, provided that the separation between the suite complies with 18.3.6.2 through 18.3.6.5 (18.2.5.7.2.2(C))**
	Exit Access from a Corridor	Every corridor shall provide access to at least two exits without passing through any intervening rooms or spaces other than corridors or lobbies. (18.2.5.9)	Every corridor shall provide access to at least two exits without passing through any intervening rooms or spaces other than corridors or lobbies.(18.2.5.4)

Code Summary Comparison

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
Travel Distance	General Egress Travel Distance		
	Between any room door required as an exit access and an exit	Maximum 150 feet (18.2.6.2.1)	**N/A**
	Between any point in a room and an exit	Maximum 200 feet (18.2.6.2.2)	**Maximum 200 feet (18.2.6.2.1)**
	Between any point in a health care sleeping room and an exit access door in that room	Maximum 50 feet (18.2.6.2.3)	**Maximum 50 feet (18.2.6.2.5)**
	Between any point in a suite of sleeping rooms and an exit access door of that suite	Maximum 100 feet (18.2.6.2.4)	**Maximum 100 feet (18.2.5.7.2.4(A))**
	Between any point in a sleeping suite and an exit	N/A	**Maximum 200 feet (18.2.5.7.2.4(B))**
	Common Path of Travel	N/A	**Maximum 100 feet (18.2.5.3)**
Doors	Minimum clear width serving sleeping rooms, diagnostic and treatment rooms	41.5 inches (18.2.3.5(1))	**41.5 inches (18.2.3.6(1))**
	Minimum clear width all other areas	32 inches clear width (18.2.3.5 and 7.2.1.2.3)	**32 inches clear width (18.2.3.7 and 7.2.1.2.3.2)**
	Minimum Height	90 inches (7.1.5)	**90 inches (7.1.5.1)**

Code Summary Comparison

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
Doors	Door Swing: Doors should be of the side hinged swinging type.	Doors in the direction of egress 7.2.1.4.1	Doors in the direction of egress 7.2.1.4.1
	Swing in direction of exit travel when serving high hazardous area or serving an occupant load greater than 50.	(7.2.1.4.2 and 7.2.1.4.3)	**(7.2.1.4.2)**
	Exit door shall be openable from the egress side without the use of key locking device	(7.2.1.5.1 / 18.2.2.2.4)	**(7.2.1.5.1 / 7.2.1.5.2 / 18.2.2.2.4)**
	Bolt locks are generally prohibited except for storage or equipment and rooms or where doors serve patient care rooms.	N/A	N/A
	Horizontal Sliding doors are permitted to be a component of a means of egress when meeting the following:	Horizontal doors that are not automatic closing are limited to a single leaf and must be latching or be provided with means to not rebound when pushed closed in an emergency (7.2.1.14 / 18.2.2.2.9)	**(7.2.1.14 / 18.2.2.2.10.1 /18.2.2.2.10.2)**
	Horizontal sliding doors serving a room or area with an occupant load of fewer than 10 in health care occupancies shall be exempt from the requirements of 7.2.1.4.1	N/A	**7.2.1.4.1.6, 18.2.2.2.10.3**

Code Summary Comparison

NEW YORK STATE OF OPPORTUNITY. Department of Health

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
Doors	Vision panels of approved assemblies of fire-rated glazing or wired glass be provided at each cross corridor door and each cross-corridor horizontal-sliding door in a smoke barrier.		Vision panels shall not be wired glass panels
Corridor	Minimum width where inpatients are moved on beds	8 feet (96 inches) (18.2.3.3)	8 feet (96 inches) (18.2.3.4)
	Projections in corridor with minimum width 6 feet	Tentative Interim Amendment (2006 LSC) 6 inches from the corridor wall, above the handrail height, shall be permitted for hand-rub dispensing units. Projections in the corridors on both sides are permitted if the projection does not exceed a depth of 6 inches, the length is less than 36 inches, positioned not less than 40 inches above the floor, and has not less than 48 inches of horizontal separation from other projections.	Not addressed
	Permitted projections when corridor width is 8 feet		Non-continuous projections that are maximum 6 inches when located > 38 inches AFF; and wheeled equipment in use for patient movement and medical emergencies that do not reduce clear width < 5 ft when staff are trained and provisions are included in facility emergency plans for dealing with the equipment. Furniture fixed to wall is permitted in groups not exceeding 50 sq ft, set minimum 10 ft apart, does not reduce minimul clear width < 6 ft, is located on one side, not blocking building service equipment, and the smoke compartment is sprinklered throughout, and corridors are protected with smoke detectors when the furniture is not under direct visual supervision from a nurses station. (18.2.3.4 #2, 4 and 5).

Code Summary Comparison

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
	Minimum Width for limited care facility or hospital for psychiatric care	6 feet (18.2.3.4)	6 feet (18.2.3.5)
	Minimum Height to Ceiling	90 inches (7.1.5.1)	90 inches (7.1.5.1)
	Minimum Height to Ceiling Projections	80 inches (7.1.5.1)	80 inches (7.1.5.1)
	The required corridor width shall be unobstructed with the following exceptions: 1.Doors when fully open, and handrails, shall not reduce the required width by more than 7 inches. 2.Doors in any position shall not reduce the required corridor width by more than one-half.	(7.2.1.4.4)	**(7.2.1.4.3.1)**
Stairways	Risers	Minimum 4 inches; Maximum 7 inches (Table 7.2.2.2.1(a))	Minimum 4 inches; Maximum 7 inches (Table 7.2.2.2.1.1(a))
	Treads	Minimum 11 inches (Table 7.2.2.2.1(a))	Minimum 11 inches (Table 7.2.2.2.1.1(a))
	Width	Minimum 44 inches (Table 7.2.2.2.1(a))	**<2000 persons = Minimum 44 inches >2000 persons = minimum 56 inches (Table 7.2.2.2.1.2(B))**

Code Summary Comparison

NEW YORK STATE OF OPPORTUNITY. Department of Health

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
Stairways	Landings	Width - Not less than the width of the stair but need not exceed 48 inches when the stair has a straight run. (7.2.2.3.2)	Width - Not less than the width of the stair but need not exceed 48 inches when the stair has a straight run. (7.2.2.3.2.4)
	Vertical Rise	Vertical Distance between floor levels and landings - 12 feet. (Table 7.2.2.2.1(a))	Vertical Distance between floor levels and landings - 12 feet. (Table 7.2.2.2.1.1(a))
	Headroom	80 inches (Table 7.2.2.2.1(a))	80 inches (Table 7.2.2.2.1(a))
	Handrails (Note: Shall also coordinate with TAS requirements: minimum 1-1/4 inches max 1-1/2 inches, 4.26.2)	Circular Diameter minimum 1-1/4 inches max 2 inches (7.2.2.4.5)	Circular Diameter minimum 1-1/4 inches max 2 inches (7.2.2.4.4.6)
		Height - minimum 34 inches maximum 38 inches (7.2.2.4.5)	Height - minimum 34 inches maximum 38 inches (7.2.2.4.4.1)
		Clear space to wall - 1-1/2 inches (7.2.2.4.5)	**Clear space to wall - 2-1/4 inches (7.2.2.4.4.5)**
		Intermediate handrails are required so that all portions of the stairway are within 30 inches of the handrail. (7.2.2.4.1)	Intermediate handrails are required so that all portions of the stairway are within 30 inches of the handrail. (7.2.2.4.1.2)
	Guardrails required along open-sided walking surfaces, mezzanines, stairways, ramps and landings	Height - 42 inches (7.2.2.4.6(2))	**Height - 42 inches (7.2.2.4.5.2)**

Code Summary Comparison

NEW YORK STATE OF OPPORTUNITY. Department of Health

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
Stairways		Open guardrails shall have intermediate rails or an ornamental pattern such that a sphere 4 inches in diameter cannot pass through up to 34 inches in height. (7.2.2.4.6)	Open guardrails shall have intermediate rails or an ornamental pattern such that a sphere 4 inches in diameter cannot pass through up to 34 inches in height (7.2.2.4.5.3)
	Stairway Signage	N/A	**Signs must be located at each floor level in all enclosed stairways serving 3 or more stories. The signs must identify the stairway access, floor level, and the upper and lower terminus of the stairway. (7.2.2.5.4.1 A-M)**
	Stairway to Roof (DA1015.2.1.1)	N/A	N/A
Exit Ramps			
	Width	96 inches (18.2.3.3)	96 inches (18.2.3.4)
	Maximum slope in direction of travel	1:12 (Table 7.2.5.2 (a))	1:12 (Table 7.2.5.2 (a))
	Maximum rise for a single ramp run	30 inches (Table 7.2.5.2 (a))	30 inches (Table 7.2.5.2 (a))
	Handrails	Required for ramps with a rise greater than 6 inches (7.2.5.4)	**Required for ramps with a rise greater than 6 inches (7.2.5.4.2)**
Horizontal Exits	Minimum area per patient provided on each side of the horizontal exit	30 net sf (18.2.2.5.1)	30 net sf (18.2.2.5.1.1)
	Minimum area per occupant in nonpatient areas provided on each side of the horizontal exit	6 net sf (18.2.2.5.1)	6 net sf (18.2.2.5.1.2)

Code Summary Comparison

NEW YORK STATE OF OPPORTUNITY. Department of Health

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
Horizontal Exits	Horizontal exits are permitted to compromise two-thirds of the required exits from any building or floor area	(18.2.2.5.2)	(18.2.2.5.2)
	Horizontal exits in a corridor 8 feet or more and serving as an exit from both sides must have a pair of opposite swinging doors with a clear width of no less than 41.5 inches.	(18.2.2.5.4)	(18.2.2.5.4)
	Horizontal exits in a corridor 6 feet or more and serving as an exit from both sides must have a pair of opposite swinging doors with a clear width of no less than 32 inches.	(18.2.2.5.5)	(18.2.2.5.5)
	An approved vision panel is required in each horizontal exit	(18.2.2.5.6)	(18.2.2.5.6)
Smoke Compartments	Every story, used by inpatients for sleeping or treatment and having an occupant load of 50 or more, must be divided into two smoke compartments.	(18.3.7.1(2))	(18.3.7.1(2))

Code Summary Comparison

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
Smoke Compartments	Every story, used by inpatients for sleeping or treatment and having an occupant load of 50 or more, must be divided into two smoke compartments.	(18.3.7.1(2))	(18.3.7.1(2))
	Maximum area per compartment	22,500 sf (18.3.7.1(3))	22,500 sf (18.3.7.1(3))
	Maximum travel distance from any point to reach a door in the required smoke barrier	200 feet (18.3.7.1(4))	200 feet (18.3.7.1(4))
	On floors containing health care, minimum area provided per patient on each side of a smoke compartment	30 net sf (18.3.7.4)	**30 net sf (18.3.7.5.1)**
	On non-patient floors minimum area provided per occupant on each side of smoke compartment	**6 net sf (18.3.7.4)**	**6 net sf (18.3.7.5.2)**
	Smoke barriers must be provided on stories that are useable, even if unoccupied.	(18.3.7.2)	**N/A See 18.3.7.2**
	Cross corridor doors in smoke barriers must be opposite swinging	(18.3.7.5)	**(18.3.7.6(2))**
	Minimum clear width for individual smoke barrier doors	41.5 inches (18.3.7.5)	**41.5 inches (18.3.7.6)**

Code Summary Comparison

NEW YORK STATE OF OPPORTUNITY. Department of Health

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
Smoke Compartments	Doors must be self-closing or automatic	(18.3.7.6)	(18.3.7.8)
	Vision panels with fire-rated glazing or wired glass at each cross corridor door	(18.3.7.7)	(18.3.7.9)
	Rabbets, bevels, or astragals are required at the meeting edges and stops are required at the head and sides of the door frames	(18.3.7.8)	(18.3.7.11)
	Positive latching door hardware is not required for doors installed across corridors	(18.3.7.8)	(18.3.7.10)
	Duct penetrations of smoke compartment walls must be protected by smoke dampers.	(8.3.5.1)	(8.5.5.2)
	Smoke dampers are not required in smoke barriers where steel duct openings are limited to one compartment	(8.3.5.1 Exception 3)	(8.5.5.3)
	Smoke dampers are not required in smoke barriers with fully ducted HVAC systems.	(18.3.7.3 Exception 3)	(18.3.7.3(2))

Code Summary Comparison

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
Means of Egress Lighting	Minimum illumination at the walking surface level	1 foot-candle (7.8.1.3)	1 foot-candle (7.8.1.3(2))
Emergency Lighting	Separate source of emergency power is required. Must be automatically actuated if normal power is interrupted.	(7.9.2.1/7.9.2.2/18.2.9.2)	**(7.9.2.1/7.9.2.3/18.2.9.2)**
	Duration	90 minutes (7.9.2.1)	90 minutes (7.9.2.1)
	Minimum illumination	1 foot-candle with point minimum of 0.1 foot-candle (7.9.2.1) At end of duration may drop to 0.6 foot-candle with a point minimum of 0.06 foot-candle (7.9.2.1)	1 foot-candle with point minimum of 0.1 foot-candle (7.9.2.1) At end of duration may drop to 0.6 foot-candle with a point minimum of 0.06 foot-candle (7.9.2.1)
Exit Signs	Required for every exit	(7.10.1.2)	**(7.10.1.2.1)**
	Location	Required to be placed such that no point is more than 100 feet from the nearest visible sign (7.10.1.4)	**Required to be placed such that no point is more than 100 feet from the nearest visible sign (7.10.1.5.2)**
	Illumination	Externally illuminated by not less than 5 foot-candles (7.10.6.3)	**Externally illuminated by not less than 5 foot-candles or internally illuminated in accordance with UL 924 Standard for Emergency Lighting and Power Equipment (7.10.6.3)**
	Listing	The face of a photoluminescent sign shall be continually illuminated while the building is occupied. Illumination level shall be in accordance with its listing. (7.10.7.2)	The face of a photoluminescent sign shall be continually illuminated while the building is occupied. Illumination level shall be in accordance with its listing. (7.10.7.2)
	Emergency Power	Must be connected to an emergency electrical system in accordance with the Electric Code. (7.10.4)	Must be connected to an emergency electrical system in accordance with the Electric Code. (7.10.4)

Code Summary Comparison

NEW YORK STATE OF OPPORTUNITY. Department of Health

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
Emergency Lighting	Emergency Power Duration	90 minutes in case of primary power loss. (7.9.2.1)	90 minutes in case of primary power loss. (7.9.2.1)
	Tactile Exit Signs	Shall be provided at each exit door requiring an exit sign and comply with ICC/ANSI A117.1 (7.10.1.3)	Shall be provided at each exit door requiring an exit sign and comply with ICC/ANSI A117.1 (7.10.1.3)
Automatic Sprinkler Systems	An automatic sprinkler system is required to be designed and installed in accordance with NFPA 13.	(18.3.5.1)	(18.3.5.1)
	Smoke compartments containing sleeping rooms must used listed quick response sprinklers.	(18.3.5.2)	**Stated in Appendix 18.3.5.6 that residential sprinklers are considered acceptable in patient sleeping rooms even though not specifically listed for this purpose.**
	Sprinklers not required in clothes closets of patient sleeping rooms in hospitals where the area of the closet does not exceed 6 sf, provided the distance from the spirnkler in the patient sleeping room to the back wall of the closet does not exceed the maximum distance permitted by NFPA 13		**18.3.5.10**
Fire Extinguisher	Required in all health care occupancies	(18.3.5.6)	**(18.3.5.11)**
	Shall be selected, installed and maintained in accordance with NFPA 10.	(9.7.4.1)	(9.7.4.1)

Code Summary Comparison

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
Fire Alarm	A manual fire alarm system is required and is required to be initiated by sprinkler system water flow alarms, detection devices, or detection systems	(18.3.4.1/18.3.4.2)	**(18.3.4.1/18.3.4.2.1)**
Automatic Fire Detection	As required for open spaces to corridors	(18.3.6.1)	(18.3.6.1)
	At smoke barrier doors and other fire- rated door openings where doors are on hold open devices	(18.2.2.2.6)	**(18.2.2.2.7)**
Special Features	Outside Window or Door	Every patient sleeping room shall have an outside window or door. The allowable sill height shall not exceed 36 inches above the floor. (18.3.8)	**Outside window is not required. (Still a CMS requirement per CFR 42, July 5, 2016)**
	Emergency Power System Requirements	An on-site power generator system is required. (18.5.1.2 NFPA 99)	An on-site power generator system is required. (18.5.1.2 NFPA 99)
		The emergency system is limited to circuits essential to life safety and critical patient care and are designated the life safety branch and critical branch (NFPA 99 3-4.2.2.2)	**The emergency system is limited to circuits essential to life safety and critical patient care and are designated the life safety branch and critical branch (NFPA 99 3-4.4.2.2.2.1)**
	Laboratories in Health care Occupancies	Total volume of Class I, II and IIIA liquids outside of approved storage cabinets and safety cans shall not exceed 1 gal per 100 sf. (NFPA 99: 10-7.2.2)	**Total volume of Class I, II and IIIA liquids outside of approved storage cabinets and safety cans shall not exceed 1 gal per 100 sf. (NFPA 99:11-7.2.3.1)**
		At least one approved flammable or combustible liquid storage room shall be available within any health care facility regularly maintaining a reserve storage capacity of in excess of 300 gal (NFPA 99: 10-7.2.2)	**At least one approved flammable or combustible liquid storage room shall be available within any health care facility regularly maintaining a reserve storage capacity of in excess of 300 gal (NFPA 99: 11-7.2.3.4)**

Code Summary Comparison

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
Special Features		Flammable gas cylinder storage for a laboratory shall be separated from the health care facility. 2 hours (NFPA 99: 10-10.2.2)	**Flammable gas cylinder storage for a laboratory shall be separated from the health care facility. 2 hours (NFPA 99: 11-10.2.2)**
		Rooms or enclosures for storage of gas cylinders shall be well ventilated (NFPA 99:10-10.2.3)	**Rooms or enclosures for storage of gas cylinders shall be well ventilated (NFPA 99: 11-10.3.2)**
		Total quantity and size of cylinders shall comply with Table 8-1 of NFPA 45. (NFPA 99: 10-10.3)	**Total quantity and size of cylinders shall comply with Table 8-1 of NFPA 45. (NFPA 99: 11-10.3)**
	Medical Gas Storage	Oxidizing gases such as oxygen and nitrous oxide shall not be stored with any flammable gas, liquid or vapor, (NFPA 99: 8-3.1.11.2)	**Oxidizing gases such as oxygen and nitrous oxide shall not be stored with any flammable gas, liquid or vapor, (NFPA 99: 9.4.1)**
		Oxidizing gases shall be separated from combustible or incompatible materials by a minimum of 20 feet or 5 feet if the storage area is provided with automatic sprinklers. (NFPA 99: 8-3.1.11.2)	**Oxidizing gases shall be separated from combustible or incompatible materials by a minimum of 20 feet or 5 feet if the storage area is provided with automatic sprinklers. (NFPA 99: 9.4.1)**
	Alcohol Based Hand Rub (ABHR) Dispensers	The corridor width is 6 feet or greater and dispensers are at least 4 feet apart	**The corridor width is 6 feet or greater (18.3.2.6(1))**
		The dispensers shall not be installed over or directly adjacent to electrical outlets and switches. “Adjacent” is defined as being no closer than 6 inches from the center of the dispenser to either side.	**The dispensers shall not be installed over or directly adjacent to electrical outlets and switches. “Adjacent” is defined as being no closer than 1 inches from each side of the dispenser.(18.3.2.6(8))**
		In locations with carpeted floor coverings, dispensers installed directly over carpeted surfaces are permitted only in sprinklered smoke compartments.	**In locations with carpeted floor coverings, dispensers installed directly over carpeted surfaces are permitted only in sprinklered smoke compartments.(18.3.2.6(9))**

Code Summary Comparison

NEW YORK STATE OF OPPORTUNITY. Department of Health

Code Category	Component Requirement	2000 Edition NFPA 101 LSC	2012 Edition NFPA 101 LSC
Special Features		Each smoke compartment may contain a maximum aggregate of 10 gallons (37.8 liters) of ABHR product in dispensers and a maximum of 5 gallons (18.9 liters) in storage.	**Each smoke compartment may contain a maximum aggregate of 10 gallons (37.8 liters) of ABHR product in dispensers and a maximum of 5 gallons (18.9 liters) in storage. (18.3.2.6(6&7))** **One dispenser complying with # 2 or 3 of 18.3.2.6 (dispensers specific for rooms) per room shall not be included in the aggregated quantity addressed in #5.**
		The maximum individual dispenser fluid capacity is 1.2 liters for dispensers in rooms, corridors, and areas open to corridors	**The maximum individual dispenser fluid capacity is 1.2 liters for dispensers in rooms, corridors, and areas open to corridors. (18.3.2.6(2a))**
		The maximum individual dispensers in suites of rooms is 2.0 liter	**The maximum individual dispensers in suites of rooms is 2.0 liters (18.3.2.6(2b))**
	Cooking Facilities		**Residential cooking equipment used for food warming or limited cooking not required to be protected as a hazardous area.(18.3.2.5.2)** **Where protected in accordance with 9.2.3 cooking equipment area shall not be considered hazardous. Should be separated from corridor. (18.3.2.5.5)** **Within a smoke compartment cooking equipment used to serve 30 or fewer persons may be:** **- Located in a space not a sleeping room separated from adjoining areas by partitions complying with 18.2.6.2 - 18.3.6.5 and complies with 1 through 10 listed below.** **- Located and permitted to be open to a corridor provided that 1 through 11 are met.**

Code Summary Comparison

NEW YORK STATE OF OPPORTUNITY. Department of Health

NEW YORK STATE OF OPPORTUNITY. Department of Health