Rolling File Cabinets - Interpretation

Applies to

- All State Fire Marshal (SFM) division staff.
- Local Authority Having Jurisdiction (AHJ)
- Fire Protection System Contractors, Designers, and Installers

Purpose

Standardization of sprinkler protection over rolling file cabinets not addressed in 2016 edition of NFPA 13

Interpretation

The SFM division has adopted the following design criteria based on field experience and generally accepted installation practices for fire areas and compartments that contain multiple, back-to-back, sliding or rolling record storage cabinets.

The sprinkler density (gpm/sf) shall conform to NFPA 13 for an Ordinary- Group II hazard. Standard spray, quick-response sprinklers shall be installed throughout the fire area or compartment containing rolling file cabinets. Sprinkler spacing and hydraulic design shall be as follows for wet systems, with all ceiling pockets being protected.

- If the distance from the top of the cabinets to the sprinkler deflector is **18 inches or greater**, sprinkler spacing shall be in accordance with NFPA 13 for ordinary hazard. The design area may be adjusted with credits per NFPA 13 for ceiling heights up to 20 feet and the use of quick-response sprinklers.
- If the distance from the top of the cabinets to the sprinkler deflector is **less than 18 inches**, sprinklers shall be spaced six feet-on-center perpendicular to the cabinet aisles, and up to the maximum allowable distance between sprinklers for ordinary hazard as per NFPA 13. The design area shall be 1,500 square feet with no adjustments for ceiling height or for the use of quick-response sprinklers.
- Dry-pipe or double-interlock, pre-action systems shall be designed with a 30% increase in the design area.

Rationale

Closely-spaced rolling file storage cabinets present a specific fire suppression challenge as compared to general storage arrangements, especially when they encroach on the available deflector clearance. By design these cabinets, when grouped together, tend to shield their contents from outside influences including water from ceiling sprinklers in the event of a fire. NFPA 13 has no specific design criteria for this situation.

Standard-spray ceiling sprinklers require at least 18 inches of clear space to develop an effective spray pattern to control any fire. When the hazard itself is necessarily placed within the effective spray pattern of a ceiling sprinkler, more restrictive measures are required to achieve a satisfactory level of fire protection.

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