

#### 4.21 Single, Double & Non-Interlock Pre-Action Systems (2022)

**Reference:** 2022 NFPA 13, Section 16.4.1.1; The 21th edition of the NFPA Fire Protection Handbook, and Manufacturers Recommendations.

**Purpose:** Double interlock pre-action systems are acceptable for protection of deep-freeze facilities where accidental valve operation may result in freezing of the pipe in a matter of minutes. When preaction systems are proposed for protection of a specific room or hazard (i.e., computer equipment rooms, server rooms, communication equipment rooms, etc.) in buildings requiring a wet pipe sprinkler system, only a single interlock pre-action system shall be approved for use in these buildings. The San Francisco Fire Department considers the use of a double interlock pre-action system for the above referenced hazards as inappropriate because unacceptable delay may occur in the release of water from the sprinklers.

**NOTE:** Non-interlock & single interlock systems are acceptable.

**NOTE:** Flow cycling systems employing normally closed fire detection devices to activate the flow cycle valve shall not cause the building fire alarm system to activate an alarm condition when a single open or single ground fault condition occurs. Such occurrences shall activate a trouble condition.