

For as long as any of us in the Health-care Facilities Management

field have been working to insure the safety of our patients and staff, we have relied on the NFPA 101®-Life Safety Code®

to guide our building design and maintenance activities. The various Authorities Having Jurisdiction (e. g., Joint Commission®, CMS, State) adopt a different edition from time to time which makes our task even more challenging. Currently, we find ourselves directed to the 2000 Edition of NFPA 101 by the Centers for Medicare & Medicaid Services (CMS) and the Joint Commission. This eases our burden from the time we complied, or at least tried to comply, with differing editions of the same code.


One of the more complex aspects of the code has been trying to remember specific facets of a code requirement for a particular occupancy type, new versus existing construction and/or sprinklered versus non-sprinklered building. Many hours were spent by the researchers developing this tool with the intention of it

Fire Code QuickCheck

NFPA 101® - Life Safety Code® Requirements By Occupancy Type

being a quick and easy way to check key component compliance with the code. The researchers assembled 39 components and listed the requirements against the three most important occupancies in complex medical center facilities.

The requirements for the three occupancies – “Healthcare,” “Ambulatory” and “Business” are further complicated with the addition or lack of automatic sprinklers. It is our intention that the user can select the occupancy listed on the “Y” axis of the chart against the 39 components listed on the “X” axis of the chart to determine the proper code requirement. For example, if the user needed to determine the Corridor Width requirement in New Ambulatory occupancy, they would find the intersection of those two axis points to determine that 44 inches is required. Additionally, the intersection of the Corridor Door column and Existing Non-Sprinkler (NS) Healthcare reveals that a 1¾” thick solid-bonded core wood or 20-minute rated door is required.

It is our hope that this tool will assist you in determining the appropriate requirement of the Life Safety Code in order to keep your facility compliant and more importantly SAFE for all its occupants. 

*John DiGirolomo, MBA, CHFM, SASHE
Senior Vice President
St. Barnabas Hospital, Bronx, NY
President, Healthcare Facilities Management
Society of New Jersey-ASHE*

*Robert Bartels, CHFM, President
Safety Management Services, Inc., Arlington Heights, IL*

*Lori B. Dinney, PE MS, Manager of Fire Protection
Services, Safety Management Services, Inc.,
Arlington Heights, IL*



	Corridor Width	Door Clear Width	Maximum Patient Sleeping Suite Size	Maximum Non-Patient Sleeping Suite Size	Patient Sleeping Suite Req for Two Exits	Non-Patient Sleeping Suite Req for Two Exits	Common Path of Travel	Dead End	Travel Distance from Point in Room to Exit	Travel Distance from Point in Room to Exit Access Room Door	Travel Distance from Exit Access Room Door to Exit	Travel Distance from Point in Sleeping Suite to Exit Access Room Door	Emerg. Lighting	Exit Signs	Hazardous Areas Protection	Interior Wall and Ceiling Finish	Interior Floor Finish	Alarm System	Automatic Sprinkler's
Healthcare (New)	8 ft. patients 6 ft. limited/psych 44 in. other areas	41.5 in. hospital and nursing home 32 in. other areas	5,000 sq. ft.	10,000 sq. ft.	1,000 sq. ft.	2,500 sq. ft.	NR	30 ft.	200 ft.	50 ft.	150 ft.	100 ft.	Yes	Yes	"1 hour and sprinklers"	Class A or B	NR	Yes, including manual pulls and audible/visual devices	Yes (6)
Healthcare (Existing - AS)	4 ft. for egress from patient sleeping rooms 44 in. other areas	32 in. 28 in. where evac by bed, gurney, or wheelchair not req.	5,000 sq. ft.	10,000 sq. ft.	1,000 sq. ft.	2,500 sq. ft.	NR	NR	200 ft.	50 ft.	150 ft.	100 ft.	Yes	Yes, except in 1st bldg with occupant load ≤ 30 where path of egress is obvious	Smoke resistant partitions and doors	Existing materials-Class A, B, or C Newly installed-Class A or B	NR	Yes, including manual pulls and audible devices	N/A
Healthcare (Existing - NS)	Same as Existing - AS	Same as Existing - AS	5,000 sq. ft.	10,000 sq. ft.	1,000 sq. ft.	2,500 sq. ft.	NR	NR	150 ft.	50 ft.	100 ft.	100 ft.	Yes	Same as Existing - AS	1 hour or sprinklers	Existing materials-Class A or B Newly installed-Class A (3)	Existing materials-NR Newly installed-Class I in corridors and exits	Same as Existing - AS	NR (7)
Ambulatory (New - AS)	44 in.	32 in.	N/A	NR	N/A	2,500 sq. ft.	100 ft.	50 ft.	200 ft.	NR	150 ft.	N/A	Yes	Yes	1 hour or smoke partitions	Class A, B, or C	NR	Yes, including manual pulls and internal audible alarms	N/A
Ambulatory (New - NS)	44 in.	32 in.	N/A	NR	N/A	2,500 sq. ft.	75 ft.	20 ft.	150 ft.	NR	100 ft.	N/A	Yes	Yes	1 hour	Class A or B in exits Class A, B, or C in rooms	Class I or II in corridors and exits	Same as New - AS	NR
Ambulatory (Existing - AS)	44 in.	32 in.	N/A	NR	N/A	2,500 sq. ft.	100 ft.	50 ft.	200 ft.	NR	150 ft.	N/A	Yes	Yes	Smoke-resistant partitions	Class A, B, or C	NR	Same as New - AS	N/A
Ambulatory (Existing - NS)	44 in.	32 in.	N/A	NR	N/A	2,500 sq. ft.	75 ft.	50 ft.	150 ft.	NR	100 ft.	N/A	Yes	Yes	1 hour	Class A or B in exits or corridors	NR	Same as New - AS	NR
Business (New - AS)	44 in. serving occupant load > 50 36 in. serving occupant load < 50	32 in.	N/A	N/A	N/A	N/A	100 ft.	50 ft.	300 ft.	NR	NR	N/A	Yes (1)	Yes	1 hour or smoke partitions	Class A, B, or C	NR	Yes (4)	N/A
Business (New - NS)	Same as New - AS	32 in.	N/A	N/A	N/A	N/A	75 ft.	20 ft.	200 ft.	NR	NR	N/A	Yes (1)	Yes	1 hour	Class A or B in exits Class A, B, or C in offices	Class I or II in corridors and exits	Yes (4)	NR
Business (Existing - AS)	28 in.	28 in.	N/A	N/A	N/A	N/A	100 ft.	50 ft.	300 ft.	NR	NR	N/A	Yes (2)	Yes	Smoke-resistant partitions	Class A, B, or C	NR	Yes (5)	N/A
Business (Existing - NS)	28 in.	28 in.	N/A	N/A	N/A	N/A	75 ft.	50 ft.	200 ft.	NR	NR	N/A	Yes (2)	Yes	1 hour	Class A, or B in exits and corridors	NR	Yes (5)	NR

- Required where one of the following exists:
 - The building is 2 stories above the level of exit discharge.
 - The occupancy is subject to 50 occupants above or below the level of exit discharge.
 - The total occupant load is subject to 300 occupants.
- Required where one of the following exists:
 - The building is 2 stories above the level of exit discharge.

- The occupancy is subject to 100 occupants above or below the level of exit discharge.
- The total occupant load is subject to 1000 occupants.
- With exceptions.
- Required where one of the following exists:
 - The building is 2 stories above the level of exit discharge.
 - The occupancy is subject to 50 occupants above or below the level of exit discharge.

- The total occupant load is subject to 300 occupants. Includes manual pulls or fire detection system throughout the building or sprinkler system throughout the building AND either a general alarm throughout the building or an alarm signal to a constantly attended location for the purposes of initiating emergency action.

Fire Ext.	Corridor Walls	Corridor Wall Design	Corridor Doors	Smoke Barriers	Smoke Barrier Construction	Smoke Barrier Design	Smoke Barrier Doors	Stair Wall Rating (≤ 3 stories)	Stair Wall Rating (> 3 stories)	Stair Door Rating (≤ 3 stories)	Stair Door Rating (> 3 stories)	HVAC Shaft Wall Rating (≤ 3 stories)	HVAC Shaft Wall Rating (> 3 stories)	HVAC Shaft Door Rating (≤ 3 stories)	HVAC Shaft Door Rating (> 3 stories)	Other Shaft Wall Rating (≤ 3 stories)	Other shaft Wall Rating (> 3 stories)	Other Shaft Door Rating (≤ 3 stories)	Other Shaft Door Rating (> 3 stories)
Yes	Limit transfer of smoke	Terminate at ceiling where ceiling limits transfer of smoke	Resist passage of smoke	Yes (8)	1 hour	Terminate at deck above	1 ¼ in. thick, solid-bonded core wood or 20 min.	1 hour	2 hour	1 hour	90 minutes	1 hour	2 hour	1 hour	90 minutes	1 hour	2 hour	1 hour	90 minutes
Yes	Limit transfer of smoke	Same as New	Resist passage of smoke	Required on stories used for sleeping rooms for > 30 patients	1/2 hour	Same as New	Same as New	1 hour	1 hour	3/4 hour	3/4 hour	1 hour	1 hour	1 hour	1 hour	1 hour	1 hour	1 hour	1 hour
Yes	1/2 hour	Terminate at deck above unless ceiling limits the transfer of smoke	1 ¼ in. thick, solid-bonded core wood or 20 min.	Required on stories used for sleeping rooms for > 30 patients	1/2 hour	Same as New	Same as New	1 hour	2 hour high-rise 1 hour non-high-rise	3/4 hour	90 minutes high-rise 3/4 hour nonhigh-rise	1 hour	1 hour	1 hour	1 hour	1 hour	1 hour	1 hour	1 hour
Yes	NR	NR	NR	Yes, with some exceptions	1 hour	Terminate at deck above	1 ¼ in. thick, solid-bonded core wood or the equivalent	1 hour	2 hour	1 hour	90 minutes	1 hour	2 hour	1 hour	90 minutes	1 hour	2 hour	1 hour	90 minutes
Yes	1 hour	Terminate at deck above unless ceiling provides 1-hour rating	20 min	Yes, with some exceptions	1 hour	Same as New - AS	Same as New - AS	1 hour	2 hour	1 hour	90 minutes	1 hour	2 hour	1 hour	90 minutes	1 hour	2 hour	1 hour	90 minutes
Yes	NR	NR	NR	Yes, with some exceptions	1 hour	Same as New - AS	Same as New - AS	1 hour	1 hour	3/4 hour	3/4 hour	1/2 hour (9)	1/2 hour (9)	20 minutes	20 minutes	1/2 hour (9)	1/2 hour (9)	20 minutes	20 minutes
Yes	NR	NR	NR	Yes, with some exceptions	1 hour	Same as New - AS	Same as New - AS	1 hour	2 hour high-rise 1 hour non-high-rise	3/4 hour	90 minutes high-rise 3/4 hour nonhigh-rise	1/2 hour	1/2 hour	20 minutes	20 minutes	1/2 hour	1/2 hour	20 minutes	20 minutes
Yes	NR	NR	NR	NR	NR	NR	NR	1 hour	2 hour	1 hour	90 minutes	1 hour	2 hour	1 hour	90 minutes	1 hour	2 hour	1 hour	90 minutes
Yes	1 hour	Terminate at deck above unless ceiling provides 1-hour rating	20 min	NR	NR	NR	NR	1 hour	2 hour	1 hour	90 minutes	1 hour	2 hour	1 hour	90 minutes	1 hour	2 hour	1 hour	90 minutes
Yes	NR	NR	NR	NR	NR	NR	NR	1 hour	1 hour	3/4 hour	3/4 hour	1/2 hour (9)	1/2 hour (9)	20 minutes	20 minutes	1/2 hour (9)	1/2 hour (9)	20 minutes	20 minutes
Yes	NR	NR	NR	NR	NR	NR	NR	1 hour	2 hour high-rise 1 hour non-high-rise	3/4 hour	90 minutes high-rise 3/4 hour nonhigh-rise	1/2 hour	1/2 hour	20 minutes	20 minutes	1/2 hour	1/2 hour	20 minutes	20 minutes

5. Required where one of the following exists:
 - a. The building is 2 stories above the level of exit discharge.
 - b. The occupancy is subject to 100 occupants above or below the level of exit discharge.
 - c. The total occupant load is subject to 1000 occupants. Includes manual pulls or fire detection system throughout the building or sprinkler system throughout the building AND either a general alarm throughout the building or an alarm signal to a constantly attended location for the purposes of initiating emergency action.
6. Using quick-response or residential sprinklers throughout smoke compartments containing patient sleeping rooms and in light hazard areas.
7. Required for certain construction types and in smoke compartments where making major renovations, modifications, or alterations.
8. Required to divide every story used by inpatients for sleeping or treatment and in every story with an occupant load > 50, regardless of use.
9. Unprotected vertical openings are permitted where no unprotected vertical openings serves as any part of any required means of egress, and all required exits consist of outside stairs, smokeproof enclosures, or horizontal exits.