



Tentative Interim Amendment

NFPA[®] 5000[®]

Building Construction and Safety Code[®]

2018 Edition

Reference: 2.3.7, Various paragraphs in Chapter 5, Annex A.5.5.3.3.3, and Annex H

TIA 18-13

(SC 18-12-11 / TIA Log #1394)

Pursuant to Section 5 of the NFPA *Regulations Governing the Development of NFPA Standards*, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA 5000[®], *Building Construction and Safety Code[®]*, 2018 edition. The TIA was processed by the Technical Committee on Fundamentals, and the Correlating Committee on Building Code, and was issued by the Standards Council on December 7, 2018, with an effective date of December 27, 2018.

A Tentative Interim Amendment is tentative because it has not been processed through the entire standards-making procedures. It is interim because it is effective only between editions of the standard. A TIA automatically becomes a public input of the proponent for the next edition of the standard; as such, it then is subject to all of the procedures of the standards-making process.

1. *Revise 2.3.7 to read as follows:*

2.3.7 ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*, 2010~~6~~.

2. *Revise 5.5.3.1 to read as follows:*

5.5.3.1 Serviceability Scenario. Buildings shall be designed and constructed to provide serviceability performance, as presented in 5.2.3.2, under dead load and in combination with live, impact, soil and hydrostatic pressure, rain, flood, wind, ice, snow, and earthquake loads having the mean recurrence intervals indicated in Table 5.5.3.1. The following combinations of load shall be considered, or, alternatively, the loads and load combinations specified in ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*, shall be permitted to be used:

(1) Dead

...

3. *Revise Table 5.5.3.1 to read as follows:*

Table 5.5.3.1 Serviceability Level Mean Recurrence Intervals for Transient Loads (yr)

Load Type [†]	Occupancy Risk Category [‡]			
	I	II	III	IV
Live	50	50	50	50
Snow	50	50	100	100
Wind	NA	10	20 25	20 25
Earthquake	NA	25	50	100

Load Type [†]	Occupancy Risk Category [‡]			
	I	II	III	IV
Flood	100	100	100	100

NA: Not applicable.

[†] Loading includes deflection and vibration.

[‡] Occupancy Risk categories are as defined in ASCE/SEI 7.

4. Revise 5.5.3.2 to read as follows:

5.5.3.2 Immediate Occupancy Scenario. Buildings and their nonstructural components shall be designed and constructed to provide the immediate occupancy performance level, as presented in 5.2.3.3, under dead load in combination with live loads having the mean recurrence intervals indicated in Table 5.5.3.1 and wind, earthquake, and flood loads having the mean recurrence intervals indicated in Table 5.5.3.2. Building components and cladding systems shall be designed to provide immediate occupancy performance under dead load in combination with the wind loads indicated in Table 5.5.3.2. The following load combinations shall be used:

- (1) Dead and floor live and earthquake
- (2) Dead and wind or earthquake

5. Revise Table 5.5.3.2 to read as follows:

Table 5.5.3.2 Immediate Occupancy Level Mean Recurrence Intervals for Transient Loads (yr)

Load Type ^a	Occupancy Risk Category ^b			
	I	II	III	IV
Wind ^c	25	50	100	100
Earthquake	NA	50	100	200/3MCE _R
Flood ^d	NA	100	100	100

NA: Not applicable.

^a Loading includes deflection and vibration.

^b Occupancy Risk categories are as defined in ASCE/SEI 7, Minimum Design Loads and Associated Criteria for Buildings and Other Structures.

^c In hurricane-prone areas, wind speed is based on both hurricane simulation techniques and 500-year wind speed records.

^d In hurricane-prone areas, flood height is determined in conjunction with the hurricane wind surge.

6. Revise 5.5.3.3.1 to read as follows:

5.5.3.3.1 Buildings shall be designed to resist collapse, and their components shall be designed to resist failure as presented in 5.2.3.4 under dead load in combination with other loads. The minimum acceptable annual probability of failure for structural elements, components, and their connections under the influence of dead, earth and fluid pressure, ice, live, operational, rain, snow, and wind loads shall be as indicated in Table 5.5.3.3.1(a) and Table 5.5.3.3.1(b), as appropriate to their risk category and the mode and consequences of failure.

7. Revise the title of Table 5.5.3.3.1(a) to read as follows:

Table 5.5.3.3.1(a) Acceptable Target Reliability (Maximum Annual Probability of Failure, P_F) and Associated Reliability Indexes (β)[†] for Load Conditions That Do Not Include Earthquakes, Tsunami, or Extraordinary Events

8. Delete Table 5.5.3.3.1(b) in its entirety.

Table 5.5.3.3.1(b) Collapse Prevention Level Minimum Intensities for Earthquake (MCE) Shaking (multiple of MCE acceleration)

Component	Occupancy Risk Category [‡]			
	I	II	III	IV
Structure and structural components	0.67	1.0	1.25	1.5
Nonstructural components	0.67	0.67	0.83	1.0

Note: Maximum considered earthquake (MCE) shaking is as defined in ASCE/SEI 7.

[‡]Occupancy categories are as defined in ASCE/SEI 7.

9. Delete sections 5.5.3.3.1.1 and 5.5.3.3.1.2 in their entirety.

10. Revise 5.5.3.3.2 to read as follows:

5.5.3.3.2 Buildings shall be designed to resist collapse and other life-threatening structural failure under dead, live and seismic loading associated with maximum considered earthquake (MCE_R) ~~shaking~~ground motion, as defined in ASCE/SEI 7, Minimum Design Loads and Associated Criteria for Buildings and Other Structures, with conditional probabilities of failure not greater than those indicated in Table 5.5.3.3.2, as appropriate to the structure's risk category and failure mode.

11. Revise Table 5.5.3.3.2 to read as follows:

Table 5.5.3.3.2 ~~Acceptable~~ Target Reliability (Conditional Probability of Failure) Under Maximum Considered Earthquake (MCE_R) ~~Shaking~~ Ground Motion Hazard

Risk Category I and Risk Category II	
Total or partial structural collapse	10 percent conditioned on the occurrence of maximum considered earthquake shaking
Failure that could result in endangerment of individual lives of <u>ordinary noncritical structural members caused by earthquake</u>	25 percent conditioned on the occurrence of maximum considered earthquake shaking
Risk Category III	
Total or partial structural collapse	6 percent conditioned on the occurrence of maximum considered earthquake shaking
Failure that could result in endangerment of individual lives of <u>ordinary noncritical structural members caused by earthquake</u>	15 percent conditioned on the occurrence of maximum considered earthquake shaking
Risk Category IV	
Total or partial structural collapse	3 percent conditioned on the occurrence of maximum considered earthquake shaking
Failure that could result in endangerment of individual lives of <u>ordinary noncritical structural members caused by earthquake</u>	10 percent conditioned on the occurrence of maximum considered earthquake shaking

12. Revise 5.5.3.3.3 to read as follows:

5.5.3.3.3* High-rise buildings of Risk Category III or Risk Category IV, as defined in ASCE/SEI 7, ~~Table 1-4~~ Table 35.3.1, shall be designed and constructed to resist collapse, and their components shall be designed to resist failure for the conditions specified in 5.5.3.3.3.1 and 5.5.3.3.3.2.

13. Delete Annex A.5.5.3.3.3 in its entirety.

14. Revise Annex H to read as follows:

Annex H

ASCE/SEI 7, Minimum Design Loads for Buildings and Other Structures, 2005, ~~and 2010, 2016 with Supplement 1,~~ 2017.

ASCE/SEI 7, Minimum Design Loads and Associated Criteria for Buildings and Other Structures, 2016 with Supplement 1, 2017.

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(Note: For further information on NFPA Codes and Standards, please see www.nfpa.org/docinfo)

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