

NFPA 13 STORAGE SPRINKLER SYSTEM DESIGN NFPA 13 2019



Commodity class: Class I Class II Class III Class IV

(See Section 20.4) Group A plastic Group B plastic Group C plastic

Pallet type (20.3.2): Wood pallet or listed equivalent (no class modification)
 Unreinforced polypropylene or high-density polyethylene pallet (one class modification)
 Reinforced plastic pallet (two class modification)
 Plastic pallets other than polypropylene or high-density polyethylene (two class modification)

Storage arrangement:

Rack Shelf storage Back-to-back shelf Solid pile Palletized Bin box

For Rack Storage:

Rack type: Single-row rack Double-row rack Multiple-row rack

Shelf type: Open Rack Solid shelving Slatted shelf rack Solid shelf rack

Determine ceiling height (20.9.2): _____

Storage height:

From floor (20.9.3): _____

Clearance to sprinkler minimum (20.9.6): _____

Clearance to ceiling (20.9.4): _____

Storage arrangement (20.5): _____

Miscellaneous storage (3.3.135): Yes No

Maximum 12 ft (3.7 m)

Incidental to occupancy

Maximum 10 percent or 4000 ft² (370 m²) of sprinklered area

Maximum 1000 ft² (93 m²) pile

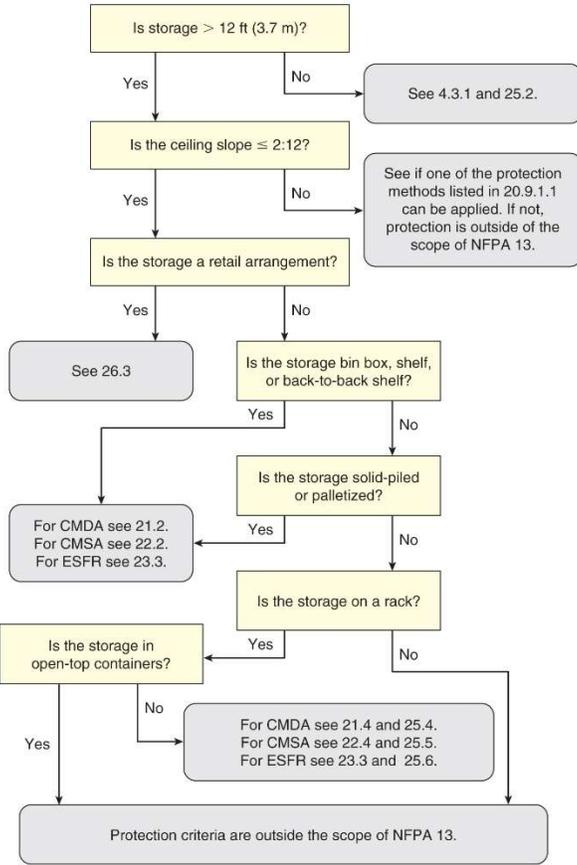
25 ft (7.6 m) separation

Other considerations that may impact NFPA 13 design options:

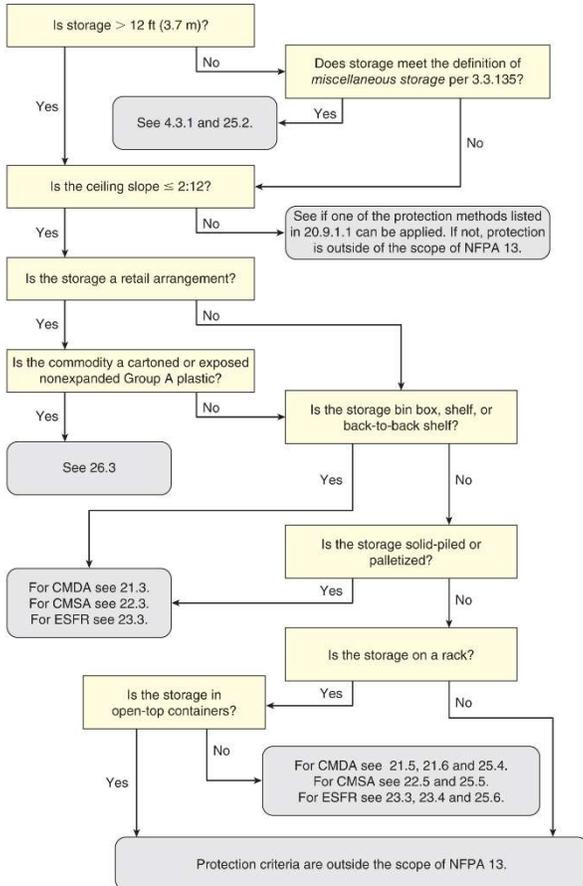
Smoke vents Draft curtains HVLS fans Slope exceeding 2:12

Excessive clearances Open top containers Flammable/combustible liquids

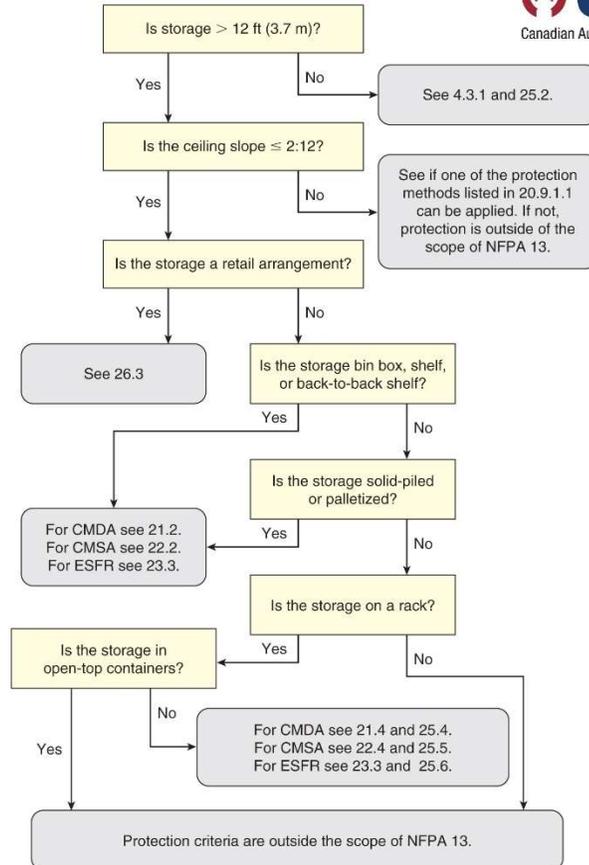
**Class I-IV Commodity
Group B Plastic
Group C Plastic**



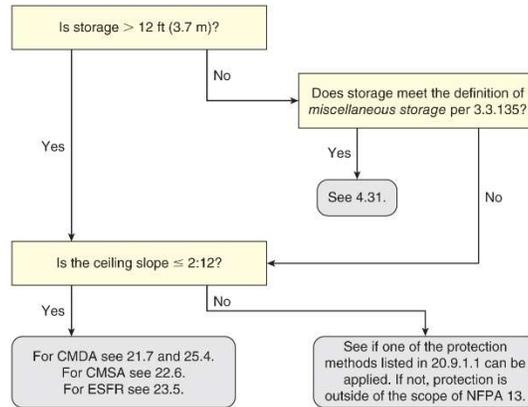
Group A Plastic



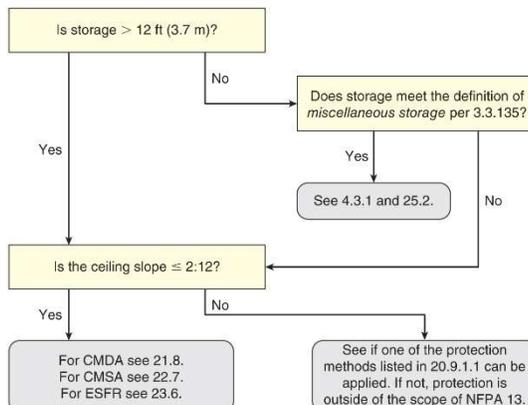
**Class I-IV Commodity
Group B Plastic
Group C Plastic**



Rubber Tires



Rolled Paper



20.1.1 Miscellaneous and low-piled storage meeting the criteria of Chapter 4 (NFPA 13 2019) shall be protected in accordance with the relative occupancy hazard criteria referenced in that section.