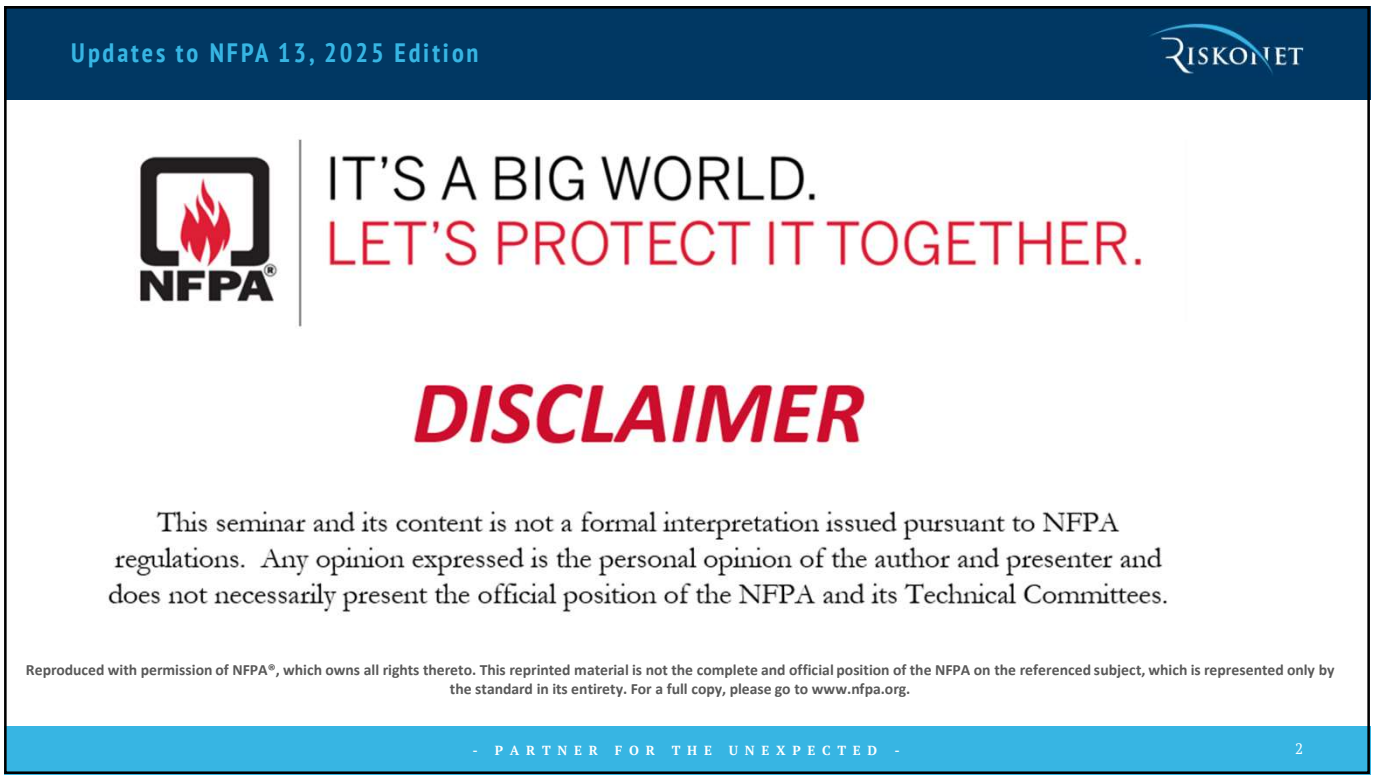

RISKONET
- PARTNER FOR THE UNEXPECTED -
Updates to NFPA 13, 2025 Edition
© Riskonet B.V., 18 maart 2026

1

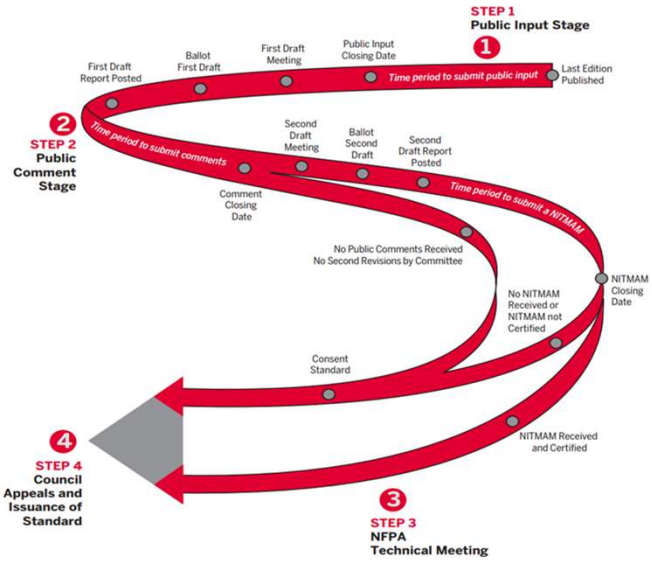

Updates to NFPA 13, 2025 Edition
RISKONET
NFPA
IT'S A BIG WORLD.
LET'S PROTECT IT TOGETHER.
DISCLAIMER
This seminar and its content is not a formal interpretation issued pursuant to NFPA regulations. Any opinion expressed is the personal opinion of the author and presenter and does not necessarily present the official position of the NFPA and its Technical Committees.
Reproduced with permission of NFPA®, which owns all rights thereto. This reprinted material is not the complete and official position of the NFPA on the referenced subject, which is represented only by the standard in its entirety. For a full copy, please go to www.nfpa.org.
- PARTNER FOR THE UNEXPECTED -
2

2

NFPA 13, 2025 Edition

3

NFPA Standard Development Process



4

Belangrijke wijzigingen

1. Maximaal te beveiligen gebieden per alarmklep
2. Verduidelijking Miscellaneous Storage & Low Piled Storage
3. Ontwerp criteria Occupancy Classifications
4. Regels met betrekking tot gebouwen met plafondhoogte van meer dan 9 meter
5. Regels met betrekking tot dakhelling

5

System Protection Area Limitations

2022, 4.4
LH => 4.830 m^2
OH => 4.830 m^2
EH => 3.720 m^2
Storage => 3.720 m^2

2025, 4.4.1
LH => 4.830 m^2
LH, nat system, afsluiterbewaking + doormelding => 7.250 m^2
OH => 4.830 m^2
EH => 3.720 m^2
Storage, ***including In-rack*** => 3.720 m^2

6

System Protection Area Limitations

2022 editie 4.4
LH => 4.830 m²
OH => 4.830 m²
EH => 3.720 m²
Storage => 3.720 m²

king + doormelding => 7.250 m²

3.720 m²

7

Miscellaneous Storage & Low Piled Storage

Wat bedoelen we nu precies met Miscellaneous Storage

Low Piled Storage verwees tabel Miscellaneous Storage.. Toch?

Wat is Low Piled Storage dan?

Mag ik een gebied van 2000 m² vol zetten met pallets met Class IV zonder gangpaden?

Veel onduidelijkheid !!!

8

Miscellaneous Storage & Low Piled Storage

3.3.135* **Miscellaneous** Storage.

Storage that does not exceed 12 ft (3.7 m) in height, is incidental to another occupancy use group, does not constitute more than 10 percent of the building area or 4000 ft2 (370 m2) of the sprinklered area, whic...

NFPA 13 – Standard for the Installation of Sprinkler Systems (2025) / Chapter 3 – Definitions

Niet meer dan 10% van oppervlak of 370 m^2

Vakken van 93 m^2

Vakken gescheiden met afstand van 7,6 m

9

Miscellaneous Storage & Low Piled Storage

LOW PILED STORAGE

Class I t/m Class IV => Maximaal 3,7 m (2022, 4.3.1.7.2.3)

Group A Plastics => Maximaal 1,5 m (2022, 4.3.1.7.2.4)

10

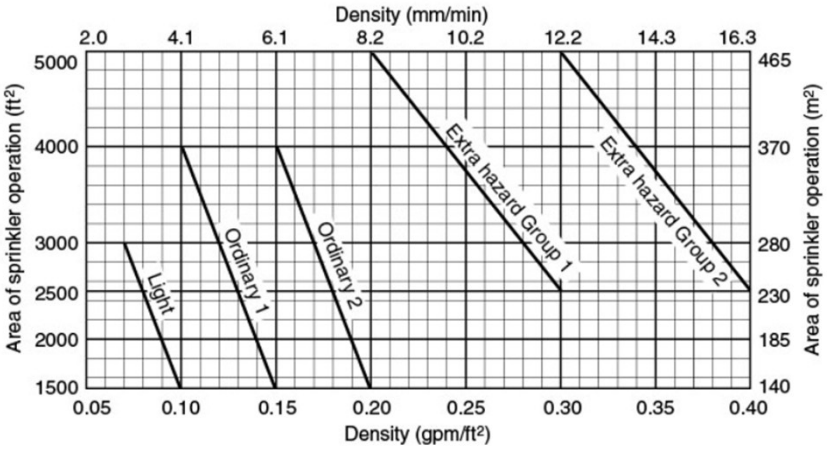
Miscellaneous Storage & Low Piled Storage

Table 4.3.1.7.4 Discharge Criteria for Low-Piled Storage

Commodity	Type of Storage	Storage Height ft	Storage Height m	Maximum Ceiling Height ft	Maximum Ceiling Height m	Design from 19.2.3.1.1	In-Rack Sprinklers Required	Inside Hose gpm	Inside Hose L/min	Total Combined Inside and Outside Hose gpm	Total Combined Inside and Outside Hose L/min	Duration (minutes
Class II	to-back shelf storage	>10 to ≤12	>3.0 to ≤3.7	–	–	OH2	No, unless solid shelf	0, 50, 100	0, 190, 380	250	950	90
Class III		≤12	≤3.7	–	–	OH2	No, unless solid shelf	0, 50, 100	0, 190, 380	250	950	90
Class IV		≤10	≤3.0	–	–	OH2	No, unless solid shelf	0, 50, 100	0, 190, 380	250	950	90
Class IV	Palletized, bin box, shelf, and solid-piled	>10 to ≤12	>3.0 to ≤3.7	32	9.8	OH2	No, unless solid shelf	0, 50, 100	0, 190, 380	250	950	90
	Single-, double-, or multiple-row rack, and back-to-back shelf storage	>10 to ≤12	>3.0 to ≤3.7	32	9.8	EH1	No, unless solid shelf	0, 50, 100	0, 190, 380	500	1900	120
	Single-, double-, or multiple-row rack	>10 to ≤12	>3.0 to ≤3.7	32	9.8	See 25.2.2	Yes	0, 50, 100	0, 190, 380	250	950	90
Group A Plastic Storage												
Group A Plastic (All)	Solid-piled, palletized, bin box, shelf, single-, double-, or multiple-row rack, and back-to-back shelf storage	≤5	≤1.5	–	–	OH2	No, unless solid shelf	0, 50, 100	0, 190, 380	250	950	90

11

Occupancy Classification & Design



12

Occupancy Classification & Design

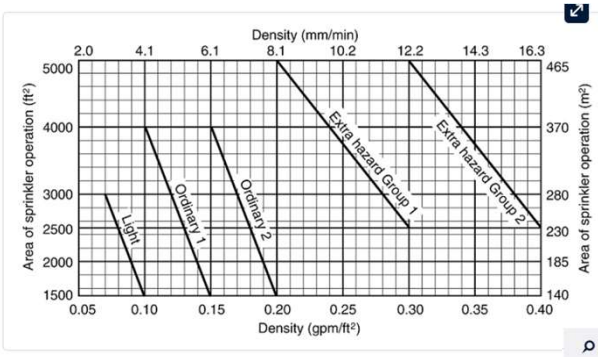


Figure 19.2.3.1.1 Density/Area Curves for the Evaluation or Modification of Existing Systems.

Pin Header — Table 19.2.3.1.1 Density/Area

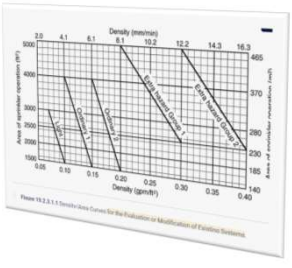
Hazard	Density/Area [gpm/ft²/ft² (mm/min/m²)]
Light	0.1/1500 or 0.07/3000* (4.1/140 or 2.9/280)
Ordinary Group 1	0.15/1500 or 0.12/3000* (6.1/140 or 4.9/280)
Ordinary Group 2	0.2/1500 or 0.17/3000* (8.1/140 or 6.9/280)
Extra Group 1	0.3/2500 or 0.28/3000* (12.2/230 or 11.4/280)
Extra Group 2	0.4/2500 or 0.38/3000* (16.3/230 or 15.5/280)

13

Occupancy Classification & Design

Pin Header — Table 19.2.3.1.1 Density/Area Criteria

Hazard Classification	Density/Area Criteria for Situations Where the Design Area is Not Required to be 3000 ft² (280 m²) per 19.2.3.1.5	Density/Area Criteria for Situations Where the Design Area is Required to be 3000 ft² (280 m²) per 19.2.3.1.5
Light Hazard	0.1 gpm per ft² over 1500 ft² (4.1 mm/min over 140 m²)	0.07 gpm per ft² over 3000 ft²(2.9 mm/min over 280 m²)
Ordinary Hazard (Group 1)	0.15 gpm per ft² over 1500 ft²(6.1 mm/min over 140 m²)	0.12 gpm per ft² over 3000 ft²(4.9 mm/min over 280 m²)
Ordinary Hazard (Group 2)	0.2 gpm per ft² over 1500 ft² (8.1 mm/min over 140 m²)	0.17 gpm per ft² over 3000 ft²(6.9 mm/min over 280 m²)
Extra Hazard (Group 1)	0.3 gpm per ft² over 2500 ft² (12.2 mm/min over 230 m²)	0.28 gpm per ft² over 3000 ft²(11.4 mm/min over 280 m²)
Extra Hazard (Group 2)	0.4 gpm per ft² over 2500 ft² (16.3 mm/min over 230 m²)	0.38 gpm per ft² over 3000 ft²(15.5 mm/min over 280 m²)



14

Plafondhoogte > 9,1 meter

Ordinary Hazard 1
Plafond hoger dan 9 meter => + 30% design area

Ordinary Hazard 2
Plafond hoger dan 9 en Kleiner dan 12 meter => Density 15,1 mm/min en AoO conform design table

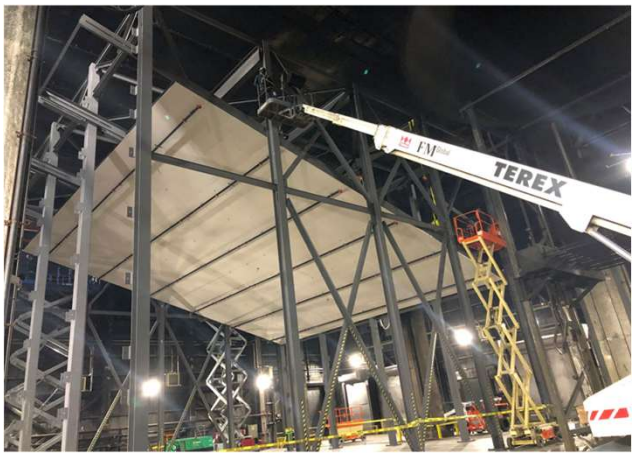
Ordinary Hazard 2
Plafond hoger dan 12,2 m => Density > 18,3 mm/min
=> + 30% design area
=> Zonder 30% maar dan EC en K> 360

Extra Hazard (1 en 2)
Plafond hoger dan 9 meter => Density > 18,3 mm/min

Plafondhoogte > 9,1 meter

Ceiling height ft (m)	Occupancy hazard	Sprinkler coverage	Minimum Sprinkler K-factor US (metric)	Sprinkler response	Sprinkler orientation	Minimum sprinkler density gpm/ft² (mm/min)	Increase to design area obtained from Table 19.2.3.1.1
Over 30 and up to 40 (Over 9.1 and up to 12.2)	OH1	Standard or extended	5.6 (80)	SR or QR	Upright or pendent	Per Table 19.2.3.1.1	30% increase
	OH2	Standard	11.2 (160)	QR	Upright or pendent	0.37 (15.1)	None
		Extended	11.2 (160)	SR or QR	Upright	0.37 (15.1)	None
			25.2 (360)	SR or QR	Upright or Pendent	0.37 (15.1)	None
	EH1 & EH2	Standard	16.8 (240)	SR	Upright or pendent	0.45 (18.3)	None
		Extended	25.2 (360)	SR	Upright or pendent	0.45 (18.3)	None
Over 40 (Over 12.2)	OH1	Standard or extended	5.6 (80)	SR or QR	Upright or pendent	Per Table 19.2.3.1.1	30% increase
	OH2	Standard	11.2 (160)	QR	Upright or Pendent	0.45 (18.3)	30% increase
		Extended	11.2 (160)	SR or QR	Upright	0.45 (18.3)	30% increase
			25.2 (360)	SR or QR	Upright or Pendent	0.45 (18.3)	None
	EH1 & EH2	Standard	16.8 (240)	SR	Upright or Pendent	0.45 (18.3)	None
		Extended	25.2 (360)	SR	Upright or Pendent	0.45 (18.3)	None

Sloped Roofs

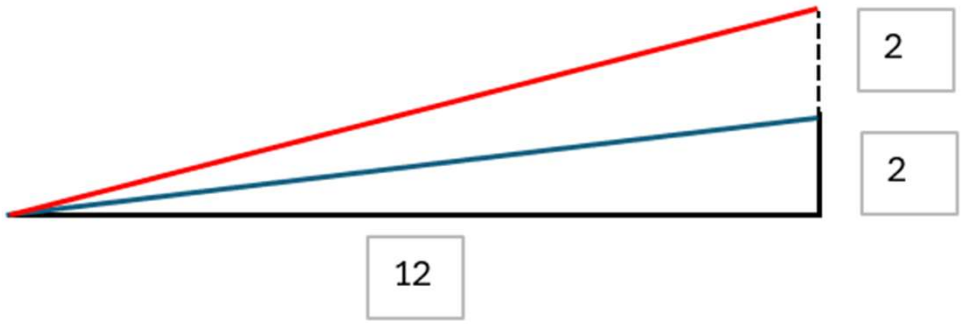


- Full-Scale Fire Test @ FM Global

17

Sloped Ceilings

Based on Fire Protection Research Foundation



18


RISKONET
RISKONET.COM
De Cuserstraat 93, 1081 CN Amsterdam | +31 85 043 79 40 | riskonet.com

19