



## Errata

# NFPA 13

## *Standard for the Installation of Sprinkler Systems*

### 2019 Edition

Reference: Various

Errata No.: 13-19-3

The Technical Committees on Sprinkler System Installation Criteria, Sprinkler Systems Discharge Criteria and the Correlating Committee on Automatic Sprinkler Systems note the following error in the 2019 edition of NFPA 13, *Standard for the Installation of Sprinkler Systems*.

1. Change Duration from “1120” to “120” in Table 4.3.1.7.1 as follows:

**Table 4.3.1.7.1 Discharge Criteria for Miscellaneous Storage up to 12ft (3.7 m) in Height**

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Table 4.3.1.7.1 *Continued*

Commodity	Type of Storage	Storage Height		Maximum Ceiling Height		Design Curve Figure 19.3.3.1.1	Note	Inside Hose		Total Combined Inside and Outside Hose		Duration (minutes)
		ft	m	ft	m			gpm	L/min	gpm	L/min	
Exposed Nonexpanded and expanded	Solid-piled, palletized, bin box, shelf, single-, double-, multiple-row rack, and back-to-back shelf storage	≤5	≤1.5	—	—	OH2		0, 50, 100	0, 190, 380	250	950	90
	Solid-piled, palletized, bin box, shelf, and back-to-back shelf storage	>5 to ≤8	>1.5 to ≤2.4	28	8.5	EH2		0, 50, 100	0, 190, 380	500	1900	120
	Solid-piled, palletized, bin box, shelf, single-, double-, multiple-row rack, and back-to-back shelf storage	>5 to ≤10	>1.5 to ≤3.0	15	4.6	EH2		0, 50, 100	0, 190, 380	500	1900	120
Nonexpanded	Solid-piled, palletized, bin box, shelf, single-, double-, multiple-row rack, and back-to-back shelf storage	>5 to ≤10	>1.5 to ≤3.0	20	6.1	EH2		0, 50, 100	0, 190, 380	500	1900	120
Expanded	Single-, double-, multiple-row rack	>5 to ≤10	>1.5 to ≤3.0	20	6.1	See Chapter 25.	+1 level of in-rack	0, 50, 100	0, 190, 380	250	950	90

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2. Update the following cross references:

9.2.17.1 Skylights that allow venting, other than smoke and heat venting per ~~12.1.1-20.6.5~~, shall be provided with sprinkler protection installed in the skylight.

9.5.1.3 The requirements of 9.5.2 through ~~9.5.6-9.5.5~~ shall apply to all sprinkler types unless modified by more restrictive rules in Chapters 10 through 15.

10.2.8.1\* The clearance between the deflector and the top of storage shall be 18 in. (450 mm) or greater.

3. Correct the placement of the horizontal line in Table 20.14.2.2.3 as follows:

Type of Sprinkler (Orientation)	Location of Storage	Nominal K-Factor	Maximum Storage Height		Maximum Ceiling/Roof Height		Minimum Operating Pressure	
			ft	m	ft	m	psi	bar
ESFR (pendent)	On floor or rack without solid shelves	14.0 (200)	25	7.6	30	9.1	50	3.4
			25	7.6	32	10	60	4.1
			25	7.6	30	9.1	35	2.4
			25	7.6	32	10	42	2.9
			35	11	40	12	52	3.6

4. In Table 21.6.1(a) update cross references from “See Table 18.4(b)” to “See Table 21.6.1(b)” in three places:

Table 21.6.1(a) Protection Criteria for Rubber Tire Storage Using Control Mode Density/Area Sprinklers

Piling Method <sup>d</sup>	Pile Height [ft (m)]	Sprinkler Discharge Density <sup>a</sup> [gpm/ft <sup>2</sup> (mm/min)]	Areas of Application <sup>a</sup> [ft <sup>2</sup> (m <sup>2</sup> )]	
			Ordinary Temperature	High Temperature <sup>a</sup>
(1) On-floor storage (a) Pyramid piles, on-side (b) Other arrangements such that no horizontal channels are formed <sup>b</sup>	Up to 5 (1.5)	0.19 (7.7)	2000 (185)	2000 (185)
	Over 5 (1.5) to 12 (3.7)	0.30 (12.2)	2500 (230)	2500 (230)
	Over 12 (3.7) to 18 (5.5)	0.60 (24.5)	Not allowed	2500 (230)
(2) On-floor storage Tires, on-tread	Up to 5 (1.5)	0.19 (7.7)	2000 (185)	2000 (185)
	Over 5 (1.5) to 12 (3.7)	0.30 (12.2)	2500 (230)	2500 (230)
	Over 12 (3.7) to 18 (5.5)	0.60 (24.5)	Not allowed	2500 (230)
(3) Palletized portable rack storage On-side or on-tread	Up to 5 (1.5)	0.19 (7.7)	2000 (185)	2000 (185)
	Over 5 (1.5) to 20 (6.1)	See Table 18.4(b)	—	—
	Over 20 (6.1) to 30 (9.1)	0.30 (12.2) plus high-expansion foam	3000 (280)	3000 (280)
(4) Palletized portable rack storage, on-side	Up to 5 (1.5)	0.19 (7.7)	2000 (185)	2000 (185)
	Over 5 (1.5) to 20 (6.1)	See Table 18.4(b)	—	—
	Over 20 (6.1) to 25 (7.6)	0.60 (24.5) and	Not allowed	5000 (465)
		0.90 (36.7) <sup>c</sup> or	Not allowed	3000 (280)
0.75 (2.8) with 1-hour fire-resistive rating of roof and ceiling assembly	Not allowed	4000 (370)		
(5) Open portable rack storage, on-side or on-tread	Up to 5 (1.5)	0.19 (7.7)	2000 (185)	2000 (185)
	Over 5 (1.5) to 12 (3.7)	0.60 (24.5)	5000 (465)	3000 (280)
	Over 12 (3.7) to 20 (6.1)	0.60 (24.5) and	Not allowed	5000 (465)
		0.90 (36.7) <sup>c</sup> or	Not allowed	3000 (280)
0.30 (12.2) plus high-expansion foam	3000 (280)	3000 (280)		
(6) Open portable rack storage, laced	Over 12 (3.7) to 20 (6.1)	0.60 (24.5) and	Not allowed	5000 (465)
		0.90 (36.7) <sup>c,e</sup>	Not allowed	3000 (280)
(7) Single-, double-, and multiple-row fixed rack storage on pallets, on-side, or on-tread without shelves	Up to 5 (1.5)	0.19 (7.7)	2000 (185)	2000 (185)
	Over 5 (1.5) to 20 (6.1)	See Table 18.4(b) or	3000 (280)	3000 (280)
		0.30 (12.2) plus high-expansion foam	Not allowed	3000 (280)
Over 20 (6.1) to 30 (9.1)	0.30 (12.2) plus high-expansion foam	Not allowed	3000 (280)	
(8) Single-, double-, and multiple-row fixed rack storage without pallets or shelves, on-side or on-tread	Up to 5 (1.5)	0.19 (7.7)	2000 (185)	2000 (185)
	Over 5 (1.5) to 12 (3.7)	0.60 (24.5)	5000 (465)	3000 (280)
	Over 12 (3.7) to 20 (6.1)	0.60 (24.5) and	Not allowed	5000 (465)
		0.90 (36.7) <sup>c</sup> or	Not allowed	3000 (280)
	0.30 (12.2) plus high-expansion foam	3000 (280)	3000 (280)	
Over 20 (6.1) to 30 (9.1)	0.30 (12.2) plus high-expansion foam	Not allowed	3000 (280)	

5. Update cross references in the Annex material as follows:

**A.8.6** In cold climates and areas where the potential for freezing of pipes is a concern, options other than antifreeze are available. Such options include installing the pipe in warm spaces, tenting insulation over the piping [as illustrated in Figure ~~A.8.3.1(a) through Figure A.8.3.1(e)~~ A.9.1.1(a) through A.9.1.1(f) of NFPA 13D], listed heat tracing, and the use of dry pipe systems and preaction systems.

~~A.9.5.6.1~~**A.10.2.8.1** The 18 in. (450 mm) clearance does not apply to vehicles in concrete parking structures.

**A.10.3.7** See ~~10.2.8.2~~ 10.2.8.3.

**A.11.2.6** See ~~9.5.6.6~~ 10.2.8.2.

**A.11.3** See ~~9.5.6.6~~ 10.2.8.2.

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(Note: Electronic products and pamphlet reprints may have this errata incorporated. For current information about the NFPA Codes and Standards, including this errata, please see [www.nfpa.org/docinfo](http://www.nfpa.org/docinfo))

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