

4.21 Single, Double & Non-Interlock Pre-Action Systems (2025)

Reference: 2025 NFPA 13 Section 16.4.1.1.

I. GENERAL REQUIREMENTS

1. **Non-Interlock/Single Interlock - Acceptable.** Non-interlock and single interlock systems are acceptable.
2. **Double Interlock - Acceptable Cases.** 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.
3. **Double Interlock - Unacceptable Cases.** 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.
4. **Flow Cycling Systems.** 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.