



**MINNESOTA DEPARTMENT OF PUBLIC SAFETY  
State Fire Marshal Division**

**INTERPRETATION**

Interpretation# INTERP FP-08 (2007)	Subject of Interpretation: Rolling File Cabinets	
Reviewed and Approved By: Jerry Rosendahl	Title: State Fire Marshal	Effective Date: July 10, 2007

**APPLIES TO:**

Fire Safety Supervisors and Inspectors, Fire Protection System Supervisors, Inspectors and Plan Reviewers, Fire Protection System Contractors, Designers and Installers.

**PURPOSE:**

Standardization of sprinkler protection over rolling file cabinets not addressed in NFPA 13 (2002 edition.)

**INTERPRETATION:**

The State Fire Marshal 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 (2002 edition) 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 head spacing and hydraulic design shall be as follows for wet systems, with all ceiling pockets being protected:

1. If the distance from the top of the cabinets to the sprinkler deflector is **18in or greater**, sprinkler head spacing shall be in accordance with NFPA 13 (2002 edition) for ordinary hazard. The design area may be adjusted with credits per NFPA 13 (2002 edition) for ceiling heights up to 20ft and the use of quick-response sprinklers.
2. If the distance from the top of the cabinets to the sprinkler deflector is **less than 18in**, sprinklers shall be spaced six (6) feet-on-center perpendicular to the cabinet aisles, and up to the maximum allowable distance between heads for ordinary hazard as per NFPA 13 (2002 edition). The design area shall be 1,500sf with no adjustments for ceiling height or for the use of quick-response sprinklers.
3. 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 (2002 edition) has no specific design criteria for this situation.

Standard-spray ceiling sprinklers require at least eighteen (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.